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2003

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Abbreviations and symbols used

Member States

BE	Belgium
DK	Denmark
DE	Germany
EL	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	The Netherlands
AT	Austria
PT	Portugal
FI	Finland
SE	Sweden
UK	United Kingdom
EUR-12	European area Member States currently participating in the monetary union (BE, DE, EL, ES, FR, IE, IT, LU, NL, AT, PT, FI)
EU-15	European Union, 15 Member States (EUR-12 plus DK, SE and UK)

Candidate countries

BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
EE	Estonia
HU	Hungary
LV	Latvia
LH	Lithuania
MT	Malta
PL	Poland
RO	Romania
SK	Slovak Republic
SI	Slovenia
TR	Turkey
AC-10	Accession countries (CY, CZ, EE, HU, LV, LH, MT, PL, SK, SI)
CC-13	Candidate countries (AC-10 plus BG, RO and TR)

Currencies

EUR	euro
ECU	European currency unit
DKK	Danish krone
GBP	Pound sterling
SEK	Swedish krona
CAD	Canadian dollar
CHF	Swiss franc
JPY	Japanese yen
SUR	Russian rouble
USD	US dollar

Other abbreviations

bn, billion	1 000 million
CPI	consumer price index
EC	European Commission
ECB	European Central Bank
ECSC	European Coal and Steel Community
EDF	European Development Fund
EIB	European Investment Bank
EMCF	European Monetary Cooperation Fund
EMS	European Monetary System
EMU	economic and monetary union
ERM	exchange rate mechanism
Euratom	European Atomic Energy Community
Eurostat	Statistical Office of the European Communities
FDI	foreign direct investment
GDP (GNP)	gross domestic (national) product
GFCF	gross fixed capital formation
HICP	harmonised index of consumer prices
ILO	International Labour Organisation
IMF	International Monetary Fund
LDCs	less developed countries
Mio	million
Mrd	1 000 million
NCI	New Community Instrument
OCTs	overseas countries and territories
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of Petroleum Exporting Countries
PEP	Pre-accession economic programmes
PPS	purchasing power standard
SCP	Stability and convergence programmes
qoq	quarter-on-quarter percentage change
SMEs	small and medium-sized enterprises
VAT	value added tax
yoy	year-on-year percentage change
:	not available
–	none

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Summary and main conclusions ⁽¹⁾

The most difficult period for budgetary policies since the launch of the euro

The year 2002, and the early part of 2003, has been a difficult period both in terms of actual budgetary developments and as regards the implementation of the EU framework for fiscal surveillance. The nominal deficit for the euro area as a whole increased from 1.6 % of GDP in 2001 to 2.2 % in 2002 and, according to the latest Commission forecast, it is projected to rise to 2.5 % of GDP in 2003. This aggregate outcome is the result of striking contrasts in the performance across Member States. By the end of 2002, only six EU countries, including four euro area countries (accounting for some 18 % of euro area output) had achieved budget positions (both in nominal and cyclically-adjusted terms) that met the 'close to balance or in surplus' requirement of the Stability and Growth Pact, whereas two euro area countries (accounting for half of the euro area output) had deficits above the 3 % of GDP reference value.

The Portuguese authorities succeeded in reducing the nominal deficit from 4.1 % of GDP in 2001 to 2.8 % in 2002, although very significant challenges remain if the deficit is to remain below 3 % of GDP in 2003 as much of this improvement is due to one-off measures which have only led to a transitory improvement in the budget balance. A deficit of 3.6 % of GDP in 2002 has resulted in Germany being placed in an excessive deficit position: while the authorities are taking measures aimed at reducing the cyclically-adjusted budget deficit, only a very limited improvement in nominal terms is expected in 2003 as growth conditions deteriorate. Despite clear evidence of budgetary slippage emerging in early 2002, the French authorities did not take corrective measures and a deficit of 3.1 % of GDP occurred in 2002 resulting in the excessive deficit procedure being activated. An

even higher deficit of 3.7 % of GDP is forecast by the Commission services for 2003 on the basis of current policies. Large deficits remain in Italy (2.3 % of GDP in 2002 and in 2003) and by 2004 are projected to rise above the 3 % of GDP reference value ⁽²⁾: budgetary consolidation efforts in Italy continue to rely on one-off measures rather than on reforms of a structural nature needed to ensure a permanent improvement in the budget balance. Deficits have also re-emerged in 2002 in countries that had already reached balanced budget positions, notably Austria (0.6 % of GDP), the Netherlands (1.1 %) and the UK (1.3 %).

Higher nominal deficits are only partly due to the economic cycle

At first sight, these developments compare relatively favourably with previous economic downturns when deficits reached much higher levels and debt ratios entered rapidly increasing trajectories. In addition, governments have not pursued fine-tuning policies and while fiscal policies were slightly looser, monetary conditions have eased thanks mainly to low real interest rates.

However, a closer consideration of underlying budgetary trends reveals that the deterioration in nominal deficits also results from high and rising cyclically-adjusted deficits in several countries. This indicates a discretionary loosening of the fiscal stance by some Member States over the past two years, brought about by a combination of unfunded tax cuts, discretionary expenditure increases and failures as regards budgetary execution. While the outcome of the euro area in 2002 was unchanged compared to 2001, it should be noted that the cyclically-adjusted budget balance for 2001 has recently been revised upwards to 2.1 % of GDP from 1.5 % of GDP, implying that the deterioration in the underlying budget balance in that year was considerably worse than earlier

⁽¹⁾ The summary and main conclusions of this report have been adopted by the College of Commissioners in the form of a communication from the Commission to the Council and the European Parliament 'Public finances in EMU — 2003', COM(2003) 283, adopted on 21 May 2003.

⁽²⁾ European Commission spring 2003 forecast, 2004 figures are based on the assumption of no policy change.

estimates showed: moreover, the cyclically-adjusted budget balance includes the impact of one-off budgetary measures which only have a transitory effect on budget positions. The deterioration has been particularly pronounced in Germany (where the CAB increased to 3.2 % of GDP in 2002) and France (to 3.3 %). In Italy, it remains high at 2.1 % of GDP.

In a medium-term perspective, the latest updates of the stability and convergence programmes contain a target by most Member States to reach budget positions of 'close to balance or in surplus' by 2005 or 2006. However, it should be noted that the medium-term targets of Member States are based on growth assumptions, which in light of developments in recent months now appear to be optimistic. In countries where large cyclically-adjusted deficits remain, the time frame for reaching the 'close to balance or in surplus' objective has been pushed back to 2006 or 2007: even this date will only be met if additional consolidation measures are undertaken.

Commission proposals to strengthen the coordination of budgetary policies

The deterioration in budget positions has placed considerable stress on the EU's framework for fiscal surveillance and three Member States have been placed in excessive deficit positions. In response to these developments, and in line with a mandate from the Barcelona European Council conclusions, the Commission adopted a communication on strengthening the coordination of budgetary policies⁽¹⁾. It identified a number of shortcomings with the implementation of the SGP in the first four years of EMU and outlined a strategy based on Member States reassuming political ownership of the Pact. *Inter alia*, it called for more account to be taken of underlying economic conditions when assessing budgetary positions, an interpretation of compliance with SGP requirements that would (depending on country-specific circumstances) cater for the budgetary impact of reforms that enhance growth and employment, increasing the emphasis placed on the sustainability of public finances and outstanding debt positions, and improving the implementation of the SGP, including stricter and more timely recourse to the existing enforcement instruments. At the same time, the Commission adopted proposals to improve the governance of budgetary statistics which provide the foundations for effective surveillance.

⁽¹⁾ Communication from the Commission 'Strengthening the coordination of budgetary policies', COM(2002) 668 final of 27 November 2002.

The European Council of March 2003 endorsed key conclusions of the Ecofin Council

The spring European Council of March 2003, endorsed a report of the (Ecofin) Council which shared many of the Commission's proposals on strengthening the coordination of budgetary policies. It confirmed that the achievement of a budget position of 'close to balance or in surplus' is in the economic self-interest of Member States both individually and collectively. In the short run, it provides room for the automatic stabilisers to operate freely and cushion the effect of economic shocks; in the medium run it creates room for budgetary manoeuvre to either cut taxes or divert expenditures to more productive items such as investment and R&D; in the long run, compliance will help Member States meet the budgetary costs of ageing population while securing adequate and accessible pensions and healthcare.

In addition to re-stating their commitment to the goal of the SGP, the Council agreed that compliance with the 'close to balance or in surplus' requirement should be assessed in cyclically-adjusted terms with due account taken of one-off budgetary measures which only have a transitory impact on budget positions. For euro-area countries, agreement was reached that Member States with deficits should achieve an annual improvement in the cyclically-adjusted budget deficit of at least 0.5 % of GDP until the 'close to balance or in surplus' requirement is reached. It underlined the need for automatic stabilisers to operate symmetrically over the economic cycle and the particular importance of avoiding a pro-cyclical loosening of fiscal policies in good times. The Council also confirmed the importance of running down public debt at a satisfactory pace towards the 60 % of GDP reference value and that the existing provisions of the Treaty (i.e. the debt criterion of the excessive deficit procedure) can contribute to achieving this goal.

An opportunity to ensure consistent and transparent budgetary strategies

To ensure that the agreement of the European Council represents a real progress towards a consistent and transparent implementation of SGP, it is essential that the policy guidelines endorsed by the European Council, and the specific budgetary commitments given by Member States in their updated stability and convergence programme, are respected.

To this end, policies adopted at national level need to respect the budgetary goals agreed at EU level. In doing so, budgetary consolidation strategies need to be

designed in a way that tackle, and do not exacerbate, structural weaknesses leading to slow growth and missed employment opportunities. This requires careful design as regards the balance between measures on the revenue and expenditure side, and choices on the composition of public expenditures. Contrary to what is often argued, the existing framework for budgetary surveillance can simultaneously achieve a consistent approach that balances the need for budgetary consolidation, re-igniting the recovery and strengthening growth potential.

Significant advances have been made in the framework for budgetary surveillance

This year's report on *Public finances in EMU — 2003* highlights three areas where substantial progress has been made in the framework for budgetary surveillance over the past year: (i) the integration of candidate countries into the EU's fiscal surveillance framework, (ii) an increased focus on the sustainability of public finances, and (iii), an improvement in the governance of budgetary statistics. These advances show that tangible progress can be made to the benefit of Member States and the EU as whole when there is a political will to do so. It also shows that the framework for budgetary surveillance is capable of evolving in the light of growing experience and new policy challenges.

Integrating acceding and candidate countries into the EU's fiscal surveillance framework

With 10 countries set to join the EU in 2004, a major policy challenge is to prepare for their integration into the EU economic policy framework, in particular for budgetary surveillance. A key requirement has been to develop reliable government accounts and economic forecasts on a par with existing EU countries. At the same time, the EU surveillance of budgetary developments needs to develop so that appropriate account is taken of the important structural and institutional changes underway in accession countries. These are partly due to the completion of the transition from a command to a market economy and partly due to the additional effects which EU membership will entail (associated with the need to upgrade public infrastructure and the commitment to implement the *acquis communautaire*).

Clear strides have been taken in recent years, although budgetary data are still neither fully comparable across countries nor completely in line with EU definitions. Data reported by the candidate countries and forecasts prepared by the Commission services indicate that budgetary developments are closely mirroring those in the

EU, with nominal and cyclically-adjusted budget deficits in 2002 rising in most countries. Looking ahead to 2003 and 2004, the Commission forecast of spring 2003 envisages an improvement in the budgetary balances of nine countries, with marked deficit reductions forecasted in Hungary, Slovakia and Turkey, and to a more limited extent in Malta. However, very limited improvements in budget balances are projected in the Czech Republic, Poland and Cyprus.

An important step to integrate the candidate countries into the existing surveillance process was completed in November 2002, when the second set of pre-accession economic programmes (PEPs) submitted by candidate countries were examined. The annual programmes outline the medium-term policy framework, including public finance objectives and structural reform priorities, and moreover provide an opportunity for candidate countries to develop their institutional and analytical capacity. The 2002 updates revealed an improved effort to develop a consistent and credible medium-term macroeconomic framework, although further analytical capacity building is called for.

The sustainability of public finances received increased prominence in the assessment of sustainability and convergence programmes

Progress has also been made as regards placing increased emphasis on the sustainability of public finances in the SGP as requested by the 2001 Stockholm European Council. For the second time, an assessment of the sustainability of public finances was carried out on the basis of budgetary targets and measures announced in the 2002 updates to stability and convergence programmes leading to firm policy conclusions by the Council. The policy conclusions, which are based on quantitative indicators and long-run budgetary projections prepared by the Economic Policy Committee and national authorities, are worrying.

Even assuming that all Member States achieve the budget targets for 2006 set down in their stability or convergence programmes, there is a risk of unsustainable public finances emerging in about half the EU Member States, especially Belgium, Germany, Greece, Spain, France, Italy, Austria and Portugal. To ensure sustainable public finances, Member States with deficits first need to achieve and sustain the SGP goal of budget positions of 'close to balance or in surplus'. Furthermore, preliminary estimates by the Commission show that an additional permanent budgetary adjustment of between

1 and 2 percentage points of GDP is needed in Member States where the sustainability of public finances is a concern. To close this financing gap, governments should try to avoid raising taxes (especially on labour), and concentrate efforts on reducing (in terms of ratio to GDP) age-related expenditure by reforming of pension and healthcare systems and/or reducing non-age-related primary spending while increasing employment rates and fostering growth.

Progress has been made on the governance of budgetary statistics

The quality of economic statistics is crucial to ensure an adequate understanding of the economic situation and effective policy making. Budgetary statistics are the foundation of the EU fiscal surveillance tools and their quality has improved considerably over the last decade. Government accounts are now more reliable, complete, transparent and detailed, and are published in a much more timely fashion than when the excessive deficit procedure was set up. However, some weaknesses remain: in several countries, data on government deficit and debt ratios are not yet as reliable as they should be and are subject to large revisions. Furthermore, the government accounts of several Member States are not fully transparent, and there have been problems in terms of their timely submission. These concerns are clearly amplified with the perspective of enlargement.

To address outstanding challenges, the (Ecofin) Council recently agreed to implement a code of best practice ⁽¹⁾. From the Member States' side, this involves increasing the transparency of government accounts in particular for the lower government subsectors, the strict respect of deadlines, an overall increase in the data quality, but also a clarification of the independence statute of the national statistical offices as the main compilers of government data. The Commission (Eurostat) is aiming at reinforcing its ability to scrutinise the Member States' government accounts in more detail, and accelerating the decision-making process for deciding upon the recording of government transactions. The new steps to compile quarterly budgetary statistics is a major challenge for statisticians, but also for economists, policy-makers and budgetary policy analysts that will need to interpret quarterly data with due care, since these will necessarily

⁽¹⁾ Conclusions of the 2 485th Council meeting, Economic and Financial Affairs, Brussels, 18 February 2003.

be more volatile and perhaps less transparent than annual data.

The Commission role in upgrading the analysis of economic and budgetary policies

In its communication on strengthening the coordination of budgetary policies, the Commission committed itself to upgrading the analysis of economic and budgetary policies. To this end, a number of detailed studies are contained in the report *Public finances in EMU — 2003* as follows.

- Firstly, the report examines the impact of budgetary consolidation on growth. It considers whether the assertion that budgetary consolidation has a negative impact on output is always valid, or whether fiscal consolidations in EMU under certain conditions can have a positive effect on output.
- Secondly, and as part of the effort to focus on the quality of public finances, the report analyses public investment. It examines the reasons why public investment as a share of GDP has fallen in recent decades and whether this is in part due to the process of budgetary consolidation and the development of fiscal rules at EU level. It also analyses the link between public investment and productivity, and considers the merits and feasibility of developing specific provisions for public investment within the EU's framework for budgetary surveillance.
- A third chapter examines various aspects of the challenge facing national authorities in ensuring sound public finances. It reviews the experience of Member States in using expenditure rules as an instrument to better manage public finances and improve their quality. In addition, the chapter examines how the allocation of public finance functions across different levels of governments influences the capacity of Member States to fulfil their budgetary commitments at EU level. This analysis is a good example of the role of the Commission in undertaking comparative cross-country analyses that enable Member States to learn from the experiences and best practices of other countries.

Is fiscal consolidation always contractionary?

While there is a broad consensus among both academics and policy-makers on the need for fiscal discipline to ensure the smooth functioning of EMU and provide

conditions conducive to growth and employment creation, concerns have been expressed that budgetary consolidation could have a negative effect on output in the short run. This issue is relevant given the need for several Member States to reduce large cyclically-adjusted budget deficits, especially against the current background of slow economic growth.

An empirical analysis of the experiences of EU Member States, however, demonstrates that roughly half of the episodes of fiscal consolidation undertaken in the past three decades have been accompanied by an acceleration in economic growth. These findings appear to be consistent with theories that identify a positive impact of budgetary consolidation on consumer expectations of lower taxes in the future inducing them to raise their consumption plans, and/or on business expectations of higher profitability enabling them to raise investment. Confidence factors may play a more prominent role in the future in the light of large unfunded pension liabilities.

Simulations using the QUEST model confirm that if appropriately designed, budgetary consolidation can contribute significantly to the goal of the Lisbon strategy in terms of raising output and employment in the medium term. Budgetary consolidation has a slight contractionary effect on output in the short run, depending on the composition of the budgetary adjustment. However, budgetary consolidation has a positive impact on output in the medium run if it takes place in the form of expenditure retrenchment rather than tax increases. Moreover, the effect of budgetary consolidation on output could be reinforced, and even positive, in the short run if fiscal consolidation is combined with structural reform of factor and product markets and accompanied with an accommodating monetary stance. Indeed, budgetary consolidation often acts as a catalyst for structural reforms.

Public investment

Public investment as a share of GDP has fallen in most industrialised countries in recent decades. It has been claimed that the budgetary requirements of the Treaty and SGP result in public investment expenditures being at excessively low levels, and that a sustained growth in public investment expenditures would improve the EU's growth potential. However, an analysis shows that the decline in public investment rates is a long-run tendency that started already in the 1970s, and affected all industrialised countries and not just EU Member States. Declining levels of public investment as a share of GDP

have been attributed to factors such as increased levels of economic development (with developed countries already having a high stock of physical capital and the emphasis switching towards investment in human capital⁽¹⁾) and the changing boundaries between public and private investment (in part linked to the process of privatisation). Some of the decline in public investment levels appears to be related to efforts to consolidate public finances, which was necessary irrespective of EMU. A careful analysis of the data, however, fails to show any clear-cut link between change in investment ratios and the provisions of the EU's framework for fiscal surveillance. Indeed public investment expenditures in many Member States have stopped falling after the beginning of monetary union.

Public investment can make an important contribution to meet the output and employment goals of the Lisbon strategy. However, in considering the links between public investment and growth, it is important to focus on net as opposed to gross investment levels (that is, taking account of the depreciation of the existing capital stock) and also the interaction between trends in public and private investment level. Existing studies reveal that public investment has a positive impact on output and productivity, although the results are not very strong. This is explained by the fact that only a fraction of public investment expenditures are devoted to projects which aim at directly raising productivity (for example, investment in transport infrastructure), whereas a significant proportion of public investment is devoted to projects that pursue other objectives such as environmental protection or redistribution across regions, which have an indirect contribution to productivity.

The important role of public investment is recognised in the existing framework for budgetary surveillance: for example, Member States are required to specify planned public investment levels in their annual updates to stability and convergence programmes and the BEPGs frequently recommend that an increased share of public expenditures be devoted to productive items. In brief, the budget balance requirements of Treaty and SGP are compatible with a high share of public spending being devoted to public investment. The recent Commission communication on strengthening the coordination of budgetary policies sought to cater for the budgetary

⁽¹⁾ Communication from the Commission 'Investing efficiently in education and training: an imperative for Europe', COM(2002) 779.

impact of large investment projects while at the same time respecting the commitment to sound and sustainable public finances ⁽¹⁾.

Several calls have been made to introduce a so-called golden rule into the SGP, which would allow governments to borrow to finance investment. However, there are strong theoretical and practical arguments against its introduction, especially in a framework of multilateral surveillance such as the SGP. First, a golden rule based on a national accounts system could lead to a bias in expenditure decisions in favour of physical capital and against spending on human capital (education, training) or other productive items (healthcare, R&D) which also contribute to growth and employment. Secondly, if applied to gross investment, depending on the specific design and implementation of the reform, the adoption of a golden rule into the SGP framework may imply substantially higher deficits, thus compromising the objective of sustainability of public finances. Finally, the relevant concept for the application of the golden rule would be net investment. However, it is not always possible to compute reliable, comparable and timely data on this type of investment.

There is a growing practice of financing public purpose investment projects through public-private partnerships (PPPs). A large share of the PPPs in the EU finance infrastructure and supplement public investment ⁽²⁾. The main implication for public finances of choosing PPPs as opposed to traditional public investment is, in fact, that of converting up-front fixed expenditures into a stream of future obligations. This practice has a sound micro-economic rationale in that it can lead to increased efficiency without compromising public objectives. It is important, however, to avoid recourse to PPPs where this is solely motivated by a desire to bypass budgetary constraints by putting capital spending outside government budgets. This could lead to PPP projects which entail higher overall costs, which would not be in line with the objective of sustainable public finances. Efforts are also required to ensure transparency in national accounts.

⁽¹⁾ The Council has shown some flexibility in interpreting compliance with the 'close to balance or in surplus' requirement to reflect significant planned increases in public investment programmes.

⁽²⁾ See also communication from the Commission 'Developing the trans-European transport network: innovative funding solutions: interoperability of electronic toll collection systems', COM(2003) 132 of 24 April 2003.

Efforts at national level to meet EU budgetary requirements: expenditure rules and fiscal relations across different levels of governments

Many Member States in recent years have introduced expenditure rules as a means to improve the management of their public finances, mostly in the form of *ex ante* targets rather than binding legal obligations. National expenditure rules can enable Member States to meet the budget balance requirements of the Treaty and SGP by helping them to better control expenditure items that are subject to overruns. The specific design and the strength of the enforcement mechanisms are key to their effectiveness. Depending on their design, they can also contribute to other policy objectives such as avoiding a pro-cyclical loosening of fiscal policy in good times, and improving the quality of the composition of public spending.

There is a great deal of variety in the design of expenditure rules across EU Member States, as regards the types of expenditure covered by a rule, the time frame involved and the robustness of surveillance and enforcement mechanisms. Preliminary empirical analysis indicates that the existing expenditure rules have not had a visible impact on trends in public spending. However, judging compliance with expenditure rules is difficult as in many cases they cover several years and are subject to revisions. In some countries, expenditure rules are not ambitious enough and adherence with them is easily reached: in other cases, the rule has been adjusted or abandoned if it is perceived as being too ambitious. Overall, even a relatively weak expenditure rule can provide useful guidance and signals to actors involved in the budgetary process.

The Treaty and SGP requirements are defined in terms of the budget balance of the general government (that is, central and local/state governments and social security), although the specific budget targets in stability and convergence programmes are set by the central government. The challenge in meeting EU budgetary requirements is therefore affected by the way in which Member States allocate fiscal functions (both revenues and expenditures) across different levels of government. This is especially the case in federal countries and the Member States where local authorities have considerable budgetary autonomy. The contribution of sub-central authorities to the overall budget position is changing in a number of countries in light of efforts to devolve certain public functions to regional/local authorities.

The direct contribution of lower levels of government to the general government deficit is generally limited since all Member States apply restrictions to local government borrowing: the exception is Germany, where net borrowing by local and state governments accounts for nearly half of the general government budget deficit in 2002. However, it should be borne in mind that de facto central governments often have to bear the cost of financing difficulties that emerge at sub-central level. To help comply with the EU's fiscal rules, the federal Member States and Italy and Spain have recently introduced arrangements that aim at coordinating the budgetary position across levels of government (usually referred to as national stability pacts). More experience with the implementation of these arrangements is needed before conclusions can be drawn on their effectiveness in contributing to the objectives of the EU fiscal framework. A priori, a strong

legal base and enforcement mechanism would be expected to contribute to the credibility and effectiveness of the arrangements.

The process of decentralising responsibility for some policies raises a second issue in the context of EMU, namely the operation of automatic stabilisers. Experience shows that, in general, systems are designed to shield sub-national governments from cyclical variations. However, empirical evidence for the US and Germany suggests some degree of pro-cyclical behaviour at the level of the states. Further research would be useful to analyse the possible interaction between fiscal decentralisation and automatic stabilisation and to identify the best practices to reconcile the process of decentralisation with ensuring sound and sustainable public finances

Part I

Current developments and prospects

Summary

Against a background of a prolonged period of low growth, 2002 and the early part of 2003 has been a difficult period in terms of actual budgetary developments. The nominal deficit for the euro area increased from 1.6 % of GDP in 2001 to 2.2 % in 2002 and is forecast to rise to 2.5 % of GDP in 2003, according to the latest Commission forecast. However, this aggregate outcome is the result of striking contrasts in the performance across Member States. By the end of 2002, only six EU countries, including four euro area countries (accounting for under 18 % of euro area output), had achieved budget positions in both nominal and cyclically-adjusted terms that respected the 'close to balance or in surplus' requirement of the Stability and Growth Pact (SGP): in contrast, two euro area countries accounting for half of the euro area output had nominal deficits above 3 % of GDP.

Among the countries recording high deficits, Portugal succeeded in reducing the nominal deficit from 4.1 % of GDP in 2001 to 2.7 % in 2002, although very significant challenges remain concerning 2003 as much of this improvement is due to one-off measures such as a tax amnesty. A deficit of 3.6 % of GDP in 2002 has resulted in Germany being placed in an excessive deficit position, and while the authorities are taking measures aimed at reducing the cyclically-adjusted budget deficit, only a very limited improvement is expected in 2003 as growth conditions deteriorate. Despite clear evidence of budgetary slippage emerging in early 2002, the failure of French authorities to take corrective measures resulted in a deficit of 3.1 % of GDP in 2002: recent forecasts show an even higher deficit for 2003 at 3.7 % of GDP, and that the deficit in 2004 would be 3.5 % in 2004, that is, still above the reference value of the Treaty. Large deficits remain in Italy (2.3 % of GDP in 2002) and the deficit level is projected to remain unchanged in 2003 and be above the 3 % of GDP reference value by 2004: budgetary consolidation efforts in Italy continue to rely on one-off measures rather than reforms of a structural nature needed to ensure a permanent improvement in the budget balance. Deficits have also re-emerged in coun-

tries that already had reached balanced budget positions, notably Austria (0.6 % of GDP in 2002), the Netherlands (1.1 %) and also in the UK (1.3 %). These three countries are forecast to record an important deterioration of the deficit in 2003.

At first sight, these developments compare relatively favourably with previous economic downturns when deficits reached much higher levels and debt ratios entered rapidly increasing trajectories. In addition, governments have not pursued fine-tuning policies and while fiscal policies were slightly looser, monetary conditions have eased thanks mainly to low real interest rates.

However, a closer consideration of underlying budgetary trends reveals that the deterioration in nominal deficits results from high and rising cyclically-adjusted deficits in several countries. This indicates a discretionary loosening of the fiscal stance by some Member States, brought about by a combination of unfunded tax cuts, discretionary expenditure increases and slippages as regards budgetary execution. While the outcome of the euro area in 2002 was unchanged compared to 2001, it should be noted that the cyclically-adjusted budget balance for 2001 has recently been revised upwards to 2.1 from 1.5 % of GDP, implying that the deterioration in the underlying budget balance in that year was considerably worse than earlier estimates showed: moreover, the cyclically-adjusted budget balance includes the impact of one-off budgetary measures which only have a transitory effect on budget positions. The deterioration has been particularly pronounced in Germany (where the CAB increased to 3.2 % of GDP in 2002) and France (to 3.3 %). In Italy it has improved but remained high (at 2.1 %).

In a medium-term perspective, the latest updates of the stability and convergence programmes contain a commitment to reach the target of 'close to balance or in surplus', both in actual and structural terms, by 2005 or 2006, although this is not explicitly stated by all Member

States. However, it should be noted that the medium-term targets of Member States are based on growth assumptions, which in light of developments in recent months now appear to be optimistic. For countries where large underlying deficits remain, the date for reaching the 'close to balance or in surplus' objective has been pushed back to 2006 or 2007, and even this deadline will only be met if additional consolidation measures are undertaken. It is vital therefore that all efforts are made to achieve these goals and maintain sound positions over the medium term. This requires that budgetary consolidation resumes vigorously as soon as growth picks up in order to achieve the agreed objectives by the deadlines in the programmes. Meeting these targets will allow all Member States to let automatic stabilisers operate freely during future cyclical downturns thereby mitigating the policy dilemma that countries in deficit faced in 2002 and 2003.

EU budgetary surveillance, for the second time, includes a systematic assessment of the sustainability of public finances on the basis of the updated stability and convergence programmes submitted in late 2002. The analysis shows that there is a risk of unsustainable public finances in some half of EU countries, notably Belgium, Germany, Greece, Spain, France, Italy, Austria, and Portugal. With a fast-closing window of opportunity prior to the budgetary impact of ageing populations taking hold, the risk of unsustainable public finances will increase substantially higher if Member States with large deficits do not achieve and sustain the budgetary consolidation plans outlined in their stability and convergence programmes. In Spain and Greece, a substantial share of the risk of emerging budgetary imbalances is due to a very large projected increase in pension expenditure. In several Member States (notably Germany, France, Austria and Portugal) the risk of emerging budgetary imbalances is a combination of factors including a projected increase in public spending on pensions and healthcare, a slowing in the pace of debt reduction and relatively low labour-force participation rates of older workers. High-debt countries (Belgium, Greece and Italy) face a particular set of challenges, because they must be able to sustain large primary surpluses over several decades. Several Member States appear to have sustainable public finances including Denmark, Luxembourg, the Netherlands, Fin-

land, Sweden and the UK, but they nonetheless face budgetary challenges as a result of ageing populations: for example, the maintenance of high tax ratios at over 50 % of GDP raises concern about competitiveness in the long run, and in some countries the financial sustainability of the pension system depends on the performance of private pensions.

The framework for budgetary surveillance at EU level is being prepared for the accession of 10 countries to the EU in May 2004. The aggregate general government deficit of these 10 countries widened but is projected to improve in 2003 and 2004. Despite a significant acceleration in growth, however, the projected reduction in the aggregate deficit of the 10 acceding countries is not sufficient to reverse the deterioration recorded in 2002. This suggests that structural, rather than cyclical, factors underlie current budgetary imbalances. Concerning the 13 candidate countries as a whole, the aggregate budget position is influenced to a large extent by the exceptional advance recorded in 2002 and forecast for the coming years in Turkey.

Looking at the pre-accession economic programmes submitted by candidate countries, an improvement by 2005 is envisaged in the large majority of cases. Nine countries plan to reduce their budget deficits by 2005, leading to a fall in the average deficit. Among the four remaining countries, Bulgaria and Estonia plan to move from a small surplus to a balanced budget, leaving only Latvia and the Czech Republic with a projected increase in the general government deficit over the programme period. In 2005, projected budget outcomes would vary from a balanced budget in Bulgaria and Estonia to a deficit of 5.5 % of GDP in the Czech Republic. Among the candidate countries, only the Czech Republic, Malta and the Slovak Republic refrained from targeting a deficit below 3 % of GDP in 2005. According to the programmes, general government debt-to-GDP ratios would fall or remain virtually stable in all countries, with the exception of the Czech Republic and Poland where the debt-to-GDP ratio is projected to rise considerably by the end of the programme period. By 2005, however, all candidate countries with the exception of Malta and Turkey would have a debt-to-GDP ratio below 60 %.

1. Budgetary developments in the euro area and EU Member States

1.1. Short-term developments and prospects for the budget balance and public debt

In 2002, the euro-area budget position deteriorated again (see Table I.1). The actual deficit reached 2.2 % of GDP, 0.6 % of GDP higher than the outcome in 2001, a development which is largely explained by the working of the automatic stabilisers in a period of slowing growth. The euro-area cyclically-adjusted budget deficit in 2002 remained high at 2.2 % of GDP, almost unchanged from 2001.

At first sight, this outcome does not appear to be unduly negative against a background of slow growth. However, it should be noted that the cyclically-adjusted budget balance figure for 2001 has recently been revised upwards to 2.1 from 1.5 % of GDP, implying that the deterioration in the underlying budget balance in that year was considerably worse than earlier estimates showed. Moreover, the cyclically-adjusted budget balance includes the impact of one-off budgetary measures which only have a transitory effect on budget positions. Overall, this points to an underlying budget position of the euro area which is less favourable than in 1999–2000.

The aggregate outcome for the euro area as a whole is the result of striking contrasts in budgetary performance across Member States. As shown on Table I.2, the budget positions of Germany, France, Portugal and Italy remained weak with deficits ranging from 2.3 % of GDP in Italy to 3.6 % of GDP in Germany. As a result of the developments in the course of 2002, Germany and Portugal have already been placed in an excessive deficit position ⁽¹⁾ and the procedure has been launched against

France (see Part II.1 of this report). In contrast, six EU Member States, and four in the euro area, had actual budget positions in balance or in surplus in 2002. In spite of the continued slowdown in growth, actual budget balances in 2002 did not deteriorate (or did so only marginally) compared to the previous year in Belgium, Greece, Spain, Finland, Italy (although this is because of a large upward revision in the recorded deficit level for 2001) and Portugal (partially as the result of one-off measures).

Looking ahead to 2003 and 2004, the Commission forecast of spring 2003 projects that economic growth in 2003 will remain below potential. The budget balance for the euro area as a whole is expected to deteriorate further to 2.5 % of GDP, and to remain at a similar level in 2004.

Developments in Member States show that Belgium, Spain, Ireland and Luxembourg are expected to move into small budget deficit positions in 2003. Under a no-policy change assumption, Belgium and Spain are projected to move back towards a position of balance in 2004, while in Ireland and Luxembourg the deficit would deteriorate further to around 1 % of GDP.

On the basis of current policies, the Commission forecasts that Germany, France, Italy and Portugal will have deficit levels above the 3 % of GDP reference value in 2003 and/or in 2004. The budget deficit in Germany is forecast to remain above 3 % of GDP in 2003, and to move only slightly below the reference value in 2004. The situation in France is more worrying, since the deficit is forecast to increase further in 2003 and remain well above 3 % of GDP in 2004 in contradiction with the requirements of the excessive deficit procedure. After the large reduction in the Portuguese deficit in 2002, the balance is expected to deteriorate in 2003 and remain above 3 % of GDP in 2004. The deficit in Italy is projected to breach the 3 % of GDP reference value in 2004.

⁽¹⁾ The latter for the 2001 deficit discovered only late in 2002.

Table I.1

General government budgetary position — euro area, 1999–2004

(% of GDP)

	1999	2000 ⁽¹⁾	2001 ⁽¹⁾	2002	2003	2004
Total receipts (1)	47.5	47.2	46.5	46.2	46.1	45.9
Total expenditure (2)	48.9	47.1	48.1	48.4	48.6	48.3
Actual balance (3) = (1) – (2)	- 1.3	0.1	- 1.6	- 2.2	- 2.5	- 2.4
Interest (4)	4.2	4.0	3.9	3.7	3.6	3.5
Primary balance (5) = (3) + (4)	2.9	4.1	2.3	1.5	1.1	1.1
UTMS proceeds		1.1	0.0	0.0		
Cyclically-adjusted balance (6)	- 1.7	- 1.8	- 2.1	- 2.2	- 2.0	- 2.0
Cyclically-adj. prim. balance = (6) + (4)	2.6	2.2	1.8	1.5	1.6	1.5
Change in actual balance:	1.0	1.4	- 1.7	- 0.6	- 0.3	0.1
Due to — Cycle	0.3	0.5	- 0.4	- 0.6	- 0.4	0.1
— UMTS		1.1	- 1.1			
— Interest	0.6	0.2	0.1	0.2	0.1	0.1
— Cyclically-adjusted primary balance	0.1	- 0.4	- 0.4	- 0.3	0.1	- 0.1

⁽¹⁾ Including UMTS receipts. UMTS receipts as a % of GDP would be equal in 2000 to 2.5 for DE, 0.1 for ES, 1.2 for IT, 0.7 for NL, 0.4 for AT, 0.3 for PT, 2.4 for UK, 1.1 for the euro area and 1.2 for the EU-15. In 2001, they would be equal to 0.2 for BE, 0.2 for DK, 0.5 for EL, 0.1 for FR, and 0 for the euro area and the EU-15. In 2002, they would be equal to 0 for FR, 0.2 for IE and 0 for the euro area and EU-15.

NB: differences are due to rounding.

Source: Commission spring 2003 economic forecasts.

Table I.2

Budget balances in EU Member States, 2001–04

(% of GDP)

	Budget balance, excluding UMTS				Cyclically-adjusted budget balance				Cyclically-adjusted primary balance			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
BE	0.3	0.1	- 0.2	- 0.1	- 0.4	0.1	0.2	0.0	6.2	6.1	5.7	4.9
DE	- 2.8	- 3.6	- 3.4	- 2.9	- 3.0	- 3.3	- 2.6	- 2.4	0.3	- 0.1	0.6	0.8
EL	- 1.9	- 1.2	- 1.1	- 1.0	- 2.3	- 1.8	- 1.8	- 1.9	4.0	3.7	3.4	3.0
ES	- 0.1	- 0.1	- 0.4	- 0.1	- 0.8	- 0.4	- 0.4	- 0.1	2.3	2.5	2.3	2.4
FR	- 1.6	- 3.1	- 3.7	- 3.5	- 2.2	- 3.3	- 3.5	- 3.3	0.9	- 0.3	- 0.3	0.1
IE	1.2	- 0.3	- 0.6	- 0.9	0.0	- 0.9	- 0.3	0.1	1.5	0.4	1.2	1.6
IT	- 2.6	- 2.3	- 2.3	- 3.1	- 3.1	- 2.1	- 1.8	- 2.7	3.3	3.6	3.5	2.4
LU	6.4	2.6	- 0.2	- 1.2	4.1	2.0	0.5	- 0.3	4.4	2.3	0.7	- 0.2
NL	0.1	- 1.1	- 1.6	- 2.4	- 1.0	- 1.0	- 0.4	- 1.1	2.5	2.2	2.6	1.8
AT	0.3	- 0.6	- 1.1	- 0.4	0.0	- 0.6	- 1.0	- 0.4	3.5	2.9	2.5	3.0
PT	- 4.2	- 2.7	- 3.5	- 3.2	- 4.6	- 2.5	- 2.6	- 2.1	- 1.5	0.5	0.5	0.9
FI	5.1	4.7	3.3	3.0	4.2	4.8	3.7	3.3	7.0	7.0	5.8	5.4
EUR-12	- 1.6	- 2.2	- 2.5	- 2.4	- 2.1	- 2.2	- 2.0	- 2.0	1.8	1.5	1.6	1.5
DK	2.8	2.0	1.8	2.1	2.3	1.9	2.0	2.2	6.3	5.5	5.3	5.4
SE	4.5	1.3	0.8	1.2	3.6	0.9	1.1	1.5	6.8	3.8	3.9	4.2
UK	0.8	- 1.3	- 2.5	- 2.5	0.7	- 1.0	- 2.0	- 2.0	3.1	1.1	0.0	0.0
EU-15	- 0.9	- 1.9	- 2.3	- 2.2	- 1.4	- 1.8	- 1.8	- 1.8	2.3	1.6	1.5	1.4

NB: Concerning UMTS receipts, see footnote to Table I.1. Cyclically-adjusted figures are computed with the production function method, except for Germany, Spain, Luxembourg and Austria, where the HP filter method has been used.

Source: Commission spring 2003 economic forecasts.

High deficits are forecast in other countries as well: in the UK it is projected to deteriorate to 2.5 % of GDP in 2003 and 2004, while in the Netherlands the deterioration would be progressive, to reach 2.4 % of GDP in 2004.

In cyclically-adjusted terms, the deficit of the euro area would decrease slightly in 2003 to 2.0 % of GDP and remain unchanged in 2004, which underlines the fact that the budgetary consolidation process has stalled in recent years. At national level, the cyclically-adjusted

deficit is projected to remain above 3 % of GDP in France, while in Italy it is expected to move close to that level by 2004. Germany and Portugal are forecast to move below 3 % of GDP by that year. Six euro-area countries and eight EU Member States are expected to comply in cyclically-adjusted terms with the 'close to balance or in surplus' requirement of the SGP by 2004. The negative effect of the cycle on the nominal balances is expected to diminish progressively in 2004 (see Table I.1), so that by that year nominal budgets in many countries would be close to balance as well.

Table I.3

Composition of changes in government debt ratio, in EU Member States, 2001–04

(% of GDP)

	Gross debt				Change in gross debt 2002–04	Change in 2002–04 due to		
	2001	2002	2003	2004		Primary balance	Interest and growth contribution	stock flow adjustment
BE	108.5	105.3	102.7	98.9	– 6.3	– 10.1	3.4	0.4
DE	59.5	60.8	62.7	63.0	2.1	– 0.1	3.8	– 1.5
EL	107.0	104.9	101.0	97.0	– 7.9	– 8.0	– 4.3	4.4
ES	56.9	54.0	52.5	50.5	– 3.5	– 4.6	– 0.8	1.9
FR	56.8	59.1	61.8	63.1	4.0	0.7	2.8	0.5
IE	36.8	33.3	33.3	33.3	0.0	– 1.5	– 1.8	3.1
IT	109.5	106.7	106.0	104.7	– 2.0	– 5.0	2.3	0.6
LU	5.6	5.3	4.1	3.4	– 1.9	1.1	0.0	– 3.0
NL	52.8	52.6	52.4	52.8	0.2	– 2.0	2.5	– 0.3
AT	67.3	68.7	68.5	66.8	– 1.9	– 5.4	3.0	0.5
PT	55.6	58.1	59.4	60.2	2.1	0.7	1.3	0.1
FI	43.8	42.7	42.3	41.4	– 1.3	– 10.5	1.2	8.0
EUR-12	69.2	69.2	69.9	69.6	0.4	– 2.3	2.4	0.3
DK	45.4	45.2	42.7	39.9	– 5.3	– 10.4	3.2	2.0
SE	54.4	52.6	50.9	49.5	– 3.1	– 7.4	1.2	3.0
UK	38.9	38.4	39.0	39.8	1.3	0.9	0.5	0.0
EU-15	62.9	62.7	63.5	63.2	0.6	– 2.0	2.7	– 0.1

Source: Commission spring 2003 economic forecasts.

After stabilising in 2002, the general government gross debt level of the euro area is expected to increase slightly in 2003 to just below 70 % of GDP (see Table I.3). Debt reduction should resume in 2004, but at a very slow pace due to the large negative contribution of the interest rate-growth rate differential and an insufficiently high primary surplus. Stock-flow operations — although modest — would increase debt ratios.

This overall picture conceals very different situations across Member States. Italy, Belgium, and Greece

continue to have debt ratios above the 100 % of GDP. By 2004, only Italy should have a debt level above 100 % of GDP. In Greece, debt increasing financial operations of the government, as reflected in the large stock-flow component, would offset to a large extent the positive contributions of the primary balance and GDP growth. A high deficit and the poor growth performance will impact the debt developments in Germany where the debt ratio went above 60 % of GDP in 2002, as well as in France and in Portugal where the reference value is projected to be breached in 2003 and 2004, respectively. In Austria,

after the continuous increase in the debt level until 2002 to almost 69 % of GDP, debt should move onto a slow downward path in 2003.

1.2. Government revenue and expenditure

The deterioration in the cyclically-adjusted budgetary balance in the past two years (resulting in the euro area moving further way from the SGP goal of ‘close to balance or in surplus’) is the result of diverging trends as regards expenditures and revenue ratios. As shown in Table I.4, the expenditure ratio for the euro area in cyclically-adjusted terms remains static over the 2000–04 period. In contrast, cyclically-adjusted revenues for the euro area fell from 46.5 % in 2000 to 46.1 % of GDP in 2001 (which contributed to increasing the deficit in cyclically-adjusted terms) but started to rise to 46.4 and 46.6 % of GDP in 2002 and 2003 (which contributes to lowering the deficit).

At Member State level, the patterns are generally similar to that of the euro area (Table I.5). Only in Germany and Portugal are revenue ratios expected to increase over the 2002–04 period (although this is, to a large extent, due to an improvement in the cyclical position). Strong declines are set to take place in the Netherlands, Luxem-

bourg, Austria and Finland. Outside the euro area, revenues in Sweden and the UK are set to increase over the next two years, while in Denmark revenues will diminish over the whole period. Expenditure ratios over 2002–04 are set to increase in France, Luxembourg, the Netherlands, Portugal and in particular the UK, where discretionary spending measures are planned to improve public services and address infrastructure needs. By contrast, a marked decrease is expected in Greece, Portugal and Denmark.

A number of lessons can be drawn from these developments. Firstly, tax reforms were introduced before Member States had completed the transition to the ‘close to balance or in surplus’ objective of the SGP, and there was insufficient room for the automatic stabilisers to operate when growth slowed down, resulting in deficits in several Member States breaching the 3 % of GDP reference value. To prevent deficits from rising further, several countries have had to take measures to raise revenue ratios either by raising tax rates (such as Portugal) or extending tax bases (such as Germany), thereby reversing the effects of earlier reforms. Secondly, there is some evidence that the relatively high growth rates in 1999 and 2000) resulted in a degree of fiscal illusion whereby authorities in some countries overestimated the

Table I.4

Euro area government resources and expenditures, 2000–04

(% of GDP)

	2000	2001	2002	2003	2004
Total resources	47.2	46.5	46.2	46.1	45.9
— Cyclically-adjusted	46.5	46.1	46.4	46.6	46.3
Taxes on imports and production	13.6	13.3	13.4	13.4	13.4
Current taxes on income and wealth	13.0	12.5	12.3	12.0	12.0
Social contributions	16.2	16.1	16.0	16.1	16.0
of which actual social contributions	15.1	14.9	14.9	15.0	14.9
Other resources	4.5	4.6	4.6	4.6	4.4
Total expenditure	47.1	48.1	48.4	48.6	48.3
— Cyclically-adjusted	48.3	48.2	48.4	48.5	48.2
Collective consumption	8.2	8.2	8.2	8.3	8.2
Social benefits in kind	11.7	11.7	11.8	11.9	11.8
Social transfers other than in kind	16.7	16.6	17.0	17.3	17.2
Interest	4.0	3.9	3.7	3.6	3.5
Subsidies	1.4	1.4	1.3	1.3	1.2
Gross fixed capital formation	2.5	2.5	2.4	2.5	2.5
Other expenditures	2.5	3.8	4.0	3.9	3.8

NB: Including UMTS receipts, see footnote to Table I.1.

Source: Commission, 2003 spring forecast.

Table I.5

Total revenue and expenditure in EU Member States, 2001–04

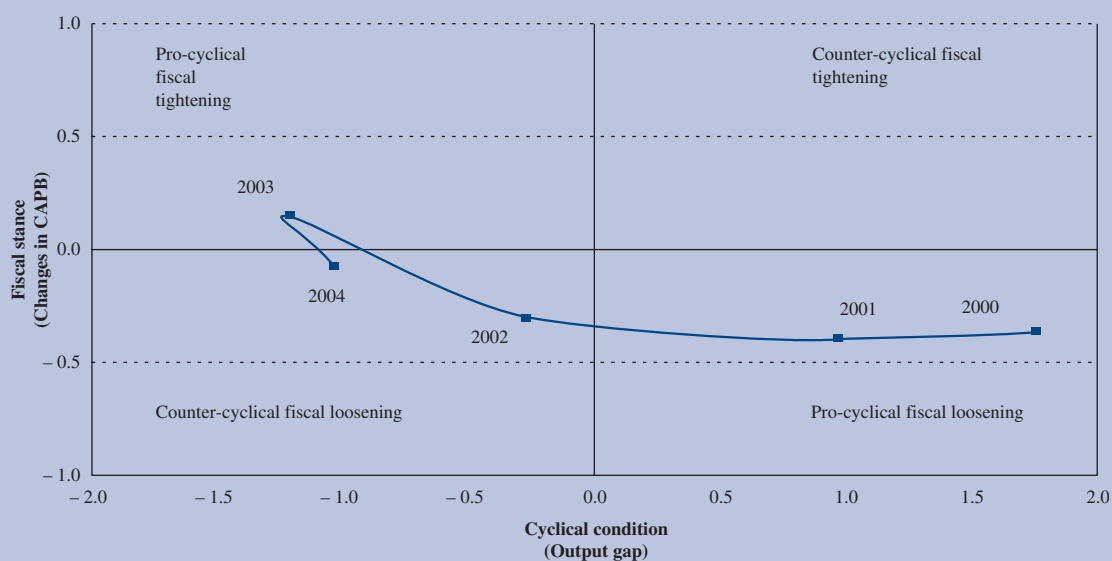
(% of GDP)

	Revenue				Expenditure			
	2001	2002	2003	2004	2001	2002	2003	2004
BE	49.8	50.2	49.5	49.2	49.4	50.1	49.7	49.3
DE	45.5	45.0	45.4	45.5	48.3	48.6	48.9	48.4
EL	45.6	46.5	46.0	45.2	47.0	47.7	47.1	46.2
ES	39.2	39.6	39.3	39.5	39.3	39.6	39.8	39.6
FR	51.0	50.5	50.3	50.3	52.5	53.7	54.1	53.8
IE	35.2	33.7	33.5	32.8	34.1	33.7	34.0	33.6
IT	45.8	45.2	45.1	44.3	48.5	47.5	47.4	47.5
LU	46.6	48.1	46.0	45.1	40.2	45.5	46.3	46.4
NL	46.5	46.1	45.9	45.3	46.4	47.2	47.5	47.7
AT	52.3	51.4	51.0	50.7	52.0	52.0	52.1	51.1
PT	42.1	43.5	43.5	43.6	46.3	46.3	47.0	46.9
FI	54.2	53.9	52.8	52.0	49.0	49.2	49.5	49.0
EUR-12	46.5	46.2	46.1	45.9	48.1	48.4	48.6	48.3
DK	58.1	57.0	56.2	56.1	55.0	54.9	54.4	54.0
SE	61.7	59.5	59.9	59.7	57.2	58.2	59.1	58.5
UK	40.7	39.5	39.5	39.7	39.9	40.7	41.9	42.2
EU-15	46.1	45.6	45.6	45.4	47.0	47.4	47.8	47.6

NB: Including UMTS receipts, see footnote to Table I.1.

Source: Commission spring 2003 economic forecasts.

Graph I.1: Euro area fiscal stance and cyclical conditions, 2000–04



level of structural revenues and/or the benefits that would result from reforms of the tax system. Thirdly, tax cuts in 1999 and 2000 were not matched by expenditure savings, and indeed expenditure cuts made little or no contribution to reaching the goal of budget positions of ‘close to balance or in surplus’.

1.3. The fiscal stance and policy mix

The fiscal stance and policy mix in the euro area

An appropriate policy mix can be defined as a combination of monetary and fiscal policies that ensures price stability and keeps economic activity close to its potential level. In EMU, the policy mix results from a monetary policy that is centralised and from fiscal policies which are decentralised. In the euro area, national authorities set fiscal policy at Member State level. In so doing, national budgetary policies determine implicitly the fiscal stance for the euro area as a whole. The aggregate fiscal stance deserves special attention since it affects the policy mix at the euro-area level, and therefore is one of the elements taken into account by the ECB in setting monetary policy. In turn, the policy mix for the euro area will have a feedback effect on the national policy mix via the common interest rate. This implies that the policy mix needs to be assessed both from the perspective of the euro area as a whole and from the perspective of each Member State.

Graph I.1 examines the fiscal stance (proxied by the changes in the cyclically-adjusted primary balance, CAPB) in relation to cyclical conditions (that is, the size of the output gap ⁽¹⁾) for the euro area. In this graph, fiscal behaviour in accordance with the general philosophy of the SGP would be represented by a line parallel to the horizontal axis. In other words, countries would achieve and sustain broadly balanced budgets over the economic cycle and run a neutral fiscal policy (‘tax smoothing’). Hence changes in the output gap would not result in movements in the CAPB. Actual budget balances would change reflecting the working of automatic stabilisers. In the transition period, to the extent that a country has yet to reach the medium-term target of the SGP, a restrictive fiscal stance — that is, a rise in CAPB — would be needed ⁽²⁾.

⁽¹⁾ In line with the Council agreement, the output gap used in this section is computed with the production function method.

⁽²⁾ However, part of the adjustment towards balanced budgets may be originated by reducing interest payments.

According to the Commission spring 2003 forecasts, the fiscal stance loosened again slightly in 2002. This development follows two years of a looser-than-expected fiscal policy (given the revision of budgetary positions concerning 2001). Such a stance in the past three years, coupled with the failure to improve cyclically-adjusted budget balances when growth conditions were favourable, has resulted in the current economic slowdown in nominal deficits of some Member States approaching or breaching the 3 % of GDP reference value. Despite the longer-than-expected economic slowdown which led to the appearance of negative output gaps, Graph I.1 illustrates that Member States are not implementing sizeable counter-cyclical measures. This is welcome, as the medium-term losses of relaxing fiscal policy would probably outweigh the uncertain short-term gains (see Part IV on this issue). A broadly neutral fiscal policy stance is projected for 2003 and 2004.

Turning to the policy-mix in the euro area, Graph I.2 plots the fiscal stance on the vertical axis and on the horizontal axis the monetary stance, proxied by the change in the short-term real interest rates. Against a background of a prolonged slowdown of the global economy, the monetary stance was loosened in 2001 and, to a more pronounced degree, in 2002. Overall, the policy mix in the early years of EMU has therefore been broadly appropriate to provide conditions for economic growth and macroeconomic stability.

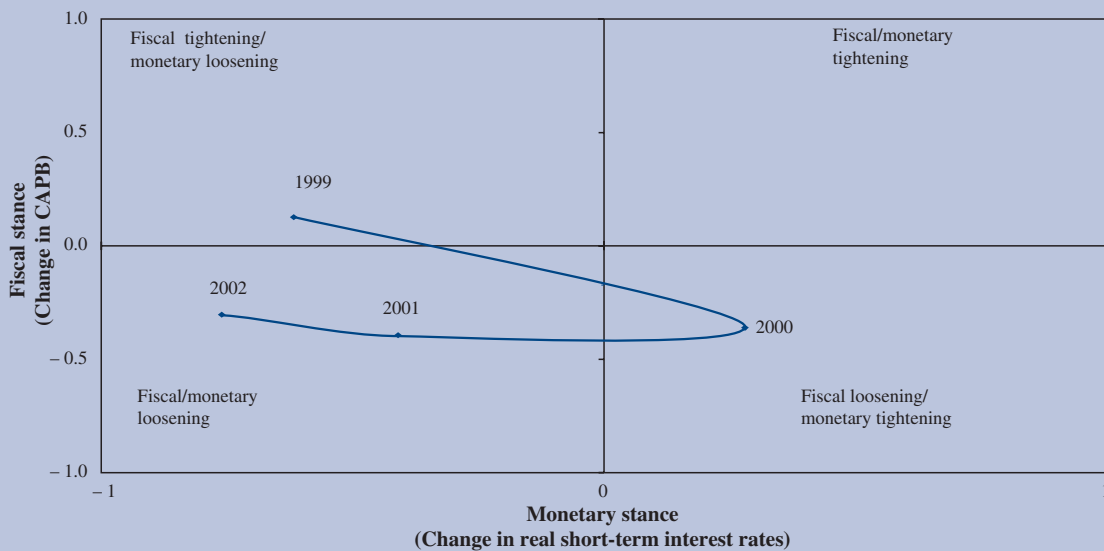
The fiscal stance and policy mix at the national level

The aggregate fiscal stance for the euro area conceals quite disparate national responses to the economic slowdown. Graph I.3 shows that most EU countries had a negative output gap in 2002 as a result of growth below potential in the 2001–02 period.

France and Ireland loosened their stance in 2002 despite having positive output gaps. Given the estimated level of the output gap, the fiscal stance (in particular in Ireland) appears to have been pro-cyclical: however, the judgement on pro-cyclicality has to take into account the uncertainty of the measure of output gap as well as the poor economic conditions in 2002. Outside the euro area, Sweden substantially eased the fiscal stance, in spite of a slightly positive output gap, but in view of its quick deterioration.

Several EU countries loosened their fiscal policies in a context of negative output gaps. However, the fiscal

Graph I.2: Policy-mix in the euro area, 1999–2002



stimulus was modest in most of these countries, with the exception of the UK where the policy was clearly counter-cyclical. Portugal stands out for a clearly pro-cyclical policy in 2002, as it enacted a strong consolidation in order to bring the deficit below 3 % from the level of 4.1 % recorded in 2001.

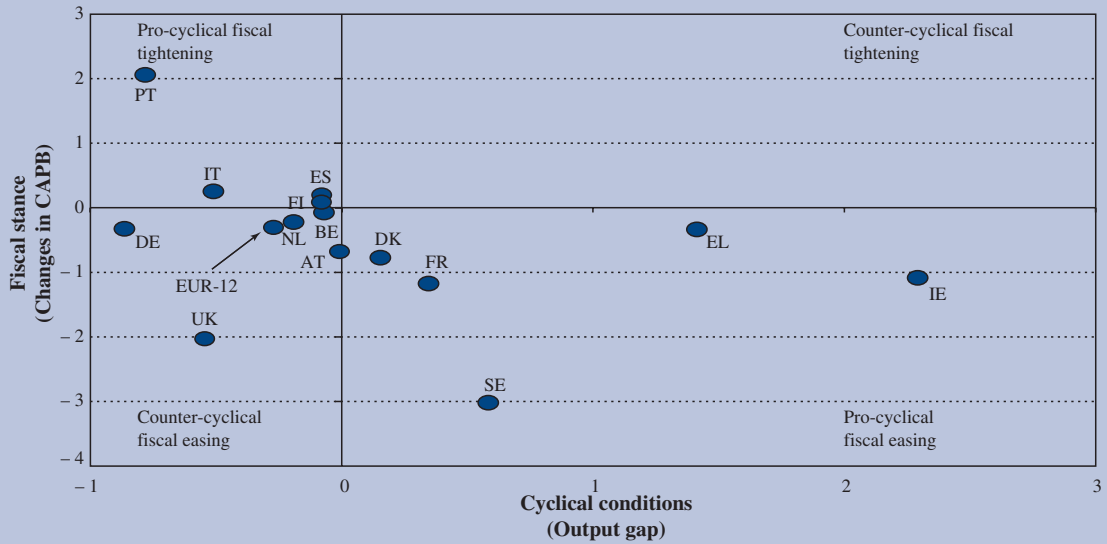
As pointed out above for the euro area as a whole, the policy mix in 2002 has been slightly accommodative with most Member States experiencing a simultaneous loosening of the fiscal stance accompanied by declining real interest rates: the real interest rate fell in all countries except Finland and the Netherlands.

While Graph I.4 shows the *changes* in the real short-term interest rate, its *level* is also important in assessing the policy mix. After the reductions in the nominal interest rate decided by the ECB during 2002, the real interest rate in the euro area (that is, the short-term interest rate corrected by private consumption inflation) was around a very low 1 % in 2002. However, this aggregate figure for the euro area conceals significant differences across countries due to differences in infla-

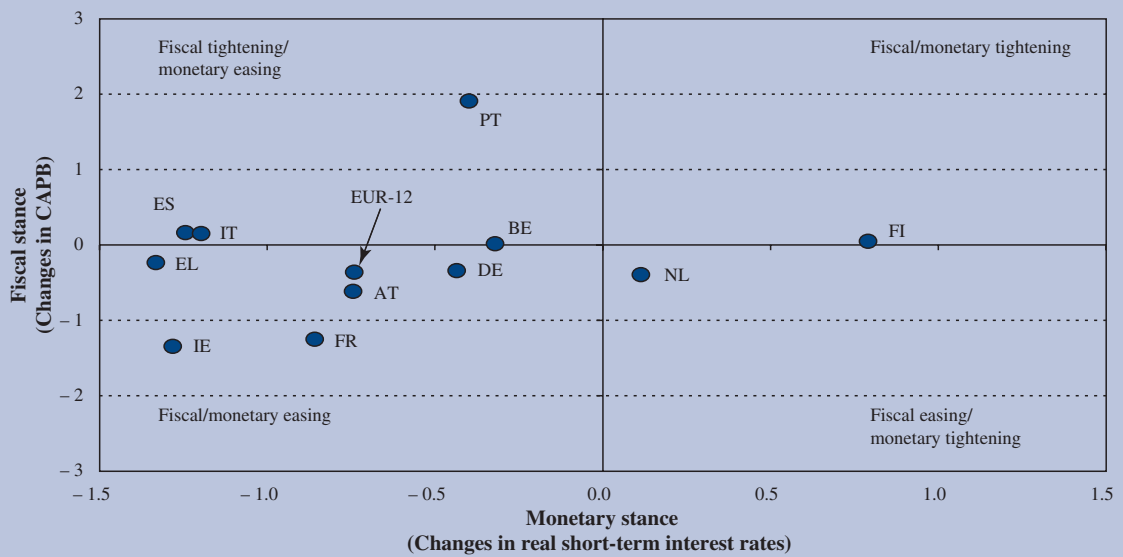
tion rates across countries. In spite of the reduction in short-term real interest rates in 2002, real interest rates in Germany, France, Austria and Finland were just below 2 %, whereas in a number of countries (Greece, Spain, Ireland and Portugal) the real interest rate became slightly negative.

Regarding 2003, the fiscal stance is forecast to be broadly neutral in most members of the euro area (see Graph I.5). Ireland, Germany and the Netherlands are expected to enact a tightening of the fiscal stance. In stark contrast, France, Portugal and Italy — countries which still have high budget deficits — are not expected to make any sizeable progress towards improving their budgetary positions in 2003. Finland, which is benefiting from the past consolidation efforts and consequently enjoys a large safety margin, is expected to ease the fiscal stance. Some pro-cyclical policy is projected for 2003 in Greece. Fiscal policy in the three countries outside the euro area is expected to be neutral, with the notable exception of the UK, where the fiscal stance again is set to be loosened.

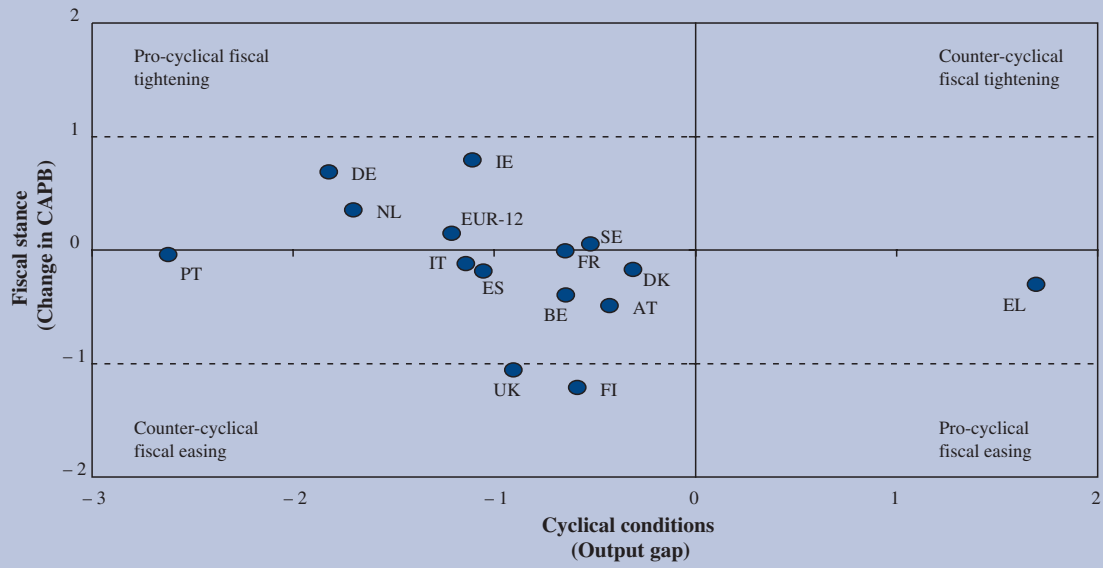
Graph I.3: Fiscal stance and cyclical conditions in EU Member States in 2002



Graph I.4: Policy-mix in EU Member States in 2002



Graph I.5: Fiscal stance and cyclical conditions in EU Member States in 2003



2. Overview of the 2002 updates of the stability and convergence programmes

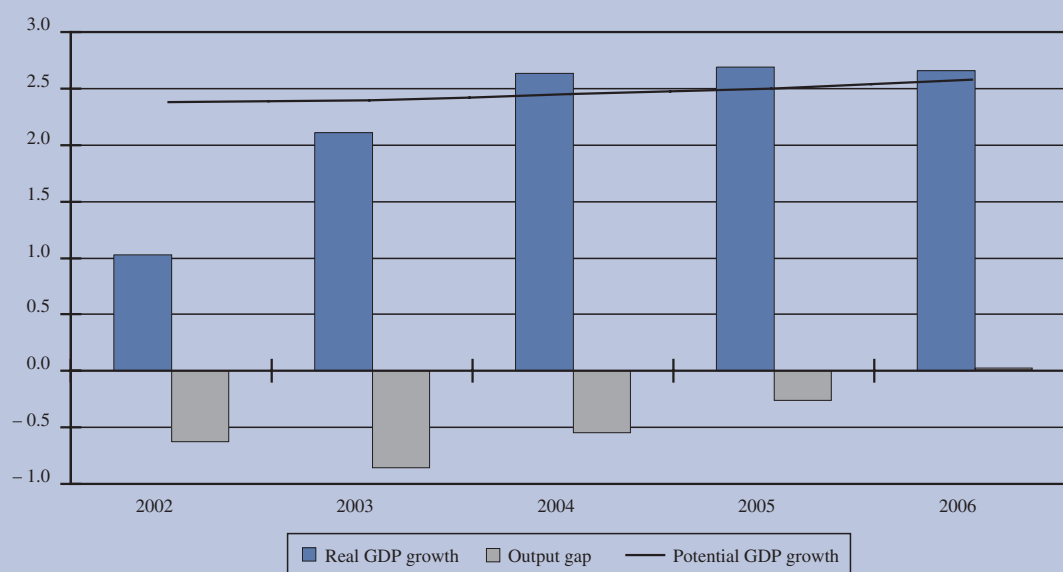
2.1. The medium-term budget targets

The examination of the latest round of updates of the stability and convergence programmes covering the period to 2005/06 was particularly prolonged. While for most of the countries the assessment was completed between January and March, the Austrian programme was only examined in May and the Dutch programme was considered as provisional, pending the submission of a new programme after the formation of the new government. It should be underlined that the budgetary obligations of

the Treaty and SGP remain in force during periods when new governments are being formed.

To assess the reliability and ambition of budget targets set by Member States in stability and convergence programmes, it is necessary to examine the underlying growth assumptions on which the budgetary commitment is given. The updated programmes projected a sustained economic recovery in the euro area: GDP growth would resume to 2.1 % in 2003, reach 2.6 % in 2004 and stay at 2.7 % in the following years (see Table I.6).

Graph I.6: Potential and real GDP growth rate and output gaps for the euro area derived from the 2002 updates ⁽¹⁾



⁽¹⁾ Potential GDP growth and output gaps calculated by the Commission.

Table I.6

Euro area — Growth projections and macroeconomic developments in the 2002 updates, and comparison with the 2001 updates and the Commission forecasts

Macroeconomic developments	2001	2002	2003	2004	2005	2006
2002 updates of the stability programmes						
Real GDP growth, p.c. from previous year	1.6	1.0	2.1	2.6	2.7	2.7
GDP deflator	2.4	2.2	1.9	1.8	1.8	1.8
HICP change	2.6	2.2	2.0	1.6	1.5	1.5
Employment growth	1.2	0.3	0.6	1.2	1.2	1.3
Labour productivity growth	0.3	0.7	1.6	1.6	1.6	1.6
2001 updates of the stability programmes						
Difference	-0.3	-0.8	-0.6	-0.1		
Commission autumn 2002 forecast	1.4	0.8	1.8	2.6		
Difference	0.2	0.2	0.3	0.0		
Commission spring 2003 forecast	1.5	0.9	1.0	2.3		
Difference	0.1	0.1	1.1	0.3		

NB: Discrepancies are due to rounding. For the 2001 updates, GDP growth rates used for Germany and the Netherlands are on the basis of the cautious scenario and of the revised scenario, respectively. Since figures for the HICP were not available in the German programme, the Commission forecasts have been used to have a representative aggregate.

Source: Commission services.

Table I.7

GDP growth projections in the 2002 updates

	2001	2002	2003	2004	2005	2006	Revision ⁽¹⁾
BE	0.8	0.7	2.1	2.5	2.5		-0.5
DE	0.6	0.5	1.5	2.25	2.25	2.25	-0.4
EL	4.1	3.8	3.8	4.0	3.7	3.6	-0.1
ES	2.7	2.2	3.0	3.0	3.0		-0.1
FR	1.8	1.2	2.5	2.5	2.5	2.5	-0.4
IE	5.7	4.5	3.5	4.1	5.0		-1.0
IT	1.8	0.6	2.3	2.9	3.0	3.0	-0.8
LU	1.0	0.5	1.2	2.4	3.1		-4.2
NL	1.3	0.25	0.75	2.75	2.75	2.75	-0.9
AT	0.7	0.9	1.4	2.0	2.5	2.5	-0.5
PT	1.6	0.7	1.3	2.7	3.1	3.5	-0.8
FI	0.7	1.6	2.8	2.6	2.5	2.4	-0.1
EUR-12	1.6	1.0	2.1	2.6	2.7	2.7	-0.5
DK ⁽²⁾	1.0	1.5	1.8	2.1	1.8	1.7	-0.1
SE	1.2	2.1	2.5	2.5	2.3		-0.1
UK ⁽³⁾	2.0	1.5	2.75	3.25	3.0		-0.1
EU-15	1.6	1.1	2.2	2.7	2.7		-0.4
Standard deviation EUR-12	1.6	1.4	0.9	0.6	0.7		

⁽¹⁾ Difference with respect to the 2001 updates in average growth over 2002–04.

⁽²⁾ Taking account of revised information provided by Denmark. For 2006 data provided for 2010 has been used.

⁽³⁾ Mid-point of the range provided in the programme.

The implied euro-area potential growth would be stable at 2.4 %. Based on these assumptions, the output gap in 2002 would be negative at 0.9 % of potential GDP and widen further in 2003 to 1.1 %: thereafter it would close and disappear by 2006 (see Graph I.6 and Table I.7).

This projection contrasts markedly with the one expected in the 2001 updates which foresaw a less marked slowdown, and a less sizeable negative gap, so that the output gap would already close in 2003 thanks to the expected rebound.

The growth projections were more favourable than the Commission's autumn 2002 ones which provided the basis for the assessment of the Commission and Council. In view of the Commission spring 2003 forecasts, the GDP growth assumptions in the programmes now seem overly optimistic, especially for 2003 (for a comparison concerning the euro area, see last row of Table I.6).

Based on these growth assumption, the programmes projected that the budget balance for the euro area would improve from a projected level of 2.2 % of GDP to below 1 % of GDP by 2005 and should reach zero in the euro area by 2006 (see Table I.8). The overall improvement in the budget balance relies strongly on the sizeable budgetary consolidation projected in the largest Member States, such as Germany (a consolidation of 3.8 % of GDP over the next four years in the actual balance), Italy (2.2 %) and France (1.8 %). Also Portugal (2.3 %) and Greece (1.7 %) foresee large improvements in the actual budget balance. The other euro-area countries also project to improve their budgetary position over the next four years, the only countries forecasting a deterioration were Finland which would still post significant actual surpluses, and Ireland, where the deficit would increase to above 1 % of GDP in 2005. Outside the euro zone, Denmark and Sweden project to maintain or slightly improve their surpluses over the projection period, while in the UK the deficit would remain higher than 1.5 % in the financial year 2005–06.

Table I.8

Actual budget balances in the 2002 updates and in the Commission forecasts

(in % of GDP)

	2002 updates of stability and convergence programmes ⁽¹⁾						Commission autumn 2002 forecasts ^{(1) (2)}			Commission spring 2003 forecasts ⁽¹⁾		
	2001	2002	2003	2004	2005	2006	2002	2003	2004	2002	2003	2004
BE	0.2	0.0	0.0	0.3	0.5		-0.1	0.0	0.3	0.1	-0.2	-0.1
DE	-2.8	-3.75	-2.75	-1.5	-1.0	0.0	-3.8	-3.1	-2.3	-3.6	-3.4	-2.9
EL	-1.2	-1.1	-0.9	-0.4	0.2	0.6	-1.3	-1.1	-1.1	-1.2	-1.1	-1.0
ES	-0.1	-0.2	0.0	0.0	0.1	0.2	0.0	-0.3	0.1	-0.1	-0.4	-0.1
FR	-1.4	-2.8	-2.6	-2.1	-1.6	-1.0	-2.7	-2.9	-2.5	-3.1	-3.7	-3.5
IE ⁽³⁾	1.6	-0.5	-0.7	-1.2	-1.2		-1.2	-1.2	-1.0	-0.3	-0.6	-0.9
IT ⁽⁴⁾	-2.2	-2.1	-1.5	-0.6	-0.2	0.1	-2.4	-2.2	-2.9	-2.3	-2.3	-3.1
LU	6.1	-0.3	-0.3	-0.7	-0.1		0.5	-1.8	-1.9	2.6	-0.2	-1.2
NL	0.1	-0.7	-1.0	-0.7	-0.4	0.1	-0.8	-1.2	-0.9	-1.1	-1.6	-2.4
AT	0.3	-0.6	-1.3	-0.7	-1.5	-1.1	-1.8	-1.6	-1.5	-0.6	-1.1	-0.4
PT		-2.8	-2.4	-1.9	-1.1	-0.5	-3.4	-2.9	-2.6	-2.7	-3.5	-3.2
FIN	4.9	3.8	2.7	2.1	2.6	2.8	3.6	3.1	3.5	4.7	3.3	3.0
EUR-12	-1.5	-2.2	-1.8	-1.1	-0.7	-0.1	-2.3	-2.1	-1.8	-2.2	-2.5	-2.4
DK ⁽⁵⁾	2.8	1.6	1.9	2.4	2.4	2.2	2.0	2.0	2.5	2.0	1.8	2.1
SE	4.8	1.7	1.5	1.6	2.0		1.4	1.2	1.5	1.3	0.8	1.2
UK ⁽⁶⁾	-0.2	-1.8	-2.2	-1.7	-1.6		-1.1	-1.3	-1.4	-1.3	-2.5	-2.5
EU-15	-1.1	-2.0	-1.7	-1.0	-0.7		-1.9	-1.8	-1.6	-1.9	-2.3	-2.2

(1) Excluding UMTS proceeds amounting in % of GDP in 2001 to: 0.1 in Belgium, 0.2 in Denmark, 0.5 in Greece, 0.1 in France; in 2002: 0.04 in France and 0.2 in Ireland.

(2) Based on pre-budget figures for Ireland and the UK. For 2004, on the assumption of unchanged policies.

(3) The targets for the final two years incorporate 'contingency provisions against unforeseen developments' — their size is 0.4 % of GDP in 2004 and 0.8 % in 2005.

(4) Including 'future measures' amounting to 1.6 % of GDP in 2004, 1.4 % of GDP in 2005 and 0.8 % of GDP in 2006.

(5) Including revised information provided by Denmark in the supplementary note. For 2006 used data relative to 2010.

(6) Financial years for data in the convergence programme. Figures based on assumptions for output growth which are more prudent than those presented in Table I.7.

The comparison between the projections made by the Member States (left panel of Table I.8) and by the Commission forecast for 2003 and 2004 made in both autumn 2002 and spring 2003 ⁽¹⁾ (right panels) shows that in most cases the projections in the programmes for the budget balance are more favourable than the Commission ones. This is mostly due to the more optimistic growth assumptions presented in the national programmes. The only exceptions are Finland and, to a much smaller extent, Ireland, reflecting their more cautious growth assumptions. The differences in projected budget balances, already noticeable for 2003, would increase considerably in 2004 for the euro-area average. This partly appears to be due to some Member States incorporating planned, though not-yet-enacted, policy measures in their projections.

Most countries provided figures for the cyclically-adjusted budget balance (CAB) in their programmes (see the left panel of Table I.9). The central panel of Table I.9 shows the cyclically-adjusted balances computed by the Commission and used in the individual assessment of the programmes. According to these figures, the cyclically-adjusted balance of the euro area, which deteriorated to 1.9 % of GDP in 2002, is projected to increase by roughly % of GDP per year over the coming years. This is clearly more optimistic than what was forecast by the Commission in autumn 2002 ⁽²⁾.

According to the Commission calculations, of the nine countries showing a cyclically-adjusted budget deficit in 2002 in the euro area, four are projecting to be in deficit in 2006 (Germany, France, Austria and Portugal). The

⁽¹⁾ For 2004, based on the assumption of unchanged policies.

⁽²⁾ For 2004, on the assumption of unchanged policies.

Table I.9

Cyclically-adjusted balances in the 2002 updates and in the Commission forecasts on the basis of the production function method

(in % of GDP)

	2002 updates of the programmes ⁽¹⁾					Commission calculations based on the 2002 updates ⁽²⁾					COM autumn 2002 forecasts ⁽²⁾			COM spring 2003 forecasts ⁽²⁾		
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2002	2003	2004
BE	0.5	0.6	0.8	0.8		0.3	0.3	0.2	0.2		0.2	0.2	0.1	0.1	0.2	0.0
DE	-3.0	-2.0	-1.0	-1.0	-0.5	-3.1	-2.0	-0.9	-0.7	0.0	-3.3	-2.4	-1.9	-3.3	-2.6	-2.4
EL	-1.5	-1.6	-0.8	0.0	0.0	-1.6	-1.5	-1.2	-0.8	-0.6	-1.7	-1.8	-2.0	-1.8	-1.8	-1.9
ES						-0.3	-0.1	0.0	0.1	0.3	-0.1	-0.2	0.0	-0.4	-0.4	-0.1
FR	-2.1	-1.9	-1.4	-0.9	-0.5	-2.8	-2.6	-2.1	-1.6	-1.0	-2.7	-2.8	-2.4	-3.3	-3.5	-3.3
IE	-1.0	-0.4	-0.2	0.1		-1.0	-0.6	-0.6	-0.4		-1.4	-0.8	-0.2	-0.9	-0.3	0.1
IT	-1.2	-0.5	0.0	0.0	0.0	-1.4	-0.9	-0.2	0.0	0.1	-1.8	-1.6	-2.5	-2.1	-1.8	-2.7
LU											2.1	1.2	1.9	2.0	0.5	-0.3
NL						-0.5	0.3	0.3	0.2	0.4	-0.6	0.0	0.3	-1.0	-0.4	-1.1
AT	-0.4	-0.9	-0.4	-1.3	-1.1	-0.4	-0.9	-0.4	-1.3	-1.1	-1.7	-1.5	-1.4	-0.6	-1.0	-0.4
PT	-2.8	-1.8	-1.3	-0.7	-0.3	-2.4	-1.6	-1.1	-0.5	-0.1	-3.0	-1.9	-1.5	-2.5	-2.6	-2.1
FI	3.5	2.5	2.0	2.6	2.9	3.6	2.7	2.4	3.1	3.5	3.7	3.3	3.6	4.8	3.7	3.3
EUR-12	-1.7	-1.1	-0.6	-0.4	-0.1	-1.9	-1.3	-0.8	-0.5	-0.1	-2.0	-1.7	-1.5	-2.2	-2.0	-2.0
DK ⁽³⁾	2.1	2.2	2.2	2.2	2.2	1.6	1.9	2.2	2.5		2.1	2.1	2.5	1.9	2.0	2.2
SE	2.3	1.9	1.7			1.1	0.9	1.0			1.3	1.3	1.5	0.9	1.1	1.5
UK	-1.2	-1.5	-1.3	-1.5	-1.5	-1.2	-1.4	-1.4	-1.5	-1.6	-0.6	-0.9	-1.0	-1.0	-2.0	-2.0
EU-15	-1.5	-1.1	-0.7	-0.5	-0.3	-1.6	-1.2	-0.8	-0.6	-0.3	-1.6	-1.4	-1.2	-1.8	-1.8	-1.8

NB: Footnotes to Table I.8 apply here.

⁽¹⁾ Germany, Austria and Portugal provided figures based on the HP filter method.

⁽²⁾ On the basis of the PF method, except in the case of Germany, Spain and Austria, where the HP filter method has been used.

⁽³⁾ Commission calculations based on data from programme and information provided in the supplementary note. The latter did not provide revised cyclically-adjusted balances.

Table I.10

Euro area: net lending by sub-sectors in the 2002 updates ⁽¹⁾

% of GDP	2002	2003	2004	2005	2006
General government	- 2.2	- 1.8	- 1.1	- 0.7	- 0.1
Central government	- 2.0	- 1.8	- 1.6	- 1.3	- 0.7
State plus local governments	- 0.4	- 0.3	0.0	0.0	0.2
Social security funds	0.2	0.3	0.3	0.3	0.3

⁽¹⁾ Discrepancies are due to rounding and to the non-attribution to a specific sector of future measures in the Italian (for the years 2004–06) and German (for 2004) programmes.

data show that the deficit countries plan to have an adjustment in cyclically-adjusted terms of at least 0.5 % of GDP per year over the next years ⁽¹⁾. France and Greece, however, would only start the adjustment in 2004. Outside the euro area, the UK is expected to record a cyclically-adjusted deficit of 1.4 % of GDP in 2003, set to increase slightly until 2006.

The developments in the general government balance can be decomposed by sectors of government (see Table I.10) ⁽²⁾. For the euro area as a whole, the budget deficit of the general government in 2002 is the result of a large deficit of the central government sector (over 2 % of GDP) and a smaller deficit in the local government roughly compensated by the small surplus in the social security sector. The local sector is projected to eliminate its deficit by 2004 and in 2006 should contribute with the social security sector to broadly balance the deficit of the central government, projected to remain at 0.7 % of GDP in that year.

The gross debt-to-GDP ratio in the euro area, after the increase recorded in 2002, is set to resume its gradual decline in 2003 to arrive to just above 65 % in 2006 (see Table I.11). This is again slower than projected in previous updates, and is due to smaller primary surpluses and nominal GDP growth contributions, especially for 2002.

Table I.11 also shows that the estimated stock-flow component contributes to increase the debt ratio on average

over the period ⁽³⁾. This could either stem from plans to build up financial assets (for example in public pension reserve funds which are invested in non-governmental assets), or simply indicate that a certain degree of caution has been used when setting the targets for debt.

Table I.12 shows that all Member States will be below the 60 % of GDP ceiling in 2005, with the exception of Belgium and Greece, where the debt ratio should fall below 90 % of GDP in 2006 ⁽⁴⁾, of Italy, where it should still be above 95 % of GDP in 2006, and of Austria, where it should decrease very slowly and remain slightly above 60 % in 2006. In the EU, the debt level in 2006 is likely to be below 50 % in seven Member States (Spain, Ireland, Luxembourg, the Netherlands, Denmark, Sweden and the United Kingdom) of which four (Ireland, Luxembourg, Denmark and the United Kingdom) will have debt ratios below 40 %.

2.2. Composition of the budgetary adjustment

The updated programmes show that both revenue and expenditure ratios are expected to decline over the projection period (see Table I.13). The euro-area total receipts are projected to fall by almost 1 % of GDP between 2002 and 2005 to slightly below 46 % of GDP in 2005. This is more than compensated by reductions

⁽¹⁾ In accordance to the pace of adjustment endorsed by the European Council. See Part II.2.

⁽²⁾ To simplify the presentation, Table I.10 presents the two sectors of state and local government in one row, given that the state government sector is relevant only for four countries.

⁽³⁾ As in the previous round of updates, very large positive contributions of the stock-flow over the period are identified for Greece (but this time the yearly average is around 2 % of GDP, rather than 5 % of GDP implied in the previous update), Finland, Sweden and Ireland (on average around 2 %) and Spain (on average around 1 %). In other countries the stock-flow operations seem to compensate over the period. In Italy, they are over 2 % of GDP in the last two years of the programme.

⁽⁴⁾ For Belgium, assuming that in 2006 nominal GDP growth and the budget balance are the same as in 2005.

Table I.11

Euro area — Gross debt level and changes in the 2001 updates ⁽¹⁾

(% of GDP)

	2001	2002	2003	2004	2005	2006
Gross debt level	69.5	69.7	68.7	66.8	65.4	63.5
Change in gross debt		0.3	- 1.1	- 1.8	- 1.4	- 1.9
Previous updates of the programmes	69.1	67.4	65.7	63.6		
Difference	0.4	2.4	3.1	3.4		
Contributions to change in gross debt:						
Primary balance		- 1.5	- 1.9	- 2.5	- 2.8	- 3.3
Interest payments		3.7	3.7	3.5	3.5	3.4
Nominal GDP growth		- 2.2	- 2.8	- 3.1	- 3.0	- 2.9
Other factors influencing the debt ratio ⁽²⁾		0.3	- 0.1	0.3	0.8	0.8

⁽¹⁾ Discrepancies are due to rounding.

⁽²⁾ The programmes do not always contain enough information to identify directly the contribution from different factors to the development of the euro-area debt ratio. Therefore, it has been necessary in some cases to identify the contribution from nominal GDP growth (GDP deflator plus real GDP growth multiplied by the debt ratio). In this way, the stock-flow adjustment is derived as a residual.

Source: 2002 updates of the stability and convergence programmes.

Table I.12

Debt levels in the 2002 updates of the stability and convergence programmes

(% of GDP)

	2001	2002	2003	2004	2005	2006
BE	108.6	106.1	102.3	97.9	93.6	
DE	59.5	61.0	61.5	60.5	59.5	57.5
EL	107.0	105.3	100.2	96.1	92.1	87.9
ES	57.1	55.2	53.1	51.0	49.0	46.9
FR	57.3	58.7	59.1	58.9	58.3	57.0
IE	36.7	34.1	34.0	34.5	34.9	
IT	109.9	109.4	105.0	100.4	98.4	96.4
LU	5.3	5.1	4.1	3.8	2.9	
NL	52.8	51.9	51.2	49.0	47.4	45.3
AT	67.3	67.8	67.0	65.1	63.8	62.1
PT	55.4	58.8	58.7	57.5	55.3	52.7
FI ⁽¹⁾	43.4	42.5	41.9	41.9	41.4	40.7
EUR-12	69.5	69.7	68.7	66.8	65.4	63.5
DK ⁽²⁾	44.7	43.9	42.1	39.2	36.7	
SE ⁽¹⁾	56.6	53.6	50.9	49.3	48.0	
UK ⁽³⁾	38.2	37.9	38.8	38.9	38.9	39.1
EU-15	62.8	62.9	62.1	60.6	59.5	

⁽¹⁾ Revised national accounts data for 2001 refer to a debt ratio of 43.5 % of GDP for Finland and of 54.3 % of GDP for Sweden.

⁽²⁾ Figures for 2002–04 may not be consistent with those in the tables for GDP growth and budget balances, as they have not been revised by the supplementary note.

⁽³⁾ Financial years.

Source: 2002 updates of the stability and convergence programmes.

Table I.13

Expenditure and revenue ratios in the 2002 updates

	Total revenues			Total expenditures		
	2002	2005	2002–05	2002	2005	2002–05
BE	49.5	48.4	– 1.1	49.5	48.0	– 1.5
DE	45.0	44.5	– 0.5	48.5	45.5	– 3.0
EL	45.7	44.4	– 1.3	46.8	44.2	– 2.6
ES	39.8	39.8	0.0	40.1	39.7	– 0.4
FR	51.2	50.6	– 0.6	54.0	52.2	– 1.8
IE ⁽¹⁾	34.8	32.9	– 1.9	35.1	34.1	– 1.0
IT ⁽²⁾	46.0	44.8	– 1.2	48.1	46.3	– 1.8
LU	46.6	45.6	– 1.0	47.0	45.6	– 1.4
NL	46.4	45.3	– 1.1	47.1	45.7	– 1.4
AT	51.5	49.5	– 2.0	52.1	51.0	– 1.1
PT	43.7	43.6	– 0.1	46.6	44.7	– 1.9
FI	51.3	49.0	– 2.3	47.5	46.4	– 1.1
EUR-12	46.2	45.5	– 0.8	48.4	46.4	– 2.0
DK ⁽³⁾	55.1	54.2	– 0.9	52.9	51.8	– 1.1
SE ⁽⁴⁾	56.5	55.4	– 1.1	54.8	53.8	– 1.0
UK ⁽⁵⁾	38.0	40.0	2.0	38.9	40.8	1.9
EU-15	45.2	44.9	– 0.3	47.0	45.7	– 1.3

NB: Discrepancies are due to rounding. The improvement in net lending implied by this table may be different from the one resulting from other tables. This is due to inconsistencies across tables in the programmes.

⁽¹⁾ 2002 figures reflect corrected treatment of UMTS proceeds.

⁽²⁾ Not including for 2005 future unspecified measures amounting to 1.4 % of GDP.

⁽³⁾ Figures for 2002–04 may not be consistent with those in the tables for GDP growth and budget balances, as they have not been revised by the supplementary note.

⁽⁴⁾ 2004 and 2002–04.

⁽⁵⁾ Financial years.

Source: 2002 updates of the stability and convergence programmes.

in the expenditure ratio which, over the same period, will amount to 2.0 % of GDP. Both revenue and expenditure ratios are reduced in most countries. Strong reductions in revenue are projected in Finland, Ireland, Greece, Italy ⁽¹⁾, Belgium, the Netherlands and Luxembourg and, outside the euro area, Sweden. France, Denmark and Sweden still have revenue ratios above 50 % of GDP in 2005 ⁽²⁾. The UK is set to increase revenues by 2 % of GDP between 2002 and 2005. Such an increase should finance the almost equivalent increase in total expenditure, which remains among the lowest in the EU. All the other countries are set to decrease total expenditure. In several countries (that is, Germany, Greece, Italy, France and Portugal), this ratio is expected to be reduced by around 2 percentage points of GDP or more.

⁽¹⁾ In the case of Italy, future unspecified measures amounting to 1.4 % of GDP in 2005 have not been distributed across budgetary items.

⁽²⁾ However, as no adjustment is made for differences in institutional rules, the comparability of tax ratios is limited across countries.

Although the information provided in the programmes on the budget components is not always complete ⁽³⁾, it would seem that the reduction in *taxes* which has taken place in most countries in the euro area in 2001 and in 2002 (on average – 0.8 % of GDP, see Table I.14) ⁽⁴⁾ is not expected to continue thereafter, as the ratio would remain constant around 25.1 % until 2006. Sizeable reductions are expected in Finland and, to a smaller extent, Italy, while Germany would increase the ratio by one point by 2004. Outside the euro area, the tax to GDP ratio in Sweden would remain constant after the large reduction in 2002 — due to the reduced revenues from high capital income and corporate taxes — while it

⁽³⁾ No information was given by France and Luxembourg, only partial information by Spain, and complete data but only up to 2004 by Sweden. In some cases, erroneous classifications in the figures provided have been identified.

⁽⁴⁾ With the notable exceptions of Austria, where taxes increased by 1.8 % of GDP, and, in more limited measure, the Netherlands, where the progressive increase in taxes is due to the tax reform which shifts revenue from social contributions to taxes and reduces social contributions over time.

should decrease between 2002 and 2006 by about 1 % in Denmark and increase by the same amount in the UK. Social contributions would be reduced further in the coming years by around % of GDP in the euro area (see Table I.14). At national level, Germany would compensate the increase in taxes by a reduction of a similar size in social contributions, although in different years. Italy, and to a smaller extent Belgium, are also expected to reduce the ratios somewhat. Other revenues are expected to decrease slightly over the period.

Graph I.7 presents the contribution, to the change in the budgetary position, of four budget components: primary current expenditures, interest payments, gross fixed capital formation and total revenues. A number of general conclusions can be drawn.

Firstly, the development of expenditure components over the time frame of the programmes appears to be influenced by the initial budgetary and cyclical position. Most countries showing deficits in 2002 plan to reduce substantially the expenditure ratios while most countries showing substantial surpluses expect lower revenue. Germany and Portugal, which plan to improve the balance substantially over the period, expect to do so essentially via cuts in current primary expenditure. However, Portugal would also reduce public investment, while Germany also plans to

implement further tax cuts. Italy, Greece and France, which plan to improve the balance by around 1 to 2 % of GDP, would use part of the large reductions in primary current expenditure and in interest payments to finance tax cuts and increased investment ⁽¹⁾. Secondly, after a slight reduction in 2002 and 2003, gross fixed capital formation is set to increase at the euro area level to 2.4 % of GDP. This would reflect the large increase expected in public investment in Spain, and to a smaller extent, in Greece, which would more than offset the reduction expected in Finland and in Portugal ⁽²⁾. Germany would maintain the investment ratio constant, although at 1.5 % of GDP, a level almost 1 percentage point lower than the euro-area average. The UK projects to increase public investment by 0.7 % of GDP between 2002 and 2005 to 2.1 % of GDP, still below the EU average. In Ireland, the reduction in revenues is compensated by cuts in public investment and reduction in primary current expenditure ⁽³⁾.

- ⁽¹⁾ The increase of public investment in Italy between 2002 and 2005 is, to a large extent, due to an accounting effect (see also footnote 17).
⁽²⁾ The level of public investment in 2002 and 2003 has also been affected by the accounting treatment of the sales of real assets by the Italian government in those years, sales which were recorded as a reduction in investment. This effect should cease by 2004.
⁽³⁾ However, contingency provisions are made in the Irish programme which are not included in these calculations.

Table I.14

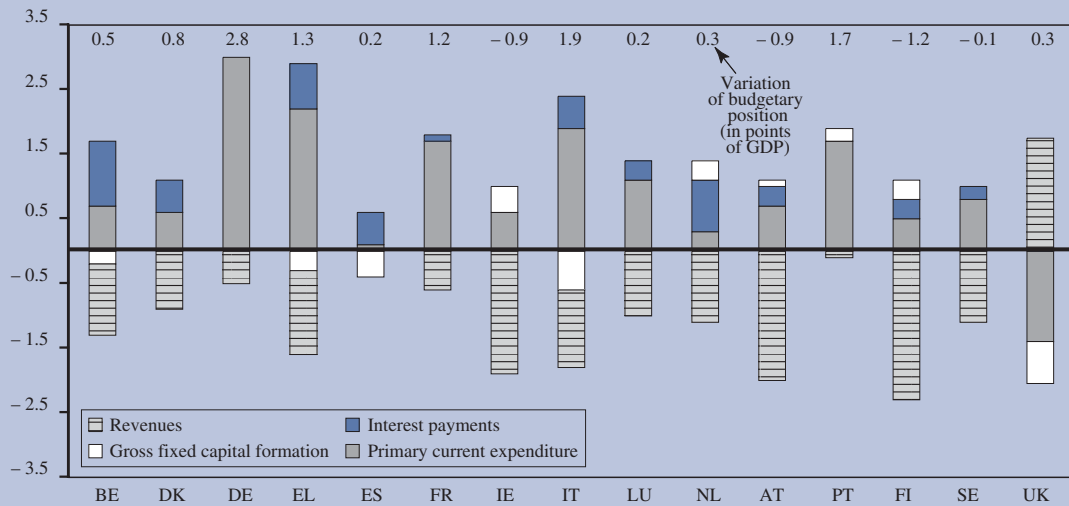
Euro area: Budget developments for the general government

% of GDP	2001	2002	2003	2004	2005	2006
Components of revenues						
Taxes	25.5	25.1	25.1	25.2	25.1	25.1
Social contributions	15.4	15.3	15.3	15.0	14.9	14.9
Interest income						
Other	4.1	4.2	4.1	3.9	3.8	3.8
Total receipts	46.6	46.2	46.0	45.8	45.5	45.5
Components of expenditures						
Collective consumption						
Social transfers in kind	14.7	14.8	14.5	14.1	13.8	
Social transfers other than in kind	16.9	17.3	17.1	16.7	16.4	
Interest payments	4.0	3.7	3.7	3.5	3.5	3.4
Subsidies	1.4	1.3	1.3	1.3	1.3	
Gross fixed capital formation	2.4	2.3	2.2	2.4	2.4	2.4
Other	3.1	3.2	3.2	3.1	3.1	
Total expenditures	48.1	48.4	47.9	47.0	46.4	45.8

NB: Totals might not correspond to the sum of the components: while for totals information is available for all countries, several countries are not included in the aggregation concerning budgetary components, which affects the ratio of the components.

Source: 2002 updates of the stability and convergence programmes.

Graph I.7: Contributions to change in budgetary position 2002–05 (in points of GDP)



Source: 2002 updates of the stability and convergence programmes. A positive value indicates a positive contribution to net lending. A positive value in total variation of budgetary position (value is presented on top of columns) implies an improvement of the balance. For SE, data refer to 2002–04. For FR and LU values of primary current expenditures refer to primary expenditure. Net lending for Italy includes unspecified measures totalling 1.4 % of GDP in 2005. Revised figures for net lending for Denmark do not specify the impact of the revision on budget items.

Thirdly, there are a number of countries which, while improving the balance marginally, expect to reduce the size of the public sector. This is most notably the case of

Luxembourg, the Netherlands and, in a smaller measure, Spain and Belgium. Outside the euro area, this is the case of Sweden and Denmark.

3. The sustainability of public finances based on the 2002 updates of stability and convergence programmes

3.1. Introduction

In recent years, growing attention has been paid to the need to extend EU budgetary surveillance beyond the three or four year time horizon of stability and convergence, and to consider whether public finances are sustainable in the long run. This largely stems from concerns about the potential impact of ageing populations on public finances. The importance of securing sustainable public finances is not unique to EMU, but there are additional implications in a monetary union. An unsustainable public finance position in a participating Member State may complicate the implementation of the single monetary policy and possibly result in interest rates being higher than they would otherwise be.

Since the launch of the euro in 1999, the Commission has addressed the issue of the sustainability of public finances along a number of lines ⁽¹⁾. In particular, the Commission has sought to integrate an examination of the sustainability of public finances into the existing EU framework for the surveillance of Member States' economic and budgetary policies, in line with the conclu-

⁽¹⁾ Firstly, projections for age-related expenditures were published for each Member State up to 2050: additional projections covering the impact of ageing on public spending on education and unemployment transfers will be published in mid-2003. Secondly, on 4 and 5 March 2003, the Directorate-General for Economic and Financial Affairs coorganised a conference with the Centre for Strategic International Studies (CSIS) on 'the economic and budgetary implications of global ageing'. The conference papers are available on the web site of DG ECFIN at: http://europa.eu.int/comm/economy_finance/events/2003/events_brussels_0303_en.htm. Thirdly, the impact of demographic changes on growth has been analysed (see Chapter 4 in European Commission (2002b)). Fourthly, the need to ensure the financial sustainability of pension systems has been addressed as part of the open-method of coordination on pensions.

sions of the Stockholm (March 2001) and Barcelona (March 2002) European Council meetings.

The chapter presents the second assessment of long-term sustainability carried out by the Commission and the Council on the basis of the 2002 updated stability and convergence programmes which followed a similar approach to that followed in the first exercise (see European Commission, 2002a).

3.2. How the sustainability of public finances was assessed

3.2.1. The quantitative indicators

In the absence of an agreed definition, a pragmatic definition of what constitutes a sustainable public finance position was used, namely whether, on the basis of current policies, Member States will continue to comply with the budgetary requirements of EMU, and in particular, the Treaty requirement to keep debt levels below the 60 % of GDP reference value ⁽²⁾. At the same time, however, it was recognised that sustainability of public finances is a multifaceted policy challenge. Aside from avoiding deficits and debt accumulation, sustainability in addition requires that tax burdens remain at reasonable levels and that other non-age-related expenditures (infrastructure, R&D) are not squeezed out. In recogni-

⁽²⁾ This definition, based on compliance with pre-determined and arbitrary budgetary aggregates, can be justified on the grounds that continued compliance with the SGP, and in particular the 'close to balance or in surplus' requirement, would de facto lead to the virtual disappearance of public debt in the long run under reasonable assumptions on growth and interest rates. Balassone and Franco (2000a) also review the various approaches to defining the sustainability of public finances.

tion of this, the Commission's assessment examined both quantitative and qualitative information.

On the basis of the work of the Economic Policy Committee (2001), two groups of indicators were used to quantify the sustainability of public finances.

The first indicator consisted of extrapolating debt developments up to 2050 so as to verify whether continued compliance with the debt requirements of the Treaty can be expected on the basis of current policies. Under an 'SGP compliance' scenario, the starting position in terms of the current budget balance, level of debt, primary spending and tax revenues are the figures reported by the Member States for the final year of their 2002 updated stability or convergence programme: for most Member States this is 2005 or 2006. The Commission then extrapolated the evolution of the budget balance and debt levels up to 2050 assuming that (i) the tax burden and non-age-related primary expenditures remain constant as a share of GDP at the 2005/06 level over the projection period, (ii) the interest-growth rate differential converge towards an EU average level of around 2 % in 2010 ⁽¹⁾, and (iii) age-related expenditures evolve in line with the projections of the EPC or alternative national projections. It is then possible to verify whether the projected level of debt respects the requirement to stay below 60 % of the GDP reference value for public debt at all times ⁽²⁾. Failure to do so would, a priori, indicate that there may be a risk of budgetary imbalances emerging in light of ageing populations and that measures may be required to place public finances on a more sustainable footing.

It should be noted that the 'SGP compliance' scenario assumes that Member States actually achieve the budget targets set down in their programmes, which for several Member States implies a successful process

⁽¹⁾ Real growth is based on the projections included in the report of the EPC(2001), that is, GDP growth convergence to some 1.75 % by 2030 in most Member States reflecting the assumption on labour force participation rates and in particular a prudent assumption on the rate of productivity growth. An identical nominal interest rate was assumed for all countries. The interest rate is defined as the sum of the inflation target of the ECB (2 %), the real growth rate of the EU (converging to 1.75 % by 2030) plus the differential of two between the nominal interest rate and nominal GDP growth. This leads to assume a nominal interest rate close to 6 %. To avoid a discrete jump in the debt projections, it is assumed that the implicit interest rate on debt in the final year of the stability/convergence programme converges towards the common nominal interest rate over 10 years in a linear fashion.

⁽²⁾ For countries with debt ratios still above 60 %, it must converge towards the reference value and stays below it for the remaining period of projection.

of budgetary consolidation to the 'close to balance or in surplus' requirement. However, such an outcome is by no means assured since several Member States still have to complete the consolidation. A '2002 position' scenario is therefore run in the same way as the 'SGP compliance' scenario, excepting that the starting budget position is different. Debt levels are extrapolated from 2005/06 to 2050 assuming that no budgetary changes occur during the programme period, that is, the primary balance in 2005/06 is the same as the 2002 level. The purpose of this scenario is to demonstrate the long-term impact on debt developments, and consequently on the sustainability of public finances, of a failure to achieve the 'close to balance or in surplus' requirement of the Pact for those countries still in deficit, in accordance with the timetable set down in the Member States' stability or convergence programmes.

For both scenarios the tax gap has been measured. It provides a gauge of the scale of budgetary adjustment which would be required for a Member State to reach a sustainable public finance position. It measures the difference between the current tax ratio and the constant tax ratio over the projection period necessary to achieve a pre-determined debt level at some date in the future. A positive tax gap indicates that there is a financing gap to reach such an objective.

The choice of both the targeted debt ratio and the length of the projection period is arbitrary, and the Commission therefore calculated three different tax gaps as follows.

- T-1 measures the difference between the current and constant tax ratio required to reach the same debt level in 2050 that would result from running a balanced budget position over the entire projection period. By definition, the debt ratio would converge towards zero but the level reached in 2050 will differ across countries depending on the starting debt level. This approach has the advantage that the debt target to be achieved is consistent with the budgetary framework of the SGP and the fact that the EPC projections for age-related expenditures cover the period up to 2050.
- T-2 recognises that a requirement for debt levels to converge towards zero is an overly strict definition to ensure the sustainability of public finances. It therefore measures the difference between the cur-

Box 1.1: The impact of ageing populations on tax revenues and social contributions

Government revenues can be decomposed into four main categories according to the tax base: labour, capital, consumption and social contributions. Revenues for each of these categories are simply the product of the respective effective tax rate by the tax base. In the case of social contributions, it is the product of wages (the tax base) by the contribution rate. An ageing population can have a direct effect on tax revenues through a modification of a tax base.

Few studies analyse the consequences of ageing populations on government revenues. Goudswaard and Ven de Kar (1994) show that income tax revenues in the Netherlands would increase because of a rising share of older workers in the labour force, as these are the highest paid group for seniority reasons. However, in the long run wages are driven by labour productivity more than by seniority, and the impact of ageing on labour productivity could therefore be negative. Auerbech *et al.* (1989) argue that the capacity to adapt to new technologies is lower for older workers, and that technological innovation can render their human capital obsolete. Older workers are also less mobile (both geographically and within sectors and labour tasks) and this implies a lower capacity of economic systems to adjust to structural changes. However, Cambridge Econometrics (1997) argues that the evidence that at any given time older workers are paid more implies that they should also be more productive. Alternatively, it would determine 'a shift from profits to wages in national income without any obvious reason that justifies this'.

Ageing also affects consumption and thus savings. If consumption increases as a consequence of a higher propensity to consume amongst elderly people, savings will decrease according to the life-cycle model, and this will negatively affect long-term economic growth and revenues. Rosevaere *et al.* (1996) argue that national savings, both governmental and private, will decline. In particular, it is estimated that an increase of the old-age dependency ratio in OECD countries of 20 % in the next 30 years will reduce private savings by 6 %.

Martinez-Mongay (2000) shows that the evolution of revenues has been driven mainly by the need to finance increased levels of public expenditure. In particular, revenues have adjusted to the evolution of social transfers. He shows that between 1970 and 1998, implicit tax rates on labour increased while the tax base (total wages as a percentage of GDP) decreased. In contrast, tax rates on consumption did not change sharply. According to this study, demographic changes would affect tax revenues only to the extent that they lead to additional expenditure.

In any case, it is rather difficult to isolate the direct effect of ageing on revenues without taking into account the indirect effect through changes in income levels and distribution. There is an endogeneity problem, as economic growth is affected by ageing and this will determine tax bases and revenues. But taxation, together with social contribution rates, affects employment and its structure, with relevant consequences on participation rates and on the general level of income as well as its distribution. This makes it difficult to carry out any projection on the impact of ageing on tax revenues.

To summarise, there is a great uncertainty over the effect of ageing populations on revenues. Several factors can lead to an increase in government revenues, for example, a better-paid workforce (due to seniority effects), an increase in consumption and participation rates. However, several factors could lead to a decline in tax revenues, for example, a fall in labour productivity due to an older workforce and a decline in aggregate savings. Therefore, in making any long-run projection, a very detailed knowledge of income distribution and its evolution is required (since this can change the tax bases for direct and indirect taxes) and account needs to be taken of the indirect effect of taxation on labour participation and on income levels. However, past experience already shows that the level of public spending is the main determinant of tax revenues as a share of GDP.

rent and constant tax ratio required to reach a debt level of 40 % of GDP in 2050 ⁽¹⁾.

- T-3 is a measure which is close to tax gap measures found in the economic literature based on the present value budget constraint. It indicates the change in tax revenues as a share of GDP that would guarantee the respect of the intertemporal budget constraint of the government, that is, that equates the actualised

⁽¹⁾ Interestingly, the UK's sustainable debt rule requires that net debt does not exceed 40 % of GDP.

flow of revenues and expenses over an infinite horizon ⁽¹⁾. As such there is no target for the debt ratio, what happens is that this will converge to a relatively low level. Moreover, there is no cut-off date in 2050, and this requires the assumption that age-related expenditures remain constant as a share of GDP at the projected level in 2050.

It is important to interpret the results of these quantitative indicators with caution. The projected evolution of debt levels are *not* a forecast of possible or even likely outcomes. Instead, they are a tool to facilitate policy debate and at best provide rough indication of the timing and scale of emerging budgetary challenges that could occur on the basis of ‘no policy change’. In practice, it is likely that governments would respond to either explosive debt trajectories or the implosion of debt leading to the accumulation of large net assets.

A further limitation of both sets of indicators is that they provide little guidance on what is the appropriate budget target which Member States should aim for in the light of the expected costs of an ageing population and indeed other contingencies which may affect public finances in the future. Moreover, a positive tax gap does not imply that tax rates should be raised, but rather that a financing gap exists which needs to be closed by a variety of means including raising tax revenues, cutting non-age-related expenditures and/or introducing reforms to curb the growth in age-related expenditure growth. The results are also sensitive to underlying assumptions on parameters such as interest rates and growth rates as well as the starting budget position. To some extent account can be taken of this by running a variety of sensitivity tests, but these provide no estimate of the risk or probability of various budgetary scenarios emerging.

Finally, the utility of the exercise depends heavily on the quality and comparability of the long-run budgetary pro-

jections. If greater weight is to be attached to the sustainability of public finances in the EU surveillance process, and in particular if the Commission and Council wish to provide clearer recommendations on policy responses, then considerable efforts should be made to upgrade the projections.

3.2.2. The data used

The code of conduct on the content and presentation of stability and convergence programmes requires Member States to address the issue of sustainability and, on a voluntary basis, include long-run budgetary projections. All Member States included a specific section on the sustainability in their 2002 programmes, and there was a marked improvement in the terms of the quality and coverage of information compared with the 2001 programmes.

Table I.15 summarises the budgetary projections included in the programmes of Member States. Twelve of the 15 programmes included budgetary projections from national sources whereas three Member States referred to the EPC projections. A trade-off exists as regards the choice of which projections to use. The EPC projections were made using common demographic scenarios and agreed assumptions on key labour market and macroeconomic parameters, and were subject to a peer review exercise by the Commission and Member States. However, national projections may encompass the impact of recent reforms: they may also capture in more detail the institutional complexity of national tax and benefit systems.

Table I.16 presents the projections used by the Commission in running its quantitative indicators. A number of important choices taken when doing the projections are worth highlighting.

- The Commission, as a general rule, used the national projections when they consisted of updates based on the EPC approach. For the most part, the differences between the EPC and national projections were modest and would not influence policy conclusions. However, Spain, Germany and Austria submitted revised projections for spending on public pensions which indicated a much smaller increase in spending over the projection period. The revised projection for Spain indicated that spending on pensions will increase by some 5 percentage points of GDP by 2050 compared with 8 percentage points in the EPC projections, and the difference is due to a revised

⁽¹⁾ The applied formula is the following:

$$\frac{\tau}{r-n} \left(1 + \frac{TG}{\tau} \right) = b_t + \frac{\sum_{i=1}^{45} pg_i (1+n)^i}{(1+r)^i} + \frac{pg}{(r-n)(1+r)} (1+n)^{45},$$

where τ is the actual share of revenues on GDP (assumed to remain constant), pg is the share of primary expenditures on GDP (assumed to stay constant after 2050), b_t is the stock of gross debt on GDP at time t , while r and n are, respectively, the discount rate and the nominal growth rate of the economy (assumed to be constant).

Table I.15

Long-run budgetary projections included in the 2002 updates to stability and convergence programmes

(% of GDP)

	Source	Pensions		Health and long-term care		Other age-related expenditure		Tax revenues		Net impact
		2005	Change by 2050	2005	Change by 2050	2005	Change by 2050	2005	Change by 2050	
BE	national	8.7	2.7	6.2	2.0	7.3	-1.6			3.1
DK	national	4.7	2.5	7.4	1.9			54.1	2.2	2.2
DE	national	11.1	3.8	6.0	1.1			17.7	1.3	3.6
EL	national	12.4	10.2	5.0	1.6			44.4	4.6	7.2
ES	national	7.9	5.1	n.a.	n.a.					5.1
FR	EPC	12.1	3.7	6.9	2.0					5.7
IE	EPC	3.8	3.9	6.1	1.7					5.6
IT	national	13.9	0.2	5.9	1.7					1.9
LU	EPC	7.4	1.9	n.a.	n.a.					1.9
NL	national	8.3	5.3	7.3	3.1			2.3	2.9	5.5
AT	national	14.6	1.8	5.8	2.1					3.9
PT	national	13.3	2.0	n.a.	n.a.					2.0
FI	national	10.7	3.7	6.2	2.9			53.7	-2.1	8.7
SE	national	9.1	1.8	9.8	4.6	31.9	-1.6	53.1	2.5	2.3
UK	national	5.0	-0.2	7.0	2.8	6.1	0.8	39.9	-1.5	4.9

NB: BE: the starting data refers to 2000. Other expenditures include family allowances, unemployment and early retirement transfers, work-related accidents and sickness and residual regimes. DK: of the change in tax revenues, the net tax on pension payouts increased by 2.4 p.p. of GDP from 2005 and 2050. Also, pension assets are projected to increase from 119 % of GDP in 2005 to 206 % of GDP in 2040. DE: the starting data refers to 2010. Pension projections were made by the BMGS (statutory pension insurance and public service workers pension). Healthcare projections only cover acute healthcare and were made by the EPC. Tax revenues only concern taxation of payments to private households and was made by the German Institute for Economic Research. EL: Healthcare only concerns acute healthcare. FR: starting date is 2000, and change refers to the period 2000 to 2040. IE: data in programme was reported as a % of GNP. It was converted to GDP assuming a constant differential of 17 % over the projection period. NL: revenues projections refer to income tax revenues on pensions. PT: starting data refers to 2001. FI: starting year is 2000. SE: expenditure projections include a breakdown covering childcare, primary and secondary education, adult education, other transfer payments (ill health, children/studies, labour market, transfer payments to firms, transfer payments abroad) and public investment.

Source: 2002 updates of stability and convergence programmes.

demographic scenario⁽¹⁾. The revised projection made by Germany takes account of the 2001 reform of the pension system, and indicates that spending on pensions would be 2 percentage points of GDP lower than in the EPC exercise. The Austrian projection indicates that age-related spending by 2040 will increase by 1.8 percentage points of GDP less than what was projected by the EPC and is due to the use of an alternative demographic scenario. Of this difference, 1 percentage point relates to public spending on pensions and 0.7 percentage points to lower spending on acute healthcare. It should be noted that

none of these national projections have been subject to peer review at EU level, and their use results in a considerably more favourable profile for debt development compared to what would have occurred on the basis of EPC projections.

- EPC projections for spending on healthcare and long-term care were included in the calculations even if they were not mentioned in the stability or convergence programme. Also, to ensure consistency, the Commission excluded projections for non-age-related primary expenditures indicated by some Member States (for example, Sweden and the UK). Finally, projections for changes in the tax ratio were included for three Member States (Denmark, Netherlands, UK) as these can largely be attributed to the deferred tax revenue contributions to funded pension systems as well as accumulated earnings prior to disbursement.

(1) This is based on the recent census which indicates that the existing population size is considerably higher than estimated by Eurostat and also important differences as regards inward migration. The upshot is that the population of working age is considerably higher in the revised projection than assumed by the EPC.

Table I.16

Data used to run the sustainability indicators in the 'SGP compliance scenario'

(% of GDP)

	Level in 2005/6 ⁽¹⁾				Change by 2050				
	Net borrowing	Debt	Total revenues	Total non-age-related spending	Pension	Health-care	Other age-related expenditures	Tax revenues	Net change
BE	0.5	94	48.4	21.0	2.9	1.6	- 1.1	0.0	3.4
DK	2.2	26	53.6	26.6	2.0	2.0	0.2	0.0	4.2
DE	0.0	58	44.5	24.3	3.5	1.3	0.0	0.0	4.8
EL	0.6	88	44.3	21.8	10.2	1.6	0.0	0.0	11.8
ES	0.2	47	39.8	23.5	5.1	1.6	0.0	0.0	6.7
FR	- 1.0	57	50.5	29.0	3.4	1.1	0.4	0.0	4.9
IE	- 1.2	35	32.9	22.7	3.9	1.7	0.0	0.0	5.6
IT	0.1	89	44.6	19.4	0.2	1.7	0.0	0.0	1.9
LU	- 0.1	3	45.6	38.0	1.9	0.0	0.0	0.0	1.9
NL	0.1	45	45.3	27.4	3.5	3.4	0.5	3.7	3.7
AT	- 1.1	61	49.4	27.1	1.8	1.3	0.8	0.0	3.9
PT	- 0.4	53	43.0	24.2	2.1	0.8	0.0	0.0	2.9
FI	2.8	- 17	48.9	26.0	3.0	1.0	1.5	0.0	5.5
SE	1.7	18	55.4	14.9	1.8	1.4	1.7	- 0.9	5.8
UK	- 1.6	39	39.9	21.4	- 0.2	2.8	0.8	1.5	4.9 ⁽²⁾

⁽¹⁾ Denmark's levels are for 2010.

⁽²⁾ The net change for UK includes the change in the total non-age-related spending of - 1.4 % of GDP.

Source: Commission services.

- The concept used in the EU surveillance of Member States' budgetary positions is general government gross debt. It measures the amount of existing financial debt the government will have to service and reimburse. The only asset taken into account is government debt held within the government sector: other financial assets, such as holdings of shares and equity and real assets do not contribute to lower the recorded level of debt. It has been argued that, when assessing long-term sustainability, there is also a case for looking at net debt figures. However, this would entail a number of practical measurement problems as a large part of government assets are of a non-financial nature. Real assets are typically not easy to value, and moreover, it is questionable to what extent these assets can be used to redeem outstanding debt or substitute for other revenues. In running the quantitative indicators for Finland and Sweden ⁽¹⁾, however, the

Commission took on board information on financial assets (other than government bonds) in designated pension funds, as well as information on financial assets specifically designated for privatisation and thus available for future debt reduction. It was assumed that the yield on assets is the same as on debt.

3.2.3. The results of the quantitative indicators

The results of the quantitative indicators (both the extrapolation of debt and the tax gap indicators) are presented in Table I.17 and Table I.18. The need to interpret the results with caution is again underlined, and in particular to avoid drawing mechanical policy conclusions. Notwithstanding the caveats, the indicators clearly illustrate that ageing populations pose a very significant budgetary challenge, and the following broad conclusions can be drawn.

First, even assuming that all Member States achieve their budget targets for 2006 (SGP compliance scenario) which in most cases represents a position of 'close to balance or in surplus', there is a risk of unsustainable public

⁽¹⁾ According to the last set of stability and convergence programmes, gross government debt in Sweden in 2001 was 52.3 % of GDP while the net debt, taking pension fund financial assets into account, was - 3.1 % of GDP. In the Finnish programme, gross interest payments in 2001 was 2.8 % of GDP while net interest payments was 0.7 % of GDP.

finances (measured against the 60 % of GDP reference value) emerging in some half of EU Member States, and indeed for the EU as a whole (see Graph I.8). Hence, current policies are not sustainable and further policy measures are needed.

Secondly, the risk of unsustainable public finances increases considerably if all Member States do not achieve the SGP goal of budget positions of ‘close to balance or in surplus’. An indication of this can be seen by comparing the projected debt levels under the ‘SGP compliance scenario’ with the ‘2002 position’ scenario for the EU-15: the failure to reduce the deficit for its 2002 levels of some 2 % of GDP would result in debt being some 100 % of GDP higher in 2050. In particular, Graph I.9. compares debt developments under both scenarios for the four euro area countries with highest deficits in 2002, i.e. Germany, France, Italy and Portugal.

Thirdly, debt developments for most Member States follow a U-shaped pattern. In the coming decade or 20 years, debt levels are projected to decrease thanks to the running of a balanced budget position: however, this trend would start to reverse once the budgetary impact of ageing starts to take hold, with the largest increase in most countries expected between 2020 and 2030. There

is therefore a limited, but fast closing, window of opportunity to reduce debt levels.

Fourthly, the tax gap indicators provide some order of magnitude to the budgetary adjustment needed to ensure sustainable public finances. In addition to consolidation efforts to correct the 2002 aggregate underlying deficit of some 2 % of GDP, the tax gap under the ‘SGP compliance scenario’ indicates that an additional permanent budgetary adjustment of between 1 and 2 percentage points of GDP is needed in Member States where the sustainability of public finances is a concern. A budgetary adjustment of this magnitude would be between one third and one half the size of consolidation achieved as part of the Maastricht process since 1995. However, the scale of budgetary adjustment efforts could be even greater if age-related spending increases faster than in the baseline EPC/national projections and/or if account is taken of the stated budgetary objectives of some Member States, such as a reduction in the tax ratio. Also, and as stated above, this does not suggest that taxes should be increased, but rather that an appropriate combination is needed of tax increases, reducing the level of non-age-related primary spending and/or reform of pension and healthcare systems to curtail the impact of ageing on expenditure growth. The scale of such a budgetary challenge is presented in Table I.18.

Table I.17

Projected evolution of debt levels up to 2050

	SGP compliance scenario			2002 budget position scenario ⁽¹⁾		
	2010	2030	2050	2010	2030	2050
BE	70	-21	-108	66	-41	-154
DK	26	-23	-51	9	-79	-172
DE	49	56	89	75	186	384
EL	70	48	160	70	64	201
ES	38	17	89	33	4	59
FR	54	107	248	62	144	335
IE	33	85	220	22	52	153
IT	77	17	-38	88	72	91
LU	2	16	51	4	18	52
NL	39	48	99	37	43	91
AT	59	88	123	61	39	19
PT	46	51	107	61	120	281
FI ⁽²⁾	-25	-48	-39	-42	-135	-225
SE ⁽²⁾	3	2	-35	3	2	-57
UK	38	43	78	39	49	90

⁽¹⁾ As calculated assuming primary balance constant at the level of 2002.

⁽²⁾ Government debt net of financial assets.

Source: Commission services.

Table I.18

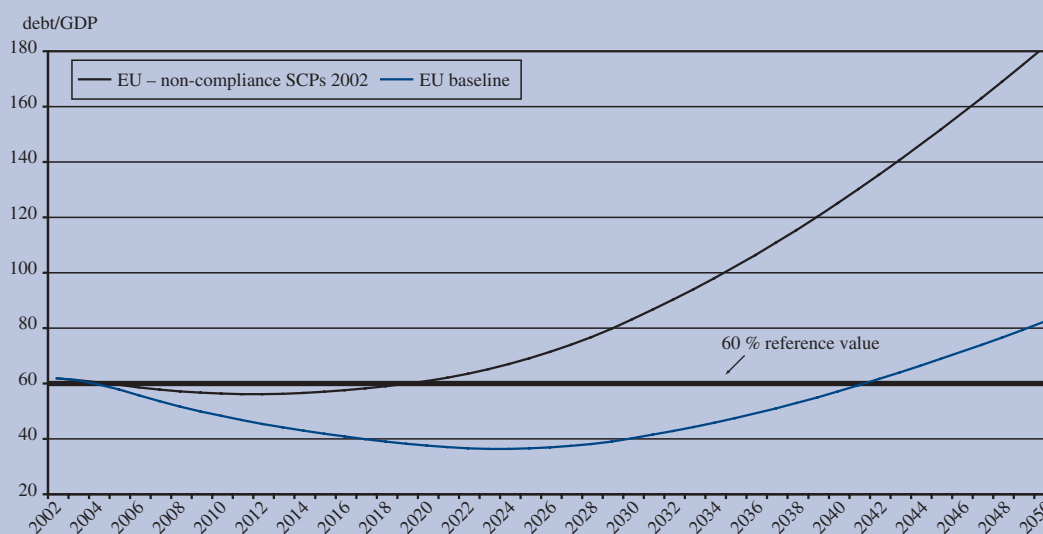
Results of the tax gap indicator

	SGP compliance scenario			2002 budget position scenario		
	T1	T2	T3	T1	T2	T3
BE	-1.7	-2.0	0.1	-2.4	-2.7	-0.5
DK	-0.9	-1.3	0.1	-2.7	-3.1	-2.0
DE	1.0	0.6	3.2	4.8	4.5	6.9
EL	2.0	1.7	4.8	2.6	2.3	5.5
ES	1.1	0.7	2.4	1.0	0.6	2.4
FR	3.7	3.5	4.6	4.8	4.5	5.7
IE	3.4	2.9	5.1	2.4	1.8	4.0
IT	-0.8	-1.0	0.3	0.9	0.6	1.9
LU	1.2	0.2	2.5	1.0	0.3	2.6
NL	1.2	0.7	4.6	1.0	0.6	4.5
AT	2.6	2.1	3.4	1.0	0.6	1.9
PT	1.3	1.0	2.0	3.7	3.3	4.3
FI	-0.6	-1.1	-0.5	-3.2	-3.7	-0.8
SE	-0.6	-1.1	0.2	-0.9	-1.4	-0.1
UK	1.9	1.4	1.2	1.3	0.8	1.4

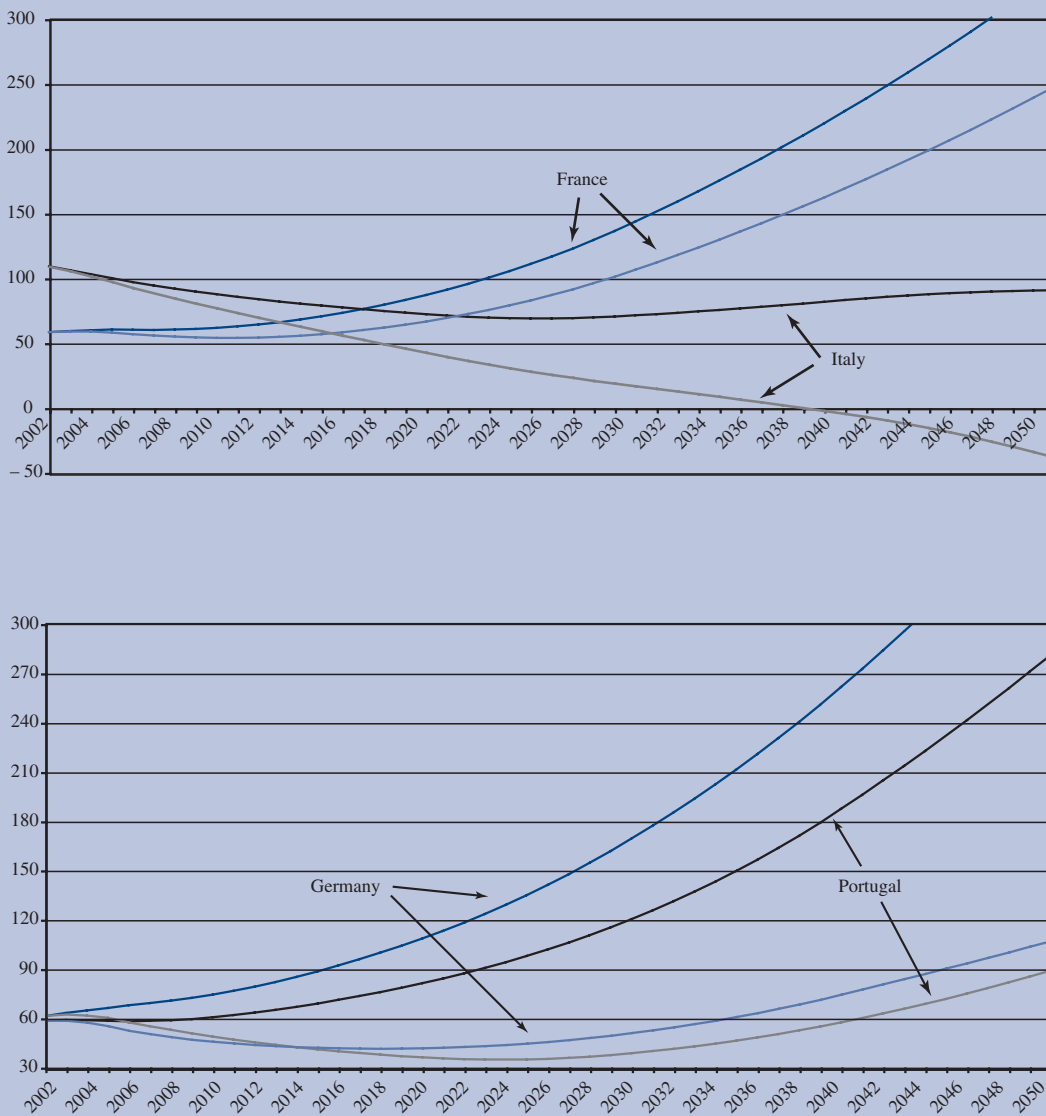
NB: T1 indicates the constant difference between projected revenues and the revenues required to reach in 2050 the same debt-to-GDP ratio as the close to balance position holds for the whole projection period. T2 indicates the constant difference between projected revenues and the revenues required to reach in 2050 a debt-to-GDP ratio equal to 40 %. T3 indicates the change in tax revenues as a share of GDP that guarantees the respect of the intertemporal budget constraint of the government, that is, that equates the actualised flow of revenues and expenses over an infinite horizon.

Source: Commission services.

Graph I.8: A comparison of debt projections for the EU-15 based on the 'SGP compliance scenario' and the '2002 starting position' scenario



Graph I.9: A comparison of debt projections for four Member States based on the ‘SGP compliance’ scenario and the ‘2002 position’ scenario



3.3. Policy conclusions per Member State

The policy conclusions in the Commission’s recommendations for Council opinions on updated stability and convergence programmes were drawn on the basis of qualita-

tive as well as quantitative analysis. They addressed three policy questions as follows.

- In the light of projected budgetary implications of ageing populations, is it likely that the SGP requirements will continue to be respected on the basis of current policies?

- Are the medium-term budget target and other policy measures outlined in the updates compatible with improving the sustainability of public finances? ⁽¹⁾
- What is the main policy challenge facing Member States and what reform measures should be envisaged?

Table I.19 below summarises the conclusions on each of these questions based on the Commission's assessment of the 2002 updated programmes and the respective Council opinions. The risk of unsustainable public finances is evident in some half of EU countries, notably Germany, Greece, Spain, France, Italy, Austria and Portugal. There are also particular circumstances for Belgium and Ireland which influence the quantitative indicators of the sustainability of public finances, and underline the need to avoid a mechanical interpretation of results. It is possible to group countries according to the source of potential budget imbalances and the seriousness of the risk as follows.

- In two Member States (Spain and Greece) *a large share of the risk of emerging budgetary imbalances is due to the very large projected increase in pension expenditure*. According to the EPC, public spending on pensions alone is projected to grow by 8 % of GDP between 2000 and 2040 in Spain and 12 % of GDP in Greece, the highest projected increase of all EU countries, although both countries have submitted revised projections showing substantially lower increases. Spain has already achieved a budget position of 'close to balance or in surplus' and Greece aims at doing so in the coming two years. To ensure sustainability, the main challenge is to reform the public pension system so as to contain any increase in spending as a result of ageing populations.
- In several Member States (notably Germany, France, Austria and Portugal) *the risk of emerging budgetary imbalances is a combination of factors*. First, public

⁽¹⁾ The conclusion of the Stockholm European Council did not alter the goal or purpose of the SGP, that is to ensure that Member States have medium-term budget positions that are 'close to balance or in surplus'. The Commission and Council did not attempt to quantify what constitutes an appropriate budget position for a Member State in light of the budgetary costs of ageing population. Whether countries should set more ambitious budget targets (including surpluses) in the coming years prior to the budgetary impact of ageing populations taking hold is clearly a policy issue which the ECOFIN Council must address in the future. Indeed, several Member States already go beyond budget positions of 'close to balance or in surplus' and are running large surpluses with the explicit purpose of preparing for the budgetary costs of ageing populations. However, the obligation on Member States under the SGP remains unchanged.

spending on pensions and healthcare in these countries is projected to grow at or above the average rate of the EU in coming decades. Secondly, the pace of debt reduction is slow due to persistent and large underlying deficits. Finally, they have a relatively poor labour market performance, and in particular low employment rates of older workers and a low effective retirement age. Addressing sustainability therefore requires a more ambitious and comprehensive approach tackling all these challenges, rather than the unambiguous and piecemeal approaches evident today.

- *High debt countries (Belgium, Greece and Italy) face a particular set of challenges in ensuring the fast reduction of debt levels*. At first sight, the quantitative indicators suggest that these countries appear to be relatively well placed to meet the costs of ageing populations. But the favourable development in debt levels (and consequently on interest payments) hides a degree of fiscal illusion based on an implicit assumption that high debt countries are able to sustain large primary surpluses over a long period. Running the actual budget surpluses implied by such assumptions over time may be difficult to ensure for the government, as they will be faced with competing budgetary pressures for tax cuts and/or increased public expenditures ⁽²⁾. In addition, the debt may evolve more slowly than planned because of stock-flow adjustments. On this aspect, the Council expressed concern about the slow pace of debt reduction in Greece and Italy since 1999 due to large and persistent financial operations, besides the unfavourable growth conditions and slippage from budget balance targets ⁽³⁾.
- *Several Member States appear to have sustainable public finances* (Denmark, Luxembourg, the Netherlands, Finland, Sweden and the UK). They have

⁽²⁾ An indication of this additional budgetary effort can be gauged by looking at the required primary surplus needed to sustain a balanced budget position. The Commission has calculated this using the same projected increase in age-related spending and assuming that countries achieve the budget target set down in their stability and convergence programme. On average, Belgium is estimated to require an average primary surplus of 3 % of GDP over the 2010 to 2020 period, whereas Greece and Italy would require primary surpluses of 3.6 and 3.7 % of GDP respectively. This compares with an estimated required primary surplus of between 1 and 2 % of GDP in most other Member States with debt levels below the 60 % of GDP reference value.

⁽³⁾ Moreover, for Italy, the Commission and Council noted that the relatively small projected increase in spending on public pensions is based upon an assumption that the reforms enacted in the 1990s are implemented in full (especially the indexation of the entitlement to prices and the adjustment of benefits to increases of life expectancy), and on the basis of the assumption of a significant increase in labour force participation rates in coming decades.

sound budget positions, and in most cases past reform of their pension systems have strengthened the link between contributions and entitlements. Notwithstanding the favourable conclusion, ageing populations will pose budgetary challenges for these countries. The maintenance of high tax ratios at over 50 % of GDP in a number of Nordic countries requires continued public support and raises concern about competitiveness: there is also a risk that tax bases may become more mobile in the future which may make it more difficult for countries to raise revenues. For the Netherlands, the Council considered that some additional measures may be needed if the Dutch authorities are to achieve the stated aim of eliminating public debt within one generation. Luxembourg has to provide pensions to a large number of non-residents: financial sustainability will be influenced on the number of cross-border workers. Regarding the UK, the Council concluded that much of the financial sustainability of the pension system depends on the performance of private pension providers. If private provision produces significantly less than the anticipated coverage or level of pen-

sions, future governments may face increased claims of means-tested benefits.

- ***In Ireland, the indicators point a policy challenge that sooner or later needs to be addressed, despite the improvement in public finances in recent years.*** A financing gap may emerge if public spending on pensions and healthcare in Ireland converge towards levels in other EU countries and if the tax ratio, as a share of GDP, remains unchanged ⁽¹⁾.

⁽¹⁾ A number of important qualifications need to be made. First, and as recognised in the Commission's assessment of Ireland's stability programme, the medium-term budget position may be substantially better than indicated by the programmes' targets as it includes an annual transfer of 1 % of GNP to the National Pensions Reserve Fund and a contingency reserve of some 0.6 % of GNP. The projected evolution of debt levels would be different if an adjustment was made for these items. Secondly, there is considerable uncertainty as to what constitutes the potential growth rate of Ireland and the time frame over which it could be expected to converge to levels seen in other EU countries. The growth assumptions used in the sustainability indicator are prudent based on recent experience in Ireland. Thirdly, it should be borne in mind that the tax ratio in Ireland is the lowest of all EU countries, and thus there is greater scope to raise taxes if necessary.

Table I.19

Policy conclusions on the sustainability of public finances

	Are public finances sustainable ?	Do the budgetary measures in the programme improve sustainability ?	What are the key policy measures required?
BE	Appears to be sustainable, but conditional upon sustaining large primary surpluses in the coming decade or more.	Policy of sustaining high primary surpluses should lead to a fast pace of debt reduction. But this needs to be complemented with measures to raise employment rates, especially amongst older workers as the effective retirement age is one amongst the lowest of all EU countries. Some progress made as regards draft legislation for setting up the framework for supplementary pensions.	Sustaining high primary surplus over the long run will be a challenge. At the same time, it is important that the budgetary cost of structural reforms, notably those involving tax and non-tax burden reduction, be kept consistent with the targeted budgetary adjustment and the reduction of the government debt ratio be ensured.
DK	Appears to be sustainable.	Yes. Comprehensive approach benefiting from the running of budget surpluses, and a projected accumulation of large net assets in both pension funds and the government sector.	The tax ratio will remain high compared to other industrialised countries, and consideration could be given to further reductions in a framework of sound public finances.
DE	Clear risk of emerging budgetary imbalances.	If achieved, a balanced budget position by 2006 would help reduce debt at a faster pace. Pension reform of 2001 has helped improve sustainability, but the need for further reforms cannot be ruled out.	To ensure sustainability, compliance with SGP as soon as possible is essential. This needs to be accompanied with far-reaching reforms to raise Germany's very low growth potential. Urgent reforms are needed not only in the labour market, but also in social security and benefit systems in general, and for a reduction in the regulatory burden of the economy.

(Continued on the next page)

Table I.19 (continued)

	Are public finances sustainable ?	Do the budgetary measures in the programme improve sustainability ?	What are the key policy measures required?
EL	Clear risk of emerging budgetary imbalances.	Projected move towards a position of budget balance is welcome. But programme does not address the core issue of pension reform.	Further reforms are required to the pension system to avoid an unsustainable increase in public spending. The Greek authorities are encouraged to promote supplementary privately-funded pension schemes and to take measures to raise participation rates and to control the evolution of age-related expenditures.
ES	Clear risk of emerging budgetary imbalances.	Programme contains commitment to sustain a balanced budget position and provides information on measures to increase employment rates. Measures to improve incentives for active ageing and private pension schemes were taken.	Risk of unsustainable public finances largely stems from the projected increase in spending on pensions (despite the recent downward revision on estimate). Reform of the pension system planned for in 2004 needs to address the issue of financial sustainability.
FR	Clear risk of emerging budgetary imbalances.	Overall approach, and in particular a failure to reach a position of 'close to balance or in surplus' by the end of the programme, is not consistent with a commitment to sustainable public finances. Some progress, however, has been made as regards structural measures designed to curb expenditures in the health sector and the actions aiming at improving the control of budgetary execution in the State sector. Also the French authorities announced their intention to reform pension and healthcare systems.	To ensure sustainability, compliance with SGP as soon as possible is essential. Need to pursue the planned reform of pension system.
IE	Outlying country. Some risk of emerging budgetary imbalances given projected increases in spending on pensions and healthcare, but there should be scope to meet financing challenge given low tax rates and low levels of government debt.	Some concern as regards projected move to deficit in coming years. However, when assessing sustainability, due account should be taken of a contingency provision of 0.8 % of GDP in the deficit of the final year of the programme and of the eventual completion of a large programme of public investment. Also, the gradual build up of assets in the National Pension Reserve Fund (annual contribution of 1 % of GNP) will help bear the budgetary costs of an ageing population.	In a good position to meet the costs of ageing populations given high degree of funding of pensions and the relatively low tax burden. However, a long-term financing challenge may arise, as spending on pensions and healthcare as a share of GDP approach levels in other EU countries.
IT	Clear risk of emerging budgetary imbalances.	Strategy to prepare for ageing populations gives cause for concern. There is a need to implement a sustained path of budgetary consolidation, with one-off measures replaced with structural ones on the expenditure side. Council is especially concerned that the risks to the programme deficit targets might imply too slow a pace of reduction in the debt ratio. The slowdown in the rate of debt reduction projected toward the end of the programme period also in connection with some 'below the line' operations. Italy's ability to cope with the budgetary consequences of ageing is based on implementation of the major pension reforms adopted in the 1990s and a large increase in the participation rate.	To ensure sustainability, compliance with SGP as soon as possible is essential. It will be necessary, given Italy's high debt, to sustain primary surpluses in the order of 5 % of GDP for many years. Also, the goal of reducing the tax burden can only be safely and effectively achieved within a comprehensive reform plan on both the expenditure and the revenue side. Italian authorities are encouraged to adopt further measures to promote supplementary privately-funded pension schemes and to address the outstanding critical issue in the public pension system, namely, the long transition period to the new contributions-based system. This should be coupled with the measures necessary to raise participation rates and to control the evolution of age-related expenditures.
LU	Appears to be sustainable.	Yes, comprehensive approach outlined with measures announced to improve the attractiveness of third pillar private pensions.	Sustainability is sensitive to the number of cross-border workers.

(Continued on the next page)

Table 1.19 (continued)

	Are public finances sustainable ?	Do the budgetary measures in the programme improve sustainability ?	What are the key policy measures required?
NL	Appears to be sustainable.	Yes, comprehensive approach outlined, although additional measures may be needed if the Dutch authorities are to achieve the stated aim of eliminating public debt within one generation. The conclusion on sustainability relies on projected increases in the tax ratio, although in part this is due to increases in the deferred taxes on pension income.	The strategy hinges upon achieving a large and sustained reduction in the debt ratio which may prove challenging during economic downturns and in the face of competing pressures to pursue other budgetary objectives. While the stability programme envisages additional savings being made so as to absorb the projected increase in age-related expenditures, there is a lack of clarity on the precise measures which will be taken to achieve this goal.
AT	Clear risk of emerging budgetary imbalances.	The Council welcomes the intentions of the Austrian authorities to reform pension and healthcare systems in light of ageing populations. However, a greater degree of budgetary ambition is required, and Austria should complete the transition to a position of budget balance, in line with SGP requirements, without delay.	Need to sustain sound public finances, and possibly consider further reform of pensions. It is vital to put into operation the planned pension reform, since the measures outlined in the update address many of the key problems.
PT	Clear risk of emerging budgetary imbalances.	The programme sets down an ambitious programme for budgetary consolidation which, if successful, would make a significant improvement to the sustainability of public finances.	To ensure sustainability, compliance with SGP as soon as possible is essential. Also essential to proceed with reforms to achieve a better control of public expenditures at all levels of government, and in particular in the healthcare system.
FI	Appears to be sustainable.	Yes, comprehensive approach outlined benefiting from the sustained running of budget surpluses, and a reformed pension system that has a high degree of pre-funding. Programme also contains information of reforms, both planned and underway, which aim at raising employment rates of older workers	The tax ratio in Finland is high compared with other industrialised countries. A major challenge will be to carry out the planned tax reforms, while safeguarding the achievements of the past decade of placing public finances on a sustainable footing.
SE	Appears to be sustainable.	Yes, comprehensive approach outlined benefiting from the sustained running of budget surpluses of 2 % of GDP up to 2015, and a reformed pension system that automatically limits future expenditure growth.	Policy aim of running large surpluses may prove difficult over a long time period. A challenge will be to complete the tax reform while safeguarding the achievements of the past decade of placing public finances on a sustainable path.
UK	Appears to be sustainable.	The deficit targets in the programme raise some concern as regards the sustainability of public finances. A budgetary position of a limited deficit in the medium term would help avoid any risk of emerging budget imbalances in the context of ageing populations and give greater assurance to the programme view that 'the public finances, based on current policies, are sustainable in the long-term'.	Much of the financial sustainability of the pension system depends on the performance of private pension providers. If private provision produces significantly less than the anticipated coverage or level of pensions, future governments may face increased claims of means-tested benefits.

Source: Based on the policy conclusions in the Commission's assessment of the 2002 updates to stability and convergence programmes and the respective opinions of the Council.

4. Budgetary developments in candidate countries

4.1. Short-term budgetary developments and prospects in candidate countries

In 2002, the aggregate budget position of the 13 candidate countries (CC-13) ⁽¹⁾ improved, but only due to the exceptional advance recorded in Turkey (see Table I.20) ⁽²⁾. The aggregate general government deficit of the 10 countries set to become EU members in May 2004 (AC-10) widened. This deterioration occurred despite the fact that aggregate growth for the AC-10 continued at roughly the same pace as in 2001 ⁽³⁾.

Aggregate budget positions are projected to improve for all country groupings in 2003 and 2004. Despite a significant acceleration in growth, however, the projected reduction in the aggregate deficit of the AC-10 is not sufficient to reverse the deterioration recorded in 2002. This suggests that structural, rather than cyclical, factors underlie current budgetary imbalances.

Due caution, however, should be taken when interpreting budgetary trends for the CC-13. Despite significant progress, budgetary data for these countries are still not fully comparable across countries nor completely in line with EU definitions (see Box I.2). Significant revisions in the budget positions of these countries are still possi-

ble, and from a methodological point of view, aggregating country figures is only possible to a limited degree.

Aggregate figures tend to hide the differences among individual countries. Outcomes for 2002 range from a deficit of 13.7 % of GDP in Turkey to a surplus of 1.3 % of GDP in Estonia (see Table I.20). Relative to 2001, the budgetary position worsened in seven countries — and by more than 1 % of GDP in the majority of cases. The most noticeable improvement was recorded in the case of Turkey followed by Romania and Estonia.

Among the seven countries undershooting the budgetary targets for 2002 set out in their pre-accession economic programmes (PEPs) of 2002, Cyprus, Malta and, above all, Hungary missed their objectives by a rather large amount (see Table I.20) ⁽⁴⁾. Five countries, on the other hand, overachieved their targets, most notably Estonia which further increased its surplus position despite having originally planned to run to a small deficit.

In most cases, country-specific factors rather than general macroeconomic trends seem to lie behind countries' budgetary performance relative to targets. Electoral dynamics, for instance, appear to have played a relevant role in the case of some of the countries missing their PEP targets, such as Hungary, Latvia and the Slovak Republic. Statistical reclassifications and one-off measures also played a part, most notably in the case of Hungary ⁽⁵⁾.

⁽¹⁾ The CC-13 are Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, the Slovak Republic, Slovenia and Turkey. The AC-10 exclude Bulgaria, Romania and Turkey.

⁽²⁾ Accounting factors underpin this improvement. At 13.7 % of GDP, Turkey's general government deficit remained very high in 2002 but nearly halved relative to 2001 when expenditures were boosted on a one-off basis by the inclusion (in a single year) of the large transfers to the agricultural sector that had been channelled through the banking system in previous years.

⁽³⁾ The sources for all figures used in this section are the 2002 pre-accession economic programmes, the 2002 fiscal notification and the Commission forecast of spring 2003. Given the cut-off data for the preparation of this report, new and revised budgetary data reported to the Commission in the context of the 2003 fiscal notification exercise could not be taken into account.

⁽⁴⁾ Following elections, the new government of the Slovak Republic formally revised upwards its PEP deficit targets prior to the finalisation of the Commission's assessments. The Slovak Republic is projected to have complied with its revised deficit target for 2002, which was 3.2 % of GDP higher than in the original PEP submission.

⁽⁵⁾ Reclassifications also contributed to the upward revision of the PEP deficit target of the Slovak Republic.

Box I.2: Candidate countries' budgetary data and EU standards

The data utilised in this section approximate ESA95 definitions for the general government statistics as much as possible. However, due to methodological and data availability problems, this is only partially possible. As the harmonisation of statistics progresses, significant revisions of general government deficits may be needed. Problems of comparability also affect data on the level of total expenditure and revenue and their components.

In estimating the data used in this section, the Commission services relied upon the government deficit and debt figures reported in the 2002 fiscal notifications. Candidate countries have been formally notifying fiscal statistics to the Commission since 2001, using the same format and aiming at producing the same data as the notifications provided by the Member States in the framework of the excessive deficit procedure. By completing this exercise, candidate countries are becoming familiar with the technical and quantitative requirements they will have to apply as soon as they become Member States.

The April 2002 fiscal notifications showed that a majority of countries were well advanced in the application of the EU methodology. However, further work was still required in all cases and progress remained uneven. In particular, Estonia showed a degree of good practice, the Czech Republic, Hungary, Latvia, Malta, Poland, the Slovak Republic and Slovenia were well advanced in the application of the EU methodology, and significant work was still necessary in Bulgaria, Cyprus, Lithuania, Romania and Turkey.

The following issues raised particular concerns.

- While the exhaustiveness of general government statistics had been improved by integrating the activities of privatisation agencies and debt consolidation institutions as well as the quasi-fiscal activities of public enterprises and financial institutions, further work was still necessary to verify that reclassified revenue and expenditure items were completely and correctly taken into account.
- Despite a more extensive reliance on accrual figures, these often constituted only preliminary estimates. In many cases, the correct statistical treatment of large tax and social contribution arrears posed a particular challenge.
- There remained a need to determine with greater precision the component of budgetary support to the enterprise sector that constituted a transfer element.
- The classification of compulsory pension funds, either within the social security sub-sector of the general government or within the insurance sector, remained an open question.

Candidate countries notified new figures in April 2003. This new set of fiscal notifications is expected to show further progress in the quality and comparability of CC-13 government deficit and debt figures. However, this report could not take them into account as their assessment by the Commission services was still ongoing at the time of publication.

Growth, on the other hand, did not influence budgetary performances uniformly across countries. For instance, of the eight countries for which growth in 2002 turned out higher than envisaged in the PEP framework (see Table I.21), only five achieved a better than targeted budgetary balance ⁽¹⁾.

Looking ahead to 2003 and 2004, the Commission spring 2003 forecast envisages an improvement in the budgetary balances of eight countries, with particularly marked deficit reductions in the cases of Turkey, Hungary, the Slovak Republic and, to a more limited extent, Malta (see Table I.20). With Estonia projected to move from a surplus to a small deficit position, a relatively small deterioration is also expected in the case of Lithuania and Latvia. Relative to 2002, country positions would become less diverse with deficits ranging from 0.6 % of GDP in the case of Estonia to 6.9 % in Turkey.

⁽¹⁾ These were Bulgaria, Estonia, Lithuania, Romania and the Slovak Republic. A diverse picture also emerges if one compares budgetary performance with the difference between actual and projected nominal GDP growth.

Table I.20

General government balances in candidate countries

(% of GDP)

	Actual	Forecast			PEP target	
	2001	2002	2003	2004	2002	2004
CY	-3.0	-3.5	-4.0	-3.5	-2.6	-0.6
CZ	-5.5	-6.5	-6.3	-5.9	-6.4	-5.7
EE	0.5	1.3	-0.5	-0.6	-0.2	0.0
HU	-4.2	-9.1	-4.9	-3.7	-5.7	-3.0
LV	-1.9	-2.5	-2.9	-2.6	-1.8	-2.2
LH	-2.3	-1.8	-1.9	-2.0	-1.9	-1.6
MT	-7.0	-6.1	-5.2	-4.1	-5.2	-3.9
PL	-3.1	-4.2	-4.2	-4.0	-4.1	-3.3
SK	-5.4	-7.7	-5.3	-3.8	-7.8	-3.8
SI	-2.5	-1.8	-1.5	-1.2	-1.8	-1.0
AC-10	-3.7	-5.3	-4.4	-3.9	-4.7	-3.4
BG	0.4	-0.7	-0.6	-0.5	-0.8	-0.5
RO (1)	-3.3	-2.4	-2.4	-2.4	-2.7	-2.4
TR	-28.9	-13.7	-9.8	-6.9	-13.1	-2.9
CC-13	-12.4	-7.1	-5.7	-4.5	-6.6	-3.1

(1) For Romania: 2003 spring forecast adjusted to estimated ESA95 balance.

Source: Commission spring 2003 economic forecasts and 2002 PEPs.

Table I.21

GDP growth in candidate countries

(% p.a.)

	2002			Average 2003-04		
	Forecast	PEP	Difference	Forecast	PEP	Difference
CY	2.0	2.8	-0.8	2.9	4.6	-1.7
CZ	2.0	3.0	-1.0	3.3	3.8	-0.5
EE	5.6	4.3	1.3	5.0	5.8	-0.8
HU	3.3	4.0	-0.7	3.9	4.5	-0.6
LV	6.1	5.0	1.1	5.7	5.6	0.1
LH	5.9	4.7	1.2	4.7	5.4	-0.6
MT	3.0	3.3	-0.3	3.4	3.3	0.1
PL	1.3	1.0	0.3	3.1	4.0	-0.9
SK	4.4	3.8	0.6	4.1	4.2	-0.1
SI	3.0	3.6	-0.6	3.6	4.4	-0.8
AC-10	2.4	2.5	0.0	3.5	4.2	-0.7
BG	4.3	4.0	0.3	4.7	5.1	-0.4
RO	4.9	4.5	0.4	4.9	5.4	-0.4
TR	7.8	3.9	3.9	4.1	5.0	-0.9
CC-13	4.3	3.1	1.2	3.9	4.6	-0.7

Source: 2002 PEPs and Commission services.

According to the projections, six countries among the AC-10 would have a general government deficit above 3 % of GDP in 2004.

As a result of the trends outlined above, the Commission forecasts that all countries will miss the 2004 targets set out in the 2002 PEPs with the exception of Bulgaria, Romania and the Slovak Republic (see Table I.20). Targets would be missed by a particularly significant amount in the cases of Turkey, Cyprus and, to a much more limited extent, Hungary and Poland. Various factors drive these developments, including the slippage from the targeted adjustment path accumulated by several countries in 2002 and the worsening of economic prospects ⁽¹⁾. Moreover, in some cases like Latvia, governments have modified their medium-term budgetary targets following the submission of the 2002 PEPs. Finally, in the case of Turkey, less optimistic assumptions on the projected decline of interest rates explain a large part of the divergence between the Commission forecast and the PEP targets. More information on the latter is provided in the following section.

⁽¹⁾ For all countries except Latvia and Malta, the average growth rate over the 2003–04 period is projected to fall below that envisaged in the 2002 PEPs (see Table I.21).

4.2. Overview of the 2002 updates of the pre-accession economic programmes

4.2.1. Introduction

The examination of the second set of pre-accession economic programmes (PEPs) submitted by candidate countries within the framework of the pre-accession fiscal surveillance procedure (see Box I.3) was completed in November 2002.

Compared to the PEPs submitted for the first time by candidate countries in 2001, the 2002 updates revealed a good and improved effort to develop a consistent and credible medium-term macroeconomic framework. The programmes' information content and their comparability across countries was greatly enhanced by the presentation of data through standardised tables based upon those envisaged under the code of conduct for current Member States as well as by the provision of detailed estimates of fiscal variables in principle according to ESA95 methodology ⁽²⁾.

⁽²⁾ The only exception was Turkey which provided budgetary data based upon GFS methodology. Apart from Cyprus, Lithuania and Romania, all countries updated the estimates presented in the fiscal notification of April 2002.

Box I.3: The pre-accession fiscal surveillance procedure for candidate countries

In line with the call for the establishment of an annual fiscal surveillance for the candidate countries contained in the 1999 and 2000 accession partnerships, the so-called pre-accession fiscal surveillance procedure was established in 2001. The PFSP aims at preparing the candidate countries for the participation in the multilateral surveillance and economic policy coordination procedures currently in place in the EU as part of economic and monetary union.

As explained in European Commission (2002a), the PFSP has three components.

1. **The notification of budget positions** — requires candidate countries to report data on their general government deficits and debt in the same format as that used by existing Member States. Notifications are then evaluated by the Commission services in order to monitor the country's fiscal positions, determine compliance with ESA95 standards, and assess their quality as a basis for fiscal analysis.
2. **The pre-accession economic programmes** — are submitted on an annual basis by each candidate country for the Commission's evaluation. PEPs have two main aims. First, to outline the medium-term policy framework, including public finance objectives and structural reform priorities needed for EU accession. Second, they offer an opportunity to develop the institutional and analytical capacity necessary to participate in EMU with a derogation from the adoption of the euro upon accession, particularly in the areas of multilateral surveillance and coordination of economic policies.

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Box 1.3 (continued)

3. **The discussions in a multilateral context** — allow present and prospective Member States to jointly debate the fiscal notifications, the PEPs and their evaluation by the Commission. Discussions take place in two steps. First, at a high-level meeting between the member of the Economic and Financial Committee and their counterparts from candidate countries. Secondly, at a yearly ministerial meeting between Ecofin and their counterparts.

In this context, on 5 November 2002, ministers concluded, *inter alia*, that ‘sound and credible fiscal policy is crucial not only for coping with difficult economic policy choices, but also for enhancing confidence in the stability of the macro-economic policy framework. The weak fiscal positions of several acceding countries argue strongly for taking decisive steps towards sustainable fiscal consolidation in line with the EU’s fiscal surveillance procedures, *inter alia* so as to create room for private investment. Effective public expenditure management and efficient tax collection should be central elements of any consolidation programme. Long-term challenges due to ageing populations have also to be factored in’.

While all programmes reflected the main challenges ahead for the acceding countries, the degree of detailed analysis differed across countries and policy areas, as did the specificity and credibility of the medium-term economic and fiscal scenarios. A rather common problem was that the costs of structural reforms were insufficiently quantified and integrated in the budgetary framework. More generally, further analytical capacity-building still seemed required for all countries. More detailed information on the sources of fiscal risks, the budgetary costs of on-going reforms, the long-term sustainability of public finances and cyclically-adjusted budget balances also appeared to be needed.

4.2.2. Medium-term budgetary developments

The medium-term macroeconomic framework for the 2002 PEPs covers the period 2001 to 2005. For most countries, the framework envisages accelerating growth, declining inflation and persisting external imbalances (see Table I.22). Although growth projections were generally revised downwards relative to the 2001 PEPs in view of the deterioration in the international economic environment, growth is generally expected to accelerate in the period 2002–05 relative to 2001 ⁽¹⁾.

Against this background, and taking as a starting point the 2001 general government balances, most budgetary plans presented in the 2002 PEPs envisage an improvement by 2005, with nine countries planning to reduce their budget deficits by 2005, thus leading to a fall in the average deficit for both the CC-13 and the AC-10 (see Table I.23). Among the four remaining countries, Bul-

garia and Estonia plan to move from a small surplus to a balanced budget leaving only Latvia and the Czech Republic with a projected increase in the general government deficit over the programme period. In the case of the Czech Republic, in particular, the budget deficit was projected to increase from 5 % of GDP in 2001 to 5.5 % of GDP in 2005, after peaking at 6.4 % in 2002. In 2005, projected budget outcomes would vary from a balanced budget in Bulgaria and Estonia to a deficit of 5.5 % of GDP in the Czech Republic. Among the AC-10, only the Czech Republic and Malta refrained from targeting a deficit below 3 % of GDP in 2005.

Primary balances are also projected to improve over the programme period both on average and for the majority of individual countries. After being projected to worsen in eight cases over 2002, in fact, by 2005, primary balances are targeted to improve relative to 2001 for eight countries. The Czech Republic and Latvia would then be the only countries left running a primary deficit.

Compared to the 2001 PEPs, eight countries presented less ambitious budgetary paths in the 2002 updates, leading to a deterioration in the average deficit target for the AC-10 over the 2002–04 period. Among the factors underpinning these revisions, the reassessment of economic growth prospects does not seem to have played a consistently relevant role ⁽²⁾. Contrary to what one may expect, in fact, lower growth projections are met by higher deficit targets in only five cases out of nine (and to a significantly different degree in each of these).

⁽¹⁾ Even when a deceleration is expected, as in the cases of Latvia, Lithuania, and Romania, the average rate of growth is projected to remain above 5 %.

⁽²⁾ Other potential factors include: a worse starting position than originally targeted in the 2001 PEPs, methodological changes in the statistics for the general government sector, and, of course, changes in the political willingness to pursue the budgetary targets originally set out in the 2001 PEPs.

Table I.22

Macroeconomic projections in the 2002 PEPs

	Real GDP growth (Annual percentage change)			Consumer price inflation (Annual percentage change)		Current account balance (percentage of GDP)	
	2001	2002–05 ⁽¹⁾	Revision ⁽²⁾	2001	2005	2001	2005
	CY	4.0	4.2	-0.6	2.0	2.0	-4.3
CZ	3.3	3.7	-0.3	4.7	3.4	-4.6	-3.5
EE	5.0	5.5	-0.6	5.8	3.5	-6.1	-6.4
HU	3.8	4.6	-1.2	9.2	3.0	-2.2	-3.3
LV	7.7	5.5	-0.3	2.5	3.0	-9.7	-6.7
LH	5.9	5.3	0.3	1.3	4.1	-4.8	-7.0
MT	-0.8	3.4	0.1	2.9	2.4	-5.0	-2.4
PL	1.0	3.6	-0.3	5.5	3.1	-4.1	-5.7
SK	3.0	4.3	0.0	7.1	4.5	-8.6	-4.2
SI	3.3	4.4	-0.5	8.4	4.6	-0.4	0.2
AC-10	2.5	4.0	-0.4	5.9	3.3	-4.3	-4.6
BG	4.0	4.9	-1.4	7.4	3.5	-6.0	-5.2
RO	5.3	5.1	-0.2	34.5	8.0	-5.9	-3.5
TR	-7.4	4.7	n/a	54.4	9.8	2.3	-0.8
CC-13	-0.1	4.3	n/a	22.8	5.6	-2.6	-3.4

⁽¹⁾ Annual average over the period 2002–05.

⁽²⁾ Difference between the average rate of growth over the period 2002–04 in the 2001 and 2002 PEPs.

Source: 2001 and 2002 PEPs, Commission services.

Table I.23

General government balances in the 2002 PEPs

(% of GDP)

	Nominal balance				Primary balance			Cyclically-adjusted balance ⁽³⁾		
	2001	2005	Change	Revision ⁽²⁾	2001	2005	Change	2001	2005	Change
CY	-3.0	-0.3	2.7	-0.9	2.6	4.8	2.2	n/a	n/a	n/a
CZ	-5.0	-5.5	-0.5	-1.5	-3.8	-3.6	0.2	-5.3	-5.6	-0.3
EE	0.2	0.0	-0.2	0.6	0.5	0.3	-0.2	n/a	n/a	n/a
HU	-4.1	-2.5	1.6	1.7	0.2	0.7	0.5	n/a	n/a	n/a
LV	-1.6	-2.0	-0.4	-1.3	-1.0	-1.1	-0.1	-1.9	n/a	n/a
LH	-1.9	-1.5	0.4	-0.2	-0.2	0.0	0.2	n/a	n/a	n/a
MT	-7.0	-3.1	3.9	-0.1	-3.4	0.2	3.6	-6.8	-2.7	4.1
PL	-3.5	-2.2	1.3	-0.8	-0.6	1.5	2.1	-3.6	-2.6	1.0
SK ⁽¹⁾	-5.4	-2.0	3.4	-0.4	-2.0	0.4	2.4	-3.9	-2.7	1.2
SI	-2.5	-0.8	1.7	-0.7	-0.5	0.9	1.4	-1.8	0.9	2.7
AC-10	-3.8	-2.7	1.1	-0.5	-1.1	0.3	1.4	n/a	n/a	n/a
BU	0.4	0.0	-0.4	0.8	4.1	3.2	-0.9	n/a	n/a	n/a
RO	-3.4	-2.4	1.0	0.5	0.7	0.2	-0.5	-3.1	-2.3	0.8
TR	-15.1	-0.5	14.6	n/a	8.6	7.8	-0.8	n/a	n/a	n/a
CC-13	-6.6	-1.9	4.7	n/a	1.9	2.4	0.5	n/a	n/a	n/a

⁽¹⁾ Figures for the Slovak Republic refer to the first draft of its 2002 PEP because its officially revised draft did not include a full set of figures. The revised deficit target for 2005 equals 3.3 % of GDP.

⁽²⁾ Difference between annual averages over the 2002–04 period in the 2001 and the 2002 PEPs.

⁽³⁾ Countries' own estimates as presented in the 2002 PEPs.

Source: 2002 PEPs and Commission services.

Shedding more light on this issue would require reliable indicators of cyclically-adjusted balances, but only a few countries provided some preliminary estimates in this regard in their 2002 PEPs. Moreover, these figures still need to be interpreted with considerable caution. The institutional capacity to estimate cyclically-adjusted balances, in fact, is still being developed while short time series and strong structural changes make it difficult to isolate structural relationships. With the sole exception of the Slovak Republic, however, the estimates provided would indicate that the budget deficits recorded in 2001 were generally equal to the structural deficits. With the cyclical component of the budget playing a relatively small role in the planned adjustment, structural changes in revenue and expenditure would be required to achieve the targets set out in the 2002 updates.

In line with decreasing deficits and high nominal GDP growth, (see Table I.24) most countries expect their general government debt-to-GDP ratios to fall, and sharply so in the cases of Turkey and Bulgaria. The only significant exceptions are the Czech Republic and Poland where the debt-to-GDP ratio is projected to rise considerably by the end of the programme period. Nevertheless, according to the projections presented in the PEPs, by 2005, all countries would have a debt-to-GDP

ratio below 60 % except Malta and Turkey. In both of these cases, however, the ratio would be on a declining trend.

Table I.24

General government debt in the 2002 PEPs

(% of GDP)

	2001	2005	Change
CY	54.6	51.2	- 3.4
CZ	23.6	34.7	11.1
EE	4.8	3.7	- 1.1
HU	53.0	50.0	- 3.0
LV	15.9	18.0	2.1
LH	23.1	23.1	0.0
MT	65.3	61.1	- 4.2
PL	38.7	45.6	6.9
SK	43.0	38.1	- 4.9
SI	27.5	24.4	- 3.1
AC-10	36.9	40.9	- 4.1
BU	66.3	46.3	- 20.0
RO	23.3	26.0	2.7
TU	122.8	73.0	- 49.8
CC-13	59.9	48.3	- 11.6

Source: 2002 PEPs and Commission services. For the Slovak Republic, first version of the 2002 PEP.

Table I.25

General government revenue and expenditure in the 2002 PEPs

(% of GDP)

	Revenue			Expenditure		
	2001	2005	Change	2001	2005	Change
CY	40.5	42.2	1.7	43.5	42.5	- 1.0
CZ	42.1	41.3	- 0.7	47.1	46.8	- 0.3
EE	38.6	38.4	- 0.2	38.4	38.4	0.0
HU	46.1	42.5	- 3.6	50.2	45.0	- 5.2
LV	41.4	38.6	- 2.8	43.0	40.6	- 2.4
LH	34.2	36.1	1.9	36.1	37.6	1.5
MT	37.4	35.8	- 1.7	44.4	38.8	- 5.6
PL	41.8	42.2	0.4	45.3	44.5	- 0.8
SK	41.2	39.8	- 1.4	46.6	41.8	- 4.8
SI	43.1	42.5	- 0.6	45.6	43.3	- 2.3
AC-10	42.1	41.5	- 0.6	45.9	44.2	- 1.7
BU	40.6	35.0	- 5.6	40.3	35.0	- 5.3
RO	36.7	34.6	- 2.1	40.1	37.0	- 3.1
TU	42.1	40.1	- 2.0	57.2	40.6	- 16.6
CC-13	41.5	40.2	- 1.3	48.2	42.2	- 6.0

Source: 2002 PEPs and Commission services. For the Slovak Republic, first PEP version.

4.2.3. Composition of the adjustment

The 2002 PEPs show that most countries plan to reduce the size of the general government sector in terms of both revenue and expenditure ratios (see Table I.25). Averaging some 1.3 % of GDP, the planned reduction in revenues appears particularly sharp in the cases of Bulgaria, Hungary and Latvia. Only Cyprus, Lithuania and Poland foresee an increase in revenues over the programme period. As regards the composition of these changes, a number of countries, including Bulgaria, Hungary, Latvia and Lithuania, expect a significant cut in tax receipts, often due to sizeable reductions in direct taxes, and company taxation in particular. Being bound by specific *acquis* provisions, the changes in indirect taxes are more limited ⁽¹⁾.

With the planned reduction in the revenue ratio tending to increase budget deficits, the targeted improvements in budgetary balances generally hinge upon a relatively

sharper reduction in the expenditure ratio (see Table I.25). All countries programme a reduction in their expenditure ratio with the exception of the two with the lowest ratio in 2001, that is, Estonia and Lithuania. Reduction targets appear particularly ambitious in the case of Bulgaria, Hungary, Malta and the Slovak Republic — each aiming to cut outlays by some 5 % of GDP — and Turkey.

Turkey, however, constitutes a special case as the planned cut in the expenditure ratio by nearly 17 percentage points of GDP is almost fully accounted for by the dramatic fall in interest payments expected to follow the normalisation of its macroeconomic situation. In the other countries, instead, planned budgetary retrenchment is driven in most cases by cuts in current expenditures, and collective consumption in particular (see Table I.26 and Graph I.10).

Most of the PEPs also envisage a gradual reduction in subsidies but only marginally in the Czech Republic, Hungary and Poland, that is, three of the five countries where in 2001 subsidies amounted to more than 2 % of GDP. With the sole exception of Poland and, to a lesser

⁽¹⁾ Most of the adjustments required by the *acquis* in the area of VAT have already been made, whereas in many countries there is still further need for adjustment in the area of certain excise duties (such as for tobacco).

Table I.26

Composition of general government expenditure in the 2002 PEPs

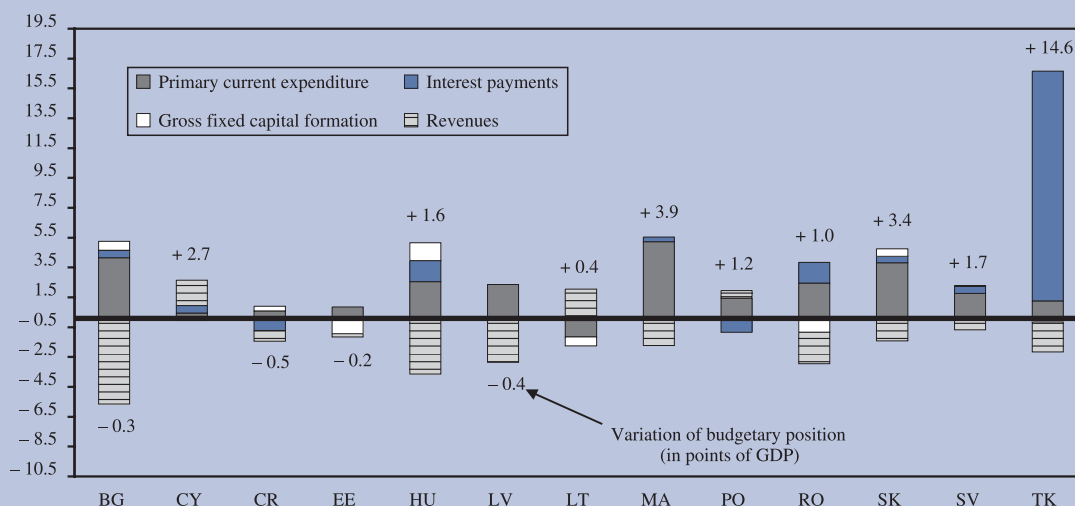
(% of GDP)

	Collective consumption			Social transfers			Subsidies			Gross fixed capital formation			Others, including interest		
	2001	2005	Change	2001	2005	Change	2001	2005	Change	2001	2005	Change	2001	2005	Change
CY	9.7	7.8	-1.9	14.9	15.7	0.8	1.6	0.6	-1.0	3.7	3.7	0.0	13.6	14.7	1.1
CZ	8.1	8.1	0.0	24.5	24.5	0.1	2.8	2.6	-0.2	5.0	4.7	-0.3	6.8	7.0	0.2
EE	20.2	19.3	-0.9	11.1	10.9	-0.2	0.8	1.0	0.2	3.4	4.3	0.9	2.9	2.9	0.0
HU	10.1	8.2	-1.9	21.4	23.4	2.0	2.9	2.4	-0.5	5.1	3.9	-1.2	10.7	7.1	-3.6
LV	8.4	n/a	n/a	22.9	n/a	n/a	1.1	n/a	n/a	4.1	n/a	n/a	6.5	n/a	n/a
LH	7.2	8.1	0.9	22.7	23.3	0.6	0.7	0.7	0.0	2.2	2.8	0.6	3.3	2.7	-0.6
MT	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PL	7.2	6.6	-0.6	25.1	23.5	-1.6	2.5	2.4	-0.1	2.6	2.5	-0.1	7.9	9.5	1.6
SK	10.0	8.0	-2.0	18.6	19.4	0.8	1.2	1.0	-0.3	2.7	2.2	-0.5	14.0	11.8	-2.3
SI	8.1	7.4	-0.6	18.0	17.3	-0.7	1.4	1.3	-0.1	2.5	2.4	0.0	15.7	14.9	-0.9
AC-10 ⁽¹⁾	8.3	7.6	-0.8	23.1	22.7	-0.4	2.4	2.2	-0.2	3.4	3.1	-0.3	8.8	8.8	0.0
BU	9.8	8.2	-1.6	14.2	14.2	0.0	2.4	1.3	-1.1	3.5	2.9	-0.6	10.4	8.4	-2.0
RO	6.3	5.3	-1.0	9.9	9.9	0.0	2.1	1.6	-0.5	3.2	4.0	0.8	18.6	16.2	-2.4
TU	17.5	16.2	-1.3	9.1	9.0	-0.1	0.9	1.0	0.1	4.2	4.3	0.1	-31.7	-30.5	1.2
CC-13 ⁽¹⁾	10.7	9.7	-1.0	17.6	17.3	-0.3	1.9	1.7	-0.2	3.6	3.5	-0.1	-1.3	-1.3	0.0

⁽¹⁾ Weighted averages excluding Latvia and Malta.

Source: 2002 PEPs and Commission services. For the Slovak Republic, first PEP version.

Graph I.10: Contributions to change in budgetary position 2001–05 ⁽¹⁾ (in points of GDP)



⁽¹⁾ Source: 2002 updates of the pre-accession economic programmes. A positive value indicates a positive contribution to the change in budgetary position. A positive value for the total variation of the budgetary position (figure presented in bold) implies an improvement of the balance. For LV, primary current expenditure refers to total expenditure as no data were provided for interest payment and gross fixed capital formation in 2005. For MA, no data available on gross fixed capital formation.

extent, Slovenia, social transfers ⁽¹⁾ would not be cut significantly in any country and would actually increase quite markedly in Hungary. Apart from the latter, public investment would be mostly shielded from expenditure cuts with the (unweighted) average public investment ratio remaining around 3.5 % of GDP ⁽²⁾. Over the 2002–05 period, the average ratio of government gross fixed capital formation to GDP would be above 4 % in the case of the Czech Republic, Estonia, Hungary and Turkey.

4.2.4. Other considerations

When viewed against the rigidity of primary expenditure recorded in the past ⁽³⁾, the fall in expenditure ratios required to achieve the deficit and revenue reduction targets of the 2002 PEPs highlight the difficult task faced by the authorities in implementing their fiscal plans. Compounding this challenge and arguably weakening

the programmes' credibility, expenditure cuts are back-loaded in a large majority of the PEPs. In only three cases, expenditures are expected to be already cut in 2002 and only Hungary, Malta and Romania aim to achieve a large share of total expenditure adjustment in 2003. In seven cases, half or more of the total expenditure cuts would have to be implemented in 2004 and 2005. In addition, as shown in Section 1.2, the Commission 2003 spring forecast indicates that 11 countries out of 13 would fail to meet the PEP budgetary goals for 2004. An even larger adjustment than planned in the 2002 PEPs would therefore have to be implemented in 2005 to achieve the programmes' end-targets.

Quite apart from the possibility of partial implementation, a wide range of risks to countries' budgetary plans are identified in the 2002 PEPs, most of which stress the danger posed by government's off-budget liabilities. In terms of overall stocks of guarantees, these seem to be relatively high in Malta and Romania, moderate in Cyprus, the Czech Republic, Hungary, Lithuania and Slovenia, and relatively low in the other countries for which information is provided. Of course, the assessment of underlying fiscal risks cannot rely solely on the level of the existing stock of guarantees. Yet, only a few

⁽¹⁾ In kind and other than in kind.

⁽²⁾ In Hungary, cuts in gross fixed capital formation (from 5.1 % of GDP in 2001 to 3.9 % of GDP in 2005) would account for nearly a quarter of the planned reduction in the expenditure ratio. However, Hungary's public investment ratio was the highest among accession candidates in 2001 and would remain above the (unweighted) average for the group in 2005.

⁽³⁾ See World Bank (2002).

countries provided information on the estimated annual budgetary impact stemming from these contingent liabilities, making this a key area for the provision of further information in the next PEP updates ⁽¹⁾.

This also applies to the assessment of the long-term sustainability of acceding countries' public finances. For the first time in 2002, countries were asked, on a voluntary basis, to provide data in this regard along the format provided for Member States' convergence and stability programmes. Only very few countries, however, provided (incomplete) data.

⁽¹⁾ As for the other identified risks, these appeared to be more country-specific. Lithuania, for instance, highlighted additional risks linked to hard-to-predict remaining costs of the transition process such as those stemming from the restitution of savings and real estate ownership rights, the debts of State-owned enterprises, and the decommissioning of the Ignalina nuclear power plant. Restitution issues could also represent a significant share of GDP under the most pessimistic scenarios presented in the Polish PEP. Romania identified policy failures, linked to the non-elimination of quasi-fiscal deficits or to additional bank bailouts, as the main fiscal risk.

Almost all countries, however, identified the reform of the pension system as one of the key domestic policy areas linked to medium-term fiscal sustainability. In most cases, in fact, long-term demographic projections suggest that the first (compulsory non-funded) pillar of the pension system would become overburdened, thus constituting a source of medium-term budgetary risks. In view of this trend, all countries either intend to reform their first pillar, or have recently done so, notably by matching individual benefits more closely to individual past contributions and, in some cases, by raising the retirement age or by adjusting pension indexation rules. About half of the candidate countries have introduced a multi-pillar pension system with several others planning to do so (see Table I.27) ⁽²⁾.

⁽²⁾ Healthcare reform is another area high on the agenda in most countries, with considerable implications for the long term sustainability of public finances. Planned and on-going reforms often include the introduction of a mixed public-private model for insurance and health services provision.

Table I.27

Main measures in the PEPs concerning pension reform

	Introduction of mandatory funded-pillar	Planned reforms
Bulgaria	√	Balance 1st pillar by 2007 Increase contribution compliance
Cyprus	√	Increase contribution to 1st pillar in framework of tax reform
Czech Republic	×	Reform planned, but no details in PEP
Estonia	√	None; new lower estimates of costs of introduction of 2nd pillar scheme on 1st pillar scheme
Hungary	√	Increase contribution rate to 2nd pillar Make 2nd pillar compulsory for new entrants
Latvia	√	Increase retirement age further
Lithuania	×	Introduction of 3 pillar system planned in 2004
Malta	×	Reform 1st pillar planned
Poland	√	Administrative and legal changes to 1st pillar and interaction with 2nd pillar
Romania	×	Introduction of 3 pillar system is being discussed
Slovak Republic	×	Parametric reforms of 1st pillar Introduction of 3 pillar system planned, privatisation revenue planned to fund transition cost
Slovenia	×	None
Turkey	×	None

Part II

Evolving budgetary surveillance

Summary

The year 2002 and the early part of 2003 has been a difficult period as regards the implementation of the EU framework for fiscal surveillance. With nominal deficits breaching the 3 % of GDP reference value, Germany and Portugal have been placed in excessive deficit positions. An early-warning was issued to France in January 2002, but subsequent data revealed that a nominal deficit of 3.1 % of GDP was recorded in 2002, and the Commission has consequently recommended that France be placed in an excessive deficit position.

A number of lessons can be drawn from these first experiences with the enforcement mechanisms of the Treaty and SGP. Firstly, the credibility in the rules-based framework was not aided by the Council's failure to issue an early-warning in February 2002 to Germany and Portugal: the recent experience with France further underlined the need for early-warnings to be sent well before nominal deficits are close to 3 % of GDP. Secondly, the repeated upward revisions of deficits underlined the importance of strengthening the process of collection and verification of budgetary statistics. Thirdly and on a positive note, surveillance at EU level (with its binding deadlines for reporting data and the role of the Commission in providing a neutral assessment of compliance with agreed budgetary targets) has prompted debates at Member State level on the need to face up to difficult budgetary policy challenges. In the case of Portugal and Germany, action at EU level has arguably facilitated the introduction of painful reforms necessary to prevent public finances from entering unsustainable paths: the French authorities, however, have to date failed to take measures to address the growing budgetary imbalances despite these becoming apparent already in mid-2002.

In response to these developments, and in line with a mandate from the Barcelona European Council conclusions, the Commission adopted a communication on strengthening coordination of budgetary policies. It identified a number of shortcomings with the implemen-

tation of the SGP in the first four years of EMU and outlined a strategy that called for more account to be taken of underlying economic conditions when assessing budgetary positions, an interpretation of compliance with SGP requirements which would (depending on country-specific circumstances) cater for the budgetary impact of reforms that enhance growth and employment, increasing the emphasis placed on the sustainability of public finances and outstanding debt positions, and improving the implementation of the SGP including stricter and more timely recourse to the existing enforcement instruments. At the same time, the Commission adopted proposals to improve the governance of budgetary statistics.

The spring European Council of March 2003, endorsed a report of the (Ecofin) Council which shared many of the Commission's proposals on strengthening the coordination of budgetary policies. It confirmed that the achievement of a budget position of 'close to balance or in surplus' is in the economic self-interest of Member States both individually and collectively. In addition, the Council agreed that compliance with the 'close to balance or in surplus' requirement should be assessed in cyclically-adjusted terms with due account taken of one-off budgetary measures which only have a transitory impact on budget positions. For euro-area countries, agreement was reached that Member States with deficits should achieve an annual improvement in the cyclically-adjusted budget deficit of at least 0.5 % of GDP until the 'close to balance or in surplus' requirement is reached. It underlined the need for automatic stabilisers to operate symmetrically over the economic cycle and the particular importance of avoiding a pro-cyclical loosening of fiscal policies in good times. The Council also confirmed the importance of running down public debt at a satisfactory pace towards the 60 % of GDP reference value and that the existing provisions of the Treaty (that is, the debt criterion of the excessive deficit procedure) can contribute to achieving this goal.

A debt-to-GDP ratio below 60 % (or on a decreasing path) is warranted to ensure that public finances are on a sustainable footing in the light of the projected budgetary impact of ageing populations. In addition, the reduction of government debt will create room to pursue other economic and social goals, in particular to enhance economic growth. High debt levels also leave the credit standing of the country vulnerable to unfavourable economic circumstances. The challenge now is to operationalise the debt criterion of the EDP. When assessing debt developments, careful attention should be devoted to all the factors which determine its dynamics so as to evaluate to what extent debt developments are due to factors outside the immediate control of governments. It is indeed essential to avoid a too mechanistic approach to assess compliance with the debt criterion

Budgetary statistics are the foundation of the EU fiscal surveillance tools and their quality has improved considerably over the last decade. Government accounts are now more reliable, complete, transparent and detailed, and are published in a much more timely fashion than when the excessive deficit procedure was set up. However, some weaknesses remain: in several countries, data on govern-

ment deficit and debt ratios are not yet as reliable as they should be and are subject to large revisions. Furthermore, the government accounts of several Member States are not fully transparent, and there have been problems in terms of their timely submission. These concerns are clearly amplified with the perspective of enlargement. To address outstanding challenges, the (Ecofin) Council recently agreed to implement a code of best practice. From the Member States' side, this involves increasing the transparency of government accounts, in particular for the lower government subsectors, the strict respect of deadlines, and an overall increase in data quality, but also a clarification of the independence statute of the national statistical offices as the main compilers of government data. The Commission (Eurostat) is aiming at reinforcing its ability to scrutinise the Member States' government accounts in more detail, and accelerating the decision-making process for deciding upon the recording of government transactions. The new steps to compile quarterly budgetary statistics is a major challenge for statisticians, but also for economists, policy-makers and budgetary policy analysts who will need to interpret quarterly data with due care, since these will necessarily be more volatile and perhaps less transparent than annual data.

1. Implementing the Stability and Growth Pact

1.1. Introduction

The fiscal framework of EMU aims at combining budgetary discipline with flexibility through two main requirements. These are the Treaty requirement to avoid excessive deficit positions (measured against reference values for deficits and debt of 3 and 60 % of GDP respectively), and the requirement of the SGP to achieve and maintain a budgetary position ‘close to balance or in surplus’ over the cycle. Compliance with the ‘close to balance or in surplus’ requirement secures fiscal discipline and the sustainability of public finances, and thus contributes to maintaining an economic environment in which monetary policy can effectively pursue price stability. It also provides the necessary room for manoeuvre to allow the automatic stabilisers to play freely. The rules-based framework of the Treaty and SGP consists of both preventive and dissuasive elements, both of which are backed up with enforcement procedures.

The deterioration in the budget positions has required the Commission and Council to apply the various enforcement mechanisms of the Stability and Growth Pact (SGP) against several Member States during 2002 and the early part of 2003. Against a background of slow economic growth, this has led to considerable tension in the Council. The discussions on the implementation of the SGP generated negative reactions in the press and markets, and in part motivated the Commission proposals to strengthen the coordination of budgetary policies in November 2002 ⁽¹⁾.

The remainder of this chapter summarises the debate on the implementation of the SGP since spring 2002 ⁽²⁾.

⁽¹⁾ COM(2003) 668 final. See Chapter II. for a discussion of the communication.

⁽²⁾ Part II.2 in last year’s report summarises the debate on the Commission’s recommendation of February 2002 for ‘early-warnings’ to be sent to Germany and Portugal.

Section 2 describes the enforcement mechanisms provided for in the Treaty and the SGP regulations ⁽³⁾. Section 3 examines the specific cases of the three Member States (Portugal, Germany and France) where the Council has already taken action in the framework of the excessive deficit procedure.

1.2. The enforcement mechanisms of the SGP

1.2.1. The preventive part of the Pact

Under the preventive arrangements of the Pact, Member States submit annual stability or convergence programmes in which they set down their short and medium-term budgetary strategies to reach and sustain budget positions that are ‘close to balance or in surplus’. The programmes are subject to peer review and monitoring by the Commission and Council, with a view to identifying any ‘significant divergence’ either from the medium-term budget target or the adjustment path towards it. This surveillance not only consists of verifying whether nominal budgetary targets are met, it also involves a close examination of the underlying budget position taking account of cyclical economic conditions.

If the Council identifies such a significant divergence from a budget target, it shall address a recommendation to the Member State concerned with a view to give an early warning in order to prevent the occurrence of an excessive deficit. The Council recommendation is adopted by qualified majority on the basis of a Commission recommendation following the procedure outlined in Article 99(4) of the Treaty and Articles 6 and 10 of

⁽³⁾ For a more detailed description see Cabral (2001), Costello (2001), and Fischer and Giudice (2001).

Council Regulation (EC) No 1466/97 ⁽¹⁾. A second recommendation to take prompt corrective measures can be addressed to the Member States concerned if the Council judges that the divergence is persisting or worsening.

Council Regulation (EC) No 1466/97 does not define what constitutes a 'significant divergence' from budgetary targets or the conditions under which the early-warning mechanism is to be activated. To ensure consistency, the Commission has developed and used the following three factors in deciding whether to activate the early-warning mechanism:

- the size of the budgetary slippage, that is, the extent to which budget positions diverge from the targets set down in stability or convergence programmes;
- the reason for the budgetary slippage, that is, whether the divergence of actual balances from the target can be explained by cyclical or discretionary factors;
- the risk of an excessive deficit position that is, whether there is a risk of breaching the 3 % of GDP reference value.

These criteria distinguish between slippage from budgetary targets in nominal and cyclically-adjusted terms, and reflect whether or not a country has reached the medium-term target of the SGP. In brief, more leeway is afforded to countries with sound budget positions. An early-warning, however, can be issued even if the nominal deficit is some way below the 3 % of GDP reference value. To date, recourse has only been made to the early-warning mechanism when deficits were well above 2 % of GDP, and experience with Portugal, Germany and France has shown that this is likely to be too late to prevent deficits from going above 3 % of GDP.

1.2.2. The dissuasive elements of the Pact

The dissuasive elements of the SGP are set down in Article 104 which requires all Member States to avoid excessive government deficits ⁽²⁾. Under the excessive deficit procedure (EDP), the Commission monitors budgetary

developments and examines compliance with budgetary discipline on the basis of two criteria, that is, 'whether the ratio of the actual or planned government deficit to gross domestic product exceeds a reference value [3 % of GDP]' and 'whether the ratio of government debt to gross domestic product exceeds a reference value [60 % of GDP], unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace'.

The EDP is a complicated procedure involving several steps. Article 104(3) states 'If a Member State breaches one or both of these criteria, the Commission shall prepare a report'. This report shall 'take into account whether the government deficit exceeds government investment expenditure and take into account all other relevant factors, including the medium-term economic and budgetary position of the Member State'. After the Commission adopts such a report, the EFC must give its opinion thereon within two weeks. As of this point, three possible courses of action are possible.

- the Commission could decide that there is neither a risk nor existence of an excessive deficit position, and the procedure would then stop;
- the Commission could address an opinion on the risk of an excessive deficit position in accordance with Article 104(5). The Treaty does not specify the precise conditions as to what constitutes a risk of an excessive deficit, but the most clear-cut scenario is a forecast (either Commission or of the national authorities) projecting a deficit level above 3 % of GDP reference value ⁽³⁾. The Council is not required to vote on the Commission's opinion, and the procedure comes to a halt at this stage. It would only be reactivated if subsequent outcome data confirms that the 3 % of GDP reference value has indeed been breached;
- the Commission could adopt an opinion in accordance with Article 104(5) on the existence of an excessive deficit position. The Council is then required to vote by qualified majority on whether an excessive deficit position exists in accordance with Article 104(6). To be placed in an excessive deficit

⁽¹⁾ OJ L 209, 2.8.1997. In addition to these legal obligations on the early-warning mechanism, the Commission, Member States and Council gave a strong political commitment to the 'strict and timely' implementation of the SGP in the resolution of the Amsterdam European Council on the Stability and Growth Pact (OJ C 236, 2.8.1997).

⁽²⁾ Under the provisions of its opt-out protocol, the UK is not required to avoid excessive deficit positions but rather must endeavour to do so.

⁽³⁾ However, a forecast deficit above the 3 % of GDP reference is not a prerequisite requirement for the activation of the EDP. Article 104(3) states that 'The Commission may also prepare a report if, notwithstanding the fulfilment of the requirements under the [deficit and debt], it is of the opinion that there is a risk of an excessive deficit position'.

position, outcome data must show that the reference values have indeed been breached. The rationale behind waiting for the outcome data is that being placed in an excessive deficit position has potentially serious consequences for a Member State, for example, the possibility of negative reactions by markets resulting in a higher risk premium on debt; it could prevent a country from joining the euro zone; it could eventually lead to the imposition of

financial sanctions on euro-area countries in breach of its obligations.

At the same time as it decides upon the existence of an excessive deficit position, the Council must also adopt a recommendation to the Member State concerned (in accordance with Article 104(7)) with a view to bringing the situation to an end within a given period. Article 3(4) of Council Regulation (EC) No 1467/97 specifies that

Box II.1: What constitutes an ‘exceptional circumstance’ under the excessive deficit procedure

A nominal deficit above 3 % of GDP does not imply a country is automatically placed in an excessive deficit position, as the Treaty and SGP regulations provide some room for interpretation to take account of ‘exceptional circumstances’. Article 104(2) of the Treaty states that a Member State with a deficit to GDP ratio over 3 % is in an excessive deficit position unless ‘... the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value’. Against the background of the current economic slowdown and the effects of war in the Gulf, the question has been raised as to whether countries could make recourse to this exceptionality clause to avoid being placed in an excess deficit position.

Before addressing this question directly, it should be noted that any breach must be at the same time exceptional and temporary and close to the reference value, that is, the conditions are cumulative and thus recourse to this Treaty provision is restricted to a very limited number of cases. Moreover, the issue of exceptional circumstances only arises when the Commission and Council are deciding upon the existence of an excessive deficit position in accordance with Article 104(6) of the Treaty. There is no scope for the Council to give an *ex ante* exemption to any Member State allowing to breach the 3 % of GDP reference value for deficits. Neither could it be applied retroactively to countries such as Portugal and Germany which are already in excessive deficit positions.

Article 2(1) of Council Regulation (EC) No 1467/97 provides some further clarification on what constitutes an exceptional circumstance. The excess of a government deficit over the reference value shall be considered exceptional when ‘resulting from an unusual event outside the control of the Member State concerned and which has a major impact on the financial position of the general government or when resulting from a severe economic downturn’.

A priori the direct costs of participation in a military conflict could be regarded as an ‘unusual event outside the control of the Member State concerned’ together with costs of additional security measures. However, it would need to be backed up with evidence that these have had a ‘a major impact on the financial position of the general government’ and thus are a major contributory factor to the deficit level rising above 3 % of GDP. Clearly, this argument would not apply to deficits going above 3 % of GDP in 2002.

A more pertinent issue is whether the economic situation constitutes a ‘severe economic downturn’. Article 2(1) of Council Regulation (EC) No 1467/97 establishes a general rule whereby a severe downturn is considered exceptional if ‘there is an annual fall of real GDP of at least 2 %’. The Member State concerned can demonstrate that even a fall of annual real GDP of less than 2 % is ‘nevertheless exceptional in the light of further supportive evidence, in particular on the abruptness of the downturn or on the accumulated loss of output relative to past trends’. In the resolution of the European Council on growth and employment, Member States committed not to invoke the exceptional clause if GDP fall is less than – 0.75 %.

Based on the spring 2003 Commission forecast, a loss in output of 0.75 % is not projected in any Member State and therefore there is currently no case for considering recourse to the exceptionality clause. However, it could become relevant if growth in some countries turns out to be substantially lower than is currently forecasted.

this recommendation must contain two deadlines. Firstly, a deadline of four months at the most must be established for the Member State to take effective action. In addition, a deadline must be established for the correction of the excessive deficit position, which ‘... should be completed in the year following its identification unless there are special circumstances’. It is worth highlighting the fact that the initial requirement on the Member State concerned is to take corrective action rather than in achieving immediate results. As such, the willingness of the Member States to respond to the reprimand of the Council is of critical importance. The failure to take corrective actions would trigger the next stage of the EDP and move the Member State closer to the stage when it may receive sanctions.

1.3. The use of enforcement mechanisms since spring 2002 ⁽¹⁾

1.3.1. Slippage from budget targets in many Member States

Throughout 2002, concern grew about the deterioration in budget positions in several Member States participating in the euro area. Table II.1. compares the budget outcomes for 2002 projected by the Commission in autumn

⁽¹⁾ For documents concerning these procedures, see the section on fiscal surveillance on the web site of the Directorate-General for Economic and Financial Affairs: http://europa.eu.int/comm/economy_finance/about/activities/sgp/procedures_en.htm.

Table II.1

Comparison of growth and budgetary developments for 2002 between autumn 2002 Commission forecasts and the 2001 updates of the programmes

% of GDP	GDP growth in 2002 (% p.a.)		Budget balance in 2002 (excluding UMTS) (% of GDP)				Difference from SP/CP budget target (% of GDP) due to:		
	SP/CP	COM forecast	SP/CP target	EDP notification	COM forecast	Difference COM – SP/CP	Impact of cyclical conditions in 2002	Non-cyclical factors in 2002	p.m. cyclical and non-cyclical factors in 2001
	1	2	3	4	5	6 = 5 – 3	7	8 = 6 – 7	9
BE	1.3	0.7	0.0	0.0	-0.1	-0.1	-0.1	0.1	0.2
DE	0.8	0.4	-2.5	-2.9	-3.8	-1.3	-0.1	-1.2	-0.3
EL	3.8	3.5	0.8	0.8	-1.3	-2.1	0.0	-2.1	-1.8
ES	2.4	1.9	0.0	0.0	0.0	0.0	-0.2	0.2	-0.1
FR	1.5	1.0	-1.8	-2.6	-2.7	-0.9	-0.1	-0.8	-0.1
IE	3.9	3.3	0.7	-0.1	-1.2	-1.9	-0.2	-1.7	0.2
IT	2.3	0.4	-0.5	-1.1	-2.4	-1.9	-0.7	-1.2	-1.1
LU	5.3	0.1	2.8	1.3	0.5	-2.3	-1.9	-0.3	2.0
NL	1.3	0.2	0.4	-0.5	-0.8	-1.2	-0.6	-0.5	-0.6
AT	1.3	0.7	0.0	-1.3	-1.8	-1.8	0.0	-1.7	0.2
PT	1.8	0.7	-1.8	-2.8	-3.4	-1.6	-0.3	-1.3	-2.0
FI	1.6	1.4	2.6	3.6	3.6	1.0	-0.2	1.2	0.1
EUR-12	1.8	0.8	-1.1	-1.7	-2.3	-1.1	-0.5	-0.6	-0.4
DK	1.7	1.7	1.9	2.1	2.0	0.1	0.0	0.2	0.2
SE	2.4	1.6	2.1	1.8	1.4	-0.7	-0.3	-0.4	0.2
UK	2.3	1.6	-1.1	-1.0	-1.1	0.0	-0.4	0.4	0.9
EU-15	1.8	0.9	-1.0	-1.4	-1.9	-0.9	-0.4	-0.5	-0.2

NB: SP/CP = stability/convergence programmes submitted in Autumn 2001, EDP notification = September 2002; COM = autumn 2002 Commission forecasts; Impact of cyclical conditions: shortfall = - ; bonus =

Source: European Commission.

2002, with the targets set down in the 2001 updates of stability and convergence programmes, that is, the information which was available to ministers in late 2002 when key decisions on the implementation of the SGP had to be taken. Significant slippage from budget targets was evident in a large number of countries, although the concern was focused on countries where deficits emerged. Eventually, the Council took action against three countries (Germany, France and Portugal) although the deficits in Greece, Italy and Austria also gave cause for concern.

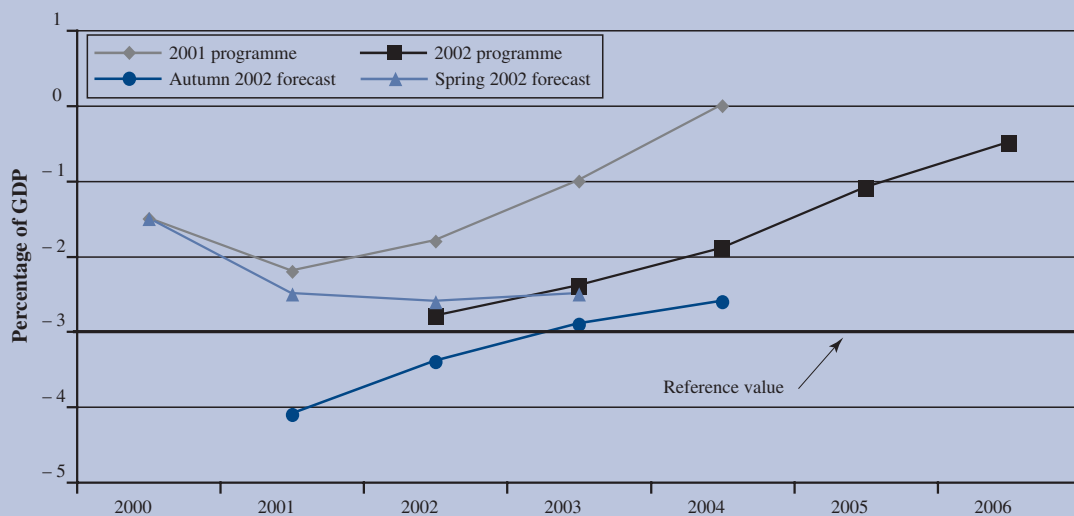
As shown on column 8 of Table II.2., approximately half of the deterioration in budget positions projected for 2002 was due to the automatic stabilisers in response to economic cycle. Non-cyclical factors such as unfunded tax cuts, discretionary expenditure increases and spending overruns also contributed to the slippage. This indicates a reversal in some Member States of budgetary consolidation efforts. In several Member States, however, most of the deviation from the 2002 target resulted from the slippage that had already occurred by the end of 2001 (see column 9).

1.3.2. Portugal

On 5 November 2002, the Council decided that an excessive deficit existed in Portugal, the first time the EDP was applied since the launch of the euro in 1999 ⁽¹⁾. Budget difficulties in Portugal had been apparent for some time ⁽²⁾, and in January 2002 the Commission adopted a recommendation that an early-warning be sent to Portugal for having missed its budget target for 2001 by a wide margin. At that time, the Commission (on the basis of its autumn 2001 forecast) was projecting a deficit of 2.2 % of GDP for 2001 compared with a target of 1.1 % of GDP set down its stability programme, see Graph II.1. The Ecofin Council at its meeting of 12 February 2002, however, decided not to endorse the Commission recommendation for an early-warning. This followed commitments given by the Portuguese authorities to endeavour to prevent the deficit from going above the 3 % of GDP reference value in 2002.

⁽¹⁾ Council Decision 2002/923/EC, OJ L 322/30.
⁽²⁾ See Part II.2 in European Commission (2002a).

Graph II.1: Budgetary divergence from target in Portugal



On 25 July 2002, the Commission received official confirmation from the Portuguese authorities that the general government deficit in 2001 was to be revised upwards from 2.2 % of GDP (reported in February 2002 EDP notification) to 4.1 % of GDP, an upward revision of 1.9 percentage points of GDP ⁽¹⁾. This revision followed the submission of a report by a special task force called the Commission for the Analysis of Public Accounts established by the Portuguese Government under the direct responsibility of the Governor of the Bank of Portugal. This task force, set up following the non-acceptance by Eurostat of budgetary data notified in March 2002, was made up of representatives from the Ministry of Finance, Bank of Portugal and the National Institutes of Statistics.

The size of this *ex-post* revision and the delay in it coming to light underlined serious deficiencies in the collection and processing of general government statistical data in Portugal. A breakdown of the revised outcome for data for 2001 shows that the difference of 1.9 percentage points of GDP was due in almost equal parts to the reclassification of certain items in government accounts ⁽²⁾ to bring them in line with the Eurostat definitions and due to a slippage in budgetary execution.

A deficit of 4.1 % of GDP in 2001 was confirmed in the Portugal's submission by 1 September 2002 under the semi-annual reporting of government deficits and debt levels, and the Commission activated the EDP by preparing, on 24 September 2002, a report in accordance with Article 104(3) of the Treaty. In this report, the Commission drew attention to the failure on the part of Portugal to achieve budgetary consolidation since the mid-1990s, and that the deterioration in the budget balance could not be explained by the cycle as the cyclically-adjusted budget deficit had risen from 3 % of GDP in 1999 to 4.5 % of GDP in 2001 (using the HP filter method). On the revenue side, the shortfall derives from the losses implied by the reform of direct taxes implemented in 2001 and lower-than-projected efficiency gains in tax

collection and administration. At the same time, current primary expenditures continued to grow faster than nominal GDP, with the public sector wage bill and social transfers repeatedly surpassing targets set by the government. The Commission also concluded that the breach of the 3 % of GDP reference value could not be attributed to a severe economic downturn (that is, the exceptionality clause could not apply). Moreover, the increase in the deficit in 2001 could not be attributed to public investment as this remained constant at some 4 % of GDP over the 1999 to 2001 period.

Table II.2

Breakdown of revision of 2001 budget balance of Portugal

Reclassification of some operations as subsidies instead of capital injections	0.2
Recording of expenditure arrears from commitments made in 2001	0.3
Application of regulation EC/2516/2000	0.6
Recording of receipts associated with EC structural funds	-0.1
New information on budgetary execution	0.9
Total	1.9

Source: Portuguese Commission for the Analysis of public Accounts.

The Economic and Financial Committee confirmed these findings, and on the basis of an opinion and a recommendation proposed by the Commission adopted on 16 October 2002, the Council decided upon the existence of an excessive deficit. It also adopted a recommendation with a view to bringing the situation to an end ⁽³⁾. As required, two deadlines were set down in this recommendation: (i) a deadline of 31 December 2002 was set for the Portuguese authorities to take measures to correct the excessive deficit position; (ii) a deadline for the correction of the excessive deficit position, which should be completed in the year following its identification; this is understood as being the end of 2003.

The response of the Portuguese authorities began before the Council had decided upon the existence of an excessive deficit position (for more details see Part VI.12 on Portugal). The newly elected government enacted a rectifying budget which became law in June 2002. It

⁽¹⁾ The impact of this upward revision for 2001 on the budgetary position for 2002 is evident on column 9 of Table II.1 above.

⁽²⁾ Regulation EC/2516/2000 requires that taxes and social contributions recorded in the accounts may be derived from two sources: amounts evidenced by assessment and declarations or cash receipts. If assessments and declarations are used, the amounts shall be adjusted by a co-efficient reflecting assessed and declared amounts never collected. If cash receipts are used, they must be time-adjusted so that the cash is attributed when the activity took place to generate a liability. The Portuguese authorities opted for the cash method with slight time adjustments notably as regards the collection of VAT taxes. Portugal was granted a derogation from this provision up to 30 June 2002.

⁽³⁾ See the Directorate-General for Economic and Financial Affairs web site for the relevant documents: http://europa.eu.int/comm/economy_finance/about/activities/sgp/procedures_en.htm.

included consolidation measures equivalent to 0.6 % of GDP, notably via an increase in the standard VAT rate from 17 to 19 %. It also included measures such as a freeze on the hiring of civil servants and the end of interest rate subsidies on new mortgage loans.

In addition, a firm commitment was given to reduce the deficit to 2.8 % of GDP in 2002, that is, below the 3 % of GDP reference value already in the same year, thus ahead of the formal deadline required under the EDP regulations. Additional measures have been taken in an attempt to meet this goal, a task made more difficult by deteriorating growth conditions. According to the March 2003 semi-annual notification, the deficit in 2002 fell to 2.7 % of GDP, an outcome which relied heavily on one-off measures, especially a tax amnesty.

Against a background of slow growth and the termination of one-off measures, Portugal will face a considerable challenge in keeping the nominal deficit below the 3 % of GDP reference value. The Council will shortly have to decide whether, in accordance with Article 104(11), to abrogate the decision on the existence of an excessive deficit.

Both negative and positive conclusions can be drawn from this first experience with the EDP in Stage III of EMU. It underlined the importance of strengthening the process of collection and verification of budgetary statistics that underline the fiscal rules of EMU. On the positive side, however, the discrepancies in the statistical reporting framework were picked up, albeit with an unsatisfactory delay, and the resulting peer pressure has facilitated the introduction of painful but necessary reforms to prevent public finances continuing on what was an unsustainable path.

1.3.3. Germany

On 21 January 2003, the Council decided that an excessive deficit exists in Germany ⁽¹⁾. Significant divergence of the budgetary position from targets had become apparent already in late 2001, and in January 2002 the Commission adopted a recommendation for an early-warning to be sent to Germany. At that time, the Commission (on the basis of its autumn 2001 forecast) was projecting a deficit of 2.6 % of GDP for 2001 compared with a target of 1.5 % of GDP set down its stability programme, see Graph II.2. The Council decided the Com-

mission recommendation would not be put to vote and to close the early-warning procedure. This followed commitments from the German authorities to endeavour to ensure that the 3 % of GDP reference value for the general government deficit would not be breached in 2002, and to reach a close to balance position by 2004 in line with previous commitments.

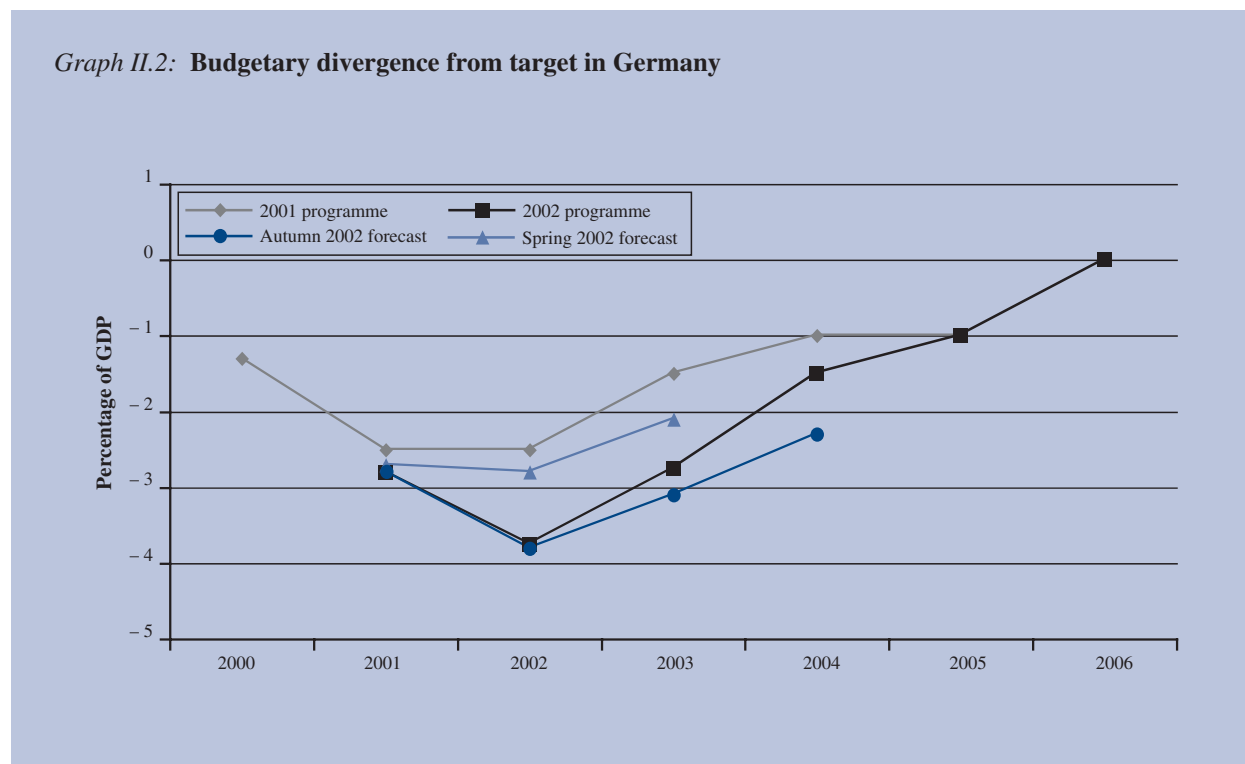
Following general elections on 22 September 2002, the re-elected federal government on 24 September belatedly submitted the autumn notification of budgetary data, showing a deficit of 2.9 % of GDP and confirming a debt ratio of 60.6 % for 2002. Subsequently on 16 October 2002, the Minister for Finance publicly stated that the deficit for 2002 was likely to exceed the Treaty's reference value. On the basis of its autumn 2002 forecast projecting a deficit of 3.8 % of GDP for 2002, the Commission activated the EDP by preparing a report in accordance with Article 104(3) of the Treaty.

The report drew attention to the very weak growth performance of Germany over the past decade. However, the deterioration in the budget balance can only in part be attributed to the effects of the economic cycle as the cyclically-adjusted budget deficit, which had fallen continuously since 1995, started to increase as of 2000 and grew to some 3.2 % in 2002. The origins of this budgetary slippage can be found in the 1998–2000 period: insufficient efforts were made to strengthen the underlying budgetary position when growth conditions were favourable. Indeed, the cyclically-adjusted deficit started to rise again as from 2000, not least due to stronger expenditure growth at the regional level. Based on an assumption of continued strong economic growth and a so-called 'dividend' for public revenues, the government opted for the carrying-forward to 2001 of the 2002 stage of the tax reform and for a back-loading of the necessary budgetary consolidation efforts. Thus, with the advent of the business cycle slowdown, there was insufficient leeway for the operation of automatic stabilisers while at the same time preventing the deficit from rising above the 3 % of GDP reference value.

Although dramatic for the people involved, the floods which occurred in August 2002 are not expected to have constituted a serious drag on public finances in 2002: Commission calculations show that the 2002 overall deficit-raising effect should not be higher than one tenth of a percentage point of GDP (that is, around EUR 2 billion), given that the bulk of repair works would start only

⁽¹⁾ Council Decision 2003/89/EC, OJ L 34/16.

Graph II.2: Budgetary divergence from target in Germany



in 2003; this was implicitly recognised by the fact that the special fund set up by the federal government officially began its operations on 1 January 2003. As in the case of Portugal, the general government deficit had been clearly higher than public investment, although higher public investment induced by the flood damages and the projected decline in the general government deficit should narrow the gap in 2003.

Outcome data for 2002 confirmed a deficit of 3.6 % of GDP and the Council, on 21 January 2003, decided upon the existence of an excessive deficit position and adopted a recommendation with a view to bringing the situation to an end. It should also be noted that the debt level in 2002 reached 60.8 % of GDP, which is in excess of the Treaty reference value, and on the basis of current growth forecasts it is expected to increase further in 2003. Two deadlines were set in the Council recommendation: (i) a deadline of 21 May 2003 was set for the German authorities to take measures to correct the excessive deficit positions; (ii) a deadline for the correction of the excessive deficit position, which should be completed in the year following its identification; this is understood as being the end of 2004. Germany, however, was invited to bring the deficit below 3 % of GDP already in 2003,

as planned in the updated stability programme, if the growth conditions projected in the update (GDP growth of 1 %) would materialise. The Council also recommended that the German authorities ensure that the rise in the debt ratio is brought to a halt in 2003 and reversed thereafter.

Based on the latest growth prospects, a correction of the excessive deficit situation in 2003 appears uncertain. Concerning 2004, the full implementation of the coalition agreement and the achievement of the targets set down in the updated stability programme (see Part VI.3 on Germany) would ensure a substantial decline in the actual and cyclically-adjusted deficit, provided GDP growth turns out as expected. Even in the event of growth picking up further into 2004, the budgetary room for manoeuvre is set to remain limited in view of the further steps of income tax cuts envisaged. A sustained improvement in the budgetary position will thus require government expenditure to remain under firm control.

Important lessons can be drawn from the application of EDP to Germany, the largest economy in the euro area and a leading proponent of the SGP. The credibility in the rules-based framework was not aided by the Coun-

cil's failure to issue an early-warning in February 2002, nor the subsequent ratcheting up of projections for the deficit level throughout 2002. This called into question the reliability of budgetary statistics and forecasts underlying the EU surveillance process, and indicated a lack of capacity and willingness on the part of Member States to deal with growing budgetary imbalances. However, it also indicated that a debate on difficult budgetary policy challenges could not be avoided on account of binding deadlines in the SGP, even for large countries during electoral campaigns. Arguably, the debate on the early-warning ensured that the issue of sound public finances played a prominent role in the electoral campaign, and has been facilitating discussions on difficult policy choices and trade-offs.

Ultimately, however, the debate on the SGP has shown that the rising budget deficit is the symptom but not the cause of Germany's economic problems. The key policy challenge is the growth performance during the last decade with an average annual GDP growth rate of 1.3 % between 1992 and 2002. Unless the causes of slow growth are tackled at source, deficits in Germany will remain high posing continuous stress on the SGP.

1.3.4. France

On 21 January 2003, the Council adopted a recommendation giving an early-warning to France in order to prevent the occurrence of an excessive deficit. This is the first time that an early-warning has been issued by the Council, and occurred because there was a significant divergence from the budget target set down in its stability programme, (see Graph II.3).

In its 2001 update of the stability programme, France projected a general government deficit at 1.4 and 1.3 % of GDP in 2002 and 2003 respectively, under the assumption of an increase in real GDP by 2.5 % in both years ⁽¹⁾. The Commission in its autumn 2002 forecast projected a deficit of 2.7 and 2.9 % of GDP for 2002 and 2003 respectively. An early warning was merited on account of:

- the size of the slippage from target, some 1.3 percentage points of GDP for 2002;
- the source of the budgetary slippage. According to Commission services calculations, at most one half

of the total slippage can be attributed to cyclical factors. The cyclically-adjusted government deficit, stable at around 2 % of GDP between 1999 and 2001, has increased in 2002 to slightly above 2 %;

- the risk of a breach of the 3 % of GDP reference value given the perilously close margins that were projected at that time.

In its March 2003 reporting of data, the French authorities indicated that the deficit in 2002 was 3.1 ⁽²⁾, clearly in excess of the reference value, considering also its forecast for 2003 of a deficit still above 3 % of GDP. It should be noted that this further deterioration in the budget balance compared with the autumn 2002 forecast cannot be attributed to effects of deteriorating growth conditions, and instead is the result of a disappointing budgetary execution. The Commission therefore activated the EDP and on 7 May 2003, recommended to the Council to decide on the existence of an excessive deficit in France and to address a recommendation to France to put an end to the present excessive deficit situation as rapidly as possible and by 2004 at the latest.

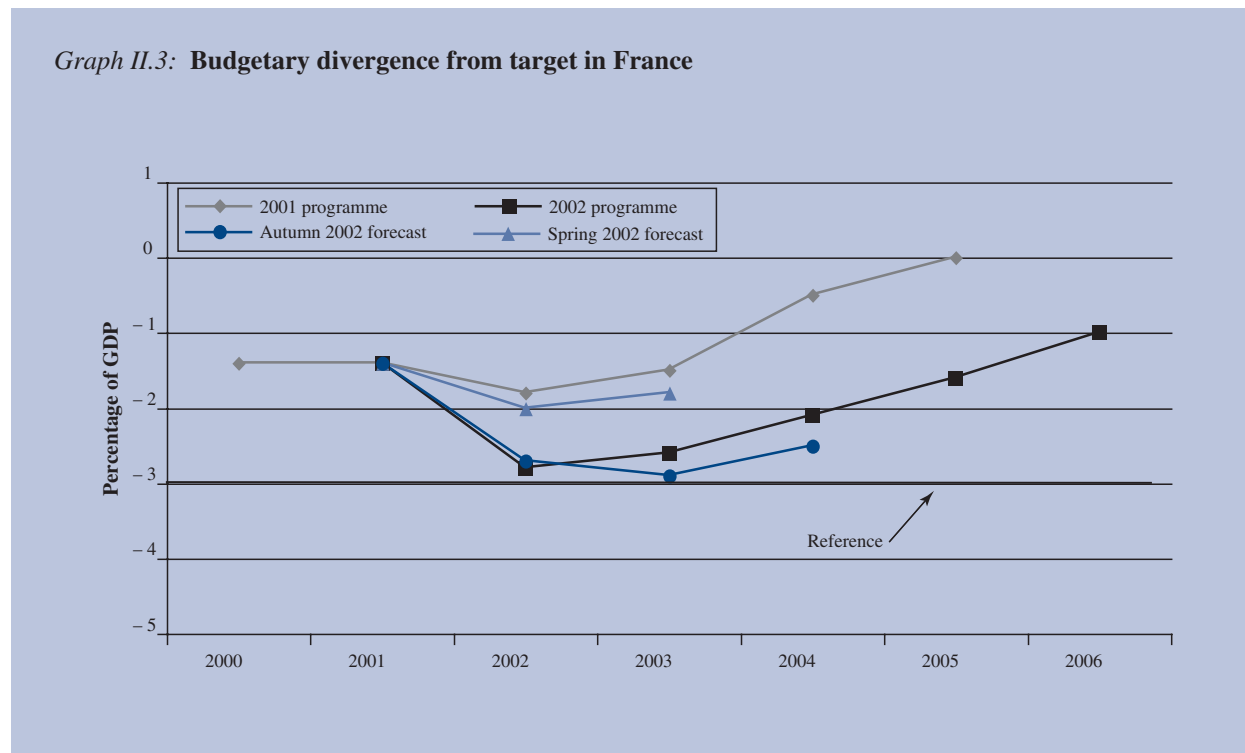
The experience with the early-warning mechanism to France has been far from smooth for three reasons. Firstly, the fact that the deficit level in 2002 turned out to be above 3 % of GDP and that the EDP was activated some eight weeks after the Council had issued an early-warning, forcefully illustrates that the mechanism is not providing an advance signal to Member States on the need for corrective action. Early-warnings to be effective would need to be sent well before deficit levels are very close to 3 % of GDP, a point made in the Commission communication of November 2002 on strengthening the coordination of budgetary policies (see Chapter II.2.).

Secondly, the debate on the early-warning was characterised by repeated revisions in budget projections for 2002, coupled with strong, but unfulfilled, commitments to avoid excessive deficits position. In February 2002, the French authorities adjusted their objective for the 2002 general government deficit upwards from 1.4 to 1.8 % of GDP reflecting the impact of deteriorating cyclical factors. This revision took place very shortly before the discussion of the French update in the Ecofin Council, which created inconveniences with respect to

⁽¹⁾ France subsequently revised its deficit target for 2002 to 1.8 % of GDP, as reported in Table II.1.

⁽²⁾ The government deficit for 2002 has been revised from 3.0 % of GDP (as notified by the French authorities) to 3.1 % of GDP, as a consequence of the inclusion in the deficit of the capital injection by the French State to Réseau ferré de France (RFF). See Press Release STAT/03/30 of 17 March 2003.

Graph II.3: Budgetary divergence from target in France



the preparatory work made by the Commission and the EFC. In May 2002, after the presidential elections, the new government launched an audit on public finances, which estimated the general government deficit in 2002 within a range 2.3–2.6 % of GDP: the revision brought about by the audit was due to the consideration of the cyclical effect on tax revenues and unemployment expenditures, following the deceleration in economic activity, estimated at 0.3–0.4 % of GDP, and also due to an overrun in expenditures, particularly in the State and the health sectors, estimated at 0.6–0.7 % of GDP. In July 2002, the French authorities presented a corrective budget bill for 2002 aimed at adjusting the government budgetary forecasts in line with the results of the audit on public finances and at implementing a cut in the income tax by 5 %. In this corrective budget bill, the French authorities decided to target a general government deficit of 2.6 % of GDP in 2002, which is the highest value of the range of the auditors' projections, thus not correcting the observed slippage in the budgetary situation. As noted above, the autumn 2002 forecast and subsequent reporting of data under the EDP has led to a further substantial upward revision.

Thirdly, and unlike the Portuguese and German authorities which did not contest the application of the SGP, the

French authorities have to date failed to take any measures to address the growing budgetary imbalances, despite these already becoming apparent in mid-2002. Moreover, they have failed to engage in a constructive dialogue at EU level on the pace of budgetary consolidation towards the 'close to balance or in surplus' requirement (see the next chapter for a discussion on these issues). In particular, France was the only euro area country which did not accept to pursue a continuous adjustment of the underlying balance by at least 0.5 % of GDP per year starting already in 2003, as agreed by all other ministers at the Eurogroup meeting of 7 October 2002 (see Section II.2.1).

The French authorities continue to fail to start taking corrective measures in 2003. This was demonstrated in the budget targets of their 2002 stability programme which provided for an improvement of only 0.2 percentage points of GDP in its cyclically-adjusted budget balance. The Council, in its opinion, urged '... the French authorities to seek an improvement in the underlying budget position in each year...'. The start of the process of budgetary consolidation cannot be postponed indefinitely as the Council recommendation (in accordance with Article 104(7)) on measures to correct an excessive deficit position includes a deadline of no more than four months for taking corrective actions.

2. Strengthening the coordination of budgetary policies

2.1. Background to the debate: a mandate from the Barcelona European Council

The Treaty, supplemented by secondary legislation, has bestowed on the Union a unique institutional architecture for the conduct of economic and monetary policies. The uniqueness of the framework resides in the fact that a single monetary policy is entrusted to an independent European Central Bank whilst the responsibility for economic policies (budgetary and structural policies) remains decentralised in the hands of national (or sub-national) authorities but subject to some common rules. In particular, Member States remain fully responsible for their tax and expenditure policies, but within a framework at EU level to monitor and, where necessary, ensure that countries pursue the common goal of sound and sustainable public finances.

The appropriate degree and instruments of economic policy coordination cannot remain static or be subject to an overly rigid literal interpretation of rules and procedures. To remain effective, it must evolve over time so as to take account of changing economic circumstances and/or the convergence/divergence of political preferences. It is especially important in the aftermath of a major regime change such as the launch of EMU that a learning-by-doing approach be followed, so that shortcomings are corrected and the lessons of experience are drawn.

On the basis of the experience accumulated in the early years of EMU, the Commission, in February 2001, adopted a communication on strengthening economic policy coordination within the euro area ⁽¹⁾. This led to several positive developments, including better and more timely statistics covering the euro area, a quarterly report

on the euro area prepared by the Commission, the establishment of a Eurogroup working party attached to the Economic and Financial Committee (EFC) to help prepare debates and regular communiqués (so-called terms of reference) from the Eurogroup on important policy issues. In addition, an important agreement had been reached on the streamlining of policy measures in the BEPGs.

Subsequently, the Barcelona European Council of March 2002 concluded that the euro area needed to make further progress with policy coordination, and invited the Commission to present proposals to reinforce economic policy coordination in time for the 2003 spring European Council.

The initial response of the Commission to this mandate was to suggest that all euro-area countries adhere to common standards for the conduct of economic policies in the euro area. The objective of common standards would be to clarify the respective role of economic policies in three domains: (1) preserving macroeconomic stability, (2) enhancing the economic growth potential of the euro area and (3) responding to economic shocks that affect individual Member States or the euro area as a whole.

Concerning their format and status, the intention was for common standards to complement the existing Treaty provisions and Stability and Growth Pact regulations, with non-binding guidelines on the policy stance expected of authorities in various circumstances, that is, a so-called 'reaction function'. The aim was to facilitate discussions amongst ministers on policy challenges as they emerged, and thereby contribute to a more consistent policy stance over time and across Member States. Moreover, the Commission argued that setting down broad *ex ante* guidelines on the conduct of economic and budget policies would help demonstrate that the EU and the euro area have a well-defined economic strategy with medium-term orientation.

⁽¹⁾ COM(2001) 82 final of 7 February 2001.

Based on analytical work of the Commission services, the Eurogroup in July and September 2002 discussed possible elements to be included in common standards on the conduct of economic policies in the euro area. However, these discussions became overshadowed by the deterioration in budget positions in several Member

States described in Chapter II.1 and the challenges in the implementation of the SGP. This forced a major re-consideration on the part of the Commission on how to respond to the mandate of the Barcelona European Council. The intended approach of adopting common standards on the conduct of economic and budgetary pol-

Box II.2: The Convention on the Future of Europe: the debate on the coordination of budgetary policies

In the two communications to the Convention adopted in the course of 2002 ⁽¹⁾, the Commission has put forward specific suggestions in the area of economic, and notably budgetary, policy coordination.

First, the Commission proposes to reinforce the Community dimension of the policy-coordination process. To this effect, the instruments of economic policy coordination should be drafted on the basis of proposals from the Commission rather than mere recommendations from which the Council may depart by qualified majority. As far as Article 99 of the Treaty is concerned, this change would notably have an impact on the adoption procedure of the BEPGs, on the adoption by Council of its opinions on the stability and convergence programmes, and on the Council recommendations to a Member State which is pursuing economic policies which are not consistent with the BEPG or with the Stability and Growth Pact.

Moreover, when the economic policies pursued by a specific Member State are not consistent with the broad guidelines or risk jeopardising the proper functioning of EMU, the Commission should be able to issue warnings directly to the Member State concerned. For example, the Commission could decide to issue a 'direct' early warning to any Member State with a budgetary position which is significantly diverging from the budgetary target set out in its stability or convergence programme. At the same time, it would preserve the possibility under Article 99(4) to invite the Council to make the necessary recommendations to the Member State concerned. As already explained above, the Council's decision would be based on a Commission proposal, as opposed to a recommendation. These different measures will reinforce the Community dimension of the economic policy coordination framework by allowing the Commission to play its role as a representative of the common interest and as the 'referee' who ensures that the rules of the game are being observed.

The Commission furthermore proposes to facilitate decision-making within the euro area. While the informal Eurogroup would continue to exist, a 'euro area' Ecofin Council would also be established in order to allow the Member States belonging to the euro area to take certain decisions which are mainly or exclusively relevant for participating countries. This institutional change would have important consequences for a number of decisions taken in the framework of the excessive deficit procedure and the SGP (for example, early warnings adopted by the Council), particularly when participating Member States are concerned.

The Convention has closely examined the functioning of the EMU framework. A Working Group on Economic Governance, chaired by Mr K. Hänsch, was established in order to examine a list of different issues falling under three headings: monetary policy, economic policy and institutional issues. As far as the Stability and Growth Pact is concerned, a majority of the Group agreed that the Commission should be allowed to issue first warnings on excessive deficits directly to the Member State concerned. Some members also agreed with the need to transform Commission recommendations into proposals, and supported the exclusion from the vote of the Member State concerned, for example in the case of an early warnings issued by the Council, or in relation to decisions on the existence of an excessive deficit. The Working Group considered that the Stability and Growth Pact is a political instrument to implement the Treaty provisions and that it should therefore not be integrated into the Constitution. The results of the Working Group were discussed by the plenary on 7 November 2002, which largely confirmed the main views expressed by the Group. The Praesidium has indicated that a first draft of Part II of the Constitution, which will describe the different policy areas, and the Convention's proposals in relation to each of them, will be made available in the course of May 2003.

⁽¹⁾ 'A project for the European Union' (COM(2002) 247 of 22 May 2002) and 'For the European Union: peace, freedom, solidarity' (COM(2002) 728 of 4 December 2002).

icies in the euro area was dropped in favour of much focused efforts to improve the functioning of the SGP ⁽¹⁾.

On 24 September 2002, Commissioner Solbes, with the agreement of President Prodi, issued a communication suggesting a strategy for dealing with pressing budgetary challenges in the euro area ⁽²⁾. It underlined the importance of the SGP, but recognised the need to avoid setting budget targets that would require very large improvements in underlying budget positions in economies suffering from cyclical weakness. To this end, they suggested that the medium-term objective of the SGP should incorporate explicit references to cyclical considerations. Also, countries which have not yet reached the (cyclically-adjusted) 'close to balance or in surplus' objective should be required to undertake every year a minimum adjustment of 0.5 % of GDP of their cyclically-adjusted deficit.

The Eurogroup meeting of 7 October 2002, produced 'Terms of references on the budgetary developments in the euro area' very close to the approach of the Commission and which marked an important policy shift as regards the implementation of the Pact. In particular 'ministers re-affirmed their commitment to the Treaty obligation to avoid excessive deficits, and to the Stability and Growth Pact objective to achieve and maintain budgetary positions close to balance or in surplus over the economic cycle. Ministers and the ECB concurred therefore with the Commission that those countries which have not yet reached that objective, need to pursue continuous adjustment of the underlying balance by at least 0.5 % of GDP per year. All ministers but one [France] accept this to start no later than in next year's budget'.

The efforts described in this chapter on measures to strengthen the coordination of budgetary policies should not be confused with the broader debate underway in the Convention on the Future of Europe. The need for a broader and deeper debate on the future of the Union became apparent at the European Council in Nice (December 2000): see Declaration 23 to the Treaty of Nice. One year later, the European Council, meeting in Laeken, decided to convene a Convention to examine the fundamental questions raised by the future development of the Union. The different questions put forward in the

Laeken Declaration mainly relate to the definition of the powers of the Union, the simplification of the Union's instruments (legislative instruments, implementation measures, etc), the enhancement of democracy, transparency and effectiveness (for example, appointment procedures for Commissioners and for the Commission President, EP powers and elections, role of the Council, role of the national parliaments, etc) and the preparation of a European Constitution. The Convention is chaired by Mr Giscard d'Estaing and is composed of 105 members, which represent the different Heads of State or Government, the national parliaments, the European Parliament, and the Commission. Its work is prepared by the Praesidium, which is composed of 12 members. The Convention started its work in February 2002 and will present the results of its work in mid-2003. An intergovernmental conference will be convened either in 2003 or in 2004, in order to formally amend the Treaty and propose it for ratification to the different Member States. Box II.2 provides details on the proposals of the Commission related to the coordination of budgetary policies and the subsequent debate within the Convention.

2.2. Commission proposals to strengthen the coordination of budgetary policies

2.2.1. A diagnosis of the shortcomings of the SGP in the first four years of EMU

The Commission adopted, on 27 November 2002, a communication on strengthening the coordination of budgetary policies ⁽³⁾. While arguing that the coordination of budgetary policies is essential for the smooth functioning of EMU and that the SGP goal of budget positions of 'close to balance or in surplus' remains an economically valid objective ⁽⁴⁾, it provided a candid diagnosis of significant shortcomings in its implementation as follows:

- ***political ownership of the SGP by Member States has diminished*** with a divergence between budgetary commitments and concrete actions to achieve stated targets, and unwillingness to acknowledge the implication of EMU on the conduct of fiscal policy at national level. More generally, Member States failed to play their role in exerting peer pressure on countries that miss budgetary targets by a wide margin via the enforcement mechanisms of the SGP;

⁽¹⁾ For a review of problems and challenges concerning the SGP see Giudice and Montanino (2002).

⁽²⁾ SEC(2003) 1009/6 of 25 September 2002.

⁽³⁾ COM(2002) 668 final.

⁽⁴⁾ For an assessment of Maastricht's fiscal rules, see Buti and Giudice (2002).

- **it has been difficult to establish clear and verifiable budget objectives which take account of underlying economic conditions.** While the targets for budget balances are set down in stability and convergence programmes in nominal terms, the effect of the economic cycle on the budget position has to be taken into account when assessing compliance with budgetary commitments, and in particular the adjustment path to ‘close to balance or in surplus’. This proved difficult in the absence of an agreed method to calculate cyclically-adjusted budget balances, and also because the nominal deficit targets in the programmes of Member States were sometimes based on optimistic growth assumptions and with budgetary adjustment efforts back-loaded towards the end of the time horizon of programmes. Measuring compliance with budgetary commitments set down in programmes has therefore not been straightforward and this in turn weakened the enforcement mechanisms of the SGP;
 - **the framework for the collection and assessment of budgetary statistics has experienced a number of difficulties.** Of greatest concern are the reporting anomalies detected in some Member States which, in the case of Portugal, led to a very large upward revision of deficit levels. Concern was expressed about the fact that *ex post* revisions of budgetary data are getting larger, and the discrepancy between deficits recorded on accrual basis and debt issuance in cash terms in some Member States. Finally, the decision making processes of Eurostat on the classification of certain budgetary operations could be speeded up;
 - **some Member States did not run sound budgetary policies in good times.** A failure to pursue budgetary consolidation in 1999 and 2000 when growth conditions were favourable led to a deterioration in underlying budget positions and inadequate room for the automatic stabilisers to operate in the subsequent economic slowdown. This failure to allow the automatic stabilisers to operate symmetrically over the economic cycle illustrates inadequate surveillance and enforcement mechanisms to deal with unwarranted pro-cyclical loosening of the fiscal stance;
 - **the enforcement procedures of the SGP have been found wanting at critical junctures.** In particular, the early-warning mechanism was not effective in dealing with significant slippage from budget targets set down by Member States in their stability and convergence programmes;
 - **the SGP has struggled to develop into an effective coordination framework** for dealing with country-specific circumstances in a consistent manner, assuring the long-term sustainability of public finances while supporting structural reforms that are designed to enhance employment and growth potential;
 - **it has been difficult to communicate effectively with the press, markets and the public on the benefits of achieving and sustaining sound public finance positions, and also how the SGP works.** This is partly due to the fact that it takes time for economic agents to adjust to the new policy framework in place since the launch of the euro and also because the institutional procedures of the SGP are complex. In addition, effective communication has been hampered by conflicting statements on the appropriate conduct of budgetary policies.
- The communication then set out a number of proposals to tackle these shortcomings. It should be noted that they implied no change whatsoever to the existing Treaty provisions or SGP regulations: that is, the existing framework would be unchanged and no additional procedures were envisaged. On the one hand, they consisted of proposals to clarify the interpretation of key SGP provisions so as to strengthen the economic rationale underpinning the policy decisions. On the other hand, there were proposals to strengthen the implementation of SGP, including the enforcement procedures. The main elements of the Commission proposals are described below.

2.2.2. Avoiding pro-cyclical policies and accounting for transitory elements in the assessment

The Commission proposed that, in establishing budgetary objectives at EU level and in carrying out the surveillance of Member States budgetary positions, due account should be taken of the economic cycle. In particular, the Commission suggested that the ‘close to balance or in surplus’ requirement of the SGP would be defined in underlying terms throughout the economic cycle. To this end, it is necessary to isolate the impact of transitory factors on the budget position, and in particular the effects of the economic cycle.

The underlying budget balance is the actual balance net of transitory elements. The main transitory element taken into account is the cyclical component. However,

other transitory elements beyond the cyclical component also have impact on the budget positions (both positively and negatively), and thus need to be considered when assessing the underlying position so as to avoid wrong policy conclusions: this issue is examined in detail in Box II.3. In other words, the economic cycle is one, but not the only, transitory element that has an important budgetary impact. Consequently, the cyclically-adjusted budget balance (CAB) is not the same concept as the underlying budgetary position.

To illustrate how the Commission’s proposal would work in practice (and in particular the relevance of the cyclically-adjusted budget balances), Graph II.4 illustrates the budgetary position expected of Member States in order to be in compliance with the ‘close to balance or in surplus’ requirement of the SGP over the economic cycle ⁽¹⁾. It refers to a country that has completed the transition to the medium-term goal of the Pact, and assumes that there are no other transitory

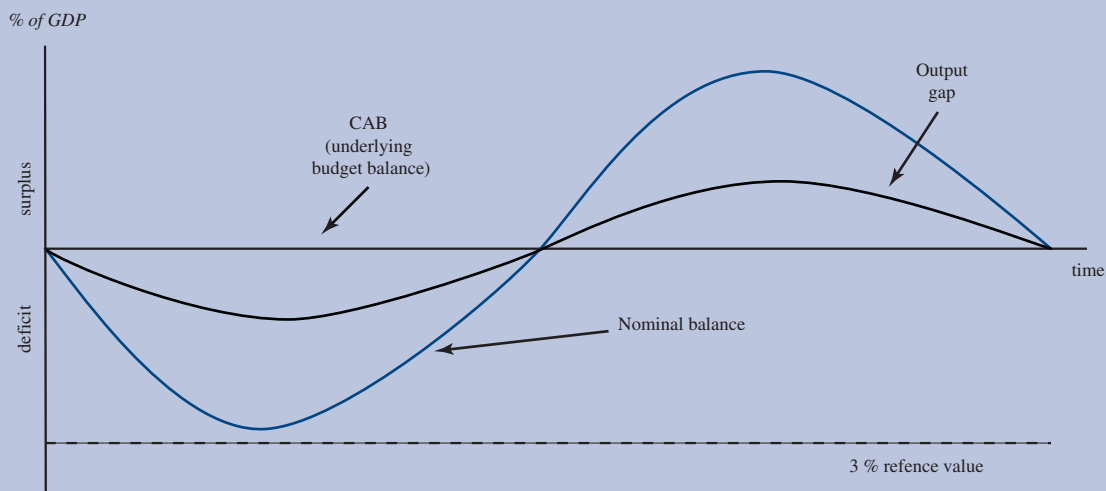
effects on the budget balance other than the effect of the cycle — that is, the CAB corresponds to the underlying budget balance.

The underlying budget balance is represented in Graph II.4 by the bold line, which remains unchanged over the economic cycle. However, the nominal budget balance (blue line) fluctuates according to the output gap (dark line). The degree of the fluctuation depends on the cyclical sensitivity of the budget: on average, an output level that goes 1 % below the potential implies an increase in the nominal deficit of 0.5 % of GDP. However, automatic stabilisation should show its effects too during upturns: as automatic stabilisers should operate symmetrically over the economic cycle, this implies running nominal budget surpluses when growth conditions are favourable. A degree of caution must be used when interpreting changes in cyclically-adjusted budget balances, especially on an annual basis ⁽²⁾.

⁽¹⁾ Buti and Giudice (2002) illustrate the benefits of focusing on cyclically-adjusted balances for output stabilisation.

⁽²⁾ See Part II.3 of European Commission (2002a).

Graph II.4: Compliance with the ‘close to balance or in surplus’ requirement for countries that completed the transition process



Box II.3: Transitory elements affecting the budgetary position

The surveillance of budgetary positions aims at the maintenance of sound public finances and at ensuring their long-term sustainability. In this respect, what is important to understand is what the underlying budgetary positions are beyond the impact of the economic cycle and other transitory effects. In the context of the EU rule-based fiscal framework, the surveillance carried out by the Commission and the Council should take into account the role of measures with only transitory effect on the budget. As concluded by the Brussels European Council (21 March 2003) 'in making an assessment [of the improvement of the cyclically-adjusted budgetary position] one-off measures will be considered on their own merits on a case-by-case basis'.

What could qualify as a one-off measure? According to Milesi-Ferretti (2001), 'a measure implying an improvement in the fiscal balances is considered to be creative accounting if it does not imply an improvement in the intertemporal budgetary position'. 'Creative accounting' is used in the economic literature as meaning measures with temporary effect or one-off measures. It is difficult to identify clearly what is transitory or permanent as this depends on what is the reference point and the degree of country- and situation-specificity is large. In the context of EU surveillance, the Commission and the Council have, inevitably, a margin of discretion to decide what measures to take into account in order to make the best possible assessment. However, it is important that there is consistency, to the degree possible, across countries in the distinction between purely transitory elements and other more permanent trends. Some examples of transitory elements that could be explicitly taken into account are as follows.

On the expenditure side, large individual sales of real assets such as real estate, and the UMTS receipts provide good examples. On the revenue side, a possible candidate is tax amnesties. Here, of course, what is 'normal' in the country concerned is an important reference point, since some measures can be exceptional in one country while taking place regularly in another. Other elements may be linked to 'unusual' events. Here size is clearly important as each year there are 'unusual events'. Possibly the short-term emergency costs from flooding could be an example. Large revenues or expenditures due to specific court rulings could be another.

Along the same line, the Congressional Budget Office of the United States produces an estimation for the so-called standardised budget, that nets the actual budgetary position from the cyclical component and other temporary factors (see 'A CBO report: the standardised and cyclically-adjusted budgets', March 2003). It includes in these temporary measures the following: unusually large discrepancies between tax payments and liabilities, swings in collection of capital gains taxes, changes in the inflation component of the government's net interest payments, temporary legislative changes in the timing of revenues and outlays, asset sales, and receipts from auctions of licences to use portions of the electromagnetic spectrum.

However, the availability of fiscal data on measures with a transitory effect is limited given the difficulties of measurement and the degree of arbitrary. Some countries, as done by Danish and Swedish authorities in their updated convergence programme (2002), use of a refined cyclically-adjusted budget balance. More specifically, by correcting the budget balance for the deviation of several special factors (that are by definition country-specific) to their calculated trend. Large, clearly identifiable transitory items can be taken into account when assessing underlying budget developments. However, further work in this area is necessary to upgrade the quality of the analysis.

The question of measures that have only a transitory effect (one-off measures, 'creative accounting') on the budget position is also relevant in terms of compliance with the fiscal rules. The economic literature proves that the imposition of numerical budget rules by an outside agent encourages the use of 'creative accounting' (see, for example, Easterly (1999), Eichen-green and Wyplosz (1998), Kopits and Craig (1998)). Policy makers can be induced to explore ways to fulfil budgetary targets through creative accounting even when the rule results from an agreed commitment and not from an external constraint. The simple reason to recourse to creative accounting is to avoid the implicit (reputational) or explicit (pecuniary) sanctions that occur when the rule is breached. In the context of the EU rule-based fiscal framework, creative accounting may contribute to limit reputational sanctions that appear with the 'early-warning' and/or with the start of the excessive tends to disappear in the long run due to its temporary nature, it is less likely that it can be helpful in avoiding eventual

(Continued on the next page)

Box II.3 (continued)

pecuniary sanctions implied by the EDP. If nominal budget unbalances is only temporary (due, for example, to an economic shock) the recourse to one-off measures avoids overemphasising the imbalance, rightly correcting this temporary situation as a temporary budgetary measure.

But using creative accounting also has costs. First, fiscal adjustment can be illusory because it temporarily lowers the budget deficit or the public debt, but it does not improve the public sector's net worth. This can imply future measures to compensate the insufficient structural adjustment that becomes necessary once transitory measures end their effect on the budgetary position. Second, the use of creative accounting entails a lack of transparency that could lead to a loss of confidence by public opinion in respect of government actions. Loss of confidence could also affect financial markets and therefore the country concerned could face higher risk premium. Third, these transitory measures can cause distortions in the markets. For example, a huge sale of real estate concentrated in a short period of time to reducing the deficit level can have a destabilising impact on prices in the housing market.

2.2.3. A minimum annual rate of adjustment for countries still in deficit

The Commission communication built upon the agreement of the Eurogroup that countries with underlying deficits would be required to achieve an annual improvement in the underlying budget position of at least 0.5 % of GDP each year until the 'close-to-balance or surplus' requirement of the SGP has been reached. This proposal makes clear that Member States with underlying deficits must make continuous progress towards the medium-term goal of the Pact and thus tackles the problem whereby targets are being rolled over indefinitely in successive updates of stability or convergence programmes. Moreover, it recognises that account must be taken of economic conditions when setting the pace of budgetary consolidation.

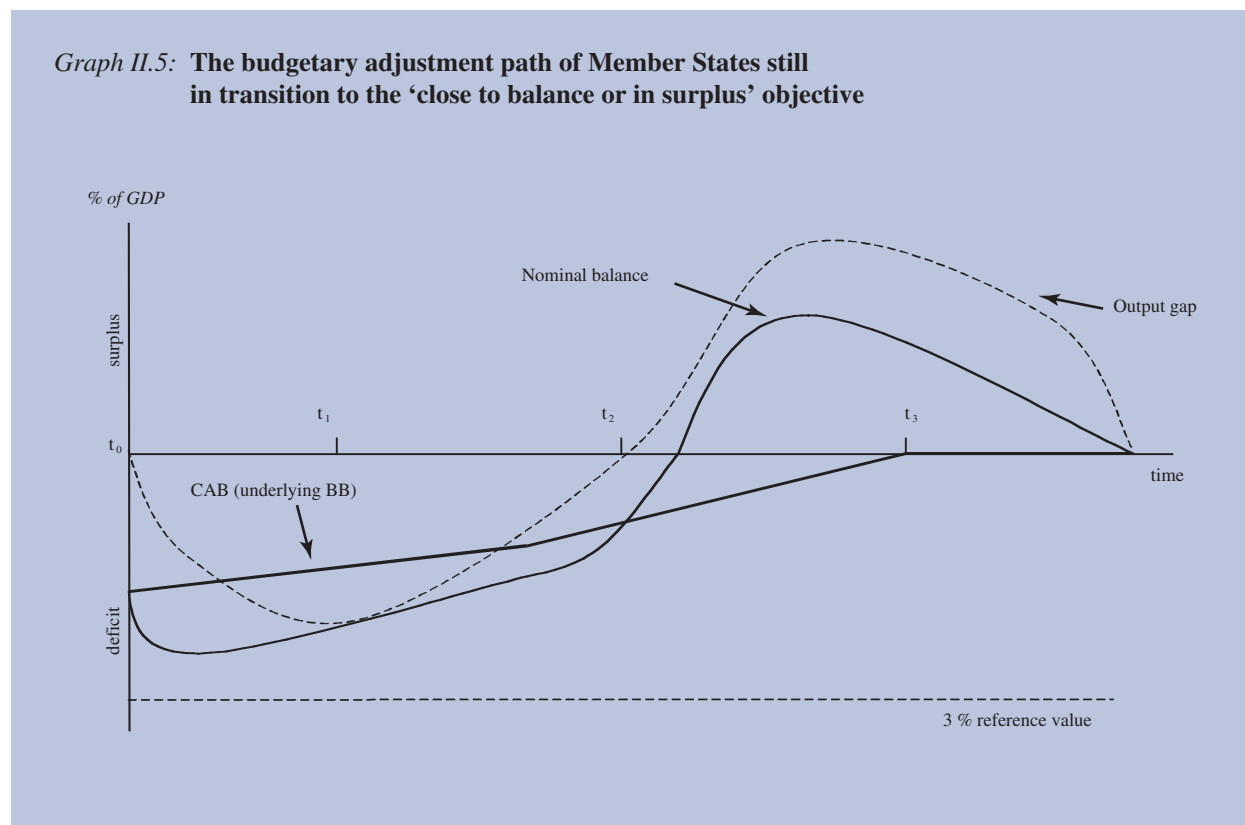
An example of what this proposal implies in practice is illustrated in Graph II.5. The starting position shows that the Member State has not completed the transition to the 'close to balance or in surplus requirement' of the SGP. Note that there is an assumption of no other transitory effects on the budget balance other than the effect of the cycle, that is, the cyclically-adjusted budget corresponds to the underlying budget balance at all times.

The country is required to achieve an annual improvement in its underlying budget position of at least 0.5 % of GDP until the medium-term target of the Pact has been reached: this minimum rate of underlying budgetary consolidation should be achieved irrespective of growth conditions (see adjustment path illustrated by the bold line). However, this does not imply that the nominal

budget balance must improve every year by an equivalent amount. There may be some scope to allow the automatic stabilisers to operate, as illustrated by the deterioration in the nominal budget balance during the downturn when growth falls below its potential rate (between t_0 and t_1): however, a safety margin must be provided at all times so as to ensure that the nominal budget deficit does not risk breaching the 3 % of GDP reference value.

The communication also states that the '... rate of improvement in the underlying budget position should be higher in countries with high deficits or debt. Also, a more ambitious annual improvement in underlying budget positions should be envisaged if growth conditions are favourable'. The latter requirement is illustrated by a kink in the line representing the cyclically-adjusted budget balance when the output gap starts to improve. As shown, between t_1 and t_2 the output gap starts to increase, and it closes in t_2 . The requested rate of adjustment is higher than in the previous period and the nominal budget balance improves at a faster rate than the cyclically-adjusted budget position, reflecting the symmetric operation of the automatic stabilisers. As illustrated in Graph II.5, reaching a position of balance in nominal terms would not necessarily represent compliance with the 'close to balance or in surplus' requirement. The consolidation continues between t_2 and t_3 , when the nominal budget becomes positive, and the close to balance position in underlying terms is reached. From t_3 onwards, the transitional period is finished and the nominal and underlying budget balance are expected to behave as in Graph II.4.

Graph II.5: The budgetary adjustment path of Member States still in transition to the 'close to balance or in surplus' objective



2.2.4. The goals of the Lisbon strategy: ensuring that public finances contribute to growth and employment

Perhaps the most innovative elements of the communication concern the proposal to introduce a more flexible application of the 'close to balance or in surplus' requirement in light of the achievement of the goals of the Lisbon strategy. In particular, it is argued that there is a need to '... cater for the intertemporal budgetary impact of large structural reforms (such as productive investment or tax reforms) that raise employment or growth potential in line with the Lisbon strategy and/or which in the long term improve the underlying public finance positions'. The Commission did not consider it appropriate to develop a list or catalogue of reforms which justify or merit an exemption. This should be judged on a case-by-case basis, but it referred to major structural reforms identified in the BEPGs or as part of the Lisbon strategy that have a clearly identifiable negative impact on the budget in the short run (for example, a reform of the tax system, pension reform, substantial increase in net public investment) but a positive return in the medium to long term on growth and the budgetary position.

In making this proposal, the Commission was aware that this initiative could easily be interpreted as a weakening of the commitment to sound public finances or the core budgetary goals of the SGP. To avoid the impression that provisions of this nature would weaken the Pact, numerous safeguards were outlined in the communication. A distinction was drawn between deviations from the 'close to balance or in surplus' requirements of a 'temporary' and 'more permanent nature'.

Regarding the former, the communication stated that 'a small temporary deterioration in the underlying budget position could be envisaged only if the Member State concerned has already made substantial progress towards the 'close to balance or in surplus' requirement and if general government debt is below the 60 % of GDP reference value'. The Commission did not specify a numerical rule as to what would constitute 'substantial progress': the key issue is to ensure that an adequate safety margin exists to limit the risk of the nominal deficit breaching the 3 % of GDP reference value, and this would imply that the underlying budget deficit should be well below 1 % of GDP.

The communication added additional safeguards as follows. ‘In assessing the programme, the Commission must ascertain that there is a clear and realistic deadline for returning to a position of “close to balance or in surplus” within the time horizon of the stability or convergence programme. Budgetary projections must be based on a sound and prudent macroeconomic scenario to be verified against those of the Commission, with due account taken of the need to avoid inappropriate pro-cyclical policies. An adequate safety margin must be provided at all times to prevent nominal deficits from breaching the 3 % of GDP reference value. Finally, the Member State concerned should pre-announce corrective measures that would be introduced in the event of a failure to stick to the adjustment path for returning to a budget position of ‘close to balance or in surplus.’

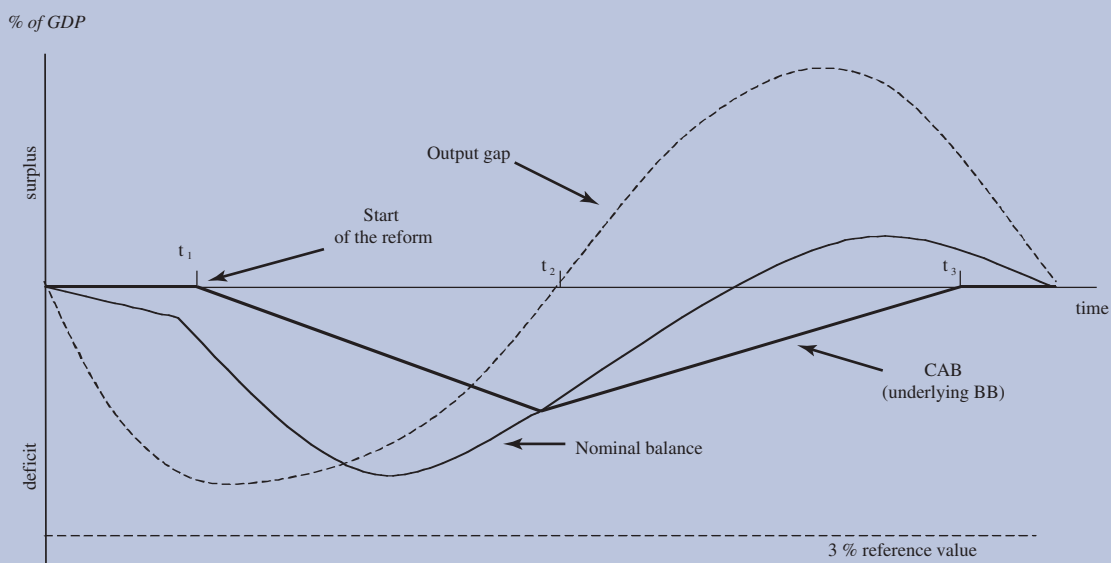
An example of what this implies in practice is illustrated in Graph II.6. The starting position shows a Member State with an identical nominal (continuous line) and cyclically-adjusted budget deficit (bold line): again, it is assumed that there are no other transitory effects on the budget balance other than the effect of the cycle, that is,

the cyclically-adjusted budget corresponds to the underlying budget balance at all times.

From that starting position, in t_1 the Member State implements a major structural reform that initially has a negative impact on the cyclically-adjusted budget balance: this is evident from the downward slope in the CAB line. There may be some scope to allow the automatic stabilisers to operate: in the event of a slowdown in growth, an even larger increase occurs in the nominal deficit (continuous line). However, an adequate safety margin must be provided at all times so as to ensure that the nominal budget deficit does not risk breaching the 3 % of GDP reference value. The nominal and the CAB are equal when the output gap is zero (t_2) and the Member State concerned must return to a position of ‘close to balance or in surplus’ within the time horizon of the programme (say in t_3).

The communication also sought to reflect differences between the sustainability of public finances across Member States. It therefore proposed that a ‘small deviation from the “close to balance or in surplus” require-

Graph II.6: Illustration of a small temporary deviation to cater for the inter-temporal budgetary effect of a large structural reform



ment of a longer-term nature could be envisaged for Member States where debt levels are well below the 60 % of GDP reference value, and when public finances are on a sustainable footing. This will require a careful assessment to be made of outstanding public debt, contingent liabilities (such as implicit pension obligations) and other costs associated with ageing populations. An adequate safety margin must be provided at all times to prevent nominal deficits from breaching the 3 % of GDP reference value’.

2.2.5. Ensuring the sustainability of public finances

The communication also proposed that the sustainability of public finances should become a core policy objective at EU level and this requires that greater weight is attached to government debt ratios in the budgetary surveillance process. Countries with high debt levels would be required to set ambitious long-term debt-reduction strategies in their stability and convergence programmes. Also, the Commission suggested that the high-debt countries should be required to achieve a satisfactory pace of debt reduction towards the 60 % of GDP reference value, and that a failure to do so should result in the activation of the debt criterion of the excessive deficit procedure. Overall, these proposals were considered necessary as the sustainability of public finances cannot be assured simply by looking at a three- or four-year time horizon of programmes. Chapter II.3 considers how, in practice, the debt criterion of the excessive deficit procedure could be made operational.

2.2.6. Concrete measures for the enforcement of the Pact

In addition to suggestions on how to interpret certain provisions of the SGP, the communication set down detailed proposals to improve its practical implementation of how Member States needed to reaffirm their political commitment to the Pact.

Firstly, to ensure that Member States assume political ownership of the SGP, the communication called for the spring 2003 European Council to adopt a resolution on strengthening the coordination of budgetary policies. The reason for seeking support at the highest political level is that achieving and sustaining the goal of budget positions of ‘close to balance or in surplus’ is extremely challenging and requires full commitment of all government departments and all levels of government from the federal authorities to local councils. Substantive conclusions of the European Council were deemed helpful for

finance ministers, in their difficult task of negotiating with spending ministries and representatives of sub-central governments.

Secondly, the communication recognised the need to improve the quality of budgetary statistics, and to this end proposed that all parties — Member States and the Commission itself — commit themselves to a code of best practice on the compilation and reporting of budgetary statistics (see Part II.4 of this volume).

Finally, the communication underlined the fact that fiscal rules need to be backed up with effective and credible enforcement procedures. To this end, the Commission proposed to clarify the criteria to be used when deciding whether to activate the early-warning mechanism. The Commission also proposed that the interpretation of the debt criterion of the excessive deficit procedure should be clarified, in particular what would constitute a ‘satisfactory pace’ of debt reduction towards the 60 % of GDP reference value.

2.3. The agreement of the European Council on strengthening the coordination of budgetary policies

The Ecofin Council on 7 March 2003 ⁽¹⁾ adopted a report on strengthening the coordination of budgetary policies which was fully endorsed by the European Council of 21 and 22 March 2003. The Council agreed that there was no need to change the current fiscal rules of the EU, and that improvements could be made to ensure an effective application of the Stability and Growth Pact.

In its report, the Ecofin Council endorsed most of the proposals of the Commission. It considered that compliance with the close to balance or in surplus requirement of the Stability and Growth Pact should be assessed in cyclically-adjusted terms and that countries with deficits must improve their cyclically-adjusted budget position and, in the case of euro-area countries, by a minimum annual reduction of 0.5 % of GDP.

The Council also called for automatic stabilisers to operate symmetrically over the cycle and, to this end, Member States should avoid pro-cyclical policies, especially when growth conditions are favourable.

⁽¹⁾ Ecofin Council report on ‘Strengthening the coordination of budgetary policies’, 7 March 2003, 6877/03 (Press 61).

The suggestion of the Commission to allow for deviations from the ‘close to balance or in surplus requirement’ of the SGP was subject to intense debate. Concerns were raised about the practical feasibility of making such a proposal operational while at the same time safeguarding the commitment to sound public finances. In the end, the Ecofin Council agreed ‘... to pay particular attention to country-specific circumstances, in particular to (i) the long-term sustainability of public finances, (ii) sufficient safety margins at all times, including an allowance for automatic stabilisers to operate fully without breaching the 3 % of GDP reference value and (iii) the coherence between the evolution and quality of the public finances

in the stability and convergence programmes and the close to balance or in surplus requirement’.

Finally, the Ecofin Council agreed to pay greater attention to the longer-term sustainability and the quality of public finances with a view to increasing the growth potential of the EU economies in conformity with the Lisbon agenda. It recognised that the pace of decline in public debt plays an important role in budgetary surveillance, especially in highly indebted countries. In conformity with the Treaty provisions, the excessive deficit procedure should contribute to ensuring a satisfactory pace of debt reduction.

3. Public debt and the excessive deficit procedure

3.1. Introduction

As part of the recent debate on strengthening the coordination of budgetary policies, a consensus was reached on the need to pay increased attention to debt developments and the sustainability of public finances. One step to this end is to enhance the assessment of the sustainability of public finances on the basis of stability and convergence programmes (see Part I.3 of this report).

The European Council of March 2003 also concluded that ‘The pace of decline in public debt plays an important role in budgetary surveillance, especially in highly indebted countries. In conformity with the Treaty provisions, the excessive deficit procedure should contribute to ensuring a satisfactory pace of debt reduction’. Both criteria defined in the Maastricht Treaty (the deficit criterion of the 3 % reference value and the debt criterion) are relevant to ensure sound public finances. A nominal deficit-to-GDP ratio below 3 % allows automatic stabilisers to smooth (at least partially) the cycle without compromising long-term budgetary positions. It also helps monetary policy to keep inflation under control and to sustain the economy during slowdowns. A debt-to-GDP ratio below 60 % (or on a decreasing path) is warranted to ensure that public finances are on a sustainable footing in the light of the projected budgetary impact of ageing populations. In addition, the reduction of government debt will create room to pursue other economic and social goals, in particular to enhance economic growth. High debt levels also leave the credit standing of the country vulnerable to unfavourable economic circumstances ⁽¹⁾.

So far, neither the excessive deficit procedure, nor the risk of excessive deficit have been launched for breach-

ing the debt criterion alone. The challenge is now to ensure that the commitment of reducing debt levels below 60 % of GDP is implemented.

3.2. Compliance with the Treaty requirements

Member States have a Treaty obligation to avoid excessive deficit positions. To this end, Article 104(2) of the Treaty states that ‘The Commission shall monitor the development of the budgetary situation and of the stock of debt in Member States with a view to identifying gross errors. In particular it shall examine compliance with budgetary discipline on the basis of the following two criteria:

- (a) whether the ratio of the actual or planned government deficit [...];
- (b) whether the ratio of government debt to gross domestic product exceeds a reference value [60 % of GDP], unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.’

Article 104(3) states that ‘If a Member State does not fulfil the requirements under *one or both* of the these criteria, the Commission shall prepare a report’. This report is the first step in the process that eventually could lead to a Council decision on the existence of an excessive deficit position.

To make the debt criterion of the EDP operational requires clarifying the conditions under which a debt ratio above 60 % of GDP ‘...is sufficiently diminishing and approaching the reference value at a satisfactory pace’.

⁽¹⁾ See Bank of America Corporation Economic Research, 7 February, 2003.

A key question to consider is whether a Member State could be in an excessive deficit position for not respecting the debt criterion even if the nominal deficit level remains below 3 % of GDP. A priori, the answer is yes, since the Treaty gives the same relevance to both criteria.

The focus on government debt in the EU's budgetary surveillance process is not new. In its decision on Member States to adopt the euro (Council Decision of 3 May 1998), the Council stated that several countries with a government debt-to-GDP ratio still above 60 % respected the convergence criteria on both the deficit and the debt, since the latter was diminishing at a satisfactory pace.

Furthermore, the 'Declaration of 1 May 1998 by the Ecofin Council accompanying the Council's recommendation on Member States adopting the EMU' stated that 'The higher the debt-to-GDP ratios of participating Member States, the greater must be their efforts to reduce them rapidly. To this end, in addition to maintaining appropriate levels of primary surpluses in compliance with the commitments and the objectives of the Stability and Growth Pact, other measures to reduce gross debt should be put in place'. As a result, high debt countries remained committed to reduce their government debt-to-GDP ratios towards the reference value. For instance, Ireland committed to reduce its government debt-to-GDP ratio to 70 % by 1999 (60 % deemed achievable early in the 21st century). Italy stated that the government debt-to-GDP ratio would fall below 100 % in 2003, and thanks to a constant primary surplus, it would continue to fall in the following years. Similar commitments were taken by the Belgian authorities.

3.3. Debt dynamics in EU countries ⁽¹⁾

Table II.3 shows the average annual percentage change of public debt-to-GDP ratios over the past 10 years in two sub-periods, 1992–97 (the so-called period of 'fiscal consolidation') and the years of the Stability and Growth Pact (1998–2002). Over the whole period, the rate of variation has been negative (on average) in only one third of EU members and among those countries with a government debt-to-GDP ratio still above 60 %, only Belgium showed a declining path (–2.2 % on average each year). Thanks to the reduced deficit levels and the

further implementation of the Stability and Growth Pact requirements, the debt-to-GDP ratio has had a more accentuated declining path during recent years. However, in those countries that did not comply with the SGP requirement and/or with very high levels of debt, the speed of debt reduction has been slower than in other countries. Six out of 15 countries have had a rate of reduction of less than 3 % each year between 1998 and 2002, and among these countries there are the three biggest EU economies — Italy, France and Germany — that represent more than 60 % of total EU public debt in 2002.

The pace of debt reduction depends upon both factors that can be shaped by government policies (primary balance, privatisation) and factors which lie outside their immediate control (interest rate changes, growth and inflation rates, exchange rate movements). Factors outside the immediate control of the government, whose combined effect is commonly known as the 'snowball effect', are as follows.

The *interest rates* on government debt: They include expected inflation and a (diversification/default) risk premium. A lower interest rate decreases the amount of interest payments, making the reduction of the debt ratio easier. *Ceteris paribus*, the market interest rate is likely to decrease the more credible the economic policy is.

Real GDP growth: A faster rate of real GDP growth increases the denominator of the debt-to-GDP ratio. It also affects revenues and therefore improves the budgetary position.

Inflation rate: As the denominator of the debt-to-GDP ratio is expressed in nominal terms, a faster inflation rate reduces the value of the stock of debt. The inflation rate has also an impact on government revenues and expenditures, and in general tends to improve the nominal budgetary position. Contrary to the past, given the clear mandate of the ECB to maintain price stability and its independence, this factor can no longer be expected to contribute substantially to debt reduction. However, differences in inflation across Member States could, *ceteris paribus*, be reflected in the pace of reduction of the stock of the debt.

The factors more under governmental control are as follows.

The *primary balance*: This factor is determined by government policies (apart from cyclical components).

⁽¹⁾ The definition of government debt is the one contained in the Protocol annexed to the Maastricht Treaty: 'debt means gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of general government'.

Table II.3

**Average annual percentage change
of public debt-to-GDP ratios**

	1992–2002	1992–97	1998–2002
Countries with debt ratio above 60 % in 2002			
BE	– 2.2	– 1.1	– 3.2
DE	3.7	7.4	– 0.1
EL	2.1	4.7	– 0.6
IT	0.0	2.3	– 2.3
AT	1.8	2.6	0.9
Countries with debt ratio below 60 % in 2002			
DK	– 3.5	– 1.2	– 5.8
ES	1.8	7.7	– 4.1
FR	4.2	8.5	– 0.1
IE	– 10.3	– 8.2	– 12.4
LU	0.3	5.8	– 5.2
NL	– 3.8	– 2.1	– 5.5
PT	0.8	1.8	– 0.2
FI	1.2	6.9	– 4.5
SE	– 4.0	– 1.5	– 5.6
UK	0.0	5.5	– 5.4
EUR-12	1.2	4.1	– 1.7
EU-15	– 0.8	2.1	– 2.5

Source: Commission services.

Other things being equal, a primary surplus improves the government debt-to-GDP ratio (or limit the deterioration).

Stock-flow adjustments: These result primarily from financial operations, for example, debt issuance policy to manage public debt, privatisation receipts, impact of exchange rate changes on foreign denominated debt ⁽¹⁾. In general, these should tend to cancel out over time. However, large and persistent stock-flows (especially if they always have a negative impact on debt developments) should give cause for concern, as they may be the result of the inappropriate recording of budgetary operations and can lead to large *ex post* upward revisions of deficit levels. Also, the debt ratio may fluctuate considerably because of changes in the government's portfolio of financial assets. For instance, if the social security sector decides to shift its reserves from government paper into private securities, the government debt as defined in the Protocol annexed to the Maastricht Treaty increases.

⁽¹⁾ Exchange rate developments may affect the flow of interest payments and hence the implicit interest rate paid on debt, when part of the latter is denominated in a foreign currency.

Table II.4 shows how the above-mentioned factors affected debt development in high debt countries since the mid-1990s. The impact of interest rates and nominal GDP growth is represented by the so-called 'snowball' effect, measured as the difference between the two. Since 1998, beside 'pure' public finance variables, the behaviour of the stock of debt has been negatively affected by stock-flow adjustments in all three high-debt countries.

3.4. What could constitute a satisfactory pace of debt reduction

Table II.5 shows the expected debt dynamic for a country with a starting government debt-to-GDP ratio of 100 % under different nominal GDP growth conditions (the range is between 3 % and 5 %) and when the 'close to balance or in surplus' requirement is always respected ⁽²⁾. As shown, the government debt-to-GDP ratio is expected to reach the reference value in maximum 17 years unless growth conditions remain very adverse over the whole period (that is, below 3 % in nominal terms).

Respect of the 'close to balance or in surplus' requirement will clearly ensure a fast pace of debt reduction. However, for the purpose of operationalising the debt criterion of the EDP, a minimal requirement of what constitutes a 'satisfactory pace' of debt reduction could be defined, to be used as a reference in the assessment of debt developments. This operational indicator should be related to the level of the debt ratio, with a faster pace of reduction required in countries where debt levels are well above the 60 % of GDP reference value. It should also be consistent with the overall policy framework. The indicator should be strict enough to allow debt reduction below the reference value in a reasonable number of years but not be over-demanding.

A number of different methods can be used to measure a satisfactory pace of debt reduction. Depending on how parameters of the rule are fixed, the speed of debt reduction towards the reference value can be very different. A first set of operational indicators can refer to the budget balance position, either in terms of required primary surplus or required budget balance. An example of how this indicator could work in practice for a stylised country with initial government debt at 100 % of GDP is shown

⁽²⁾ Nominal implicit interest rates are set up at 6 %.

Table II.4

Development in debt levels in several EU high-debt countries since the mid-1990s

Belgium	1995	1996	1997	1998	1999	2000	2001	2002
Debt level (% GDP)	134.0	130.2	124.8	119.6	114.9	109.6	108.5	105.3
Change in debt level	- 1.9	- 3.8	- 5.4	- 5.2	- 4.7	- 5.3	- 1.1	- 3.2
Due to: Primary deficit ⁽¹⁾	- 4.9	- 5.0	- 6.0	- 6.8	- 6.5	- 6.9	- 7.0	- 6.1
Snowball effect	4.5	5.7	1.9	3.1	1.7	1.3	3.6	2.9
Stock-flow adjustment	- 1.5	- 4.5	- 1.2	- 1.5	0.1	0.3	2.3	0.0
p.m.								
Implicit interest rate on debt	7.1	6.8	6.4	6.3	6.1	6.2	6.2	5.8
Real GDP growth (p.a. %)	2.4	1.2	3.6	2.0	3.2	3.7	0.8	0.7
GDP deflator (p.a. %)	1.3	1.2	1.3	1.7	1.4	1.3	2.0	2.3
Greece	1995	1996	1997	1998	1999	2000	2001	2002
Debt level (% GDP)	108.7	111.3	108.2	105.8	105.1	106.2	107.0	104.9
Change in debt level	0.8	2.6	- 3.1	- 2.4	- 0.7	1.1	0.8	- 2.1
Due to: Primary deficit ⁽¹⁾	- 1.0	- 3.1	- 4.2	- 5.3	- 5.4	- 5.1	- 4.9	- 4.3
Snowball effect	- 0.5	0.7	- 2.5	- 0.9	0.6	- 0.5	- 1.2	- 2.2
Stock-flow adjustment	2.3	5.0	3.6	3.9	4.1	6.8	6.9	4.4
p.m.								
Implicit interest rate on debt	11.6	10.7	8.2	7.8	7.3	7.1	6.3	5.6
Real GDP growth (p.a. %)	2.1	2.4	3.6	3.4	3.6	4.2	4.1	4.0
GDP deflator (p.a. %)	9.8	7.4	6.8	5.2	3.0	3.4	3.4	3.7
Italy	1995	1996	1997	1998	1999	2000	2001	2002
Debt level (% GDP)	123.2	122.1	120.2	116.3	114.9	110.6	109.5	106.7
Change in debt level	- 0.6	- 1.1	- 1.9	- 3.9	- 1.4	- 4.3	- 1.1	- 2.8
Due to: Primary deficit ⁽¹⁾	- 3.9	- 4.4	- 6.7	- 5.2	- 5.0	- 5.8	- 3.8	- 3.4
Snowball effect	2.3	4.0	4.1	3.1	3.1	0.7	1.5	2.3
Stock-flow adjustment	1.1	- 0.7	0.6	- 1.8	0.6	0.8	1.1	- 1.8
p.m.								
Implicit interest rate on debt	10.1	9.9	8.0	7.0	6.0	5.9	6.0	5.5
Real GDP growth (p.a. %)	2.9	1.1	2.0	1.8	1.7	3.1	1.8	0.4
GDP deflator (p.a. %)	5.0	5.3	2.4	2.7	1.6	2.1	2.7	2.7

⁽¹⁾ The primary surplus include UMTS proceeds, which amounted to 1.2 % of GDP in Italy in 2000; 0.2 % of GDP in Belgium and 0.5 % of GDP in Greece in 2000.

Source: Commission services.

in Table II.6 for different combinations of nominal growth and primary surpluses ⁽¹⁾.

The exact minimum primary surplus required would depend on the pace of debt reduction which would be considered necessary and feasible. A main conclusion to be drawn from the table is the critical influence of the nominal GDP growth rate. If nominal growth rates are

low, then the pace of debt reduction slackens considerably for a given primary surplus. For example, if the nominal growth rate would be 3 % instead of 4 %, it would take 26 as opposed to 17 years for debt to fall below the reference value with a primary surplus of 4 % of GDP. While primary surplus is the policy variable that drives debt reduction over which the government has most control, the budgetary effort becomes higher the lower the debt-to-GDP ratio is. In fact, the implied rate of reduction of the debt-to-GDP ratio increases the lower is the debt-to-GDP ratio.

⁽¹⁾ Nominal implicit interest rates are set up at 6 %.

Alternatively, the 'satisfactory' pace of debt reduction can be defined looking directly at the rate of reduction of the debt ratio. For instance, this can fall by a fixed percentage of the debt ratio each year (Table II.7a) or as a fixed percentage of the distance between the actual debt-to-GDP ratio and the 60 % reference value (Table II.7b). Note, this approach is defined in terms of a specified percentage of reduction in the debt-to-GDP ratio each year and not in terms of a fixed reduction of debt as a share of GDP.

Table II.7a shows the required primary surplus at the beginning and at the end of the adjustment period (for example, first three years and last three years before reaching 60 %) according to different annual rate of reduction and nominal growth assumptions when a fixed

Table II.5

Debt dynamic according to different budget balances and nominal GDP growth rates
(initial government debt-to-GDP ratio: 100 %)

Budget balance	Nominal GDP growth rate		
	5	4	3
	Years to reach 60 %	Years to reach 60 %	Years to reach 60 %
0	10	13	17
- 0.5	12	15	22
- 1.0	14	19	30
- 1.5	17	25	53

Source: Commission services.

Table II.6

The implied rate of debt reduction by a constant primary surplus
(starting point: 100 % of government debt-to-GDP ratio)

	Nominal GDP growth					
	3		4		5	
Average primary surplus	Annual rate of reduction	Years to reach 60 %	Annual rate of reduction	Years to reach 60 %	Annual rate of reduction	Years to reach 60 %
3 % GDP	0.2	>30	1.1	29	2.1	19
4 % GDP	1.2	26	2.2	17	3.2	13
5 % GDP	2.3	16	3.3	13	4.4	10

NB: The table shows the average annual reduction in debt levels as p.p. of GDP in the first five years of a budgetary consolidation programme for different combinations of a constant primary surplus and interest-growth rate differential. It also shows the number of years required to bring debt levels from 100 to 60 % of GDP.

rate of reduction is set up ⁽¹⁾. For instance, a reduction in the debt ratio of 3 % each year would bring the debt level from 100 to 60 % of GDP within 17 years. If nominal GDP growth is assumed constant at 5 %, this would require an average primary surplus of 3.8 % of GDP in the first three years of the consolidation process. As debt levels fall over time, a lower primary surplus would be needed to achieve a constant reduction in the debt ratio of 3 % each year: in the last three years of the consolidation process, an average primary surplus of 3.3 % of GDP would be sufficient.

Table II.7b shows the debt development when the rate of reduction of the debt ratio is based on the distance of the

debt ratio from 60 %. As the debt ratio declines towards 60 %, the further reduction that is required becomes smaller and approaches zero the closer it gets to 60 % ⁽²⁾.

Throughout a fixed rate of debt reduction, the Member State reaches the reference value of 60 % in a reasonable number of years without the rule being over-demanding at the beginning of the adjustment path. However, it could be too stringent for countries with a government debt-to-GDP ratio below 65 % but still above 60 %. Conversely, a percentage of debt reduction that decrease as the debt approaches 60 % of GDP makes a clear distinction between very high and high debt countries.

⁽¹⁾ Nominal implicit interest rates are set up at 6 %.

⁽²⁾ The formula to be applied is the following: $b_t = b_{t-1} - x(b_{t-1} - 60)$ where b_t is government debt-to-GDP ratio at time t ; b_{t-1} is government debt-to-GDP ratio at time $t - 1$; x is the fixed percentage of reduction, i.e. $0 < x \leq 1$.

Table II.7

The implied primary surplus by defining a rate of reduction of the debt ratio

(a) Implied primary surplus by a constant rate of debt reduction

(starting point: 100 % of government debt-to-GDP ratio)

Annual rate of reduction	Years to reach 60 %	Nominal GDP growth					
		3		4		5	
		First 3 years	Last 3 years	First 3 years	Last 3 years	First 3 years	Last 3 years
3 %	17	5.6	4.8	4.7	4.1	3.8	3.3
4 %	13	6.5	4.3	5.6	3.7	4.6	3.1
5 %	10	7.2	5.0	6.3	4.4	5.5	3.8

NB: The table shows the implied primary surplus in the first and last three years of a budgetary consolidation process necessary to achieve a constant annual reduction in debt levels as a % of GDP. Implicit interest rates constant at 6 %.

(b) Implied primary surplus by a fixed percentage of debt reduction based on distance from 60 % reference value

(starting point: 100 % of government debt-to-GDP ratio)

Fixed percentage of debt reduction	Years to reach 60 % ⁽¹⁾	Nominal GDP growth					
		3		4		5	
		First 3 years	Last 3 years	First 3 years	Last 3 years	First 3 years	Last 3 years
7.5	39	5.6	2.1	4.7	1.5	3.8	0.9
10	29	6.4	2.2	5.5	1.6	4.6	1.0
15	19	7.7	2.4	6.9	1.8	6.0	1.2

⁽¹⁾ Since the rule is asymptotic to 60 %, it never reaches the reference value. Therefore, the table shows the number of years to approach the reference value (i.e. to reach 62 % of government debt-to-GDP ratio). The table shows the implied primary surplus in the first and last three years of a budgetary consolidation process by a fixed percentage of debt reduction. Implicit interest rate is constant at 6 %.

However, the debt ratio would approach 60 % at a decreasing speed, without ever reaching it ⁽¹⁾. In addition, to achieve the reference value within a reasonable period of time, the required adjustment at the beginning of the period could become unsustainably high in terms of the required primary surplus.

Graph II.7 compares the implied debt dynamic of the three described approaches with the expected path if a country complies with the Stability and Growth Pact requirement of a budget balance ‘close to balance or in surplus’. The three approaches are set in order to deliver the same rate debt reduction in percentage points of GDP

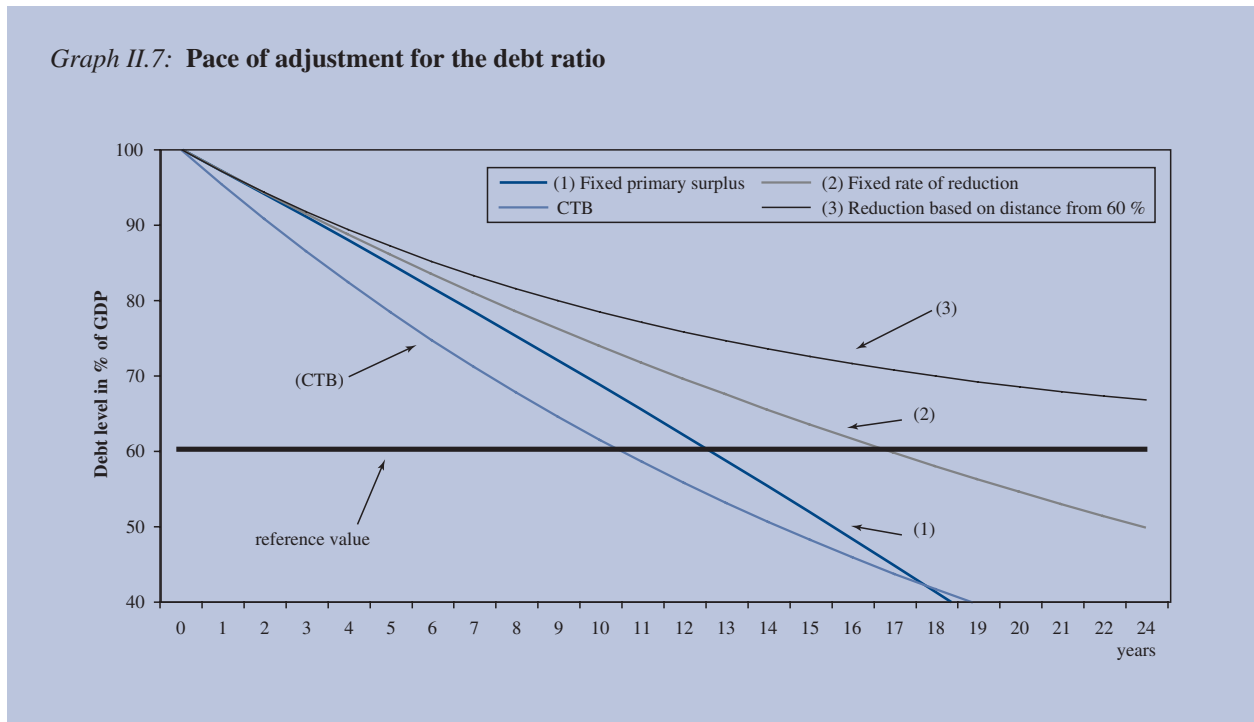
during the first year for a stylised country with initial government to GDP ratio of 100 % ⁽²⁾. Once the parameters are fixed, the approach is then maintained over the years.

To summarise, the pace of debt reduction depends upon both factors that can be shaped by government policies (primary balance, privatisation) and factors which lie outside their immediate control (interest rate changes, growth and inflation rates, exchange rate movements). When assessing debt developments, careful attention should be devoted to each of these factors so as to evaluate to what extent unfavourable debt developments are

⁽¹⁾ To avoid the asymptotic problem at 60 %, it could be proposed to move the target to a value lower than 60 %, say 40 %, when the country has already reduced its debt-to-GDP ratio to a value well below 100 % but still far from 60 %, e.g. 80 %.

⁽²⁾ The implied reduction in the first year is 3 percentage points of GDP, i.e. government debt-to-GDP ratio falls from 100 to 97 %. Primary surplus at 4 %; constant rate of reduction at 3 %; fixed percentage of reduction at 7.5 %. Implicit interest rate at 6 %. Nominal GDP growth at 5 %.

Graph II.7: Pace of adjustment for the debt ratio



due to factors outside the immediate control of governments. Also, the year-on-year development of the debt-to-GDP ratio can be influenced by the volatility of some variables and, for this reason, the dynamic of the debt

should also take into account government debt developments in previous years. It is indeed essential to avoid a too mechanistic approach to assess compliance with the debt criterion.

4. The governance of budgetary statistics in EMU

4.1. Introduction

The quality of economic statistics is crucial to ensure an adequate understanding of the economic situation and to contribute to effective policy making. Low quality statistics may lead to poor economic analysis, mistaken conclusions about the behaviour of economic agents and even to inappropriate policy decisions. The quality of the budgetary statistics of Member States is particularly important given that these statistics are the foundation of the budgetary surveillance framework.

The quality of budgetary statistics is used here as a very generic term. It includes the appropriateness of the accounting rules, compliance of data with the accounting rules, the reliability, credibility, completeness, timeliness, across-time and across-country comparability, consistency and transparency of data.

The quality of the statistics depends primarily on their governance. Governance includes the accounting principles, rules, procedures and behaviour of institutions on the compilation and publication of figures, on the distribution of responsibilities among different institutions and on the mechanisms to resolve technical difficulties or even to mediate conflicts.

Throughout the last decade, since the Maastricht Treaty came into force, there has been considerable progress in the budgetary statistics in the EU. Government accounts are now more reliable, complete, transparent and detailed, and are published in a much more timely fashion than when the excessive deficit procedure (EDP) was set up. Moreover, the governance of statistics has also improved, with the respective roles of the Member States and of the Commission being progressively clarified.

However, some weaknesses can be still identified in the compilation and publication of government accounts by the Member States. In several countries, the government deficit and debt ratios are not yet as reliable as they should be and are subject to large revisions. Furthermore, the government accounts of several countries are not fully transparent, and there have been some problems in terms of timeliness and of inappropriate political pressure on the national statistical institutes. All these concerns are clearly amplified with the perspective of enlargement, since most acceding countries have statistical systems that are less developed than in current Member States and some of them have serious budgetary imbalances (see Part I.2).

The next section of this chapter describes the main elements of the governance of budgetary statistics in EMU. Section 3 assesses the quality of the main budgetary indicators, the government deficit and debt, in terms of reliability, transparency and timeliness. Section 4 is on recent progress to improve the quality of budgetary statistics: the first steps towards the compilation of government accounts with a quarterly frequency and the code of best practice recently endorsed by the Ecofin Council. Section 5 concludes and describes the challenges for the future.

4.2. The governance of budgetary statistics in the EU

4.2.1. Main elements

The main elements of the governance of budgetary statistics in EMU were established already in 1992 in the protocol on the excessive deficit procedure annexed to the Maastricht Treaty. The authors of the Maastricht Treaty were already mindful that an effective implementation of the budgetary surveillance in the EU depended

on the quality of statistics and that the latter should be supported by good governance.

ESA as the accounting reference. The protocol states that the data for the budgetary surveillance should be compiled according to the objective and well-defined accounting rules of the European system of integrated economic accounts (ESA). A main advantage of an economic accounting system like ESA ⁽¹⁾ is that transactions and policy measures are recorded in a meaningful and suitable way for economic analysis, forecasting and policy making. In addition, the ESA accounts try to reflect the economic reality irrespective of the legal and administrative arrangements and therefore lead to comparable results, even if the Member States have quite different institutional settings.

There is a wide agreement that ESA is an appropriate tool to assess economic developments. The usefulness of ESA for budgetary surveillance is also widely accepted, although the accounting system was not developed specifically for budgetary surveillance purposes.

The Commission authority. The protocol also helps to ensure sound governance by stating that the statistical data to be used for the implementation of the excessive deficit procedure are to be provided by the Commission. This implies that the Commission is the statistical authority in this domain. This principle is understandable and logic. Since the budgetary data will be used by the European institutions to check whether Member States adhere to fiscal discipline, it is sensible that these data are officially provided by an impartial institution and not by the Member States themselves. The provision of the budgetary data by the Commission ensures that such statistics are properly checked, their quality is permanently monitored and that they are comparable among Member States.

However, this does not mean that the budgetary data are compiled directly from basic sources by the Commission services. That would clearly be an inefficient option. The compilation of government accounts involves collecting

data on millions of transactions by thousands of government units: by the central government, including the State and several other public units, such as public autonomous funds and services, public hospitals, universities and other education units, by the regional and local governments and by the social security. Clearly, the Commission does not have the means to compile the government accounts of each Member State. According to the principle of subsidiarity, this task belongs to each Member State. However, the statistics compiled by Member States are then reported to the Commission which validates them after a thorough examination.

4.2.2. Other aspects of the governance of budgetary statistics

Besides the basic elements of governance of budgetary statistics contained in the protocol, there are some other important aspects that were developed in secondary legislation or that evolved over the last decade. These include the rules on the reporting of EDP-related data to the Commission, the rules on the transmission to the Commission of more complete budgetary statistics and the role of Eurostat as the Commission service that exercises the Commission's role as statistical authority.

EDP reporting. Given the Commission task of officially providing the statistical data for the excessive deficit procedure, there was a need to organise the transmission or reporting of data by Member States. This was done in a Council regulation of 1993 ⁽²⁾. Member States report their deficit and debt figures twice a year, for 1 March and 1 September.

This twice a year reporting is adequate. The first reporting allows the Commission to get a first estimate of the outcome of the budgetary implementation in the previous year so that the formal implementation of the excessive deficit procedure can be put in motion shortly after the end of the year. The second reporting confirms or revises the estimate with data that are much more stable and reliable.

The reporting tables contain important information to check whether the deficit and debt data comply with the accounting rules. Namely, Member States should report information that explains the adjustments made to the cash-basis deficit to transform it into the ESA definition

⁽¹⁾ The version of ESA that was in force in 1992 was ESA79. This system was replaced in 2000 with the European system of national and regional accounts or ESA95. The adoption of ESA95 as the accounting framework for the budgetary surveillance in Europe in 2000 was a major step in the compilation of national accounts and, in particular, of government accounts. ESA95 is a modern system of national accounts, which has a strong legal basis in the form of a legally binding regulation, while the previous accounting system was simply an administrative document.

⁽²⁾ Council Regulation (EC) No 3605/93. This regulation was slightly revised in 2000 and 2002.

of government deficit. Member States should also transmit information on the contribution of the government deficit and the other relevant factors to the variation in the government debt level, that is the so-called stock-flow adjustment. In practice, this consists of transmitting information on the government financial transactions (such as privatisation, loans, etc) that affect the government debt, but are eligible to be excluded from the government deficit.

Transmission of other budgetary statistics. The EDP reporting covers the data that are strictly indispensable for the surveillance of the budgetary situation in the EU and that are specifically mentioned in the Treaty as convergence criteria. That is the government deficit and debt. However, there are plenty of other elements that are relevant when analysing budgetary policy and the developments in the fiscal position of Member States.

In fact, Member States transmit many other budgetary statistics to the Commission. These other statistics are transmitted according to the transmission programme of national accounts and include:

- the complete government account which is transmitted thrice a year at the end of March, end of August and end of December. This is detailed information on tax revenue and on all other government receipts, on salaries paid, on purchases of goods and services, on investment and on all other government expenditure categories. The data transmission of December is even broken down by sub-sector (central, State and local government and social security);
- the government financial account which is transmitted at the end of September. This is information on transactions on financial assets, such as the sales and purchase of enterprises' shares, loans granted by the government, and on all government liabilities;
- the government financial balance sheets, which are transmitted at the end of September. This is information on the stocks of assets and liabilities owned or owed by government;
- details on taxes and social contributions collected by the general government and each of its sub-sectors, which is transmitted in December for the previous year;

- the breakdown of government expenditure by function, which is also transmitted in December for the previous year.

All this information is disseminated by Eurostat.

Although these other statistics are compiled under a legal context other than EDP, they may be used for economic analysis in the context of the budgetary surveillance and for cross checking the deficit and debt figures reported for 1 March and September.

The role of Eurostat. In the internal organisation of the Commission, the statistical authority role is exercised by Eurostat. The aim of this delegation of powers was that the accounting and statistical issues are treated independently, by an impartial and technically competent body that guarantees the quality of data and lends credibility to the whole process.

The tasks of Eurostat in this field have developed along two lines. The first has been checking and validating the data reported by Member States. This work has been done on the basis of the reporting tables, on other information transmitted by Member States when reporting their EDP data and on regular technical meetings with the national authorities in charge of compiling the deficit and debt figures.

In practice Eurostat has become progressively more active and stricter when checking the data transmitted by the Member States. Several times, notably during the last two years, the control of data by Eurostat led the Member States to amend the reported figures. Moreover, Eurostat has itself amended the reported government statistics figures and publicly expressed reservations about the quality of data reported by a few Member States, thus contributing to the transparency and credibility of budgetary surveillance.

The second part of the Eurostat task has been in clarifying the application of the accounting rules whenever there were doubts over how specific measures and transactions should be recorded. In fact, despite the high level of detail of the ESA accounting rules, there are government transactions for which the accounting treatment is not straightforward. This owes to the specificity of each country, as the same accounting system is applied by countries with fairly different institutional arrangements, to the diversity and multitude of operations performed by government each year and also to the increasing

sophistication of government transactions. To guarantee that data reported by each country are comparable, there is a need to interpret the accounting rules in these circumstances.

The accounting issues with relevance for the government deficit and debt that had so far to be considered by Eurostat can be classified in four broad groups:

- issues about the delimitation of general government, that is whether a specific publicly owned or controlled unit is government, or whether it should be classified outside general government as a public enterprise in the corporate sector;
- issues about the nature of specific transactions, that is to know whether a specific government transaction has any direct impact on the government deficit. In more technical terms, this means that one should decide whether a transactions has a financial or a non-financial nature. In the former case, the transaction has no direct impact on the deficit, while in the latter case, the deficit improves or deteriorates;
- issues about the time of recording of transactions. This issue is particularly relevant since in ESA transactions are recorded on an accruals basis. The accruals basis imply that transactions are recorded when economic value is created, transformed or extinguished, or when claims and obligations arise, are transformed or extinguished, which does not necessarily coincide with a cash disbursement;
- issues about the calculation of the government debt. Eurostat had to decide about the inclusion in the government debt of unusual financing instruments, such as share-convertible and share-exchangeable bonds, of bonds issued by the government specifically for the financing of public enterprises and of bonds issued by special purpose vehicles in the context of securitisation.

The Eurostat decisions have been very important to ensure comparable results. In some cases, they have had substantial impact on the accounts of some Member States.

Multilateral discussion and accountability. Given that the accounting decisions on specific transactions may have significant consequences on the government deficit and debt ratios of Member States, Eurostat has taken its

decisions as openly as possible after discussion with the statistical authorities of all Member States and the consultation of the CMFB ⁽¹⁾. Although the CMFB opinion is not binding, Eurostat always takes the utmost account of the opinions expressed by the CMFB. In practice, in most cases, Eurostat follows the opinion expressed by the majority of CMFB members, whenever it was a question of deciding on the accounting treatment of government transactions. Furthermore, the Eurostat decisions and the CMFB opinions on the recording of government transactions and the respective rationale are made public, thus ensuring accountability.

4.3. Assessing the quality of budgetary statistics

The section above described governance of budgetary statistics. In particular, the distinction between the Commission and the Member States' role is widely recognised as adequate and contributing to the quality of budgetary statistics. However, the quality of statistics must be assessed directly, that is, whether the budgetary figures, in particular the deficit and the debt ratios reported by Member States, are reliable, transparent, consistent and timely.

4.3.1. Reliability

The reliability of statistics is difficult to measure and even to define. The concept of reliability that is used here refers to the successive revisions in data. Are the deficit and debt ratios reported in March each year reliable in the sense that they are only slightly revised after six months or later, or are deficit and debt figures subject to large revisions after the publication of the first estimate?

Over the last three and half years (that is since 2000, when ESA95 replaced ESA79 as the accounting framework for the compilation of government accounts), the average absolute revision in the deficit ratios of Member States has been 0.15 % of GDP after six months, 0.22 % after one year and 0.26 % after 18 months ⁽²⁾. This is a very small figure if one considers that the EU average of

⁽¹⁾ The CMFB, or Committee on Monetary, Financial and Balance of Payment Statistics, gathers senior statisticians and national accountants from the national statistical institutes and national central banks of all Member States, as well as Commission and ECB representatives.

⁽²⁾ This indicator is the GDP-weighted average of the absolute difference between the deficit (or debt) ratio for year t reported in March t+1 and the deficit (or debt) ratio for the same year reported in September t+1 and March t+2.

government total revenue and expenditure that lead to the deficit is around 47 % of GDP.

However in some cases, the revisions in the government deficit ratios were unacceptably high. For example, the deficit to GDP ratio for 2001 as reported by Portugal was revised upwards by 2 % points from spring 2002 to spring 2003; by Greece by 1.5 % and by Italy by 1.2 %. The government surplus of Luxembourg for 2001 was also revised upwards by 1.4 % of GDP.

Concerning the debt ratios, the average absolute revision in data has been 0.31 %, 0.38 % and 0.41 % of GDP after six, 12 and 18 months. The largest revisions in the debt ratio in recent years took place in Greece and Austria ⁽¹⁾.

In most cases, the revisions in the deficit and debt ratios are because the national statistical institutes received better data from their basic sources. However, in other occasions, the revisions were because Eurostat requested countries to amend their data since the accounting rules had not been fully respected or following a clarification of such rules. In some cases, the revision in the GDP figures also played a role in the revision of deficit and debt ratios.

Therefore, while the deficit and debt ratios reported by Member States have been generally reliable, there were very large revisions in a few countries. Although all countries may still improve the reliability of their data, this issue is particular relevant for the countries for which the deficit and debt data were recently significantly revised.

4.3.2. Transparency and consistency

All Member States publish complete government accounts, that is, they publish not only the government deficit figures but also details about their expenditure and revenue, even if in most cases such information appears around one month after the transmission of the deficit data. In this sense, government accounts are

transparent as one may understand what is behind any movement in the deficit ratio (in terms of increase or decrease in specific revenue and expenditure categories) from one year to the other.

For the sake of consistency, it is also important that a link is established between the ESA government deficit and the cash-based public accounts deficits. This is important because the cash-based balances are easier to compile and to monitor as they are directly observable. In addition, the public accounts deficits are scrutinised by the national institutions like the national parliaments and courts of auditors. Therefore, if one is able to explain the link between the two deficit concepts, the ESA government accounts profit from the scrutiny made at the level of the public accounts.

All countries transmit to the Commission data on the link between the cash basis figures and the ESA government deficit for central government. However, for several countries, this information is relatively confusing or not complete or there are important statistical discrepancies. Moreover, only one Member State (Spain) has transmitted detailed information on the link between the cash figures and the ESA accounts for the lower subsectors (regional and local authorities and social security). This is clearly an area where there is still much progress to be made.

4.3.3. Timeliness

Most countries always transmit their data to the Commission within the reporting deadlines. However, some countries consistently report their data to the Commission several weeks after the established deadlines. In most cases, these delays are because of technical difficulties in compiling the government accounts in time for the reporting deadline. However, in a few occasions, Member States have also postponed the transmission of data on purpose for political reasons, such as the proximity of elections.

These delays may hinder an effective and expedited implementation of the budgetary surveillance mechanisms both for the concerned countries, but even for all other countries. Moreover, delays in the transmission of data by Member States lead to delays in the publication of the EU aggregates and impede a proper validation of data by Eurostat.

⁽¹⁾ From spring 2002 to spring 2003, the Greek government debt ratio for 2001 was revised upwards by 7.3 % of GDP, mainly because of the inclusion in the debt of bonds issued in the context of securitisation, of share-exchangeable bonds and of share-convertible bonds. In Austria, the debt ratio was revised upwards by 4.1 % of GDP, mainly because of the inclusion in the government debt of bonds issued by the federal government for the financing of public enterprises (*Rechtsträgerfinanzierung*).

4.4. Recent measures to improve the quality of budgetary statistics

4.4.1. The code of best practice

The Ecofin Council of 18 February 2003, endorsed a code of best practice on the compilation and reporting of EDP data. The aim of the code, which follows the Commission communication on the need and the means to upgrade the quality of budgetary statistics, of 27 November 2002 ⁽¹⁾, is to streamline procedures both at Member States and Commission level that may contribute to improving the quality of budgetary statistics.

The main elements of the code of best practice (the full text of the code of best practice as endorsed by the Council can be found in the annex) are the following:

- the authority of the Commission (and of Eurostat on behalf of the Commission) in assessing the quality of reported data and in interpreting the accounting rules is clarified and reinforced;
- the Member States' responsibility to compile and report data to the Commission, and their commitment to strictly respect the accounting rules and the reporting deadlines;
- the need to ensure transparency and consistency in budgetary statistics and to report figures that are as updated as possible;
- the reporting tables will be revised, as experience has shown that more precise and detailed information is needed ⁽²⁾, while each Member State will provide an inventory of methods, procedures and sources ⁽³⁾;
- Member States are encouraged to address accounting issues at the earliest stage, when there are doubts on the correct accounting treatment of a government

^{via} COM(2002) 670 final.

⁽²⁾ This concerns in particular the lower government subsectors, given that the central government is already relatively well covered. The new reporting tables will be prepared by the Commission in cooperation with the CMFB and will be implemented from March 2004.

⁽³⁾ Such an inventory is a kind of document that the national statistical institutes have already prepared in other circumstances. It is an important tool to check that deficit and debt figures are compiled according to the accounting rules and that the data sources and estimation methods are appropriate. The inventory requested by the Council in the code of best practice should be ready for each Member State by the end of 2004.

measure. Eurostat should be formally consulted on the recording of specific transactions;

- the procedure leading to the Eurostat decisions on accounting issues is streamlined and accelerated. As a rule, no accounting issue should be left pending at the time of the EDP reporting of 1 March and 1 September. Moreover, as a general rule, the Eurostat decisions should be taken within six weeks ⁽⁴⁾ after a formal request has been received;
- Eurostat is entitled to examine in depth the ESA government accounts of each Member State to check compliance with the accounting rules, to express reservations to the reported figure and to amend such figures if need be.

In the above-referred communication of 27 November 2002, the Commission concluded that 'an improvement in the quality of budgetary statistics requires effort and strong commitment from all parties. The Commission believes that the reliability of budgetary statistics would profit from a clarification and streamlining of procedures followed both by the Member States and by the Commission. This clarification and streamlining should take the form of a code of best practice that all concerned parties commit themselves to implement'.

4.4.2. Towards quarterly accounts

EU budgetary surveillance is based on annual data. This means that data that are relevant for deciding whether a country is complying with the SGP requirement of budget positions of 'close to balance or in surplus', or whether such a country is in an excessive deficit position are the deficit and debt ratios for each year. Given that the government budgets are adopted by the political institutions of each country and implemented in a yearly frequency, it would not make any sense to implement the EDP and SGP on a basis other than annual.

However, quarterly accounts for general government can be very important for budgetary surveillance for several reasons. First, quarterly government data allow the budgetary policy analysts to better understand the interaction between the fiscal positions of countries and the economic activity. Second, quarterly data allows policy makers to better calibrate their measures within each

⁽⁴⁾ Please note that this deadline of six weeks does not appear specifically in the code as there is a cross reference to the CMFB rules of procedure.

year whenever any deviation from plans becomes evident. Third, the budgetary efforts made by any country can be better and more quickly appreciated by the Council and the Commission. Moreover, experience from other statistics shows that the compilation of data with a higher frequency (quarterly or monthly figures) has a favourable impact on the quality of statistics with a lower frequency (annual data).

The compilation of quarterly statistics for general government is still at an early stage and should be understood as a medium-term project. The quarterly government accounts are governed by three legal acts.

First, according to Regulation (EC) No 264/2000, all Member States are required to transmit to the Commission quarterly data on taxes and social contributions and on social benefits other than in kind, since mid-2000. These data are transmitted with a three-month lag after the end of the respective quarter. Such data have not yet entered the usual rhythm of regular publication, as their quality is still being assessed by both the Commission and the Member States. However, one expects that the publication of these figures would start later in 2003. Although the variables covered by Regulation (EC) No 264/2000 represent a relatively small part of the complete government account and do not allow the compilation of a quarterly government deficit, they have the potential of becoming very relevant indicators as they are the government account items that are most sensitive to economic activity.

Second, according to Regulation (EC) No 1221/2002, Member States should compile and transmit quarterly data for all other items of the government account, leading to the compilation of a quarterly government deficit. Most countries are already compiling these figures and all of them will do so by mid-2004. However, as in the case with the data on taxes, social contribution and social benefits, such figures will be subject to a quality assessment period and the publication of data per country is not expected before the end of 2005.

Third, the compilation of quarterly statistics on the government financial transactions and of the government financial balance sheets is being envisaged. The relevant legal acts still have to be adopted by the European Parliament and the Ecofin Council, but the plans are that these data will be compiled from 2003 or 2004 on.

For the time being there is no legal act on the compilation of the government debt with an infra-annual frequency, although a few Member States do compile such figures.

4.5. Conclusion and challenges for the future

This chapter described the main elements of the governance of budgetary statistics in Europe. The main elements of the governance — well-defined accounting rules and a clear distinction of roles between the Commission and the Member States — have shown to be necessary, adequate and have contributed to the increase in the quality of budgetary statistics in the EU.

However, there is still scope to improve the reliability, the transparency and timeliness of budgetary statistics in many countries. A strict implementation of the recently agreed code of best practice will also give a major contribution to the quality of budgetary statistics. From the Member States' side, this requires increasing the transparency of government accounts in particular with respect to the government subsectors, a stricter respect of deadlines, an overall increase in the data quality, as well as a reinforcement of the independent role of the national statistical institutes as the main compilers of government data. From its side, the Commission needs to reinforce its ability to scrutinise the Member States' government accounts in more detail. Moreover, it should accelerate the process to decide whenever there are doubts how specific government transactions are recorded in the accounts.

ESA has performed well as the accounting reference and its usefulness as a budgetary surveillance tool has not been challenged. However, one should acknowledge that it is an extremely complex system which is not always properly understood by policy makers and that the compilation of the ESA government deficit and debt is notoriously difficult, lengthy and costly. This is partially because the foundations of the accounting system were developed in a context other than budgetary surveillance and before EDP and SGP were set up.

Moreover, in a context of evolving surveillance, the accounting rules need to be further developed to take due account of innovative transactions or the changing nature of government units⁽¹⁾. The accounting system should remain consistent, provide policy makers with

⁽¹⁾ For example, the reform of the public pension schemes, the development of the securitisation of government assets or of the partnerships between the public and private sectors for the construction of public infrastructures and the provision of public services, etc.

reliable data, and the adequate set of incentives to remain the appropriate tool for budgetary surveillance.

The compilation of quarterly budgetary statistics is a major challenge for the next years. The challenge is mainly for the statisticians who will compile the data, since the quarterly data are notoriously more difficult to compile than annual figures. However, it is also a chal-

lenge for economists, policy-makers and budgetary policy analysts who will need to learn how to read quarterly data, since these will necessarily be more volatile, subject to more revisions and perhaps less transparent than annual data. Anyhow, whilst quarterly data will give a significant contribution for the public finance analysis, the formal budgetary surveillance mechanisms will remain on a yearly basis.

Annex A. Budgetary surveillance for long-term sustainability in EU Member States

Part I.3 of this report described how the sustainability of public finances is assessed on the basis of annual updates to stability and convergence programmes, and explained that the Economic Policy Committee is continuously working on the production of more comparable long-run projections on the budgetary impact of ageing populations on public expenditures. As part of its work on the sustainability of public finances, the working group on ageing populations attached to the Economic Policy Committee (EPC) recently carried out a questionnaire survey on whether and how the sustainability of public finances is systematically addressed as a part of the budgetary-setting process in Member States.

This annex presents a short summary of the results. The questionnaire was divided into two main parts. A first section examined how Member States carried out the long-run budget projections. A second part of the survey examined how such projections are used in the budgetary-setting process, and in particular whether considerations on the sustainability public finances are taken on board in the setting of short- and medium-term budgetary priorities.

Long-term projections: coverage and updating

All Member States currently produce long-term projections for at least some expenditure or revenue items. Pensions and healthcare represent the most relevant public expenditures affected by ageing and they are generally fully covered in the projections exercise, mainly thanks

to the common projections carried out by the EPC at the end of 2001, see Table II.9.)⁽¹⁾.

The coverage of revenue projections is more limited due to methodological difficulties. Any projection of tax revenues should make assumptions on development of tax rates, as they tend to adjust to the level of public expenditures⁽²⁾. It also requires a detailed knowledge of income distribution and its evolution, since this can change the tax bases for direct and indirect taxes. Moreover, the indirect effect of taxation on labour participation and on income levels should be assessed to project the likely impact of ageing on revenues.

A key issue is the demographic scenarios used to perform the projections of age-related expenditures and revenues. All Member States run several projections to take account of different possible scenarios to take into account uncertainty over long-term demographic developments. The demographic scenarios are not fully consistent across countries, since in many cases they are based on national projections and not on Eurostat data. However, the use of national scenarios makes it easier to take on board the latest demographic projections which take account of fast-changing variables such as migration flows.

In most Member States, long-term projections are regularly updated to take into account at least changes in the economic environment and/or the demographic scenario. In Denmark, the UK and Sweden they are updated more

⁽¹⁾ The information provided below comes from a survey across Member States carried out by the Economic Policy Committee of the European Union.

⁽²⁾ See Martinez-Mongay, C. (2000).

often than once a year; in Belgium, Germany and Italy, projections are updated annually ⁽¹⁾. Longer time spans are considered in Ireland (two years), Austria (three years) and the Netherlands (four years). Irregular updating is being done in France, Finland and Portugal. In Greece, a 'National Actuary Authority' has just been established, and it will produce long-term projections on a regular basis in the coming years.

The process of producing long-term budgetary projections generally involves several actors. In most cases the final responsibility for producing the projections is within a governmental body, mainly the Treasury/Finance Ministry or the Labour/Social Affairs Ministry. Social partners, independent experts and social security institutions are frequently involved at some stage in the preparation of technical assumptions and in the feedback of the first wave of results. In many Member States there are ad hoc public bodies (committees and working groups) composed of officials from the public administration and external experts, social partners and representatives of the national Parliament.

For instance, in Germany, consultation is a regular feature of each annual update: a workshop on methodology and the main assumptions that involve the Pension Insurance Institutions (VDR) and the Federal Ministry of Health and Social Affairs is organised. Other institutions are also consulted, and at the end of the process a special

advisory board assesses the results and forwards the assessment to the Federal Parliament. In Austria, a consultant body to the federal government composed of ministry representatives, social partners and researchers discusses projections and it presents subsequently a report to the government. In Portugal there is an interministerial working group on ageing that discusses technical aspects of the projections. An ad hoc group is also established in the Irish Finance Ministry (the Long-Term Issues Group) and in Belgium (Comité d'études sur le vieillissement). In France, a body attached to the Prime Minister's Office coordinates the consultation with many different actors (social partners, Parliament, Ministry of Finance etc.).

The use of projections in budgetary procedures

All Member States use long-term projections at some stage of the budgetary process, reflecting a shift in recent years from budgetary procedures that only focused on short-term targets, to procedures that incorporate more longer-term considerations.

Currently, long-term projections are used in Sweden, Finland, the Netherlands, Belgium and Denmark as a tool in setting the medium-term budgetary targets of the government.

Long-term projections are also used in the majority of countries at the design stage of major reforms, in partic-

⁽¹⁾ In the case of Germany this applies to projections performed for the general statutory pension scheme.

Table A – Long-term public expenditures development covered by national projections

	BE	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	DK	SE	UK
Pensions of public employees	X	X	X		X	X	X	n.a.	X		X	X	X	X	X
Pensions of private employees	X	X	X	X	X	X	X	n.a.		X	X	X	X	X	X
Pensions of employers	X	X	X	X	X	X	X	n.a.		X	X	X	X	X	
Second pillar pensions		X						n.a.					X	X	
Third pillar pensions								n.a.	X				X		
Healthcare	X		X			X	X	n.a.	X		X	X	X	X	X
Education	X					X		n.a.	X				X	X	X
Others ⁽¹⁾	X					X	X	n.a.	X	X	X	X	X	X	X

⁽¹⁾ IE: Other areas of social welfare, such as child benefit and unemployment benefit payments; NL: All other expenditure items (for example, defence, general government transfers abroad); FI: Services: long-term care, child day care; Benefits: family allowances, unemployment benefits, sickness insurance allowances, housing allowances, living allowances, etc; DK: unemployment benefits, labour market- and maternity leave, cash benefits, early retirements benefits, pension benefits payable between early retirement and normal retirement (*efterløn*), child care and residential support for elderly; SE: All public sector expenditures; UK: All spending, for example long-term care, non-pension social benefits (for example, child benefit, incapacity benefit, housing benefit), net transfers abroad etc; IT: age-related lump sums other than pensions will be projected in the coming years; AT: contributions and federal transfers; PT: long-term care projections available in December 2003; BE: all social security expenditures are included: sickness and disability. Family allowances, unemployment, early retirements.

ular those related to pensions or tax systems. Projections are generally used as additional information for preparing specific provisions of legislation. In some countries, there is a legal obligation for each new law or amendment to be accompanied by a technical report on the long-term budgetary effects for which the use of projections is indispensable. For instance, in Italy the long-term (10 year) impact of a pension reform must be assessed and annexed to the law proposal. In the UK, individual reforms are generally assessed for their long-term fiscal sustainability before policies are implemented. In Germany, such projections were used when the 2001 pension reform was devised.

The assessment of long-term sustainability of public finances

The assessment of long-term sustainability of public finances is conducted primarily by ministries of finance/economy but there are cases where the Social/Labour Ministries or other public institutions are involved (Table B).

A key issue is the definition of long-term sustainability of public finances. It can refer to debt dynamics or to a budget balance position. In the Netherlands and Denmark, public finances are considered sustainable if debt is not on an ‘explosive path’, implying a constant debt-to-GDP ratio over the long term. Other countries refer to the Treaty requirement of 60 % in the debt-to-GDP ratio as in Sweden where a sustainable debt path is one which never exceeds the Treaty reference value. In Italy, there are currently two ways to assess long-term sustainability of public finances. One has been developed in the 2002 updated stability programme for the first year and refers

to a debt reduction towards 60 % of GDP. A second definition of sustainability refers to the impact of different debt structure scenarios on the cost of debt and on real GDP growth rates. This analysis is then used to project the evolution of the debt-to-GDP ratio in a long-term perspective.

Belgium and Austria refer more explicitly to the definition given by the EPC, that is, each year to maintain a budget position which is balanced or in surplus. A rather different definition is the one used in the UK, where sustainability is defined as meeting the government’s sustainable investment rule, which says that net debt should remain below 40 % of GDP over the economic cycle.

On the basis of the above-mentioned definitions of long-term sustainability, countries use a number of indicators:

- budget balance: the country is not sustainable if the budget balance cannot be maintained for the whole period covered by the projections;
- fiscal gaps, tax ratios (whether the current tax ratio is sustainable);
- increase of expenditure and revenue which are sensitive to changes in the composition of the population (mainly pension expenditures);
- economic dependency ratios;
- a measure of generational fairness where benefits from government expenditure enjoyed by a generation minus taxes paid by this generation should be similar across generations.

Table B – Who makes the assessment of long-term sustainability

	BE	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	DK	SE	UK
Ministry of Finance/Treasury/Economy		X	X	n.a.			X	n.a.	X	X	X	X	X	X	X
Ministry of Health		X		n.a.		X		n.a.							
Ministry of Social Affairs/Labour			X	n.a.				n.a.			X				
Others (1)	X	X		n.a.				n.a.	X				X		

(1) BE: Conseil Supérieur des Finances - public research institute; NL: Netherlands Bureau of economic policy analysis; DK: independent institutions; DE: Ministry of the Interior (if the civil servants’ pension scheme is assessed).

Part III

Public investment and its interaction
with the EU's budgetary rules

Summary

Public investment as a share of GDP has fallen in the EU in recent decades, and currently, public investment expenditures are relatively low compared with other industrialised areas. There is a widespread perception that the process of budgetary consolidation (both before and after the launch of the euro) and the application of the EU's fiscal rules has contributed to excessively low levels of public investment: it is claimed that a sustained growth in spending would improve the EU's growth potential in accordance with the Lisbon strategy.

However, data analysis shows that the decline in public investment rates is a long-run tendency that had already started in the 1970s, and affected all industrialised countries and not just EU Member States. Declining levels of public investment as a share of GDP have been attributed to factors such as economic development and structural change (with developed countries already having acquired a high stock of physical capital) and the changing boundaries between public and private investment (in part linked to the process of privatisation). Some of the decline in public investment levels appears to be related to efforts to consolidate public finances, which was necessary irrespective of EMU. A careful analysis of the data taking account of other explanatory variables, however, fails to show any clear-cut link between changes in investment ratios and the provisions of the EU's framework for fiscal surveillance. Indeed public investment expenditures in many Member States have stopped falling since the beginning of monetary union.

Public investment can make an important contribution to meet the output and employment goals of the Lisbon strategy. However, in considering the links between public investment and growth, it is important to focus on net as opposed to gross investment levels (that is, taking account of the depreciation of the existing capital stock) and also the interaction between trends in public and private investment levels. Existing studies reveal that public investment has a positive impact on output and productivity, although the results are not very strong and

depend quite crucially on the analytical methodologies employed. This is explained by the fact that only a fraction of public investment expenditures are devoted to projects which aim directly at improving the allocation of resources and raising productivity (for example, investment in transport infrastructure): a significant proportion of public investment is devoted to projects that pursue other objectives such as environmental protection or redistribution across regions, which only indirectly contribute to output.

Understanding and measuring the links between public and private investment is also crucial to assessing the overall impact of public investment on the economy and its growth potential. A priori, both a complementarity or a substitution relationship can be expected between public and private investment, depending on whether crowding-out effects via reduced savings and increased interest rates are compensated by higher productivity of private capital associated with enhanced public infrastructure. In recent decades, both public and private investment rates have declined in the EU as a whole, although there are significant differences across countries. In some countries, such as Greece, Ireland, Luxembourg and Portugal, both public and private investment have been rising. Conversely, both type of investments have been falling in other countries, such as France, Germany, Italy and the Netherlands. Finally, in other countries, such as Austria, Denmark and the UK, the fall in public investment has been coupled with a moderate increase in private investment. The analysis of the data shows that public investment has a poor explanatory power on the dynamics of private investment: the effect is generally not significant, with the exception of the UK, where there is some evidence of crowding-out, and that of Portugal and Spain, where instead the evidence indicates a crowding-in effect. In summary, the hypothesis that a generalised increase in public investment expenditures in the EU would contribute to growth via higher private investment receives little empirical support.

The important role of public investment is recognised in the existing framework for budgetary surveillance: for example, Member States are required to specify planned public investment levels in their annual updates to stability and convergence programmes and the BEPGs frequently recommend that an increased share of total public expenditures be devoted to productive items such as investment. In brief the budget balance requirements of the Treaty and SGP are compatible with a high share of public spending being devoted to public investment. The recent Commission communication on strengthening the coordination of budgetary policies sought to cater for the budgetary impact of large investment projects while, at the same time, respecting the commitment to sound and sustainable public finances.

Several calls have been made to introduce a so-called golden rule into the SGP, which would allow governments to borrow to finance investment. However, there are strong theoretical and practical arguments against its introduction, especially in a framework of multilateral surveillance such as the SGP. First, a golden rule based on a national accounts system could lead to a bias in expenditure decisions in favour of physical capital and against spending on human capital (education and train-

ing) or other productive items (healthcare and R & D) which also contribute to growth and employment. Second, if applied to gross investment, the adoption of a golden rule into the SGP framework may imply substantially higher deficits, thus compromising the objective of sustainability of public finances. Finally, to be effective it would need to apply to net investment: however, data on net investment is neither reliable nor timely.

There is a growing practice of financing public purpose investment projects through public–private partnerships (PPPs). The main implication for public finances of choosing PPPs as opposed to traditional public investment is, in fact, that of converting up-front fixed expenditures into a stream of future obligations. While this practice has a sound microeconomic rationale (increased efficiency without compromising public objectives), there is the risk that the recourse to PPPs is increasingly motivated instead by the purpose of putting capital spending outside government budgets, in order to bypass budgetary constraints. If this is the case, then it may happen that PPPs are carried out even when they are more costly than purely public investment. Efforts are also required to ensure a transparent recording of PPP transactions in national accounts.

1. Introduction

Public investment as a share of GDP has fallen in most industrialised countries in recent decades prompting many commentators to argue that this is having negative consequences on productivity. In the EU context, it has been claimed that the deficit targets of the Treaty and SGP may contribute to keeping public investment expenditures at excessively low levels, and that consideration should be given to allowing for a special budgetary treatment for public investment.

This part of the report analyses and discusses the issue of public investment in the framework of the EU's fiscal rules. Public investment is analysed from a long-run, macroeconomic perspective. Issues related to sectoral patterns or microeconomic efficiency (for example, cost-benefit analysis) are therefore left aside and the focus is on the aggregate trends in public investment and their determinants and on the impact of public investment on output, growth, and private investment.

While the effects of public investment on output and growth have been extensively studied empirically in the past decade, there is little work investigating systematically how public investment relates to private investment in EU countries. New empirical analysis is thus carried out to investigate this issue. Original analysis is also undertaken to study the relationship between public and private investment in EU countries and the impact of the advent of EMU on the evolution of public investment.

Chapter 2 provides a definition of public investment and describes the broad trends in public investment level in developed economies in recent decades.

Chapter 3 examines the economic rationale for public investment and its potential impact on productivity. In particular, it surveys the main empirical findings on this matter.

Chapter 4 takes a closer look at developments as regards public investment in EU Member States. It focuses on the relationships between public and private investment levels in EU countries, and also considers whether public investment levels have been affected by the Treaty and SGP budgetary requirements both before and after the launch of the euro. While this section focuses on the link between budgetary consolidation and investment, it should also be borne in mind that a reverse causation could exist, as transparent public procurement procedures can contribute to budgetary savings⁽¹⁾.

Chapter 5 is forward looking and examines the pros and cons of proposals to modify the existing EU fiscal rules to include a golden rule for public investment. It also presents the main features and the budgetary implications of public-private partnership agreements for undertaking public investments.

⁽¹⁾ OECD (2003a).

2. Public investment: definition and broad trends

2.1. The definition of public investment

Through public investment, governments increase and improve the stock of capital employed in the production of the goods and services they provide. It is important to note that the term ‘public investment’ used in this chapter refers to a rather unique definition used in national account statistics and thus excludes certain expenditures which typically might be considered as constituting investment (Box III.1). It includes the relevant transactions that lead to changes in the stock of physical capital, but excludes a large amount of expenditures related to the accumulation of human capital. For example, the construction of research laboratories or the purchase of computer software is included in the definition of public investment, but wages paid to researchers and scientists are not: in national account statistics, this type of spending is classified as current expenditures of the public sector, in spite of the fact that the labour services provided by these professional categories contribute to the accumulation of human capital. Equally, investment in knowledge (education, training or R & D) also enhances productivity performance in the long run by favouring more knowledge-intensive, higher value-added job creation, but this is not captured by the national account definition ⁽¹⁾.

With regard to the contribution of the stock of public capital, a distinction should also be drawn between gross and net investment by the public sector. Only the concept of net investment takes into account depreciation (that is, the loss of economic value of the current capital stock due to usage or obsolescence) and as such is the correct measure of the actual change in value of the stock of public capital. However, the available statistics on net investment are the result of estimation methods, and are

of limited reliability. It is therefore common to refer to the statistical aggregate ‘gross fixed capital formation of the general government’ to obtain country-level information on public investment.

2.2. Broad trends of public investment in industrialised countries

In most OECD countries, (gross) public investment has on average been below 5 % of GDP in the past 30 years, a fraction about five times lower than private investment. From the 1970s onwards, public investment rates have been falling significantly in a number of OECD countries, although the picture is quite differentiated across countries (see, for example, Roubini and Sachs, 1989, Oxley and Martin, 1991) ⁽²⁾.

Focusing on the EU, US and Japan, Graph III.1. shows that gross public investment as a share of GDP fell visibly in the US and in the EU during the 1970s and the first half of the 1980s, whereas in Japan the trend was broadly positive ⁽³⁾.

⁽²⁾ A downward trend in public investment as a share of GDP is quite substantial in non-EU OECD countries such as Norway, Canada, Australia, Iceland and New Zealand. In Switzerland, the share of public investment on GDP has instead remained quite stable. The main exceptions among OECD countries are Japan and South Korea where, on average, the role of public investment has been growing.

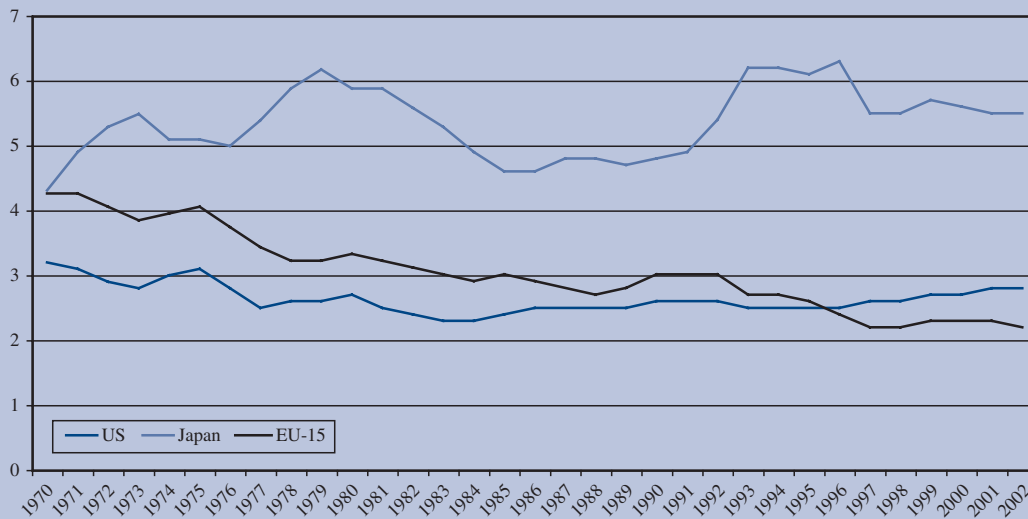
⁽³⁾ In the whole analysis, data to Germany in the years before unification refer to West Germany only. Moreover, in this part of the report, ESA95 gross public investment data are linked with those referring to the previous classification systems system according to the following criterion:

$$X_t = X_{t-1} \left(1 + \left(\frac{X_t - X_{t-1}}{X_{t-1}} \right)_{FORMER} \right),$$

where the subscript ‘Former’ refers to the classification used before ESA95. This linking methodology assumes that the growth rates in the variables are the same irrespective of the accounting system employed and has the advantage of avoiding ‘jumps’ in time series in correspondence with the year in which the accounting system changes.

⁽¹⁾ European Commission (2002d).

Graph III.1: Gross fixed capital formation, general government, % of GDP at current market prices



Box III.1: Public investment in national account statistics

In national account statistics, investment is defined as expenditures in fixed assets, for example, in items that last for more than one year. So, while for instance teachers' wages are classified as current expenditures, buildings or furniture used in the education sector enter the definition of investment. The most common statistical definition of public investment is the *gross fixed capital formation* of the general government. Since the general government is the relevant institutional unit, this definition includes investments carried out by the central government and by local authorities, but excludes investments by public enterprises classified as market units.

In the ESA95 system of accounts (see Council Regulation (EC) No 2223/96), gross fixed capital formation consists of 'resident producers' acquisitions, less disposals, of fixed assets during a given period plus certain additions to the value of non-produced assets realised by the productive activity of producer or institutional units. Fixed assets are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly, or continuously, in processes of production for more than one year'.

Some remarks concerning the above definition are warranted. First, gross fixed capital formation does not take necessarily positive values. Negative values may be recorded if the public capital stock is reduced through sales of assets. Second, changes in inventories are excluded, meaning that the stock of items other than fixed assets that can be cumulated and carried over (for example, materials and supplies used as intermediate inputs in production) are not part of gross fixed capital formation. Third, fixed assets are not necessarily physical. Intangible assets, like patents or software enter, in fact, the definition of gross fixed capital formation. Finally, it should be noted that some types of military expenditures such as the 'purchase of military weapons and their supporting systems' are not included in the category of gross fixed capital formation, whereas all military expenditures with a possible civilian use (for example, hospitals) are included. This is a major difference with respect to the accounting system previous to ESA95.

(Continued on the next page)

Box III.1 (continued)

The concept of *net* fixed capital formation takes into account the flow of resources that are used up during the year in maintenance operations (repairing or substituting capital goods) and the depreciation of existing fixed assets of the public sector. The quantification of net fixed capital formation is obtained by subtracting capital consumption from gross fixed capital formation. In available national account statistics, capital consumption figures are the result of an estimation method. In the ESA95 system of classification the suggested estimation method is based on the value of the stock of fixed assets (obtained through the perpetual inventory method) and the probable average economic life of the different capital items.

Public investment as a share of GDP in the EU continued to fall throughout most of the 1990s, but started to rise in later years. In contrast, public investment in the US had started to rise already by the mid-1980s; and by the end of the 1990s it had surpassed the EU.

A large body of studies has identified several factors that could explain this downward trend in public investment levels⁽¹⁾. First, there are reasons linked to economic structural development. The supply of public capital (public infrastructure especially) depends upon the level of economic development of a country. At very low levels of development, the supply of public infrastructures is limited by the availability of financial (savings) and technical resources. At intermediate levels of development, the limiting role of these factors weakens and the contribution of public infrastructure to the economy becomes more important. At high levels of development, the marginal productivity of public physical capital starts decreasing, while the role of knowledge and human capital becomes more important. In brief, public investment levels are likely to be highest in countries at intermediate levels of economic development.

Second, there are reasons related to the changing boundaries between the public and private sector as regards the provision of overall investment in the economy. In recent decades, the private sector has increasingly replaced the government in the realisation of risky long-term projects due to the development of more efficient capital markets and better possibilities of hedging risk via market instruments. Also, many industrial and industrialising countries in the 1980s and 1990s have

been characterised by privatisation practices, through which activities owned and managed by the public sector have been transferred totally or partially to the private sector⁽²⁾. Moreover, in a number of countries a growing share of investments in public interest have been carried out through the operation of public-private partnership agreements (PPPs). Frequently, investments carried out in this way are not registered as government investment in national account statistics (see Section 5.3 of this chapter).

Finally, there are reasons related to the need to consolidate public finance positions. From the 1980s onwards, many industrial countries, especially in Europe, were faced with rising public deficits and debts. In many instances, governments found it easier to achieve a part of the consolidation of public finances by reducing public investment.

Overall, the trend towards falling levels of public investment has led to an extensive debate as to whether this is in part responsible for lower productivity and growth rates. This issue is examined in the next section of this chapter. There has been an added dimension to this policy debate in the EU, namely whether the need to respect the budgetary requirement of the Treaty and SGP has affected the level of public investment, an issue which is taken up in Section 4.

⁽¹⁾ For empirical evidence on this issue see, for instance, de Haan, Sturm, and Sikken (1996).

⁽²⁾ Privatisation practices may result in falling public investment figures because of two reasons. The first is that the sales of non-financial assets owned by the general government enters with a negative sign in the definition of government investment statistics. The second is that after privatisation the investments related to the transferred activities (for example, to improve or expand their services) stop being undertaken by the government and exits from public investment statistics.

3. Public investment: its rationale and impact on efficiency

3.1. The rationale for public investment

Public sector economics identifies a number of reasons why governments should undertake public investment ⁽¹⁾. In many instances, the promotion of economic growth is not the main (or even minor) rationale for a government to undertake a particular public investment, and therefore the link between public investment and efficiency (productivity) is very often only of an indirect nature.

A first reason for public investment is the supply of public goods, that is, goods for which there is no rivalry in consumption and that would be under-supplied by the private sector alone. A typical example would be public investment in transport infrastructures such as roads, harbours or railways. In general, these are intermediate public goods, that is, they produce their benefits as inputs in the production process rather than as final goods, and have an important impact on the efficiency of the private sector investments. However, not all government investment on public goods is likely to have a direct impact on productivity. For example, investment in infrastructures to ensure clean air and water, while essential for the general welfare of citizens, may only indirectly feed through to efficiency.

A second rationale for public investment comes from the presence of various sources of market failures. Investments in infrastructures with environmental purposes serve to deal with pollution or other types of environment-related externalities. Investment in the education sector can be justified on the ground of human capital externalities and knowledge spillovers. Due to such phe-

nomena, the social marginal productivity of education would exceed the private one. In the absence of public intervention, under-investment in schooling and education-related activities would arise ⁽²⁾.

Another category of market failures that justifies public intervention in the provision of infrastructures comes from the presence of increasing returns and natural monopoly-type arguments. The provision of network infrastructures (in energy distribution or telecommunication for instance) could be subject to increasing returns associated with so-called network externalities resulting in a natural tendency towards monopolisation. In such industries, public intervention through the direct supply of services or the regulation of the sector is desirable to overcome the inefficiencies associated with the under-supply by the private sector. Since public utilities provide important intermediate inputs in private sector production, their efficient provision has an impact on overall productivity. However, it should be pointed out that, due to technological and institutional innovation (for example, international liberalisation of air transport and public utilities) in recent decades, the role of natural monopolies has been shrinking, thereby enabling governments to leave the provision of such goods and services to the private sector.

A third argument in favour of public investment is that of missing markets for capital or insurance that result from asymmetric information problems. In the absence of properly functioning capital and insurance markets, private firms may not be willing to undertake risky projects or projects that can be recovered only over a very long time horizon. In these cases, the only alterna-

⁽¹⁾ For a general treatment of the rationale for public sector activity see, for example, Atkinson and Stiglitz (1990). See also European Commission (2002a).

⁽²⁾ It should be noted, however, that only spending on education infrastructures (such as school buildings etc) is recorded as public investment in national account statistics, whereas spending on teachers' salaries is recorded as current expenditures.

tive to have such type of projects carried out is through the public sector.

Summarising, there are several reasons that justify the desirability of public investment in terms of a more efficient allocation of resources. It should be noted though that in many cases the principal rationale for a particular public investment is not to increase efficiency in the supply of goods and services that enter production statistics (GDP), but rather to pursue some other policy objective that raises overall welfare, for example, protection of the environment or a fair distribution of resources. This is also the case for investment related to the provision of several types of welfare state services (for example, hospitals, public housing, ...) ⁽¹⁾. Hence, a priori, a strong link between government investment, productivity and growth should not be expected.

In principle, public investments are desirable until the social marginal benefit of public capital exceeds its social marginal cost. Social marginal benefits exceeding social marginal costs indicate that public capital is in short supply and that higher public investment would improve social welfare. In practice, however, the supply of public capital can be far from the welfare maximising level for several reasons.

A basic reason has to do with the lack of information of the policy-makers about the costs and benefits of public investment. The outcome of the actual economic evaluations of policy-makers concerning public investment (for example, though cost-benefits analysis) is subject to potentially large errors related to limited information on the technical characteristics of projects and on citizens' preferences (free-riding problem). The potential discrepancy between the outcome of actual cost-benefit analyses and the 'true' social marginal costs and benefits become evident by considering that an appropriate estimate of social costs should refer to the concept of opportunity cost (which requires an estimation of the benefits from alternative uses of public funds) and should take into account the cost of alternative means of financing public investment, including an assessment of the impact of distortionary taxation.

Political economy considerations may also lead to investments which are not welfare increasing for the society as a whole. A basic reason is that public investments such as infrastructures tend to concentrate the benefits among a clearly identifiable and relatively small subset of the population, while the costs tend to spread among a larger and more diffused group. Such types of 'pork-barrel' projects may end up being over-provided by the public sector (see, for example, Drazen, 2000, on this subject) ⁽²⁾.

In sum, for a number of reasons public capital may either be in short or in excess supply. Understanding whether public investment is socially desirable in a particular country or region is most often an empirical matter.

3.2. Public investment, productivity and growth: the empirical evidence

In the 1990s, a large amount of research was carried out with the aim of measuring the contribution of public capital in terms of increased production possibilities, reduced costs for the private sector or enhanced growth prospects. In spite of the different approaches and methodologies followed and different measures of public capital employed (for example, total public investment from national account statistics, estimates of the net public capital stock, estimates of the stock of public infrastructures, or estimates of transport infrastructure only), all these analyses assume that public capital is a production factor of a particular type.

Aschauer (1989a) found a significant and strong positive impact of public investment on aggregate output for the US case, whereby a 1 percentage point increase in the public capital stock would raise aggregate output by almost 0.4 percentage points. This result generated a vivid debate in academic and policy circles. Empirical work proliferated, investigating alternative datasets (different periods or countries) and following new methodologies. In these subsequent analyses, not only is the estimated impact of public investment on output smaller, but quite often the results are insignificant or even negative (see Box III.2 and Table III.1).

⁽¹⁾ By definition, such investments will not necessarily have a direct positive impact on overall efficiency. However, by contributing to social cohesion they may improve a country's 'social capital' and to its long-run productive potential: an efficient allocation of resources.

⁽²⁾ This does not mean that political economy factors lead to a bias of public expenditure in favour of investment expenditure. Political economy reasons (existence of political clienteles and pressure groups) may equally explain a bias towards excessive current public expenditure.

Box III.2: Empirical evidence on the effects of public investment: methodologies and results

In recent empirical analyses, different methodologies have been followed to analyse the impact of public investment on economic activity. A first strand of studies follows the so-called 'production function approach'. The aim is that of estimating the parameters of an aggregate production function in which public capital enters as a separate productive factor. The obtained estimate of the marginal productivity of public capital is thus chosen as a measure for the benefits of public investment. This approach has been followed for the first time in the seminal work of Aschauer (1989a). The analysis following this approach generally finds quite ambiguous results (see Table III.1). Results appear to depend quite crucially on the level of aggregation of the dataset and the way dynamic relations among the variables are modelled. In general, studies using panel datasets disaggregated at the state or regional level find a weaker or insignificant impact of public investment. Concerning dynamics, once proper techniques are used to obtain stationary series (thus avoid estimating possible spurious relations between public capital and output), results tend to become ambiguous.

In other studies a different approach has been followed. Instead of production functions, cost or profit function of private sector firms have been estimated. The idea is that public capital affects the costs and profits of firms as an unpaid fixed input. This approach has the advantage of imposing less restrictions on the equations to be estimated and allowing for the estimation of the shadow price of public capital. In most of the cases public capital is found to reduce the costs of private sector firms. However, in several studies (for example, Berndt and Hansson, 1991, La Ferrara and Marcellino, 2000) it is found that public capital is in excess supply, since its social marginal productivity (proxied by its shadow price) is lower than its social marginal cost.

Some analyses followed an atheoretical approach. Instead of deriving measures of the contribution of public capital from the estimation of production or cost function equations, these studies investigate the dynamic relationship between public investment and other aggregate variables (output, private investment, etc) through vector auto regressions (VAR) analysis. Under this approach, no a priori assumptions are made concerning causal relations: all variables are jointly determined. In most of this work, measures of public investment are found to increase aggregate output, but there are exceptions (see Table III.1) ⁽¹⁾.

A different strand of studies analyses the impact of public capital on the growth potential of countries or regions. The idea is that public capital (transport or communication infrastructure, for instance) has an impact on the accumulation possibilities of the economy, rather than on the level of output. The empirical methodology to test this hypothesis is that of cross-section growth regressions. Growth rates in per-capita income over a given time period for a collection of countries or regions are regressed on initial conditions and a list of conditional variables (for example, measures of human capital stock), including the stock of public capital. Results from these studies appear to be very fragile. Depending on the set of countries and regions considered the impact of public capital may or may not be significant.

⁽¹⁾ Such results are obtained by means of Granger causality tests.

While results do not seem to depend crucially upon the particular country or period considered, the level of aggregation of the dataset and the way dynamic relations among the variables are modelled seem to matter. Some work (for example, Berndt and Hansson, 1991, Conrad and Seitz, 1994, La Ferrara and Marcellino, 2000) compare estimates of the social marginal benefits (proxied by shadow prices) with estimates of the social marginal costs of public capital, with the aim of determining whether public capital is in short or in excess

supply ⁽¹⁾. Quite often, the results are not supportive of the view that public capital is under-supplied.

⁽¹⁾ The shadow price of public capital measures the impact on private sector firms' costs of a unitary increase in the stock of public capital. This measure is thus an adequate proxy of the social marginal productivity of public capital, under the assumption that the main role of public capital is as an intermediate input. Estimates of public capital shadow prices are commonly used in cost-benefit analysis and project evaluation. Measures for the social cost of public capital are based on estimates of the public investment deflator, rates of return and depreciation rates.

Overall, a majority of studies indicate that public capital has a positive impact on output, productivity or growth. However, results appear to be quite weak and fragile. When positive, the estimated impact in most of the studies is not a strong one, and there are cases in which the impact is insignificant or even negative. A certain consensus is emerging that public investment is not as important for growth as other factors, such as investments in human capital (see, for example, Barro and Sala-i-Martin, 1998).

These results are mainly explained by the fact that the purpose of a non-negligible share of public investment expenditures is not that of (static or dynamic) efficiency but rather that of supporting the provision of welfare services and affecting the distribution of income. Data on the sectoral distribution of public investment in EU countries indicate that the investment projects directly affecting overall productivity and growth potential are

hardly the majority ⁽¹⁾. Even if the most important category is transport infrastructure (roads and bridges in particular), which accounts by itself for almost one third of the gross fixed capital formation of the general government in the EU, the rest is devoted to purposes not necessarily related to productivity and growth. A share between 10 and 15 % of public investment is absorbed by fixed expenditures for education and health (for example, construction and maintenance of school buildings and hospitals), while the provision of public housing and community amenities (for example, water and sewers) accounts for roughly 10 % of public investment. The remaining share is mainly devoted to general public services (for example, administration), defence and security.

⁽¹⁾ Matha et al. (2000).

Table III.1

The effect of public investment on output, productivity and growth

Study	Data	Results
<i>1. Production function approach</i>		
Aschauer (1989a)	US, time series 1949–85	Positive effect of public capital on output
Sturm and De Haan (1995)	US, time series 1949–85	Positive effect of public capital on output; insignificant effects using time differences
Evans and Karras (1994)	US, panel data on 48 states, 1970–86	Insignificant effect of public capital on output
Baltagi and Pinnoi (1995)	US, panel data on 48 states, 1970–86	Insignificant effect of public capital on output
Garcia Milà et al. (1996)	US, panel data on 48 states, 1970–83	Insignificant effect of public capital on output
Aschauer (1989c)	G-7, panel data, 1966–85	Positive effect of public capital on output
Ford and Poret (1991)	11 OECD countries, time series 1960–89	Significant positive effect in Belgium, Canada, and Germany
Merriman (1990)	Japan, panel data on 9 regions, 1954–63	Positive effect of public capital on output
Bajo-Rubio and Sosvilla-Rivero (1993)	Spain, time series 1964–88	Positive effect of public capital on output
Dalamagas (1995)	Greece, time series 1950–92	Ambiguous effects
Kavanagh (1997)	Ireland, time series 1958–90	Insignificant effect of public capital on output
Lighthart (2000)	Portugal, time series 1965–95	Positive effect of public capital on output
La Ferrara and Marcellino (2000)	Italy, regional panel, 1970–94	Negative effect of public capital on output
<i>2. Cost or profit function approach</i>		
Berndt and Hansson (1991)	Sweden, time series 1960–88	Reduction in costs. Public capital in excess supply.
Conrad and Seitz (1994)	Germany, panel on three sectors, 1961–88	Reduction in costs. Public capital in short supply during 1961–79; in excess supply during 1980–88.
Dalamagas (1995)	Greece, time series, 1950–92	Reduction in costs
Lynde and Richmond (1993a)	UK, time series 1966–90	Reduction in costs
Lynde and Richmond (1993b)	US, time series, 1958–89	Increase in output
Morrison and Schwartz (1996a)	US, panel on 48 states, 1970–87	Infrastructures have a negative impact on costs
Morrison and Schwartz (1996b)	US, panel six New England states, 1970–78	Public infrastructure reduces costs, but less than private investment
Seitz and Licht (1995)	Germany, panel on 11 states, 1971–88	Reduction in costs
La Ferrara and Marcellino (2000)	Italy, regional panel, 1970–94	Insignificant effect on costs. Public capital in excess supply for Italy as a whole.
<i>3. VAR studies</i>		
Clarida (1993)	US, France, Germany, UK, time series 1964–89	TFP and public capital are cointegrated, but direction of causality is unclear
Sturm et al. (1999)	Netherlands, time series 1853–1913	Public infrastructure Granger-causes output
Otto and Voss (1996)	Australia, time series 1959–82	No significant relation between public capital and output
Lighthart (2000)	Portugal, time series 1965–95	Public investment Granger-causes output
<i>4. Cross-section growth regressions</i>		
Barro (1991)	76 countries, 1960–85	No effect of public investment on per capita GDP growth
Easterly and Rebelo (1993)	100 countries, 1970–88	Insignificant effect of public investment on per capita GDP growth, significant effect of transport and communication spending
Crinfield and Panggabean (1995)	282 US metropolitan areas, 1960–77	Ambiguous or insignificant effects of local and federal public capital on per capita GDP growth
Host-Eakin and Schwartz (1994)	48 US states, 1971–86	Insignificant effects of public capital on per capita GDP growth
Mas et al. (1994)	17 Spanish regions, 1955–91	Not always significant effects of public capital on per capita GDP growth
Matha et al. (2001)	EU countries, 1960–97	Positive effect of public investment on per capita GDP levels, negative on output growth
La Ferrara and Marcellino (2000)	Italian regions, 1970–94 (panel structure)	Positive effect of public infrastructure investment on TFP growth

4. A closer look at public investment in Member States and the interaction with the EU fiscal rules

4.1. The evolution of public and private investment in EU countries

4.1.1. Trends in recent decades

The EU has been characterised by a prolonged downward trend in public investment rates in recent decades. There is a quite widespread view that such a tendency may have contributed to reducing the productive potential of EU countries. However, since what matters for output and growth is the accumulation of overall capital rather than that of public capital only, to support this argument one needs to assess how the decline in public investment shares relates with trends in private investment in EU countries.

On average, gross public investment in the EU in the 1970–2002 period has been slightly above 3 % of GDP. Over the same period, private investment averaged about 19 % of GDP in the 1970–2002 period. The difference between public and private investment is less marked when using net fixed capital formation figures. The share of net public investment in GDP was about 1.4 % of GDP over the same period, while that of net private investment is just above 6 %. This smaller difference is mainly explained by the fact that, as on average the stock of private capital is higher than that of public capital, a large part of the investment is devoted to maintenance.

Graph III.2 provides a breakdown of average gross public, private and total investment-GDP shares over the 1970–2002 period for each Member State. Regarding public investment, the lowest shares are recorded for Italy, Germany and the UK, while the highest are those of Ireland, Luxembourg, and Sweden.

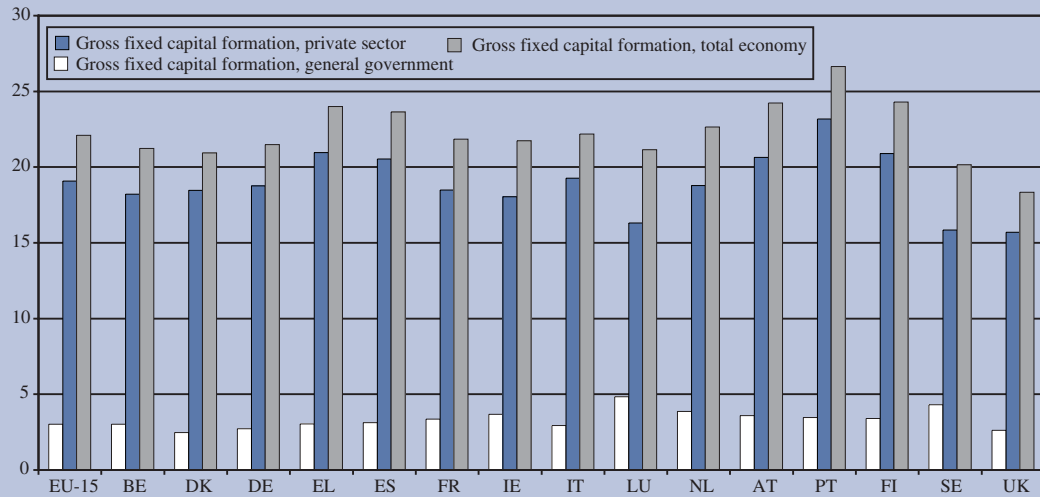
Evidence concerning net investment is reported in Graph III.3 ⁽¹⁾. Net investment shares are generally less than one half of gross investment shares. In Denmark average net public investment during the 1974–2001 period has been particularly low compared with gross investment, being slightly negative. At the opposite end, in Ireland, Spain and Portugal, net public investment has been relatively high in comparison with gross figures. These differences across countries between gross and net investment figures reflect primarily differences in the size and composition of the capital stock, but may also be related to non-uniform practices for imputing depreciation.

Graph III.4 reports average annual changes in the share of gross private, public and total gross fixed capital formation during the period 1970–2002. For the EU-15, a reduction is observed in both the public and private component of investment, resulting in a reduction of the total investment share of about half a percentage point per year. The average annual reduction is stronger for the public component, which is above 1.6 percentage points per year.

Overall, the evidence shows that investment shares differ quite widely across countries. Differences in investment shares seem mainly to reflect differences in per-capita income and levels of economic development. Cohesion countries (Greece, Ireland, Portugal and Spain) registered relatively high overall investment shares and both public and private investment rates

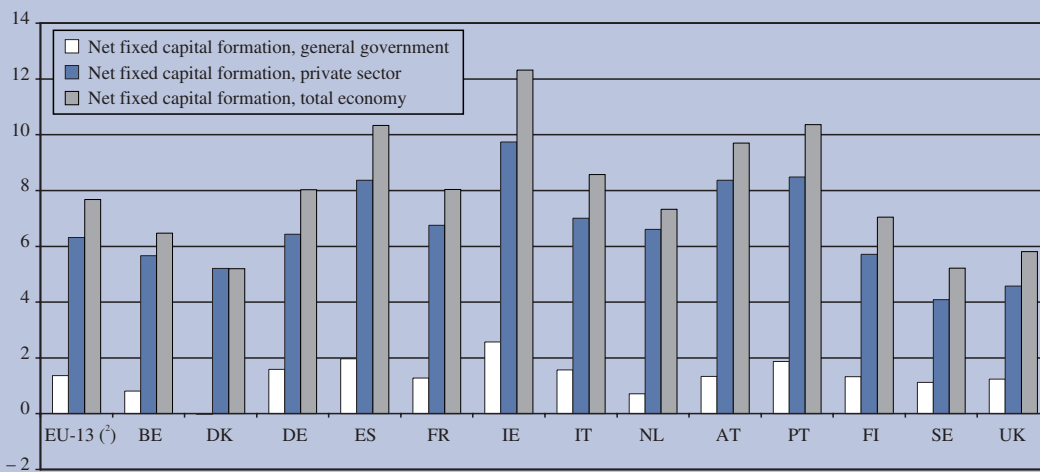
⁽¹⁾ Data are reported for the 1974–2001 instead of 1970–2002 due to missing values.

Graph III.2: Gross public, private and total investment, % of GDP, average values for the period 1970–2002, ⁽¹⁾



⁽¹⁾ Gross fixed capital formation.

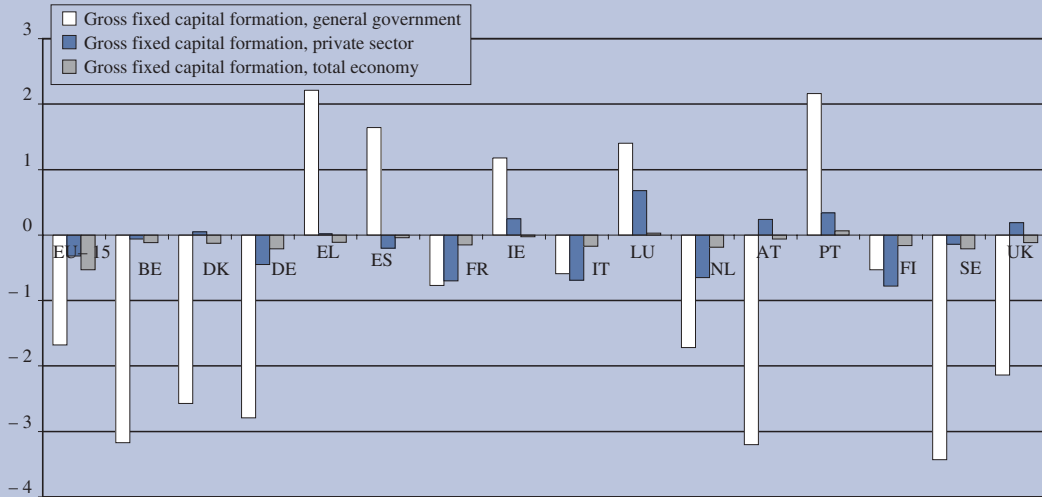
Graph III.3: Net public, private and total investment, % of GDP, average values over the period 1974–2001 ⁽¹⁾



⁽¹⁾ Net fixed capital formation.

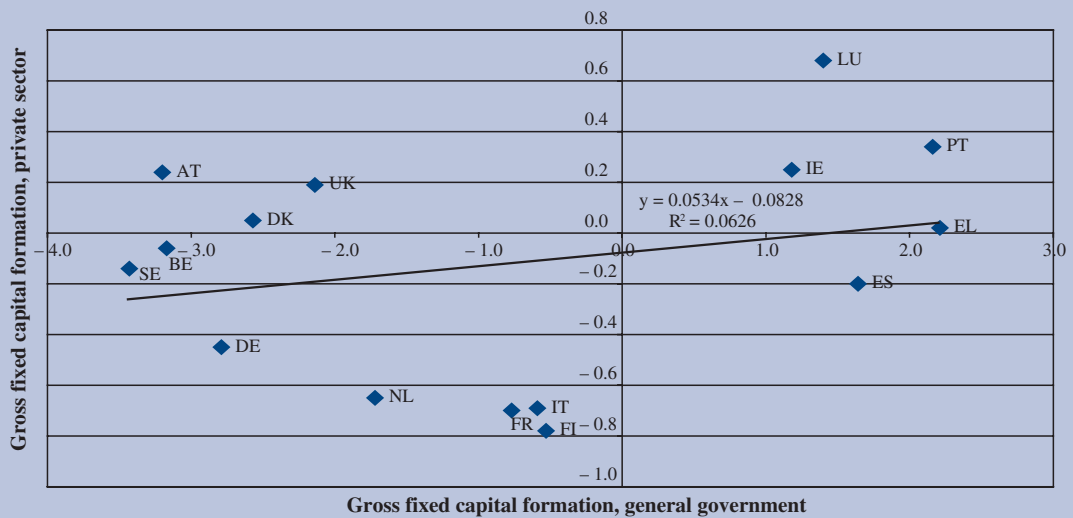
⁽²⁾ Excluding Greece and Luxembourg.

Graph III.4: Average annual changes in investment shares (1970–2002) ⁽¹⁾



⁽¹⁾ Gross fixed capital formation.

Graph III.5: Cross-country relations between growth rates in public and private investment (average annual changes in shares, 1970–2002)



have generally been growing in these countries ⁽¹⁾. Conversely, investment rates have been generally relatively low and falling in countries with relatively high per-capita income. This is particularly evident by looking at changes in public investment rates, with strong negative values observed for countries such as Austria, Belgium, Germany and Sweden, characterised by per-capita income higher than the EU average.

Another factor that helps to explain cross-country differences in the evolution of public investment rates is the occurrence of changes in the ownership structure of productive assets. The reduction in the investment activity of the public sector is partly the result of privatisation initiatives especially in the UK, Austria and Germany ⁽²⁾.

4.1.2. Is there a link between changing levels of public and private investment ?

A relevant question is the following: how does the fall in public investment relate with changes in private investment? A clear a priori effect of public investment on private investment is not evident. On the one hand, as with other types of public expenditure, public investment tends to crowd out private investment via reduced available savings and higher interest rates. Public investment may also crowd out private investment if the public sector engages in activities that are strictly substituted with those normally carried out by the private sector (for example, productive investment by publicly owned enterprises). On the other hand, public investment may exert a positive effect on private investment (crowding in) via increased productivity of private sector firms, higher expected profits and better investment opportunities. This is typically the case of public infrastructures that are used as common inputs in private sector firms' activities (for example, transport and communication facilities).

In Graph III.5, growth rates in private investment are regressed against growth rates in public investment

⁽¹⁾ An additional reason why public investment shares may have been in general higher and growing in cohesion countries is the availability of Community structural funds. However, this should not be considered as a structural determinant, and the size and direction of structural funds will change after the accession of new Member States.

⁽²⁾ The shift of ownership concerned mainly energy and telecommunication infrastructure. As a result of privatisation, public investment in these countries became even more concentrated into fewer sectors, such as transport infrastructure, health and education (OECD, 1998). In the UK case, after the privatisation of telecom and energy companies, and of airports and railways, about 15 % of UK gross fixed capital formation was transferred outside the general government sector (Pollitt, 2000).

across countries. The relationship appears to be positive, although weak, indicating that the countries experiencing bigger reductions in public investment are more likely to also experience bigger reductions in private investment. Such an analysis, however, does not provide any information on the direction of causality, so that it is not possible to say if it is public investment causing private investment, if it is the opposite, or if there is a third factor that is simultaneously affecting both public and private investment. To investigate this issue further, time series analyses have been performed separately for each country, with the aim of assessing the effect of changes in public investment on future developments in private investment (see Box III.3 and Table III.2). Results are weak and vary considerably across countries. In most countries, public investment did not play a significant role. Crowding-in effects are found for Spain and Portugal, while for the UK there is evidence of crowding-out.

In sum, there is no evidence that changes in public investment had a relevant or systematic impact on private investment developments in EU countries.

4.2. Budgetary consolidation in light of EMU and its impact on public investment

Among the factors that may have contributed to explain the downward trend in public investment has been the efforts by Member States, especially during the mid-1990s, to consolidate public finances in light of mounting public debt which was accompanied by a consequent increase in interest expenditure. While budgetary consolidation was necessary in any event, the prospect of stage III of EMU and the entry into force of EU budgetary rules may also have played a role. With the entry into force of the Maastricht Treaty, Member States committed to avoid excessive deficits and high debt levels (an entry condition for joining the euro area). An additional budgetary requirement came into force with the launch of the euro in 1999, namely the objective of the Stability and Growth Pact to achieve budget positions of 'close to balance or in surplus'.

The purpose of this section is to examine the impact of budgetary consolidation on public investment rates in EU countries. It should be stressed that this analysis examines the relationship between budgetary consolidation in terms of deficit levels and changes in public

**Box III.3: Public and private investment in EU countries:
crowding in or crowding out?**

The purpose of this analysis is to assess which impact public investment had on private investment in EU countries. A common methodology followed in time-series analyses to test whether one variable has a significant impact on another variable (or set of variables) is through Granger causality tests. This test permits the understanding of whether the past values of the variable to be tested (public investment in this case) adds explanatory power to an existing relationship between one variable (private investment) and its lags ⁽¹⁾.

Granger causality tests are performed for all 15 current EU countries. Yearly data are used, ranging from 1970 to 2002. The chosen specification to perform Granger causality tests is the simplest possible, and it is the same for all countries. Private investment at time t is assumed to depend upon its own value at time $t-1$ and upon public investment at time $t-1$. This formulation permits to save degrees of freedom, given the limited number of time series observations. Variables are expressed as first differences of their logarithm. This transformation permits to obtain stationary time series, so that ordinary least squares estimation methods can be used. The logarithmic transformation permits the interpretation of the variables employed in the regressions as growth rates of the underlying variables. Formally, the equations to be estimated are as follows:

$$\Delta i_t^p = \alpha + \beta \Delta i_{t-1}^p + \gamma \Delta i_{t-1}^G + \varepsilon_t,$$

where Δi_t^p (resp., Δi_t^G) is the difference between the log of private (resp., public) investment at time t and time $t-1$, while ε_t is a random term.

Testing whether public investment has an impact on private investment (Granger causes) in the above specification simply amounts to test whether the parameter γ is significantly different from zero. A significantly negative value for γ indicates crowding out, a positive value would be associated with crowding in.

Results are reported in Table III.2. for all EU-15 countries. The coefficient of public investment normally turns out to be not significant, with the exception of three countries: Spain, Portugal and the UK. For Spain and Portugal, the estimated impact of public on private investment is positive; conversely, for the UK it is negative. A possible interpretation of the results for Spain and Portugal can be related with decreasing returns in public capital. Spain and Portugal are characterised by a relatively low public/private investment ratio during the period considered (see Graph III.2.). For these countries, since the stock of public capital is relatively low (and thus its marginal productivity relatively high), an increase in public capital results in higher productivity for the private sector and then in enhanced profits and better investment opportunities for private firms ⁽²⁾. In the case of the UK, a possible explanation comes from the process of privatisation of the 1980s and 1990s and the growing involvement of private sector firms in the realisation of projects of public interest. Due to changing ownership of assets from the public to the private sector, falling public investment in the UK may have coincided, to a certain extent, with a corresponding increase in investment by the private sector. Something else to note is the negative and almost significant coefficient for public investment in the case of Sweden. In this country the public/private investment ratio is higher compared with the rest of EU countries. This may indicate a relatively low marginal productivity of public capital, so that an increase in public investment would mainly crowd out private investment through reduced available savings and higher interest rates ⁽³⁾.

⁽¹⁾ In existing studies on the relation between public investment and private investment using Granger causality tests, results depend on the particular countries and periods analysed and on the specific methodology followed (for example, Aschauer, 1989c, Eremburg, 1993), Flores de Frutos et al., 1998 find evidence of crowding-in, while Monadjemi et al., 1998, Lightart, 2000 and Voss, 2001 find support of the crowding-out hypothesis). Among the existing studies, there is none analysing systematically all EU countries.

⁽²⁾ The result for Spain is consistent with those found in previous studies (for example, Flores de Frutos et al., 1998), while Lightart (2000) finds no evidence of crowding-in in the case of Portugal.

⁽³⁾ This interpretation for the Swedish case is consistent with existing work estimating that the stock of public capital in Sweden is above the optimal one (Berndt and Hanson, 1991).

Table III.2

**Public and private investment.
Granger causality tests**

Dep. Variable: Δi_t^p	Δi_{t-1}^p	Δi_{t-1}^G	N. obs	Adj. R squared
BE	0.213 (0.189)	- 0.114 (0.137)	31	0.0385
DK	0.194 (0.183)	0.101 (0.161)	30	- 0.0118
DE	0.473 (²) (0.1749)	- 0.024 (0.117)	31	0.159
EL	0.063 (0.204)	0.06 (0.173)	31	- 0.0577
ES	0.491 (³) (0.152)	0.158 (¹) (0.081)	31	0.271
FR	0.449 (²) (0.165)	0.012 (0.141)	31	0.155
IE	0.25 (0.191)	- 0.084 (0.155)	29	- 0.063
IT	0.287 (0.179)	- 0.076 (0.106)	31	0.036
LU	- 0.153 (0.199)	0.122 (0.264)	31	- 0.047
NL	0.301 (0.177)	- 0.137 (0.149)	31	0.066
AT	- 0.002 (0.178)	- 0.026 (0.121)	31	- 0.069
PT	0.39 (²) (0.16)	0.262 (¹) (0.138)	31	0.227
FI	0.6 (³) (0.154)	0.05 (0.182)	31	0.32
SE	0.438 (²) (0.163)	- 0.246 (0.176)	31	0.223
UK	0.377 (²) (0.161)	- 0.144 (²) (0.07)	31	0.234

NB: Estimation method: OLS, constant term included. (³), (²), (¹), denote, respectively, significance at 1, 5, 10 % level. Coefficient standard deviations are reported in parentheses. Δi_t^p is the difference between the (log of) real gross fixed capital formation of the private sector at time t and at time t-1. Δi_t^G is the difference between the (log of) real gross fixed capital formation of the general government at time t and at time t-1. The deflator used is that of gross fixed capital formation, total economy.

Data source: AMECO database.

investment, rather than a detailed examinations of specific provisions of the EU framework for budgetary surveillance (¹).

(¹) The EU framework for budgetary surveillance is presented in previous issues of this report. See European Commission (2000, 2001 and 2002a).

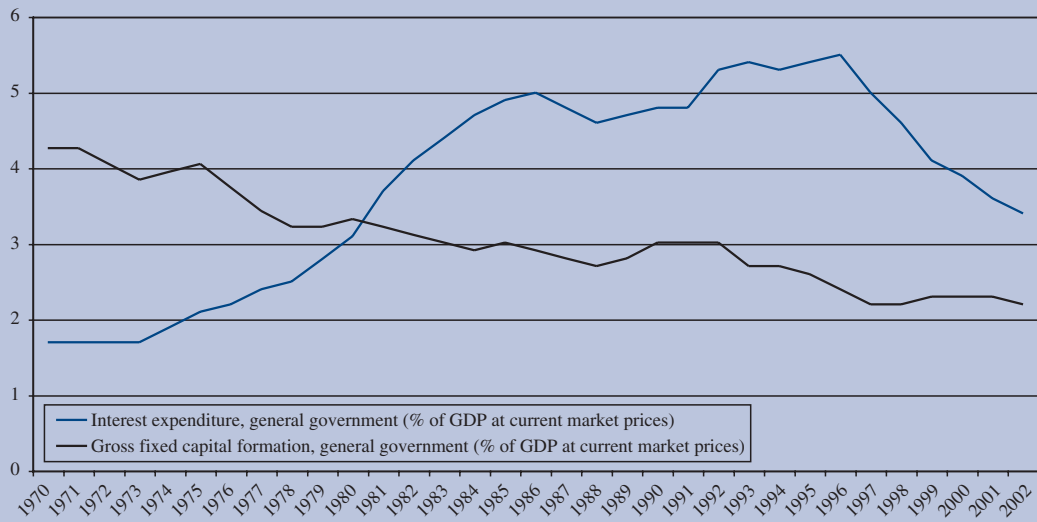
Graph III.6 shows that in EU countries public investment and interest expenditure followed quite opposite tendencies during the past decades. It shows that the share of interest expenditure reached its maximum in the mid-1990s and declined in subsequent years. Public investment reached its minimum level around 1997 and stayed broadly constant afterwards. Table III.3 presents evidence consistent with the hypothesis that fiscal consolidations induced by high debt levels and the need to satisfy the Maastricht criteria coincided with relatively larger cuts in public investment. For each European country, the average annual change occurred in government revenues, total primary expenditures and public investment (shares on GDP) during consolidation periods is reported. With the exception of Greece and Portugal, public investment in all countries dropped during phases of consolidation and in general did so more markedly than total primary expenditures.

Table III.3 also reports the average annual change in government revenues, total primary expenditures and public investment for the EU-14 aggregate separately for the overall period, for consolidations periods only, and for consolidation periods occurring after 1985 only. Public investment cuts during consolidations occurred throughout the whole period, but were on average deeper during consolidations that took place after 1985, which were concentrated on the expenditure side.

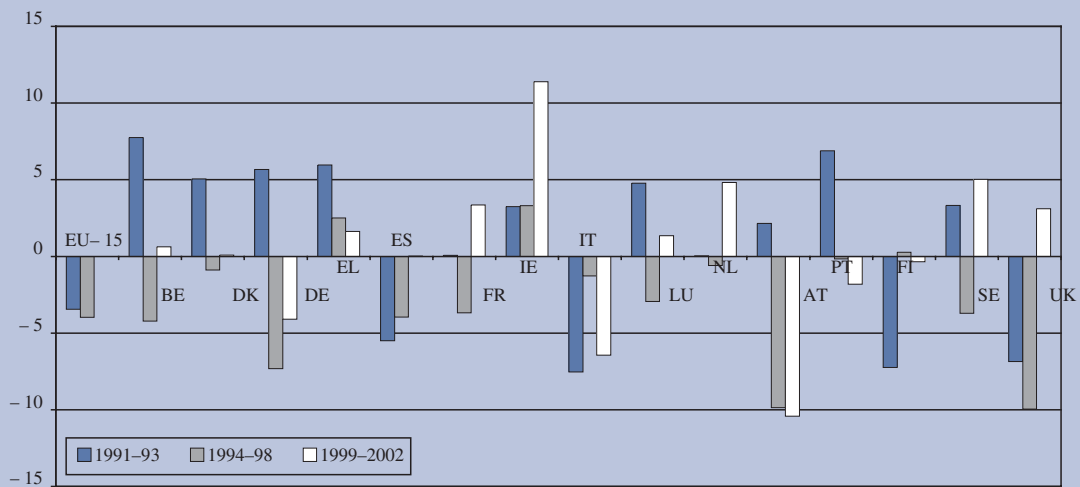
Graph III.7 reports the average annual change in public investment shares in each EU country and in the EU aggregate during the 1990s, distinguishing several sub-periods. The first sub-period (1991–93) coincides with phase I of EMU. The second sub-period (1994–98) corresponds to phase II of EMU. It is in those years that the Maastricht calendar for monetary unification exercised the strongest pressure on governments, urging them to keep their budget deficits below 3 % of GDP as a condition for entering EMU. Between 1994 and 1998, public investment in the EU registered the largest drop. However, it can be noted that, during this period, public investment also fell in all the countries that chose not to join the single currency (²). The third sub-period (1999–2002) coincides with the years of operation of the euro. In spite of the fact that in this period the Maastricht

(²) While in Denmark and Sweden this reduction was not particularly strong, the UK is the European country registering the largest drop in public investment in this period. The reduction of UK public investment in this period concerned mostly central government investment in health, education and defence (Clarke, Elsby and Love, 2001).

Graph III.6: Interest expenditure and public investment, EU-15, 1970–2002



Graph III.7: Public invest changes in the 1990s (average annual changes in GDP shares) ⁽¹⁾



⁽¹⁾ Gross fixed capital formation, general government.

Table III.3

The composition of fiscal consolidations, general government (1970–2002)

	Total revenues	Total primary expenditure	Gross fixed capital formation
EU-14 average			
Overall period	0.9	0.977	- 0.98
Consolidation periods	1.52	- 0.86	- 4.13
Consolidation periods after 1985	0.59	- 1.48	- 4.62
Individual countries, during consolidation periods			
BE	0.59	- 0.75	- 6.00
DK	0.78	- 2.14	- 2.34
DE	0.89	- 0.06	- 6.83
EL	2.60	- 0.45	3.73
ES	0.50	- 1.00	- 6.30
FR	1.94	0.91	1.70
IE	2.91	- 2.17	- 5.32
IT	2.44	- 0.31	- 4.78
NL	2.46	- 1.40	- 2.35
AT	1.61	0.50	- 8.00
PT	0.53	1.12	1.45
FI	0.14	- 2.43	- 4.28
SE	1.73	- 2.90	- 4.46
UK	2.10	- 0.95	- 10.70

NB: Figures refer to average annual % changes in shares on GDP. Cross-country averages are unweighted. The years of fiscal consolidation in each EU country are those reported in European Commission (2000), p. 20 for the 1990s, while for the remaining period are those reported in IMF (1996), p. 57.

Source: Commission services.

requirements for fiscal discipline (integrated with the provisions contained in the Stability and Growth Pact) continued to operate, the share of public investment in GDP stopped falling in the EU aggregate ⁽¹⁾. In several countries public investment shares actually rose (Ireland especially).

On the basis of the data, it appears that public investment in EU Member States has been cut, especially during the periods of fiscal consolidation occurring in the late 1980s and in the 1990s. These dynamics may be partly explained by the fact that in periods of financial distress, public investment is often more likely to be cut than cur-

⁽¹⁾ For the EU aggregate, public investment shares are constant at 2.3 GDP percentage points for the 1999–2001 period and equal to 2.2 percentage points in 2002.

Table III.4

The determinants of public investment in the EU: Regression analysis (EU-15, 1970–2002)

RPCGDP(t-1)	- 0.112 ^(?) (0.011)	- 0.145 ^(?) (0.013)	- 0.172 ^(?) (0.014)
RLIR(t-1)	- 0.036 ^(?) (0.014)	- 0.022 (0.014)	- 0.021 (0.014)
CAB(t-1)	- 0.038 ^(?) (0.013)	- 0.057 ^(?) (0.013)	- 0.064 ^(?) (0.013)
DEBT(t-1)	- 0.021 ^(?) (0.002)	0.025 ^(?) (0.002)	- 0.024 ^(?) (0.002)
TOTGREV(t-1)	0.051 (0.012)	0.051 ^(?) (0.012)	0.055 ^(?) (0.012)
EMU		0.566 ^(?) (0.122)	0.881 ^(?) (0.149)
EMU*CAB(t-1)			0.115 ^(?) (0.032)
R squared, within groups	0.44	0.47	0.48

NB: Dependent variable: Gross fixed capital formation, general government (% of GDP).

Estimation method: fixed effects panel regression.

Country effects coefficients are not reported.

Hausman tests rejected random effects in linear panel regressions.

^(?), ^(?), ^(?), denote, respectively, significance at 1, 5 and 10 % confidence. Coefficient standard deviations are reported in parentheses.

RPCGDP(t-1): Real per capita GDP, lagged one year.

RLIR(t-1): Real interest rate on 10 year government bonds, lagged one year.

CAB(t-1): Cyclically-adjusted budget balance, % of GDP, lagged one year.

DEBT(t-1): Gross nominal public debt % of GDP, lagged one year.

TOTGREV(t-1): Total revenue, general government % of GDP, lagged one year.

EMU: dummy variable equal to 1 for years following 1993 and for EMU countries.

Source: Commission services.

rent public expenditure since the former is made of fixed expenditures which can be delayed or moved to future periods with relatively low political costs. The evidence also seems to suggest that the effects of the fiscal discipline provisions of EMU were quite different before and after the introduction of the euro. The years preceding the introduction of the euro coincided with a particularly strong reduction in public investment shares in most countries. Conversely, and also thanks to the progress made in reducing interest expenditure, the introduction of the euro coincided with a halt in the downward trend in public investment that characterised the EU since the early 1970s. Interestingly, the trends are similar in countries that do not form part of the euro zone

Results of regression analysis presented in Table III.4 (see also Box III.4) suggest that the requirements of fiscal discipline associated with EMU have produced both a direct and an indirect effect on public investment, with opposite signs:

- on the one hand, EMU is associated with higher public investment shares, keeping other factors constant. This direct effect may be associated to changed governments' expectations concerning the state of their public finances induced by the framework for fiscal stability. The expectation of lower future deficits and debts may have induced governments to increase expenditures devoted to public investment;
- on the other hand, EMU appears to have reduced public investment indirectly, by inducing a negative effect of budget deficits on public investment. This may indicate that in order to qualify for the adoption of the euro, countries running relatively large budget deficits had to reduce their public investment expenditures to respect the EMU requirements of fiscal discipline.

The overall effect of monetary unification on public investment expenditures in EU countries is therefore not clear-cut, and may be different depending on the country considered. While the net effect on countries running relatively large budget deficits in the 1990s may have been negative, public investments in countries with relatively low deficits and debt levels may have instead received a stimulus ⁽¹⁾.

⁽¹⁾ Gali and Perotti (2003) in their empirical analysis report evidence consistent with these findings. They similarly do not find support for the hypothesis that the advent of EMU reduced public investment rates in EU countries. Their analysis, however, shows that with EMU public investment has become more pro-cyclical.

Box III.4: The determinants of public investment in the EU: an empirical analysis

The aim of this analysis is to investigate the main factors affecting the evolution of public investment across EU countries in the past decades, with a special focus on the impact of the process of monetary unification. To that end, panel data regressions have been performed. The dataset includes all Member States and covers the period 1970–2002 ⁽¹⁾. The data source is the AMECO database.

The dependent variable is the share of public investment (gross fixed capital formation, general government) on GDP at current market prices. As for explanatory variables, the real GDP per capita (RPCGDP) captures the different role that public investment has in different stages of countries' development. Public investment is likely to exert a more prominent role in countries at intermediate stages of development. Since in the European context, all countries are at an advanced or intermediate stage of development in the period considered, the expected effect of RPCGDP on public investment is negative.

To take into account the opportunity cost of funds used up in public investment, real long-term interest rates (RLIR) are added in the equation to be estimated. This variable also has an effect on public investment through the current and expected cost of public debt. The expected sign for the coefficient of RLIR is thus negative. The fiscal stance is captured by the cyclically-adjusted budget balance (CAB). It has been found in previous empirical analysis (for example, Sturm et al., 1996), that budget deficits can be negatively associated with public investment expenditure, so that the expected sign for the coefficient of CAB is thus positive (in CAB, deficits are negative entries, while surpluses are positive entries). A further variable is the stock of gross public debt as a share of GDP (DEBT). Other things being equal, the larger the stock of accumulated debt, the higher the flow of interest payments to be paid by governments. Hence, the expected sign for the coefficient of DEBT is negative.

To account for the cross-country variation in the scope of government intervention and for its evolution in time, the share of government revenues on GDP (TOTGREV) is included in the equation. A higher value for TOTGREV is an indication of a greater role of the public sector in the economy. The expected sign for the coefficient of TOTGREV is positive, since a higher value for TOTGREV is likely to be associated with a higher share of resources devoted to public expenditure, including public investment. To overcome endogeneity (reverse causation) problems, all the above-mentioned variables

⁽¹⁾ Due to missing observations for some variable in particular years and countries the total number of observations used in regressions is somewhat lower than the maximum of $15 \times 33 = 495$.

(Continued on the next page)

Box III.4 (continued)

have been used with a one-year lag. Finally, a dummy variable (EMU) equal to one in all EMU countries in all years following the start of phase II of EMU (1994) is included to have a measure of the effect played by the fiscal constraints of monetary unification on public investment. All the remaining idiosyncratic factors that may explain differences in public investment expenditures across countries (for example, public/private ownership of infrastructures, etc.) are captured by country effects ⁽¹⁾.

Results are displayed in Table III.4. The first specification tested excludes the EMU dummy. All variables have the expected sign. When the EMU dummy is included as a constant term, its coefficient is significantly positive and close to 0.5. The interpretation is the following: other things being equal, EMU is associated with larger public investment by about half a percentage point of GDP. Keeping unchanged per capita GDP, public debt, deficit, government revenues and interest rates, a country would devote a larger fraction of resources to public investment. Under this specification, the assumption is that EMU only has a direct effect on public investment. It may be argued, however, that EMU also produces an indirect effect on public investment, by changing the impact of budget deficits. To test for this hypothesis, the EMU dummy has been interacted (multiplied) with the CAB variable (EMU*CAB). Under this specification, the effect on EMU is both direct and indirect. The impact of CAB outside EMU is captured by the coefficient of the CAB variable when not interacted, the one on EMU is given by the sum of this coefficient and that of the CAB variable interacted with the EMU dummy. Results show that while outside EMU the impact of CAB is negative, in EMU it is significantly positive. In fact, summing up the coefficient of CAB and that of EMU*CAB yields a positive value. It is also to note that EMU still plays a significant direct effect on public investment, represented by a significantly positive coefficient for the constant EMU dummy.

The overall results can be interpreted as follows. The requirements of macroeconomic convergence and fiscal discipline accompanying the process of monetary unification appear to have produced both a direct and an indirect effect on public investment. On the one hand, EMU is associated with a shift of resources towards public investment, keeping other factors constant. This direct effect may be due to reduced interest expenditure but also to changed government expectations concerning the state of their public finances induced by the EMU fiscal framework. The expectation of lower future deficits and debts may have induced governments to devote a higher amount of resources to public investment. On the other hand, monetary unification induced a negative effect of budget deficits on public investment. Starting with phase II of EMU, the requirement of fiscal discipline was strengthened by specific time deadlines and started to be perceived as binding; this translated into countries running larger budget deficits making bigger cuts in public investment.

⁽¹⁾ The regressions results presented in Table III.4. hold qualitatively unchanged under alternative specifications. The exclusion of the variable TOGREV (which due to its correlation with CAB leads to multicollinearity problems) does not alter significantly the coefficients of the remaining variables. A list of additional explanatory variables affecting the expected benefits of public investment (the net stock of capital over GDP, private investment as a share of GDP) and representing cyclical factors (inflation rate, growth rate of real GDP) have also been considered, but their coefficients resulted in being insignificantly different from zero in all specifications. Specifications including a time trend have also been tested. In such specifications, the time trend turns out to have a significant negative effect on public investment, while real per capita GDP and the debt variable result in being insignificant.

5. Catering for public investment needs in the Stability and Growth Pact

5.1. How public investment is treated under the existing Treaty and SGP rules

The Treaty obliges countries to avoid excessive deficit positions (defined as general government deficit below a reference value of 3 % of GDP), and the SGP requires countries to achieve budget positions ‘close to balance or in surplus’. These requirements imply that most public expenditure, including those in investment projects, have to be funded from current revenues.

While the existing framework provides for no special treatment of public investment as regards the definition of the budget balance (and consequently in terms of the budgetary objectives which Member States must respect), the framework for budgetary surveillance does, however, take account of public investment as part of the assessment of Member States’ fiscal position. For example, Member States are required to report public investment levels and plans in their annual updates to stability and convergence programmes. The Council has shown some flexibility in interpreting compliance with the ‘close to balance or in surplus’ requirement to reflect significant planned increases in public investment programmes (for example, see recent Council opinions on the stability programme of Ireland and on the convergence programme of the UK).

Moreover, public investment levels are taken into account in the excessive deficit procedure. As described in Part II.2, the Commission activates the EDP by preparing a report if the actual or planned deficit goes above 3 % of GDP. Article 104(3) states that when preparing its report, the Commission ‘...shall also take into account whether the government deficit exceeds government investment expenditure...’.

In brief, public investment does feature in the existing framework for budgetary surveillance, and in particular concerning the assessment of the budgetary position of Member States. This chapter considers whether there is scope for a more specific treatment of public investment expenditures in the EU’s framework for budgetary surveillance. Two specific issues are examined.

First, it has been suggested by several scholars and policy makers to amend or reinterpret the EU legislation in such a way as to exclude investment expenditures from the deficit ceilings relevant to the EDP, that is to introduce a ‘golden rule’ ⁽¹⁾. Section 5.2 considers the merits and feasibility of applying a golden rule for public investment in the EU’s budgetary rules.

Second, private sector corporations are increasingly involved in the building and operating of public projects in EU countries ⁽²⁾. Section 5.3 examines the rationale for public–private partnerships (PPPs) and how these are handled within the existing framework for budgetary surveillance.

The issue of a more specific and flexible treatment of public investment within the EU framework for budgetary surveillance is timely. In the communication ‘Strengthening the coordination of budgetary policies’ adopted on November 2002, ⁽³⁾ the Commission proposed to introduce a more flexible application of the ‘close to balance or in surplus’ requirement to better achieve the goals of the Lisbon strategy. Point 5 (iv) of the communication states that there is a need to ‘...cater

⁽¹⁾ For the academic debate on this point, see, for instance, Balassone and Franco (2000b), Blanchard and Giavazzi (2002), Buitier and Grafe (2002) and Buti, Effijnger and Franco (2002).

⁽²⁾ See, for instance, European Commission (2003) on alternative proposals to finance trans-European transport networks, including partnerships between governments and private operators.

⁽³⁾ European Commission (2002c). See also Part II.2 of this report.

for the intertemporal budgetary impact of large structural reforms (such as productive investment or tax reforms) that raise employment or growth potential in line with the Lisbon strategy ...'. The Commission made clear that this should not put in jeopardy the core budgetary commitment to sound public finances, and therefore stated that 'small temporary deteriorations' in underlying budgets position can only apply to countries already having made substantial progress towards the 'close to balance or in surplus' requirement and whose debt is below the 60 % of GDP. In other words, the Commission did not propose a golden rule *per se*, but rather that, on a temporary basis, a planned increase in public investment could provide grounds for a flexible interpretation of the 'close to balance or in surplus' requirement provided there was an adequate safety margin ensuring respect of the 3 % of GDP reference value for deficits.

5.2. Public investment and the golden rule

5.2.1. A rationale for the golden rule?

The golden rule consists of excluding investment spending from the computation of the deficit measures which are considered for the definition of fiscal discipline targets. This is not a new idea, and was debated already in the 1930s ⁽¹⁾. A number of countries (for example, Belgium, the Netherlands and Sweden) adopted this rule during the 1950s and 1960s, but subsequently abandoned it. The golden rule debate has been revived recently, partly as a consequence of decisions taken by some governments (UK, Australia and New Zealand) to allow for public borrowing to finance public investment.

The idea behind the golden rule is relatively simple. As with private companies, a government should not attribute entirely the full cost of a project that is likely to generate gains for a long time period to a single year's accounts. Since public investments normally imply returns over several years (and in some cases over a very long time horizon), the cost should be distributed over several years as the returns materialise.

A proper working of golden rule provisions requires adopting a dual public budget: one budget should only include current operations, a separate budget should be devoted to capital operations ⁽²⁾. Gross investments would

enter only in the asset side of the capital budget, while in the liabilities side of the capital budget would be registered the cumulative amortisation of the public capital stock and the deficit of the current budget. As for the current budget, it would be affected only by the amortisation of the capital stock, which would be recorded on the expenditure side ⁽³⁾. Since the balance of the current account equals general government net lending/borrowing after subtracting net public investment, for countries adopting a dual-budget system, targets for the balance of the current budget are equivalent to standard budgetary targets amended by the golden rule. A dual budget system would have the added advantage of improving information on the contribution of public investment to the net worth of the public sector (see, for example, Fottinger, 2000).

Several arguments have been advanced in favour of adopting a golden rule. First, in the presence of deficit limits, socially desirable public investment projects may not be undertaken. This may happen for several reasons.

- Financing investment from current revenues may clash with consumption-smoothing objectives of policy authorities. If policy-makers are inclined to avoid large variations of consumption possibilities over time, they may decide not to carry out potentially profitable investment projects if this implies a substantial reduction in current disposable income. When growth prospects and public investment returns are high, while public borrowing is not too costly, constraints that impose financing all public expenses through current revenues may be counter-productive. In such conditions, in fact, profitable investments may be rejected under a balanced budget rule because the additional gains generated by public investment projects will only materialise in the future — when income is expected to be high — while current consumption would be further reduced by higher taxation. Under such conditions, amending the balanced budget constraint by a golden rule may increase profitable investments, since deficit finance permits current consumption not to be compressed.
- A more subtle motive for under-investment arising from deficit ceilings builds on the analysis of

⁽¹⁾ See, for example, Musgrave (1939).

⁽²⁾ As it is currently done in the UK and, in the past by Belgium, the Netherlands and Sweden.

⁽³⁾ So, by construction, the balance of the capital budget equals net investment minus the balance of the current budget.

Tabellini and Alesina (1990) who show that governments may have a tendency to run large deficits for strategic purposes ⁽¹⁾. In this setting, Peletier, Dur and Swank (1999) analyse public investment expenditures, and show that, in the presence of deficit ceilings, governments may be induced to under-invest for strategic reasons. The reason is that by reducing investment current policy-makers can assure themselves of a high level of current expenditure of the preferred type, reducing at the same time the amount of resources that will accrue to future governments from the returns on investment. Under such a framework, a golden rule that excludes investment expenditure from the deficit ceiling could help to avoid the tendency towards strategic underinvestment.

A second reason why potentially desirable investment projects may not be carried out in the presence of deficit limits is the existence of institutional or political constraints. It has been argued (for example, Oxley and Martin (1991), Lane, 2002) that cutting public investment is often politically easier to do than to achieve reductions in current expenditure or raising taxes. Under such circumstances, investment may not take place simply as a result of finance constraints of institutional and political origin.

A third rationale in favour of a golden rule concerns intergenerational equity. As emphasised, for instance, in Balassone and Franco (2001), the adoption of deficit ceilings that do not distinguish between current and investment expenditure may redistribute income away from current generations due to the creation of a 'double burden'. Current generations continue to pay back the debt accumulated to finance investment undertaken by past generations (in the form of taxes levied on their incomes). However, budget rules prohibiting deficit financing would require them to also pay entirely for new investments carried out by themselves without the possibility of deferring their cost to future generations through debt. The double burden issue is a transitory one that continues until all the debt of previous generations is repaid. Once achieved, all future generations will only have to pay for their current investment, without inheriting debt used to finance past investment. However, the transition may be very long, penalise the generations

⁽¹⁾ When current governments have a preference over a certain type of current expenditure, but are uncertain about the preferences of future governments, a bias towards too-high deficits may emerge, since by running deficits, policy authorities will influence the composition of current expenditure and limit the spending possibilities of their successors.

alive during the shift in the financing regime, and lead to a bias towards excessively low investment levels for a prolonged period.

5.2.2. Limitations and drawbacks

In spite of the potential benefits of a golden rule there are also considerable drawbacks and implementation problems.

A first set of basic problems with a golden rule relates to its desirability, effectiveness and relevance. As illustrated in Section 1.2.1, there are no strong theoretical or empirical arguments in favour of the view that governments undertake too few public investments. If the process of public decision-making produces a bias towards excessive rather than insufficient public investment, then the adoption of a golden rule may prove counter-productive ⁽²⁾.

A further substantial drawback of the golden rule has to do with possible distortions in resource allocation. The idea of the golden rule is that of distributing over time the costs of public projects that are likely to generate income streams across several years. This is a principle that is normally followed in private sector accounting. However, the analogy is very limited, since there are major differences between the concepts of economic returns for the public and the private sector. While for private firms economic returns of investment projects must translate into financial returns at least in the long run, this is not necessarily the case for the public sector (such as, for instance, concerning investment projects with environmental purposes). Moreover, the adoption of a golden rule is likely to produce an effect on the composition of productive public expenditure. Finance constraints would be released on investment in fixed assets with a physical component (normally covered by the definitions of public investment from national account statistics), while investments in human capital may remain constrained by deficit ceilings. This may lead to a distortion in the allocation of resources in favour of the physical.

A sound application of the golden rule would require that it should be investment net of amortisation which is excluded from the computation of the deficit. However, implementation problems arise especially with the determination of net investment. The calculation of amortisa-

⁽²⁾ See, for example, Föttinger (2001) for a formal development of this argument.

tion is subject to technical difficulties and ambiguities. Moreover, the difficulties with the computation of net investment may induce opportunistic accounting practices, with the consequence of an overestimation of amortisation rates.

5.2.3. Practical experiences

Though not a very common practice, some form of golden rule has been operational in some countries or sub-national jurisdictions. In the European context, the countries currently operating some form of a golden rule are Germany and the UK. In both cases, the rule is designed in such a way that budget deficits should not be higher than some definition of public investment, but the characteristics of the German and the UK golden rule are quite different ⁽¹⁾.

In the German legislation, Article 115 of the Constitution states that the annual budget deficit of the general government cannot be higher than gross fixed capital formation in the federal budget. Exceptions are permitted to avoid 'disturbances to the overall economic equilibrium'. A crucial feature of the German golden rule is that the target is defined in terms of gross public investment, not net investment as would be preferable in principle.

In the UK, since the institution of the Code for Fiscal Stability in 1997, the general government and the broader public sector are allowed to borrow only to fund investment, while current spending must be fully financed from current revenues. The compilation of separate current and capital budgets facilitates the distinction between gross and net investment in national accounts. Consistently, the UK golden rule applies to net investment. It can also be noted that the UK golden rule is applied over the budget cycle, so that a transitory decline in revenues would not affect medium-term expenditure targets. Finally, it is to be remarked that the golden rule in the UK is complemented by a rule aimed at guaranteeing that leaving net investment out of deficits is not incompatible with sustainable public finances. This is the so-called 'sustainable investment rule' which requires the debt-to-GDP ratio to be maintained at below the prudential 40 % ceiling.

⁽¹⁾ Note that the working of a golden rule in Germany and the UK is not inconsistent with the respect of the budgetary requirements of the Treaty and the SGP. In both countries, deficits are required to be below ceilings defined in terms of investment expenditures. These ceilings will be binding only if more stringent than the Maastricht 3 %. Moreover, these ceilings are not inconsistent with the medium-term goal of 'close to balance or in surplus'.

Is the golden rule effective in stimulating public investment expenditures by reducing finance constraints? In spite of the fact that a number of countries have experienced alternative forms of the golden rule, very few systematic analysis of the effects of such rules on public investment exist. One notable exception is the analysis by Poterba (1995) who studies the impact of the different budgetary rules across states in the US. The analysis allows to identify the states that make a budgetary distinction between capital and current expenditures and those that use pay-as-you-go constraints to finance public projects. The results show that, on average, separate capital budgets are associated with higher capital expenditures.

The cross-section dimension used in the analysis by Poterba (1995) for US states is lost when analysing EU countries, since only Germany and the UK adopted a golden rule in recent years. By simply looking at the evolution of public investment figures, one notes that, in spite of the presence of a golden rule, Germany is among the EU countries in which public investment has been falling more markedly in past decades (see Graph III.7). As far as the UK is concerned, the evolution of net public investment after the introduction of the golden rule does not seem so far very different from that before its introduction (see the section on the UK in part VI.15 of this report).

5.2.4. Why a golden rule would not be desirable for EMU

Various proposals have been made to introduce some form of a golden rule into the EU's fiscal rules, that is, exclude investment expenditures from the measure of budget balance. This would imply shifting from budgetary targets and ceilings common to all countries and fixed *ex ante* in numerical terms, to country-specific ceilings and targets related to some form of investment expenditure planned by national governments. The precise effect of such a move would depend on the way the a golden rule is designed and implemented. For example, a golden rule could concern the upper ceiling for nominal deficits in the EDP (as in the German golden rule), and/or the medium-term target of 'close to balance or in surplus' (as in the UK golden rule). Box III.5 examines how the EMU's fiscal architecture would be affected if a golden rule was introduced along the lines of German and UK approaches.

Overall, and building upon the drawbacks and limitations identified in Section 5.2.2 above, there are several arguments which suggest that the adoption of the golden

rule in the EMU framework would largely outweigh the possible benefits as follows.

First, the likely impact of a golden rule on actual levels of public investment and its share in total public spending is questionable. For example, a golden rule which allows deducting net investments from medium-term budgetary targets (as in the UK) would probably only have a limited impact. An indirect indication of the order of magnitude can be inferred from past values of net investment in European countries. During the 1980s and 1990s, average annual net public investment rates in the EU-15 area were well below 2 % of GDP, with values around 1 % of GDP for countries like Belgium, the Netherlands, the UK and Sweden, while the average rate was negative for Denmark (see Graph III.5).

Second, the introduction of a golden rule could undermine efforts to improve the sustainability of public finances, if (either because of the way the rule is designed or imple-

mented) the medium-term target for deficits ends up being increased by an amount equal to planned gross investment rates. Simulations show that if governments run constant deficit levels of 2 % of GDP over the period 2005–50, then debt levels would be some 45 percentage points of GDP higher in 2050 than what would result from running a balanced budget position over the projection period. The difference would amount to some 90 percentage points were governments to run constant deficits of 4 % of GDP (equivalent to the gross investment ratio in some Member States). The impact of deficits (either temporary or permanent) on the sustainability of public finances depends on many factors, not least the projected increase in age-related expenditures in coming decades. As pointed out in Part I.4, debt reduction has a key role to play in the strategies of many countries to meet the costs of an ageing population, and the risks of an unsustainable public finance position is greatly increased by a failure to respect the ‘close to balance or in surplus’ requirement of the SGP.

Box III.5: How would the introduction of a golden rule modify the fiscal architecture of EMU?

The impact of the introduction of a golden rule on the EMU fiscal architecture depends crucially on how the golden rule is designed. The current requirements of the Treaty and the Stability Pact are: (i) nominal budget balances below 3 % of GDP at each year t ; (ii) a budget position ‘close to balance or in surplus’. Graphically, the present state of the EMU fiscal architecture can be described as in Graph III.8.a). The nominal budget balance and the cyclically-adjusted budgets are plotted as functions of the output gap. Assuming a constant sensitivity of the budget deficit with respect to the output gap, the nominal budget balance can be represented by a linear function of the output gap. The ‘close to balance’ requirement constrains the CAB to be non-negative. This constraint is represented by the continuous horizontal line in correspondence with a value of zero. Deficits must not breach the 3 % reference value set by the Treaty: this ceiling is represented by the dotted horizontal line.

The application of a golden rule of the German type would prescribe nominal deficits in each year to be lower than the programmed gross investment/GDP share. Compared with the current situation, the only change that would be a revision of the value for the nominal deficit ceiling, that is, the SGP objective of ‘close to balance or in surplus’ would be unchanged. As illustrated in Graph III.8.b), the upper ceiling for a deficit would change from 3 % to the planned gross investment share at time t , denoted by I_t .

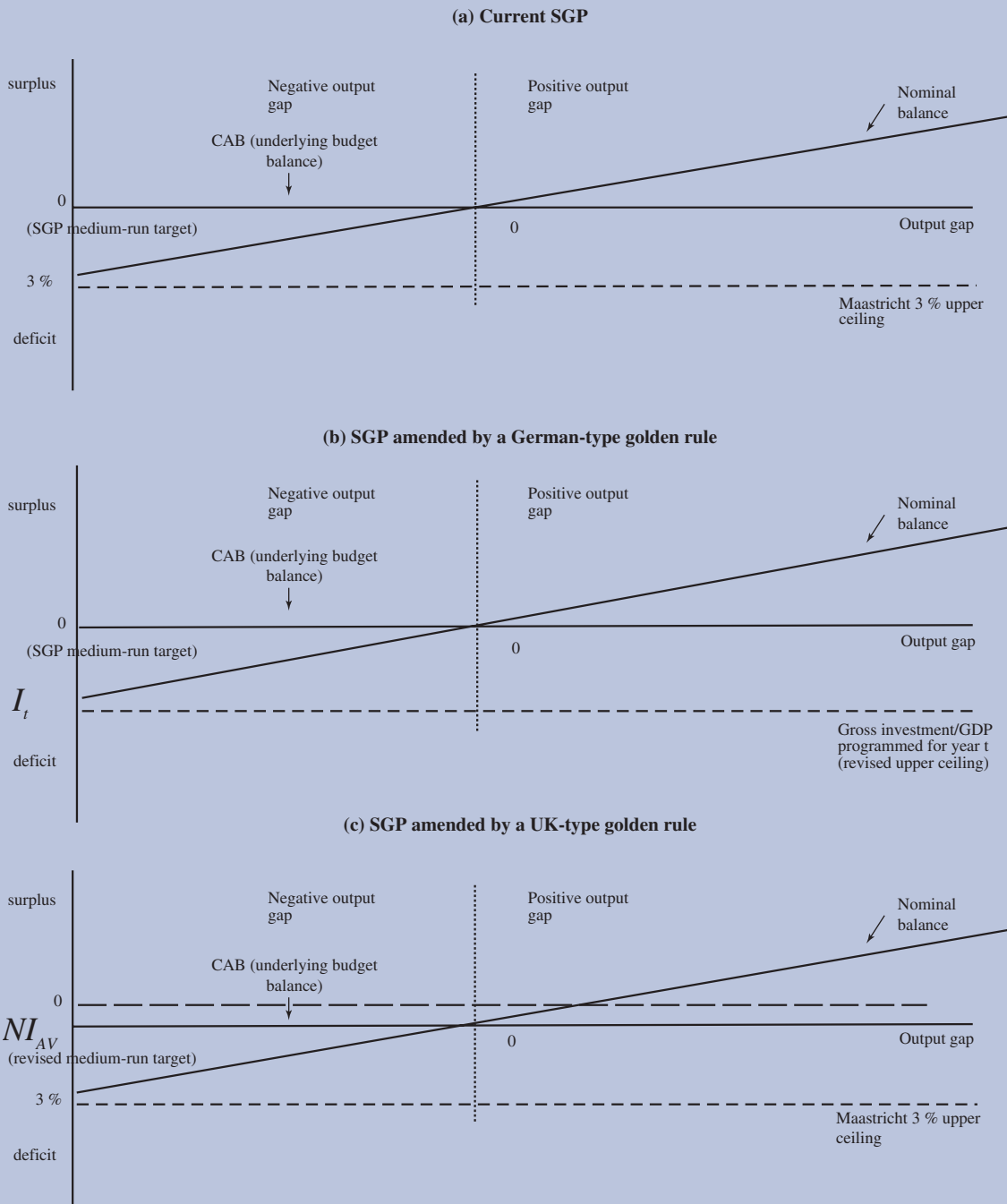
Amending the EMU fiscal architecture with a UK-type golden rule would instead change the medium-term target, but leave the 3 % of GDP reference value unchanged. As illustrated in Graph III.8.c), the revised ‘close to balance or in surplus’ requirement would require the CAB to be at most equal to the average net investment/GDP rates planned over the cycle (denoted by NI_{AV}).

It has also been proposed (for example, by Modigliani et al., 1998, Blanchard and Giavazzi, 2002) to modify the EMU fiscal framework by excluding net investments from the definition of deficits, both nominal and CAB. Such a reform would result in a revision of both the upper ceiling for deficits and the medium-term targets. Both would increase by the amount of planned net investment rates. In other words, the medium-term objective would be the same as in the UK proposal (NI_{AV}) whereas the upper ceiling would be equal to $3\% + NI_{AV}$.

(Continued on the next page)

Box III.5 (continued)

Graph III.8: Nominal budgets, structural budgets, the SGP, and the golden rule



Third, there would be specific implementation problems in implementing a golden rule in a multilateral setting. The crucial distinction is the one between net and gross investment. As illustrated in Section 3.2.1., an application of the golden rule in accordance with its economic rationale would require using the concept of net investment. However, EU countries normally do not dispose of a dual-budget accounting system, which would instead be required for an efficient application of the golden rule applied to net investment. As stressed previously, the calculation of amortisation is a complex process, which requires estimating the economic value of each public capital item and its expected life period. These difficulties would become particularly relevant in a multilateral framework. Amortisation rates should be evaluated by all countries following common methodologies, but opportunistic accounting practices may be difficult to avoid, with governments attempting to underestimate amortisation rates. Finally, a golden rule applied to net investment in a multilateral framework would discriminate against the countries with a larger stock of public capital. For a given amount of gross investment, net investment for these countries will normally be lower, since amortisation applies to a larger public capital stock. However, cross-country differences in the magnitude of the public capital stock may simply relate to a different allocation of ownership of facilities and infrastructures between the public and the private sector, so that a larger public capital stock does not necessarily imply a weaker need for public investment.

5.3. Public–private partnerships

5.3.1. Definition, taxonomy, and recent experiences

The involvement of private sector corporations to build and operate public projects has become an increasingly widespread practice in EU countries. Following the experience of the UK private finance initiative, the construction and operations of infrastructures such as roads, bridges or airports are made jointly in a number of countries by the government and private sector enterprises that finance the projects through so-called public–private partnership (PPPs). Currently, PPPs cover about 15 % of the finance provided yearly to publicly sponsored investment projects in the UK (Spackman, 2002). In other European countries, such as Germany, Spain, France, the Netherlands, Portugal, Austria and Finland, PPP projects have been recently carried out, mainly in the field of transport infrastructure. Almost all the other EU Member States have planned PPP projects.

There is no unambiguous definition of what constitutes a PPP. Broadly speaking, PPPs concern the transfer to the private sector of investment projects that traditionally have been executed or financed by the public sector (see, for example, Grout, 1997). Four elements, however, seem required to qualify PPPs:

- the project should concern the construction or the operation of physical assets in areas characterised by a strong public function (for example, transport, urban development, security, etc) and involve the public sector (general government) as the principal purchaser. Although PPPs are especially relevant in transport infrastructure, examples of public–private partnerships can be found in the provision of defence, health, education and cultural services, the building and operation of prisons or the area of water and waste management;
- the PPP must involve a corporation outside the general government (normally a private corporation) as the principal operator, that is, the agent that carries out the project;
- the principal finance of the project should not come from public debt but from other sources, such as private bonds;
- by way of the partnership, the way the project is executed must change compared with the alternative of pure public supply. This means that in PPPs, the private operator provides significant inputs in the design and conception of the project and bears a relevant amount of risk.

The main distinction between PPPs and alternative privatisation schemes is that the public sector plays a key role as purchaser of services. While in the case of pure privatisation (for example, of public utilities), the clients of the private operator are private users, in the case of infrastructure building realised through PPPs, the government normally pays for the services to be supplied or has an influence in their specification. What instead distinguishes PPPs from the traditional public procurement model is the origin of the funds to accomplish the project. Instead of relying on government borrowing, most PPPs are financed through bonds issued by the private operator.

For accounting and performance evaluation purposes, it is useful to classify PPP schemes according to the type of financial operations involved as follows ⁽¹⁾.

Sale of services. After having funded and executed the project, what the private operator sells to the purchasing government is the flow of services from a capital asset (for example, a road, a bridge, a prison). In addition to the services emanating from the use of the assets, additional services can be provided by the private counterpart for the regular operation of the asset (for example, maintenance). The contracts specify on which conditions the government can access these services. This is the most frequent case of PPP and has been extensively used in the financing, building and operation of infrastructures such as prisons, railways or roads. In a sense, PPPs can be assimilated to a form of leasing rather than a case of asset purchase.

Financial free standing. The private operator designs, builds, finances and operates the asset, and recovers the costs through direct charges to users without direct payments from the government. The involvement of the public sector is in the provision of licenses, in securing conformity of the project with public purposes and in regulating the private operator. This scheme has been used especially in projects concerning transport infrastructures such as bridges and highways. Compared with the classic privatisation schemes, the government plays a greater role in contributing to the definition of the characteristics of the services to be provided by the asset.

Joint ventures. In this case the finance to build the project does not come fully from the private operator, but is partially provided by the government.

Also relevant for accounting and evaluation purposes are the characteristics of the private operator involved in the PPP and how the contract is designed. The private operator can be either an existing firm or a new firm created on purpose. Its activities can either be multiple and diversified or confined to those of the PPP contract. Moreover, the operator may be fully private or participated in by the public sector. In particular, a number of recent PPPs are dealt through operators that are public enterprises not belonging to the general government sector (so called 'project vehicles').

Regarding the design of the contract, a crucial aspect is the specification of the modalities with which payments are made to the private operator by the government. Payments may be in fixed yearly amounts, proportional to some measure of the cost of the asset provided by the operator (for example, in the case of road building, proportional to the length of the road) or proportional to the effective flow of services provided by the asset (for example, still in the case of roads, proportional to the number of vehicles using the road). The way government payments are specified in the contract are crucial in determining how risks are shared between the government and the private operator. Also key in determining the sharing of risk between the public and the private counterparts is the possible presence of guarantees by which the government backs the bonds issued by the private operator to finance the project.

Another characterising feature of PPP contracts are their long-term nature (due to the fact that the revenues for the private operator must be distributed over sufficiently long time horizons to cover up-front costs) and the possible inclusion of clauses by which the government commits to buy back the asset after a given number of years.

5.3.2. The economics of PPPs

Which is the rationale for using PPP schemes to finance and operate public purpose investment?

In the policy debate, it is often emphasised that PPPs have the desirable property of putting capital spending outside government budgets, thus easing the effects of external budgetary constraints on public investment. Though very popular, this argument has little substance. First, it does not address why PPPs should be preferred to alternative schemes to finance capital formation with public purposes that do not imply an increase in government borrowing (for example, classical privatisation). Second, even if the impact on current budget balances of PPP schemes is most likely to be smaller compared with the alternative of pure public procurement, the long-term impact of PPPs on public finances is to be assessed carefully.

The main implication for public finances of choosing PPPs as opposed to traditional public investment is that of converting up-front fixed expenditures into a stream of future claims. In computing the actuarial value of the government commitments of PFI schemes, one has to estimate not only the size and distribution of the regular payments specified in the contract, but also the cost of the possible buy-back of the asset and the possibility that

⁽¹⁾ This taxonomy has been proposed by Pollitt (2000) to classify UK private finance initiative projects. Note that the taxonomy is not fully exclusive, since PPP cases may have characteristics common to more than one of the cases identified.

debt guarantees are exercised. Comparing the impact of PPPs schemes on the actuarial value of public finances with that which would arise from traditional public investment is thus a complex issue which requires a great deal of information. The argument that PPP schemes are preferable to publicly funded investment expenditures from the viewpoint of long-term public finance sustainability is thus not well grounded. The distinguishing feature of PPPs is rather that of permitting to smooth out the cost of public investment. This, in turn, may be effective in releasing finance constraints on public investment in the presence of formal ceilings on budget deficits ⁽¹⁾.

The rationale for the use of PPP schemes is rather that of microeconomic efficiency. Even assuming that competitive tenders for the selection of private counterparts are feasible and efficient, pure privatisation schemes may not be optimal when there are reasons that justify a form of control on the design of the project by the public sector. This is the case when the project concerns the delivery of pure public goods (for example, a prison), when externalities are particularly relevant (for example, when projects have a considerable environmental impact) or when the distributive consequences of the project are a major concern (for example, the provision of health facilities). In those cases, regulation mechanisms may not be sufficient to ensure that public objectives are satisfactorily met. The standard alternatives are direct public provision or public procurement through competitive tenders.

In many instances, public procurements (contracting out) guarantees higher cost-efficiency than direct public provisions ⁽²⁾. In both alternatives, however, it is the public sector that provides the financial funds to carry out the project and that exercise the control on the design of the asset. PPP schemes offer a third alternative. In such a case, the finance of the project is provided by the private sector, as in privatisation schemes, but the public sector plays a relevant role as client of the services provided by the asset. In particular, PPP contracts may specify that the private operator will be remunerated only if the actual supply of services is judged to be successful. The fact that the object of PPP contracts is the supply of services rather than the provision of the asset can make a major difference with

respect to public procurement schemes. Specifying and monitoring the desired characteristics of services is normally easier than specifying and monitoring those of assets. Thus, contracts that have as their object the flow of services rather than the building of assets help to reduce the incentives that the private supplier may have to cut on quality, while preserving the incentives to contain costs (Grout, 1997) ⁽³⁾. The microeconomic rationale of PPP schemes is thus that of shaping incentives in such a way as to achieve cost efficiency without compromising public objectives relating to the quality and characteristics of the services provided by the asset ⁽⁴⁾.

5.3.3. Public-private partnerships and budgetary practices in EMU

Although there are microeconomic reasons that may justify the use of PPP schemes, there is the risk that PPPs are increasingly used by EU governments to evade SGP constraints on public deficits. As already pointed out, the impact of PPPs on long-run public finance sustainability as an alternative to traditional public investment depends upon a complex set of factors and should be assessed case by case. In general, when resorting to PPP schemes, governments should conform to the Eurostat guidelines on accounting practices and to a series of transparency principles.

Concerning the treatment of PPP schemes in national accounting, Eurostat fixes a set of guidelines that national statistical institutes should respect. A crucial issue is that of evaluating the effective sharing of risk and rewards between the general government and the project operator associated with the building and operation of the asset. According to the Eurostat guidelines, whenever there are regular payments made by the government to the operator, the asset should be recorded in the balance sheets of the contracting party that effectively bears most part of the risks and rewards from the project.

⁽¹⁾ The conditions under which external constraints on budget deficits can effectively reduce public investment have been discussed in Section 5.2.1.

⁽²⁾ The reasons are well-known (see, for example, Domberger and Jensen (1997) for a survey). In particular, bureaucracy theories suggest that government officials tend to focus on objectives different from that of cost minimisation (e.g. maximising the size of their budget).

⁽³⁾ Hart Shleifer and Vishny (1997) develop an incomplete-contracts model of public procurement and show that, compared with direct public provisions, private operators will, in general, have higher incentives to keep costs low but lower incentives to keep quality high. They provide supporting evidence in the context of prisons in the US.

⁽⁴⁾ The resort to PPPs to finance trans-European transport infrastructure is also considered by the Commission in its communication COM(2003) 132 final). There, the view is expressed that 'Use of public-private partnerships (PPPs) to supplement public financing may be envisaged for some types of project. However, there are still too many unknowns regarding the projects to be carried out — particularly railway and cross-border projects — and regarding transport policy choices. The private sector has insufficient confidence to commit to financing them. Moreover, PPPs almost always require major public financial support in the form of subsidies and guarantees'.

Evaluating the sharing of risks in PPP schemes has thus major implications for the computation of public deficits and debts. If it is the operator that bears most of the risks, then the budget balance of the government will be affected only by the regular payments made by the government. If, instead, most of the risk lies with the government, then public debts and deficits will be affected by the full cost of the project. Given the uncertainties surrounding the appropriate evaluation of risk-sharing in PPP schemes, it is desirable that national statistical offices exchange (among themselves and with Eurostat) detailed information on the criteria used to make such evaluations. It may also be desirable to have the definition of further operational guidelines concerning risk evaluation on the part of Eurostat.

It is also relevant that national statistical institutes conform to transparency principles concerning the recording of operations giving origin to so-called contingent liabil-

ities. Contingent liabilities normally arise when, in PPP contracts, governments offer a guarantee to the debt issued by the private operator to finance the project. Public guarantees do not constitute effective government liabilities because there is no certainty that they will translate into increased debt in the future. However, this may be the case if certain contingencies occur, that is, in the case of default of the private counterpart. Since with public guarantees there is no certainty concerning the impact on public debt, they are recognised only under cash accounting, if and when the contingent event (the PPP counterpart default) actually occurs and payment is made. However, given the possible relevant debt impact of contingent liabilities, the inclusion of information (also quantitative when possible) on each provision giving rise to contingent liabilities in supplementary budgetary documents is recommended in international codes of fiscal transparency (for example, the OECD best practices for fiscal transparency).

Part IV

Can fiscal consolidations in EMU
be expansionary?

Summary

While there is a broad consensus among both academics and policy-makers on the need for fiscal discipline to ensure the smooth functioning of EMU and to provide conditions conducive to growth and employment creation, concerns have been expressed that budgetary consolidation could have a negative effect on output in the short run. This issue is relevant given the need for several Member States to reduce large cyclically-adjusted budget deficits, especially against the current background of slow economic growth.

According to standard macroeconomic models, a restrictive fiscal stance would result in short-run negative impact on aggregate demand and then on output and employment. However, the indications of the standard models approach have not always been supported by the facts. Growing evidence has been accumulated that the value of fiscal multipliers is likely to be quite small and falling over time. Moreover, there is evidence that, in the case of fiscal consolidations, the effects of fiscal policy on short-run growth may be even opposite to those predicted by traditional macroeconomic models. Cases have been documented of EU countries in which tax increases or expenditure cuts have been followed by accelerated growth in the short run. Through systematic cross-country analysis, new evidence is reported in this part showing that roughly half of the episodes of fiscal consolidations undertaken in EU countries in the past three decades have been followed by an immediate acceleration in growth.

Academic research in the past decade focused on the identification of the most relevant offsetting factors that may explain the emergence of possible expansionary effects of fiscal consolidations. A number of rationalisations have been provided for what are commonly called 'non-Keynesian' effects of fiscal policy. Some of these factors concern the impact of fiscal policy on private consumption. In particular, it has been shown that the reduction of budget deficits may lead to an increase in aggregate consumption already in the short run through

wealth and confidence effects. In this sense, the credibility of consolidations is crucial, that is, fiscal adjustment should be perceived to lead to a permanent increase in future disposable income streams via reduced taxation. Consolidations leading to a substantial improvement of the budget balance or starting from situations of high debt-to-GDP ratios are more likely to affect consumers' expectations and induce an immediate increase in consumption through confidence and wealth effects. With the awareness of the implications of ageing, the effects of fiscal consolidation on confidence may have become more important. Fiscal consolidations may also affect aggregate supply, via the investment channel. They may lead to higher-expected profits and then higher investment by reducing the tax burden on firms and inducing wage moderation. In this respect, the composition of the fiscal adjustment and the institutional characteristics of the labour market may play a major role.

Consistently with the predictions of theory, the empirical evidence reported in existing studies shows that the size and persistence of the fiscal adjustment (as measured by a sufficient degree of improvement in cyclically-adjusted budget balances), the composition of adjustment (that is, the extent to which it is achieved through tax increases or expenditure cuts) and the initial state of public finances (mainly the debt-to-GDP ratio) are relevant for episodes of expansionary consolidations.

Interpreting cross-country evidence *ex-post* is subject to a number of problems, above all difficulties in isolating the effect of concomitant factors (other than fiscal adjustment) that may have acted on growth. Model simulations have therefore also been carried out to investigate whether fiscal consolidations can actually produce expansionary effects. The policy experiments performed with the European Commission QUEST model refer to the German economy and focus on the composition of the adjustment. They permit the evaluation of the likely impact of fiscal retrenchment obtained either through tax increases or via cuts in different expenditure items, con-

trolling for other factors, such as the stance of monetary policy.

The results of simulations using the QUEST model confirm that, if appropriately designed, budgetary consolidation can contribute significantly to the goal of Lisbon strategy in terms of raising output and employment in the medium term. Budgetary consolidation have a slight contractionary effect on output in the short run, depending on the composition of the budgetary adjustment.

However, budgetary consolidation has a positive impact on output in the medium run if it takes place in the form of expenditure retrenchment rather than tax increases. Moreover, the effect of budgetary consolidation on output could be reinforced, and even positive, in the short run if fiscal consolidation is combined with structural reform of factor and product markets and accompanied with an accommodating monetary stance. Indeed, budgetary consolidation often acts as a catalyst for structural reforms.

1. Introduction

There is consensus among both academics and policy-makers on the need for fiscal discipline to ensure the smooth functioning of EMU and provide conditions that are conducive to growth and employment creation. This consensus is reflected in the Treaty requirement to avoid excessive deficit positions and the goal of the Stability and Growth Pact for Member States to achieve and maintain budget positions of ‘close to balance or in surplus’. With significant cyclically-adjusted budget deficits remaining, even increasing, in several Member States (see Part I of this report), the process of budgetary consolidations needs to resume if these budgetary goals are to be achieved.

Concerns, however, have been expressed that budgetary consolidation could have a negative effect on output in the short run, and this is particularly relevant against the current background of slow economic growth. This section of the report analyses whether the assertion that budgetary consolidation has a negative impact on output in the short run is always valid, or whether it can have a positive effect on output and the conditions under which

this can occur. It builds on the work on automatic stabilisers and discretionary policy presented in the 2001 and 2002 reports on public finances in EMU.

Chapter 2 presents a survey of the existing theoretical explanations, based on consumption-side or investment-side effects, through which fiscal consolidation may lead to higher output in the short run.

Chapter 3 reviews the empirical evidence from existing studies on the impact of fiscal consolidations on output. It then carries out a statistical analysis on the effects of past fiscal consolidations in the EU.

Chapter 4 presents simulations made using the QUEST model investigating the effects on output of various types of fiscal consolidations in a representative EU country. It examines a variety of consolidation scenarios on both the expenditure and revenue side, as well as the implications of budgetary consolidation through spending cuts being accompanied with an accommodating monetary policy response or structural reforms.

2. Can budgetary consolidations be expansionary? What the theory says

2.1. Budgetary consolidations: the standard view

Following the textbook macroeconomics approach, a fiscal consolidation has a negative impact via the multiplier on domestic demand, national output and employment. Disposable income and private consumption would be negatively affected by tax increases, while a cut in public spending would directly reduce aggregate demand. Given that the simple form of the multiplier (the standard Kahn-Keynes multiplier) depends on the responsiveness of consumption to income, its value is by definition higher than one ⁽¹⁾.

The models generated by the so-called neo-classical synthesis (the IS-LM model and its variants) develop the original Keynesian approach to consider also the effects of various characteristics of the real and money markets on the fiscal multiplier. In these models, several factors are likely to interact with the direct effect of fiscal policy on aggregate demand. The final impact of the fiscal consolidation may be therefore smaller, implying that the value of the multiplier may be below 1. Several factors have to be considered for the evaluation of fiscal policy multipliers in complex open-economy neo-Keynesian models.

Real sector substitution effects and investment crowding out. Substitution effects are likely to reduce somewhat the multiplier: some of the goods or services no longer demanded by the public sector would be demanded by

the private sector; or could be directed towards the export markets. The sensitivity of investment spending to interest rates and income is also relevant. A larger sensitivity to interest rates would imply a bigger adjustment of aggregate demand to reduced interest rates (i.e. would flatten the *IS* curve), leading to a more extensive offsetting of the initial fiscal contraction. By contrast, current income could affect investment more than proportionally (as in the case of multiplier-accelerator models) which may depress investment more markedly in case of a fiscal consolidation.

The functioning of the money market. The lower activity implied by the fiscal consolidation would be accompanied by a reduced demand for money. This would lead to a fall in interest rates which would in turn create an incentive for increased investment, offsetting part of the effect of the consolidation on output. This effect crucially depends on the responsiveness of money demand to income and interest rates. If the demand for money is highly sensitive to income and a little to interest rates (that is, the *LM* function is steep), the reduced activity will have a strong effect on the demand for money, implying a very large adjustment in interest rates. The effect of fiscal policy would eventually be small, due to the offsetting behaviour of private investment. In such a case, most of the initial adjustment would be rapidly absorbed via a change in interest rates.

Wealth effects. In 'modern' neo-Keynesian models, consumption is determined not only by current disposable income but also in some measure by current wealth. The larger the importance of financial wealth in determining private consumption is, the more it is likely that a wealth effect would offset the contraction in public sector

⁽¹⁾ This value hinges on the typical assumption that output is determined by aggregate demand: this results from excess capacity with rigid prices which do not adjust (at least in the short run) to the mismatch between demand and supply.

demand⁽¹⁾. The wealth effect could be generated by lower interest rates or, in an open economy, by fluctuations in the exchange rates. Lower interest rates increase the value of nominal fixed-rate debt holdings and of other assets held by households, with the size of its effect on consumption depending on the level of debt holdings and maturity. In an open economy, a similar effect could arise following a depreciation or a devaluation of the exchange rates, which would affect the nominal value of assets denominated in foreign currencies.

Openness. The degree of openness of the economy and the exchange rate regime affect the way the external sector responds to the fiscal adjustment (this is evident in the Mundell-Fleming open economy version of the *IS-LM* model). The more open an economy is, the more the external sector is likely to react to the change in monetary conditions induced by the fiscal adjustment. The extent to which fiscal policy will be crowded-out via the current account crucially depends on the exchange rate regime. With flexible exchange rates, the currency will tend to depreciate after a fiscal contraction as a result of capital outflows. The currency depreciation in turn stimulates net exports, which reduces the effect of the fiscal contraction on output. Conversely, with fixed exchange rates, an automatic monetary policy response to keep the exchange rate constant increases the effectiveness of fiscal policy on output⁽²⁾.

The interaction between the labour and goods markets. The degree of price flexibility is a crucial factor in the determination of the impact of the fiscal consolidation. In the neo-classical synthesis prices are assumed to be rigid in the short run. Softening this assumption changes the effects of a fiscal adjustment. The reduction in aggregate demand caused by the fiscal contraction will be followed by an adjustment process whereby price reductions (or a lower inflation) increase demand in the direction of a new equilibrium. Naturally, the magnitude of this effect will depend on the degree to which prices are assumed to be less rigid in the short run⁽³⁾.

⁽¹⁾ These wealth effects are often referred to also as Pigou effects or real balance effects.

⁽²⁾ Needless to say, for individual euro-area countries the impact of exchange rate movements on the fiscal multiplier is absent or negligible.

⁽³⁾ While in a closed economy price reductions (or a lower inflation) would reduce the output effect of the fiscal consolidation, in an open economy price flexibility softens the effects of the exchange rate regime described in the previous paragraph: in a fixed exchange rate regime there will be more crowding out (that is, a lower fall in output) than with price rigidity and in a flexible exchange rate regime the crowding out is less (that is, output would fall more) than with sticky prices. The price-wage loop will determine the speed and relevance of this factor.

In general, even if according to the standard models in the Keynesian tradition fiscal multipliers are expected to be positive, there are several instances that can justify small fiscal multipliers also within this approach. This is especially the case for economies with a high degree of openness. Adjusting the real exchange rate would be helpful: if fiscal consolidations occur in countries whose exchange rate floats, the output effects of fiscal policy will be offset by an improvement in the current account balance. In countries adhering to exchange rate regimes, the negative output effects of fiscal consolidations could be offset by accompanying devaluation policies. Moreover, the value of multipliers will be lower the higher the relevance of wealth in determining consumption as opposed to that of current income, which in turn depends upon the availability of financial instruments to smooth income and the efficiency of financial markets. Increased openness and financial wealth may explain the fact that the value of estimated multipliers has been falling in the last decades, when the pace of economic integration was accelerating and financial markets developed as a result of liberalisation and institutional and technological innovation⁽⁴⁾.

2.2. Non-Keynesian effects of fiscal consolidation

While successive developments of the neo-Keynesian approach explain why the value of fiscal multipliers is falling, they all assume the multiplier to be positive. The idea that fiscal policy may have short-run effects opposite to those predicted by the Keynesian model was first suggested by Giavazzi and Pagano (1990) who, looking at the fiscal consolidation experiences of Denmark and Ireland in the mid-1980s, documented in both cases an acceleration in growth just after the governments put in place measures that drastically reduced budget deficits.

Table IV.1 shows deficits and debt ratios, as well as GDP growth rates in Denmark and Ireland during the cited fiscal consolidation episodes and in Sweden during the early 1990s, when its deficit and debt rose dramatically. While growth accelerated after the Irish and Danish consolidations, the Swedish fiscal stimulus was followed by an output contraction.

⁽⁴⁾ On this issue see European Commission (2002a). For a recent survey on the estimated value of fiscal multipliers see, for instance, Hemming, Kell and Mahfouz (2002).

Table IV.1

Some puzzling effects of fiscal policy

Country	Year	Deficit/ GDP ⁽¹⁾	Debt/ GDP	GDP growth ⁽²⁾
Denmark ⁽³⁾	1982	8.9 %	62.5 %	3.0 %
	1986	- 3.3 %	62.3 %	3.6 %
Ireland	1986	10.5 %	113.8 %	0.3 %
	1989	1.7 %	100.1 %	6.2 %
Sweden	1989	- 5.4 %	45.3 %	2.4 %
	1993	12.2 %	75.8 %	- 2.2 %

The table presents the changes in the fiscal stance and its impact on debt and GDP growth. Values are shown for the year before the consolidation (stimulus) started and its last year.

(¹) Negative values correspond to a surplus.

(²) Annual change.

(³) In Denmark, the debt was on a downward path after a peak of 73.4 % in 1984 and real GDP growth accelerated to 4.4 % in 1984 before returning to the previous level in 1986.

Source: Giavazzi and Pagano (1996).

The possibility that fiscal policy may have non-Keynesian effects has attracted increasing attention among academics. Some studies aimed at further investigating empirically the case of expansionary fiscal consolidations (see Chapter 3 of this part). Some of the research was directed at providing a conceptual framework in which non-Keynesian effects of fiscal policy could be rationalised.

Starting from the 1970s, the so-called new classical macroeconomics paradigm has challenged many of the founding assumptions of the standard neo-classical synthesis models, with major implications for the conceptual grounds for macroeconomic policy-making. Among the basic tenets of the so-called new classical macroeconomics, there is the acknowledgement that agents take their economic decisions from a forward-looking perspective and that, in so doing, they will use rationally all the information available to them.

While according to macroeconomic models in the Keynesian tradition consumption is essentially a function of current income, in new classical macroeconomics models consumers are assumed to be forward looking, that is, to base their consumption decisions upon the expected future streams of income (permanent income)⁽¹⁾. Moreover, while planning consumption decisions, consumers are also in the

(¹) However, in this respect it should be mentioned that forward-looking behaviour was also incorporated in some Keynesian consumption models, notably the life-cycle model. In the original formulation of these models, however, there is no requirement of consumers' expectations to be rational.

position to identify the intertemporal budgetary constraint which has to be respected by solvent governments.

Concerning the modelling of how expectations are formed, macroeconomic models before the neo-classical synthesis generally were based upon static or adaptive expectations. The idea was that agents' expectations about the future could not be too dissimilar from the observed present. This view has been challenged in new classical macroeconomics by the requirement that expectations should be rational, that is, economic agents should rationally use available information. This means that past errors will be considered when formulating new expectations in a continuous learning process. Moreover, in this context, perceptions about the behaviour of the government become relevant, especially about the nature of the measures taken by the authorities. In particular, if it is perceived that current policy measures will affect future variables credibly and permanently, then agents will adapt their behaviour immediately.

The emphasis of the new classical macroeconomic paradigm on forward-looking behaviour and expectations help to rationalise the apparent puzzle of fiscal consolidations with expansionary effects. Recent theoretical models belonging to this paradigm show that consumption may react to fiscal policy measures in an opposite way than predicted by standard models in the Keynesian tradition, thus leading to effective output expansions (contractions) when fiscal policy is meant to be contractionary (expansionary). The same has been shown in the case of investment: under particular circumstances, policy measures aimed at adjusting the budget deficit may lead to a boost in investment, with a potentially expansionary effect on aggregate output. The 'consumption channel' and the 'investment channel' through which fiscal policies may operate in a non-Keynesian fashion are illustrated below.

**Non-Keynesian effects of fiscal policy:
the consumption channel**

If agents are forward-looking and rational in forming their expectations, they will anticipate that a tax cut today, financed by government debt, will translate into higher taxes at some point in the future. If, in addition, government intervention is non-distortionary, capital markets are perfect and consumers sufficiently long-lived, the so-called Ricardian equivalence should hold, namely, permanent income will be unaffected by fiscal policy, and so consumption. Under these abstract circumstances, fiscal multipliers will be zero, since higher government savings

obtained through fiscal consolidations will be compensated by an equivalent reduction in private savings⁽¹⁾.

However, if distortions introduced by taxation are taken into account, a first reason for expecting non-Keynesian effects of fiscal policy emerges. This can be the case, for instance, when a current expenditure cut is expected to be offset in the future by a reduction in future distortionary taxes. Such a case for non-Keynesian effects of fiscal policy was first illustrated by Blanchard (1990). In this model, it is shown that the effects of fiscal policy on aggregate consumption are likely to be non-linear. The reason is that the dead-weight loss of taxation increases significantly with the extent of taxation. So, if a consolidation is made starting from a low level of current debt, a traditional positive fiscal multiplier will result⁽²⁾. If, instead, a fiscal consolidation is made starting from a high debt level, consumption may react positively as a result of an expected increase in permanent income. The reason is that by consolidating now, the government will not raise taxes too much in the future to pay back the debt. This reduces the dead-weight loss imposed by taxes, thus raising agents' permanent income⁽³⁾.

A different motive to expect fiscal policy to have non-linear effects has been proposed by Bertola and Drazen (1993). The assumption here is that when public expenditure becomes alarmingly high, then agents start anticipating a future major fiscal adjustment to occur. This may offset any loosening of fiscal policy. At the same time, a consolidation occurring when public spending is high may then change agents' expectations concerning a future major retrenchment, and the lower expected level of taxes raises permanent income and consumption⁽⁴⁾.

A further rationale for possible non-Keynesian effects through the consumption channel emerges if fiscal consolidations are assumed to affect the risk of government insolvency. By reducing their budget deficits, governments will signal to markets their willingness to switch to 'sound finances'. If this signal is taken as credible, interest premiums on government bonds will fall.

The consequent reduction in interest rates will in turn contribute to raise agents' permanent income, since they will discount future income streams at a lower rate. The crucial ingredient of this explanation for the emergence of non-Keynesian effects is the credibility of government action to make public finances sustainable. As emphasised, for instance, by Feldstein (1982), the credibility of the regime shift can be enhanced by the size of the consolidation. While small adjustments in the budget may be believed to be short-lived or not enough to correct the imbalances, major fiscal retrenchments may signal the willingness of the government to face the political costs associated with the shift to sound public finances. Furthermore, as illustrated for instance by Cotis et al. (1998), the introduction of fiscal rules for the maintenance of budgetary discipline (like the SGP) may increase the perception of the intertemporal budget constraint, and thereby the credibility of the fiscal adjustment and the likelihood of the emergence of non-Keynesian effects.

Non-Keynesian effects of fiscal policy: the investment channel

Expansionary consolidations working through the consumption channel act on aggregate demand, leaving supply conditions unaffected (factor supply, TFP, ...). Output expansions above potential obtained through the consumption channel are therefore inevitably short-lived. However, recent empirical research has shown that fiscal consolidations may produce significant short-run expansionary effects also through the investment channel, thus affecting not only demand but also supply factors (Alesina and Ardagna 1998, Alesina, Perotti and Tavares, 1998, Alesina et al., 2002).

The rationale for fiscal policies producing non-Keynesian effects through an investment channel has been formalised in Alesina et al. (2002). The highlighted channel goes beyond possible reductions in real interest rates associated with fiscal contractions as predicted by standard macroeconomic models. The link between fiscal policy and investment behaviour is rather represented by the labour market.

As in models rationalising non-Keynesian effects through the consumption channel, agents are assumed to be forward-looking and to behave on the basis of the actual value of future income streams. The relevant agents are in this case firms, that decide about their factor service purchases by looking at the present value of profits. Investment decisions are driven by the expected present value of the net marginal product of capital, which in turn is a negative function of real wages. Fiscal consolidations

(1) If consumers have short-term horizons or are affected by liquidity constraints Ricardian equivalence will no longer hold, and fiscal policy will affect consumption according with the predictions of standard models in the Keynesian tradition (see, for example, Blanchard, 1985).

(2) In Blanchard (1990) this is due to the fact that agents' horizons are short term, since each of them are faced with a constant positive probability of death. Hence, Ricardian equivalence does not hold in this model even in the absence of tax distortions.

(3) Results similar to those to Blanchard (1990) are obtained in Perotti (1999). In this model, however, Ricardian equivalence does not hold on aggregate because a fraction of consumers are assumed to be liquidity-constrained.

(4) A similar non-linear effect of fiscal policy is obtained in Sutherland (1997).

obtained through expenditure cuts may increase short-run investments via reduced wage pressures for a number of reasons. A reduction in the government wage bill will in general contribute to wage moderation in the private sector as well. A similar effect would be obtained by means of reductions in government transfers. The possibility for fiscal consolidations to exhibit non-Keynesian effects through the investment channel will then crucially depend upon the composition of adjustment (expenditure cuts versus tax increases) and on institutional factors, above all the working of the labour market ⁽¹⁾.

⁽¹⁾ Clearly, adjustments in the tax structure which — within an overall fiscal consolidation — favour a reduction in the tax wedge on labour, would also imply an increase in the net present value of profits.

In sum, in view of the latest developments in the theoretical paradigm, a number of reasons have been identified in the theoretical literature that may explain why fiscal consolidations may have expansionary effects. The possibility of non-Keynesian effects working through the *consumption* channel is expected to be mainly affected by factors affecting the credibility of the adjustment and agents' expectations, such as the size of the consolidation and the initial state of public finances. The likelihood of non-Keynesian effects acting via the *investment* channel is instead crucially affected by the composition of adjustment. As illustrated in the next chapter, the empirical research on budgetary consolidations has focused on the above factors to identify the characteristics of expansionary consolidations and the relevant channels.

3. Characteristics and effects of fiscal consolidations in the EU: evidence from cross-country analysis

3.1. Survey of existing studies

In existing cross-country studies (see Table IV.2) the hypothesis that fiscal consolidation may have expansionary effects is analysed empirically in several ways. Crucial to this end is the definition of what fiscal consolidation is. Usually, it is defined in terms of a given improvement in the budget balance as a fraction of GDP achieved over a time period of several years. In order to exclude changes in the budget balance associated with the economic cycle, measures of the cyclically-adjusted budget balance have generally been used. Moreover, to better isolate fiscal policies of a discretionary type, interest expenditures have been deducted from the structural budget balance in most studies, that is, changes in the primary cyclically-adjusted budget balance have therefore been adopted to identify consolidation periods.

Depending on the particular study considered, the concept of fiscal consolidation has been focused either on the idea of a sufficiently strong fiscal adjustment achieved in a given period (*size criterion*), or on the idea of a sufficiently long time period during which the budget balance constantly improves (*persistence criterion*). Some studies refer to a further refinement of the concept of consolidation, by defining as *successful* those consolidations that manage to bring about a sustained reduction in the debt-to-GDP ratio.

The methodologies adopted in the existing studies differ quite widely. In almost all studies there is a descriptive analysis of the sample characteristics of relevant fiscal and macroeconomic variables before, during and after consolidation periods. This allows for the checking of the general requirement for the identification of expansionary fiscal consolidations: the occurrence of positive growth development after the fiscal adjustment. By looking at sample averages of fiscal variables it is possible to describe the characteristics (in terms of size of adjustment, initial conditions of public finances or composition of adjustment) of fiscal consolidations, and to identify how these characteristics differ depending on whether consolidations turned out to be expansionary or contractionary. In some studies, Probit/Logit regressions have also been performed in order to identify econometrically the main factors affecting the probability for fiscal consolidation to be successful (Von Hagen, Hughes-Hallet and Strauch, 2001) or expansionary (Alesina and Ardagna, 1998). Sample evidence on relevant macroeconomic variables (for example, interest rates or exchange rates) permits to judge whether fiscal consolidations have, in general, been accompanied by active monetary policies or devaluations. Some studies complement descriptive sample statistics with country case studies, aimed at better understanding the policy environment during consolidation periods (for example, wage agreement policies, exchange rate devaluations, etc).

In a number of studies, empirical verifications of theoretically grounded hypotheses are also provided. Giavazzi and Pagano (1996) estimate consumption functions to test whether fiscal consolidations may have non-Keynesian effects via the consumption channel, due to consumers' revised expectations and increased expected life-time income. Giavazzi, Jappelli and Pagano (2000) perform a similar test by estimating saving functions. Alesina et al. (2002) instead verify empirically the hypothesis that non-Keynesian effects of consolidations may come from the investment channel by estimating investment equations.

Table IV.2

Cross-country evidence on fiscal consolidations

Study and sample	Definition of consolidation	Aim of the analysis	Type of analysis	Main findings
McDermott and Westcott (1996), IMF (1996). 20 OECD countries, 1970–95.	The primary structural balance improves by at least 1.5 % of GDP over two years and does not decrease in any year.	Analyse the characteristics and effects of successful consolidations, that is, of consolidations leading to a 3 % of GDP reduction in debt.	Descriptive.	Successful consolidations leads on average to increased growth, unsuccessful to reduced growth. Size and composition both important to identify successful consolidations.
Giavazzi and Pagano (1996). 19 OECD countries, 1970–92.	The cumulative change in the primary structural balance is above a given threshold as a % of GDP (5, 4, or 3) over a given number of years (resp. 4, 3, or 2).	Analyse the existence of non-Keynesian effects of fiscal consolidations via the consumption channel.	Panel data estimation of consumption functions.	Size of adjustment is relevant to identify episodes exhibiting non-Keynesian features.
OECD (1996). 18 OECD countries, 1975–95.	The cumulative change in the structural budget balance is above 3 % of GDP over a period of at least two years.	Analyse characteristics and effects of fiscal consolidations.	Descriptive.	There were fiscal consolidations during which growth was above potential. Accommodating monetary policy seems to matter to limit output contractions.
Cour et al. (1996). 17 OECD countries, 1970–94.	Continuous improvement in the primary structural budget balance, with a period of at most three years during which the primary structural budget balance improves by at least 3 % of GDP.	Analyse characteristics and effects of fiscal consolidation episodes with a particular focus on the consumption channel of non-Keynesian effects.	Descriptive and estimation of consumption functions.	Size of adjustment is relevant to identify expansionary episodes.
Alesina, Perotti and Tavares (1998). 19 OECD countries, 1960–95.	The primary structural balance improves by at least 1.5 % of GDP.	Analyse characteristics and effects of fiscal consolidation, exploring alternative channels for non-Keynesian effects.	Descriptive.	Successful consolidations more likely to lead to expansions. Composition more important than size to identify expansionary episodes. Labour market structure also matters.
Alesina and Ardagna (1998). 20 OECD countries, 1960–94.	The primary structural balance improves by at least 2 % of GDP or by at least 1.5 % of GDP per year over two years.	Analyse characteristics and effects of fiscal consolidation, exploring alternative channels for non-Keynesian effects.	Descriptive, Probit regressions, collection of case studies.	Composition more important than size to identify expansionary episodes. Wage agreements and exchange rate devaluations are also relevant accompanying factors.
Perotti (1999). 19 OECD countries, 1965–94.	n.a.	Analyse whether initial fiscal conditions are relevant for the effects of fiscal policy.	Estimation of dynamic consumption functions.	High debt levels are associated with a higher probability for fiscal policy to have non-Keynesian effects.
Giavazzi, Jappelli and Pagano (2000). 18 OECD countries, 1970–96.	The structural balance improves by at least 1.5 % of GDP per year over two years.	Analyse the existence of non-Keynesian effects of fiscal consolidations via the consumption channel.	Panel data estimation of saving functions.	Size of adjustment is relevant to identify episodes exhibiting non-Keynesian features. Non-Keynesian effects more likely for tax changes than expenditure changes and for fiscal consolidations than for fiscal expansions.
Von Hagen, Hughes-Hallet and Strauch (2001). 20 OECD countries 1960–98.	The structural balance improves by at least 1.25 % of GDP per year over two years or by at least 1.5 % of GDP in one year and by a positive amount in a consecutive year.	Describe characteristics and effects of fiscal consolidations with special reference to the EU.	Descriptive analysis, case studies, Probit regressions, estimation of output equations and monetary and fiscal policy reaction functions.	Fiscal policies exhibit in general Keynesian effects, but in the EU in the nineties there is no evidence neither in favour nor against Keynesian effects.
Alesina et al. (2002). 18 OECD countries 1960–96.	The primary structural balance improves by at least 2 % of GDP or by at least 1.25 % of GDP per year over two years.	Analyse the existence of non-Keynesian effects of fiscal consolidations via the investment channel.	Estimation of investment equations, descriptive analysis.	Cuts in public expenditure, particularly in public employees' compensations, boost investment. Expansionary consolidations associated with acceleration in investment growth.

In spite of the above-mentioned differences in methodology, a number of results are common to almost all studies.

- There is evidence of fiscal consolidations likely to exhibit non-Keynesian features in almost all studies.
- Consolidations leading to a permanent reduction in debt ('successful') are more likely to be expansionary.
- During expansionary consolidations, both an acceleration in private consumption and business investment is observed.
- The policy environment in which fiscal consolidations are undertaken matters. In particular, the monetary, exchange rate and wage policies accompanying consolidations may affect significantly the impact of fiscal adjustments on growth.

Where consensus is missing is on the specific factors determining the expansionary effects of fiscal consolidations. Some papers find that fiscal adjustments with expansionary effects are more likely when the size of consolidation is large (Giavazzi and Pagano, 1996, Giavazzi, Jappelli and Pagano, 2000). In other studies instead it is found that what is most significant to characterise expansionary consolidations is the composition of the adjustment. Fiscal adjustments based on expenditure cuts rather than tax increases have expansionary effects with a higher probability, especially if expenditure cuts are concentrated on public employees' compensations and on government transfers (Alesina, Perotti and Tavares, 1998, Alesina and Ardagna, 1998, Alesina et al., 2002). Finally, there are studies that emphasise the initial state of public finances. Consolidations are more likely to have non-Keynesian effects when they occur in countries and periods where debt-to-GDP ratios are high (Alesina and Ardagna, 1998, Perotti, 1999).

Overall, although cross-country empirical analyses permit to shed light on several features of fiscal consolidations, the results arising from such analyses need to be interpreted with caution for a number of reasons. First, there are problems in measuring and defining fiscal consolidation episodes. In particular, relying on deficit-based measures tends to exclude fiscal reforms with a limited impact on current budget balances but potentially large effects on long-term public finances such as pension reforms. Second, existing empirical analyses quite often

fail to take properly into account relevant factors, such as developments in monetary and exchange-rate policies, that contribute to shaping the links between fiscal consolidations and economic activity⁽¹⁾. Third, when interpreting the links between fiscal policy and economic activity simultaneity issues are to be taken into account. Not only fiscal consolidations affect output growth, but actual and expected growth affect budget balances and policy makers' choices⁽²⁾. Finally, there is the possibility that results are driven to some extent by a sample selection bias problem. Most of the episodes of fiscal consolidations that, once started, have been aborted early due to very adverse growth consequences are by definition missing from the samples used in cross-country analyses.

3.2. Were there expansionary fiscal consolidations in the EU? A close look at the data

3.2.1. How to define periods of budgetary consolidation with expansionary effects

This section carries out a statistical analysis of the fiscal consolidations that took place in the EU in the past decades. It covers the current EU countries with the exception of Luxembourg during the period 1970–2002⁽³⁾. The source of the data used in the analysis is the AMECO database developed by the Directorate-General for Economic and Financial Affairs.

The main purpose of the analysis is that of identifying and describing the characteristics of the fiscal consolidation episodes that appear to be expansionary. An analysis of the macroeconomic scenario preceding and following the fiscal consolidation episodes is also provided. Compared with existing event studies of expansionary fiscal consolidations, the focus here is on testing the robustness of this concept with respect to alternative definitions of fiscal consolidation episodes and of their expansionary status.

As shown in the previous section, in the existing literature analysing fiscal consolidation episodes using

(1) In Von Hagen, Hughes-Hallet and Strauch (2001) there is an attempt to take into account the links between fiscal and monetary policies by estimating, together with output equations, fiscal and monetary policy reaction functions.

(2) Some studies (Giavazzi and Pagano, 1996, Giavazzi, Jappelli and Pagano, 2000) account for possible simultaneity problems by using 2SLS estimation techniques.

(3) The exclusion of Luxembourg is due to missing data. As will be clear in the following exposition, the very last years of the sample are necessarily dropped when identifying expansionary consolidations since it is not possible to evaluate countries' growth performances after those years.

country/year panel datasets, quite different definitions of fiscal consolidation have been proposed, so that the comparison of findings is not always easy and immediate. In the statistical analysis carried out here, in order to capture changes in the government budget balance of discretionary nature, consolidation periods are generally identified by looking at changes in cyclically-adjusted figures for budget balances budget balance (possibly net of interest payments to isolate discretionary fiscal adjustments from developments in the interest rates).

By fiscal consolidation period it is generally meant either (see Table IV.2):

(i) a period in which a given country experiences a sufficiently large improvement in its budget balance due to discretionary policy; or

(ii) a period of continuous improvement of the budget balance due to discretionary policies;

(iii) or a combination of both the above criteria.

Criterion (i) emphasises the *size* aspect of the adjustment in a given time period, while criterion (ii) focuses on the *persistence* aspect, that is, the fact that fiscal consolidations are protracted policy actions, which are not reversed in their immediate aftermath. For instance, the definitions provided in Alesina and Ardagna (1998) or Alesina et al. (2002) mainly refer to the size criterion, while those in Cour et al; (1996), Giavazzi and Pagano (1996) or OECD (1996) refer especially to the persistence criterion (see Table IV.2).

As mentioned in the previous section, in several analyses there is reference to a further refinement of the concept of fiscal consolidation, that is, that of *successful* fiscal consolidation (see, for example, Alesina and Ardagna, 1998, or Von Hagen, Hughes-Hallet and Strauch, 2001). By 'successful' consolidation it is meant a consolidation episode that contributes to improve the budget balance over a relatively long time period (that is, debt levels are permanently lowered). In the following analysis the notion of successful consolidations is not used (¹).

(¹) The focus of the present analysis is, in fact, on the distinction between expansionary and non-expansionary consolidations. Moreover, the concept of successful consolidation tends to overlap with that of fiscal consolidation based on a persistence criterion.

Concerning the definition of *expansionary* fiscal consolidations the criteria used in existing work differ widely. In general, for a fiscal consolidation period to be defined as expansionary, the economy must perform sufficiently well (for example, growth sufficiently fast with respect to previous years or some benchmark growth rate) after the fiscal adjustment takes place. It is to note that the reference period considered to evaluate the growth performance of consolidating countries is generally a relatively *short-term* one (one to three years after consolidation).

The benchmark definition of fiscal consolidation used in this study is taken from Alesina and Ardagna (1998). According to this definition, a year of fiscal consolidation is a 'year in which the cyclically-adjusted primary balance improves by at least 2 % of GDP or a period of two consecutive years in which the cyclically-adjusted primary balance improves by at least 1.5 % per year, in both years'. This notion of fiscal consolidation puts emphasis on the size of the improvement in the primary budget balance.

The benchmark notion of expansionary fiscal contraction used in the present study is the same as that proposed by Alesina et al. (2002). This criterion classifies as expansionary an episode of fiscal consolidation if 'the average real GDP growth in each adjustment year and in the two years after is greater than the average real GDP growth in the two years before' (²).

In order to test the sensitivity of the results to the different definition of both the fiscal consolidation and of the expansionary effects, in Section 3.2.2, while keeping constant the benchmark definition of expansion, expansionary consolidation periods will be identified and described according with the benchmark size-based definition of consolidation and with an alternative criterion of consolidation based on persistence.

In Section 3.2.3 instead, while keeping constant the size-based benchmark definition of consolidation,

(²) The above criterion is different, for instance, with respect to that employed in Alesina and Ardagna (1998) which specifies that the average real GDP growth rate (in difference from the G7 average) in the period of consolidation and in the two years after it must be greater than the average value of the same variable across all episodes of consolidation. Therefore, the concept of expansion used in Alesina and Ardagna (1998) identifies those consolidation episodes after which growth has been higher relative to the average consolidation periods of the sample. In this study, the criterion based on growth acceleration proposed by Alesina et al. (2002) is chosen as the benchmark because it is better suited to identify fiscal consolidation episodes specific to the country and potentially exhibiting non-Keynesian features.

expansionary consolidation periods will be identified and described according to the benchmark definition of expansion based on growth acceleration and to alternative expansion criteria: acceleration in trend growth, in the cyclical component of growth and on the growth differential with the EU average.

In identifying expansionary consolidations, a further distinction will be made, in order to isolate those expansionary consolidation episodes that are unlikely to be attributable to concomitant monetary policy easing or exchange-rate devaluation policies. It has been shown, in fact, that fiscal contractions have been quite frequently accompanied by expansionary monetary policies in EU countries (see, for example, OECD, 1996, Alesina and Ardagna, 1998). The notion of 'pure' expansionary fiscal consolidation is thus proposed as one during which short-term real interest rates do not fall ⁽¹⁾.

Using the different definitions, several characteristics of consolidation periods are analysed in the next two sections, including their size, the initial state of public finances and how the fiscal adjustment is achieved (tax increases or expenditure cuts). The macroeconomic environment before, during and after consolidation periods is analysed by reporting average statistics on growth, output gaps, interest rates and on the change in the components of aggregate demand.

3.2.2. When does a fiscal consolidation occur?

The first exercise is to identify consolidation episodes by comparing the characteristics of expansionary fiscal consolidations that arise using different definitions. To this end, the results obtained when using the benchmark definition by Alesina and Ardagna (1998) based on the size of adjustment are compared with an alternative definition based on the persistence of adjustment. According to this alternative criterion, fiscal consolidations occur when the primary cyclically-adjusted budget balance improves by at least 3 percentage points of GDP over three consecutive years (the note to Table IV.3. provides a formal definition).

Table IV.3. reports the number of fiscal consolidations identified and describes which countries and in which periods experience expansionary episodes. In the sample of

462 observations used (14 EU countries, 33 years) 49 fiscal consolidation episodes have been identified which are consistent with the definition based on size ⁽²⁾. Using the concept of fiscal consolidation based on persistence, the number of consolidation episodes rises to 59.

Among the episodes of fiscal consolidation identified, roughly half of the total number of consolidation experiences amount to being expansionary. This result does not seem to depend on the definition of fiscal consolidation employed (size or persistence). Refining further the concept of expansionary consolidation to account for the monetary stance or possible devaluations, about half of them are found to be 'pure' (11 and 16 episodes using, respectively, the size and the persistence concept of consolidation period).

Concerning the description of the expansionary consolidation episodes, the evidence of expansionary effects registered in Belgium, Denmark and Ireland reported in previous studies is confirmed. Sweden also appears to be have experienced expansionary consolidations during the mid-1980s and in the late 1990s. The identification of expansionary consolidations in the remaining EU countries depends quite strongly on the concept used to define consolidation periods. Overall, the correlation index between 'size' and 'persistence' expansionary consolidation indicators is positive but quite low (0.33) ⁽³⁾.

Table IV.4 reports statistics concerning the characteristics (size of adjustment, initial state of public finances, composition of adjustment) of the fiscal consolidations identified, distinguishing whether the consolidation proved to be expansionary or not.

Results appear to be very robust with respect to the concept of fiscal consolidation employed (size or persistence) and supportive of findings reported in previous studies (Alesina and Ardagna, 1998, Alesina et al., 2002). In particular, it is not the simple fact that an adjustment is carried out that really matters, rather it is the composition of the adjustment which explains its expansionary effect. Indeed, the amount of the adjustment (measured by the

⁽¹⁾ Under likely assumptions, non-decreasing real interest rates tend to exclude both monetary expansions under floating exchange rates and devaluation policies under fixed exchange rates regimes. This is the case, for instance, in a Mundell-Fleming open economy setting with uncovered interest rate parity (see, for example, Krugman and Obstfeld, 2001).

⁽²⁾ The episodes may not coincide with those reported in Alesina and Ardagna (1998) because the method used to obtain cyclically-adjusted figures differ (HP filter in the present study, Blanchard-type trend regressions in Alesina and Ardagna, 1998).

⁽³⁾ Expansionary consolidation indicators take the value 1 for country/year combinations in which an expansionary consolidation occur and zero otherwise.

Table IV.3

Expansionary consolidations: description of episodes with alternative definitions of consolidation

	Size	Persistence
Number of consolidation episodes	49	59
Number of expansionary episodes	24	31
Number of 'pure' expansionary episodes	12	16

	Description of expansionary episodes	
	Size	Persistence
BE	1984, 1985	1985, 1986, 1987
DK	1983, 1984	1984
DE	1982	1982, 1983, 1984
EL	1982, 1987, 1994, 1996	1994, 1997, 1998
ES	1986	
FR		1996, 1997
IE	1976, 1987, 1988	1984, 1987, 1988, 1989
IT	1976, 1977, 1993	1993
NL	1993	1982, 1983
AT		1996, 1997
PT	1986	
FI	1993	1977
SE	1983, 1987, 1995, 1998	1982, 1983, 1984, 1995, 1997, 1998
UK	1997	1981, 1982, 1997

Definitions of fiscal consolidation.

Size: The primary cyclically-adjusted budget balance improves by at least 2 percentage points of GDP at time *t* or by 1.5 at least points in two consecutive years (i.e., *t* and *t*-1 or in *t* and *t*+1).

Persistence: The primary cyclically-adjusted budget balance improves by at least 3 percentage points of GDP over three consecutive years (i.e., between *t*-2 and *t*, or between *t*-1 and *t*+1 or between *t* and *t*+2) and in each year the change in the primary cyclically-adjusted budget balance cannot be below -0.5 percentage points of GDP.

Definition of an expansionary fiscal consolidation.

A fiscal consolidation in which the average real GDP growth between *t* and *t*+2 is greater than between *t*-1 and *t*-2.

Definition of a pure expansionary consolidation.

An expansionary fiscal consolidation in which the average change in real short run interest rates between *t*-1 and *t*+1 is non-negative.

Source: Commission services.

change in the primary cyclically-adjusted budget balance) does not seem to be significantly different between expansionary and non-expansionary consolidation periods, using both definitions of fiscal consolidation. What appears to be relevant to distinguish expansionary from non-expansionary periods of fiscal adjustment — using both definitions of consolidation — is its composition. Fiscal adjustments based on expenditure cuts are more likely to be expansionary than consolidation periods based on tax increases. Looking at overall values for primary expenditure and for government revenues

(cyclically-adjusted or not) differences are statistically significant irrespective of the concept of consolidation employed (size or persistence). The definition of consolidation appears to matter instead as far as the composition of expenditure is concerned. In particular, the reduction in the public wage bill, found to be relevant to characterise expansionary fiscal consolidations in other studies, is significantly higher in expansionary than in non-expansionary consolidations only when adopting a persistence-type definition of fiscal consolidation.

Concerning the initial state of public finances, the average value of debt/GDP ratios are found to be higher in expansionary fiscal consolidation periods by about 10 GDP percentage points, irrespective of the concept of consolidation employed (size or persistence). However, *t* tests show that this difference is not statistically significant ⁽¹⁾.

Table IV.5. presents data characterising the macroeconomic environment preceding, during and following consolidation periods. Several results emerge. First, consolidations are more likely to be expansionary after periods characterised by relatively low growth and by negative output gaps ⁽²⁾.

Second, growth appears to accelerate during the consolidation year and during the following year for expansionary episodes, while in non-expansionary episodes growth is more likely to decelerate. Interestingly, trend growth accelerates in expansionary consolidation periods when consolidation is defined according to persistence, while trend growth appears to be constant before and after consolidation when using a definition based on size. As for unemployment, it worsens during non-expansionary consolidations, while this is not the case for expansionary fiscal adjustments.

Third, both private consumption and business investment accelerate during expansionary consolidation periods, with investment registering a much higher acceleration. By contrast, investment decelerates during non-expansionary periods, and even drops after the consolidation (negative growth rates of investment) ⁽³⁾. Moreover, an acceleration

⁽¹⁾ When performing comparisons between variables, *t* tests permit to take into account both measures of position (averages) and of variability (standard deviations). This helps in understanding when apparently large differences in averages are mainly driven by the fact that variables are highly volatile.

⁽²⁾ This effect, however, may be due in part to the autonomous development of the business cycle which resumes from a period of below potential growth.

⁽³⁾ It should be noted that, in spite of the greater variation in investment, the contribution of consumption changes to growth is always higher than that of investment, due to the larger weight on total aggregate demand.

Table IV.4

Size and composition of expansionary consolidations: alternative definitions of consolidation

Criterion of fiscal consolidation: Variables (change as a % of GDP)	Size			Persistence		
	Non exp.	Exp.	t test for (1) ≠ (2)	Non exp.	Exp.	t test for (3) ≠ (4)
	Average values			Average values		
	(1)	(2)		(3)	(4)	
Primary CAB	2.9	2.8	0.8	1.7	1.6	0.2
Debt (level as a % of GDP)	65.4	75.1	-0.9	61.9	76.0	-1.5
Primary expenditure	0.0	-1.6	2.9 ^(?)	0.1	-1.1	2.8 ^(?)
Government investment	-0.2	-0.3	1.6	-0.1	-0.3	2.0 ^(?)
Public employees compensation	0.0	-0.2	1.4	0.0	-0.2	1.9 ^(?)
Total government revenues	2.3	1.0	4.1 ^(?)	1.4	0.5	2.9 ^(?)
Total cyclically-adjusted government revenues	2.4	1.1	3.3 ^(?)	1.3	0.4	2.6 ^(?)

NB: t test values labelled by ^(?) and ^(?) refer, respectively, to cases in which the average value of variables during expansionary and non-expansionary consolidations are statistically different at a 90 and 95 confidence interval.

Source: Commission services.

in TFP growth is recorded. Concerning the current account balance, while during non-expansionary consolidations a marked worsening of the current account is observed, this is not the case for expansionary consolidations.

Finally, during consolidation periods, both expansionary and non-expansionary, there is a reduction in nominal interest rates, irrespective of the definition of consolidation employed. This finding is consistent with the fact that, in these periods, the fiscal stance is meant to be contractionary. Moreover, falling short-term nominal interest rates are a possible indication of concomitant monetary expansions or exchange rate devaluations ⁽¹⁾.

3.2.3. When is a fiscal consolidation expansionary?

The second exercise undertaken is that of analysing the robustness of the characteristics of expansionary fiscal consolidations with respect to different criteria to identify expansionary episodes.

For this purpose, after having seen that alternative definitions of consolidation produce similar results, the

benchmark size-based definition of consolidation is kept constant and different definitions of expansion are used. Two alternatives to the benchmark expansion definition by Alesina et al. (2002) are proposed.

The first definition employs the notion of trend output growth as opposed to the of real GDP growth to identify expansionary episodes (see note to Table IV.6 for the formal definition). Resting on the assumption that fiscal policy may affect potential output, the idea is that an episode of fiscal adjustment is meant to be expansionary provided it is associated with an acceleration of trend output. Such definition of expansion permits to distinguish consolidation periods associated with positive developments in the economic cycle from those which are associated with positive output developments of a more structural nature. The second criterion defines as expansionary those fiscal consolidations that are associated with an increase in the difference between the growth rate in countries' GDP and the EU average GDP. The aim of this criterion is that of identifying those expansionary episodes which are associated with a growth acceleration which is not attributable to the EU-wide economic cycle ⁽²⁾.

⁽¹⁾ Depending upon the evolution of inflation, falling nominal interest rates may not correspond necessarily to effectively monetary easing. However, in most of the cases, real interest rates also appear to fall between t and t-1, both during expansionary and non-expansionary consolidations, while changes between t and t+1 show a less clear pattern (unreported). Concerning nominal exchange rates, it is found that during both expansionary and non-expansionary consolidations the exchange rate of the consolidating country with respect to the US dollar tends to depreciate overall the whole period between t-1 and t+1 (unreported).

⁽²⁾ A third definition of expansion complementary to the first one as also been tested. According to this definition an episode of fiscal consolidation is expansionary provided it is associated with an increase in the difference between actual and trend output growth. The results however are particularly close to the baseline scenario (correlation index at 0.98) given that most of the movements in this variable is due to changes in actual growth. Therefore, the results of such exercise are not shown.

Table IV.5

Macroeconomic environment in expansionary consolidations: alternative definitions of consolidation

Criterion for fiscal consolidation Variables	Size		Persistence	
	Non-exp.	Exp.	Non-exp.	Exp.
Growth rate of real GDP (%)				
t-1	2.6	1.6	2.6	1.2
t	1.1	2.1	2.0	2.2
t+1	0.7	3.4	2.4	3.1
Output gap (% of trend output)				
t-1	0.4	- 1.1	0.3	- 1.8
t	0.2	- 1.5	0.2	- 1.6
t+1	- 0.3	- 0.8	0.7	- 1.0
Trend GDP growth				
t-1	2.6	2.6	2.9	2.5
t	2.5	2.6	2.8	2.6
t+1	2.5	2.6	2.7	2.8
Growth rate of real private consumption (%)				
t-1	2.4	1.4	2.3	1.3
t	1.4	1.8	1.7	1.9
t+1	1.5	3.0	2.3	2.6
Growth rate of real business investment (%)				
t-1	3.5	0.3	5.4	0.6
t	- 0.6	3.7	0.5	3.5
t+1	- 3.3	6.7	- 1.5	6.4
Growth rate in real current account surplus (%)				
t-1	3.0	0.1	3.1	0.0
t	- 0.1	- 0.2	- 4.1	0.0
t+1	- 0.2	0.4	- 4.3	- 0.5
Growth rate in TFP (% change)				
t-1	0.9	1.0	1.2	0.9
t	0.2	1.6	0.8	1.7
t+1	0.2	2.1	1.3	2.1
Unemployment rate (% of labour force)				
t-1	6.5	8.7	7	9.5
t	6.9	9	7.6	9.4
t+1	8.9	8.9	7.9	9.1
Short -term nominal interest rates				
t-1	11.3	12.5	10.9	9.7
t	10.9	11.5	10.2	9.3
t+1	9.9	10.2	9.8	8.6

Source: Commission services.

Table IV.6. reports the number of fiscal consolidations identified and describes which countries and in which periods experience expansionary episodes. An interesting result is already that, irrespective of the definition used to identify expansionary episodes, the number of expansionary consolidations is about 20, that is, roughly half the total number of consolidation experienced in EU countries. Most of the country-specific cases are identified under the three definitions.

Adopting the narrower definition of ‘pure’ expansionary consolidation, that is, excluding the expansionary consolidation periods likely to be associated with monetary expansions or exchange rate devaluations, the number of expansionary episodes reduces to about 10. Again, this result is fairly robust with respect to the definition of expansion used.

So, irrespective of the definition of expansion used, about half of the consolidation periods experienced by

Table IV.6

Expansionary consolidations: description of episodes with alternative definitions of expansion

	Growth	Trend growth	Actual minus EU growth
Number of consolidation episodes	49		
Number of expansionary episodes	24	22	21
Number of 'pure' expansionary episodes	11	11	11
Description of expansionary episodes			
BE	1984, 1985	1984, 1985	1984, 1993
DK	1983, 1984	1983, 1984	1983, 1984
DE	1982	1982	1982
EL	1982, 1987, 1994, 1996	1986, 1987, 1991, 1994, 1996	1982, 1991, 1994, 1996
ES	1986	1986	1986
FR			
IE	1976, 1987, 1988	1987, 1988	1987, 1988
IT	1976, 1977, 1993	1997	1976, 1977, 1992, 1993
NL	1993		1993
AT		1984	
PT	1986	1986	1986
FI	1993		1993
SE	1983, 1987, 1995, 1998	1995, 1996, 1998	1983, 1998
UK	1997	1980, 1997, 1998	

NB: All fiscal consolidations are of the size-type (see note to table ?).

A 'pure' expansionary fiscal consolidation is an expansionary fiscal consolidation in which the average change in real short run interest rates between t-1 and t+1 is non-negative.

Definitions of expansionary fiscal consolidation:

Growth: average real GDP growth between t and t+2 greater than between t-1 and t-2.

Trend growth: average trend growth between t and t+2 greater than between t-1 and t-2.

Actual minus EU growth: average difference (actual real GDP growth – EU average real growth) between t and t+2 greater than between t-1 and t-2.

Source: Commission services.

EU countries appear to be expansionary, and about one quarter appear to be 'pure' expansionary (not likely to be accompanied by expansionary monetary policies or devaluations).

Turning to the description of the expansionary consolidation episodes, all criteria used to identify expansionary episodes permit to isolate the experiences of Denmark (1983–84) and Ireland (1987–88) which, since Giavazzi and Pagano (1990), are known to be the classical examples of fiscal adjustment exhibiting possible non-Keynesian features. Expansionary fiscal consolidations are found in Spain and Portugal in 1986 as well as in West Germany in 1982. Non-expansionary episodes are instead found in France. Findings concerning Greece, Italy, Sweden and the UK depend quite crucially on the criterion chosen to define an expansionary adjustment. Concerning Finland, not surprisingly an expansionary period in 1993 is found using all criteria except that based on trend growth, since results are very

much driven by the strong output contraction experienced in 1991.

Correlation indexes (reported in Table IV.1.) among expansionary consolidation indicators based on different definitions of expansion help to understand the extent to which alternative criteria tend to yield overlapping results. The benchmark criterion based on the acceleration of real GDP growth is correlated to a certain extent with the trend growth criterion (0.63). The results obtained using the definition of expansionary consolidations using the criterion of actual minus EU growth is more correlated with the baseline scenario (0.76) than with trend growth scenario (0.51).

Table IV.8. reports average values and t tests for the characteristics of the fiscal consolidations identified, distinguishing according to the expansionary status of the consolidation and repeating the analysis for the different definitions of expansion.

Table IV.7

Correlation indexes among alternative indicators of expansionary consolidations

	Growth	Trend growth	Actual minus EU growth
Growth	1	.	.
Trend growth	0.63	1	.
Actual minus EU growth	0.76	0.51	1

Source: Commission services.

The results shown in Table IV.8. are fairly robust with respect to alternative definitions of expansion (based on growth, trend growth, difference between growth and trend growth, difference between growth and EU average growth). In general, there is support for the view that the composition of adjustment is more significant to identify expansionary episodes rather than the size of the adjustment carried out. In particular, an expansionary adjustment would be a combination of tax increases and cuts in primary expenditure where, however, the latter measure would be more sizeable. Consistently with the argument proposed by Alesina et al. (2002), it is also

Table IV.8

Size and composition of expansionary consolidations: alternative definitions of expansion

	Growth			Trend growth			Actual minus EU growth		
	Non-exp.	Exp.	t test for (1) ≠ (2)	Non-exp.	Exp.	t test for (3) ≠ (4)	Non-exp.	Exp.	t test for (7) ≠ (8)
	Average values			Average values			Average values		
	(1)	(2)		(3)	(4)		(7)	(8)	
Primary CAB	2.9	2.8	0.6	2.9	2.8	0.2	2.9	2.7	0.7
Debt (level as a % of GDP)	65.4	75.1	-0.9	63.9	77.7	-1.6	61.6	81.1	-2.2 (?)
Primary expenditure	0.0	-1.6	3.2 (?)	0.0	-1.8	3.6 (?)	-0.4	-1.4	1.7 (1)
Government investment	-0.2	-0.3	1.9	-0.2	-0.3	-0.13	-0.2	-0.3	0.0
Public employees compensation	0.0	-0.2	1.6	0.1	-0.4	4.0 (?)	0.0	-0.2	1.2
Total government revenues	2.3	1.0	3.9 (?)	2.2	0.9	4.1 (?)	2.0	1.1	2.8 (?)
Total cyclically-adjusted government revenues	2.4	1.1	3.3 (?)	2.6	0.8	4.9 (?)	2.1	1.2	2.1 (?)

NB: t test values labelled by (1) and (?) refer, respectively, to cases in which the average value of variables during expansionary and non-expansionary consolidations are statistically different at a 90 and 95 confidence interval.

Source: Commission services.

found that during expansionary consolidations there is a more marked reduction in expenditure on public employees' wage bill. However, this difference is significant (and highly so) only when a criterion of expansion based on trend growth is chosen. This finding is consistent with the idea that the wage bill of public employees affects real output through higher profits and then greater investment. To the extent that investment affects both demand and supply conditions, one should expect trend output to be affected, while this is not the case if wages would only affect output via the demand channel.

Table IV.9. shows data illustrating the macroeconomic environment before, during and after consolidations. It confirms the result that, in general, expansionary consolidations follow periods of low growth and negative output

gaps. Regarding the behaviour of aggregate demand components, again, both private consumption and business investment accelerate during expansionary consolidation periods, with investment registering a greater acceleration. The finding that during non-expansionary periods investment decelerates quite significantly is also confirmed and robust with respect to the notion of expansion adopted. Again, the level of short-term nominal interest rates falls during both expansionary and non-expansionary consolidations, irrespective of the definition of expansion used.

What seems to differ quite significantly depending on the definition of expansion adopted is the behaviour of the current account balance. When the expansion is measured by trend growth the current account balance worsens during expansionary consolidations, while the opposite is true

when the other criteria for consolidation are used. This interesting result highlights that the evolution of the external sector may be a consequence of the type of fiscal adjustment carried out, rather than its determinant. Therefore, a less unfavourable evolution of the current account balance may help to identify fiscal consolidation episodes leading to cyclical improvements (that is, when the exchange rate tends to depreciate), but not those associ-

ated with growth improvements of a structural nature (that is, when the exchange rate would tend to appreciate). In the latter cases in fact the current account gives on average a negative contribution to the evolution of growth. The view that expansionary fiscal consolidations should be seen as a phenomenon mainly associated with exchange rate depreciations or devaluations and consequent current account improvements is thus not supported.

Table IV.9

Macroeconomic scenario in expansionary consolidations: alternative definitions of expansion

Variable	Definition of expansion		Growth		Trend growth		Actual minus EU growth	
	Non-exp.	Exp.	Non-exp.	Exp.	Non-exp.	Exp.	Non-exp.	Exp.
Growth rate of real GDP (%)								
t-1	2.6	1.6	2.2	2.0	2.8	1.1		
t	1.1	2.1	1.2	2.1	1.3	2.0		
t+1	0.7	3.4	1.6	2.7	1.3	3.1		
Output gap (% of trend output)								
t-1	0.4	-1.1	0.9	-1.9	0.0	-0.7		
t	0.2	-1.5	0.1	-1.6	-0.3	-1.1		
t+1	-0.3	-0.8	-0.2	-1.0	-0.2	-1.0		
Trend GDP growth								
t-1	2.6	2.6	3.1	2.0	2.6	2.5		
t	2.5	2.6	2.9	2.2	2.6	2.5		
t+1	2.5	2.6	2.8	2.3	2.6	2.6		
Growth rate of real private consumption (%)								
t-1	2.4	1.4	2.1	1.7	2.3	1.4		
t	1.4	1.8	1.2	2.0	1.8	1.3		
t+1	1.5	3.0	1.5	3.1	1.9	2.6		
Growth rate of real business investment (%)								
t-1	3.5	0.3	0.4	3.4	4.5	-0.8		
t	-0.6	3.7	-0.6	4.1	1.8	1.2		
t+1	-3.3	6.7	-2.6	6.8	-0.7	4.9		
Growth rate in real current account surplus (%)								
t-1	3.0	0.1	0.3	2.6	2.2	0.3		
t	-0.1	-0.2	0.1	-0.4	0.0	-0.4		
t+1	-0.2	0.4	0.0	0.2	0.0	0.2		
Growth rate in TFP (%)								
t-1	0.9	1.0	0.7	1.2	1.3	0.4		
t	0.2	1.6	0.5	1.4	0.2	1.7		
t+1	0.2	2.1	0.8	1.5	0.4	2.0		
Unemployment rate (% of labour force)								
t-1	6.5	8.7	6.2	7.9	6.6	8.8		
t	6.9	9.0	7.0	8.0	6.9	9.4		
t+1	8.9	8.9	7.5	8.0	7.2	9.4		
Short run nominal interest rates								
t-1	11.3	12.5	12.4	11.4	10.3	13.2		
t	10.9	11.5	12.0	10.5	9.5	12.7		
t+1	9.9	10.2	10.8	9.3	8.9	11.2		

Source: Commission services.

3.2.4. Summary of findings

The analysis carried out in this chapter, relying upon alternative definitions of fiscal consolidation and on different criteria to identify expansionary fiscal adjustments, leads to a number of findings that can be summarised as follows.

- Fiscal consolidation episodes exhibiting non-Keynesian features can be found in Europe: growth appears to have accelerated after about half of the consolidation episodes identified and in roughly one quarter of the cases this happened without a monetary stimulus. Hence, there is an indication that roughly half of the expansionary fiscal consolidations are unlikely to be attributable to concomitant monetary policy easing or devaluations.
- Expansionary fiscal consolidations are more likely to be based on expenditure cuts than on tax increases, irrespective of the definition of fiscal consolidation or expansion employed. Expansionary fiscal adjustment periods also appear to be associated with initial high levels of debt, while the simple fact that there has been an adjustment is not enough to guarantee its positive effect on output. Consolidations based on cuts in wage expenditure seem to be more likely to spur potential growth ⁽¹⁾. Consistent findings are found in previous studies (Alesina and Ardagna, 1998, Alesina et al., 2001).
- The macroeconomic environment preceding expansionary consolidation periods is characterised by slow growth and negative output gaps compared with that characterising non-expansionary consolidations. This finding appears robust with respect to the definition of consolidation used and the definition of expansion adopted.
- There is evidence that the acceleration in growth following fiscal consolidations may have either a structural nature (trend growth is affected) or a cyclical one, or have both a structural and a cyclical component. During expansionary consolidations both consumption and investment accelerate. The behaviour of business investment seems especially helpful in distinguishing between expansionary and non-expansionary episodes. Irrespective of the definition of consolidation and expansion used, while in non-expansionary cases investment falls, in expan-

sionary periods there is a strong acceleration in this component of aggregate demand.

- The results presented above highlight the fact that credibility and confidence may play a role in determining the effects on output of the fiscal adjustment. Box IV.1 provides some examples about the relationship between confidence and fiscal adjustments. The indicators of households' and businesses' confidence are below average before the consolidation starts and tend to improve in those cases of budget consolidations followed by acceleration in growth.

Before taking firm policy conclusions, however, it should be recalled that the above results are to be interpreted with caution. As mentioned in Section 3.1, cross-country empirical analysis on fiscal consolidations are subject to a series of problems and limitations. In particular, in interpreting results referred to the short-run, it is quite difficult to understand to what extent consolidations affect growth or if it is actual and expected output growth which affects budget balances and budget policies ⁽²⁾. Moreover, it is quite difficult to isolate the effect of external factors (such as monetary and exchange-rate policies) that shape the links between fiscal consolidations and economic activity.

An ideal way to overcome the above difficulties in interpreting the empirical evidence would be that of creating a policy experiment in which a fiscal shock occurs in isolation from other policies and from other types of shocks to macroeconomic variables. Though real-world policy experiments are not feasible, the use of applied macroeconomic models helps to understand how such hypothetical policy experiments would work in reality. To this end, the next chapter presents simulations on the effects of alternative types of fiscal consolidations from the Directorate-General for Economic and Financial Affairs QUEST model.

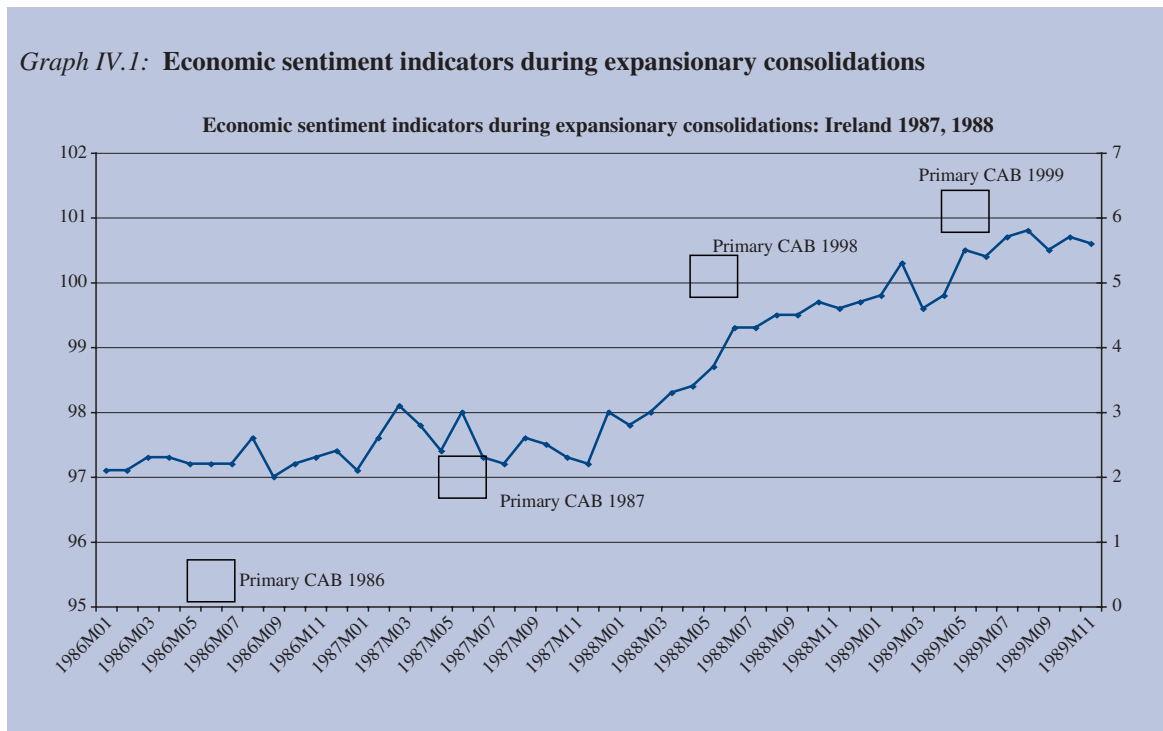
⁽¹⁾ However, this finding is quite fragile with respect to the definition of fiscal consolidation or expansion used.

⁽²⁾ The possibility of a mistaken interpretation of results is somehow supported by the fact that expansionary consolidations are more likely to occur after weak growth and when output gaps are negative. The growth pick-up observed after expansionary consolidations may therefore be related, to some extent, to independent cyclical developments. However, even restricting the analysis to relatively homogenous cases from the viewpoint of cyclical conditions, the evidence still seems potentially consistent with the hypothesis of consolidations with non-Keynesian effects. In order to avoid extreme cases, where this independent cyclical effect is more likely to play a relevant role, the sample could be limited to fiscal consolidations episodes (according to the benchmark definition) occurring when output is within 2 percentage point from potential (which is the case for about 80 % of the cases). In this case average growth is 1.7, 1.4 and 1.8, respectively in the year before, during and after consolidation, which still shows that the consolidation would not have recessionary effects.

Box IV.1: Expansionary fiscal consolidations and confidence indicators

The rationale for the emergence of non-Keynesian fiscal consolidations is based on the forward-looking behaviour of consumers and investors. The improvement of the government budget position may lead to increased consumption or investment if the expectations of economic operators are affected positively. Consumers may raise their consumption spending if the consolidation of public finances credibly signals reduced future taxation, thus leading to a higher perceived permanent disposable income. Businesses may invest more if the fiscal consolidation leads to the perception of improved expected future profit opportunities. A common indicator to measure the level of confidence of consumers and businesses is the economic sentiment indicator (ESI) developed by the National Bureau of Economic Research (NBER), which summarises the attitudes and judgements on the current economic situation through surveys conducted on a large number of economic actors. For EU countries, the economic sentiment indicator is calculated on a monthly basis by the European Commission, within the framework of the joint harmonised EU programme of business and consumer surveys ⁽¹⁾. Table IV.1. reports values of the economic sentiment indicator during periods of fiscal consolidations resulted to be expansionary (see Table IV.3 and Table IV.4). The fiscal consolidation episodes chosen are those in Ireland in 1987 and 1988, in Italy in 1993, in Greece in 1994 and 1996 and in Sweden in 1998. On the left-hand axis, the value of the ESI is reported (changing on a monthly basis); on the right-hand axis, the value of the primary cyclically-adjusted CAB (annual data) is reported.

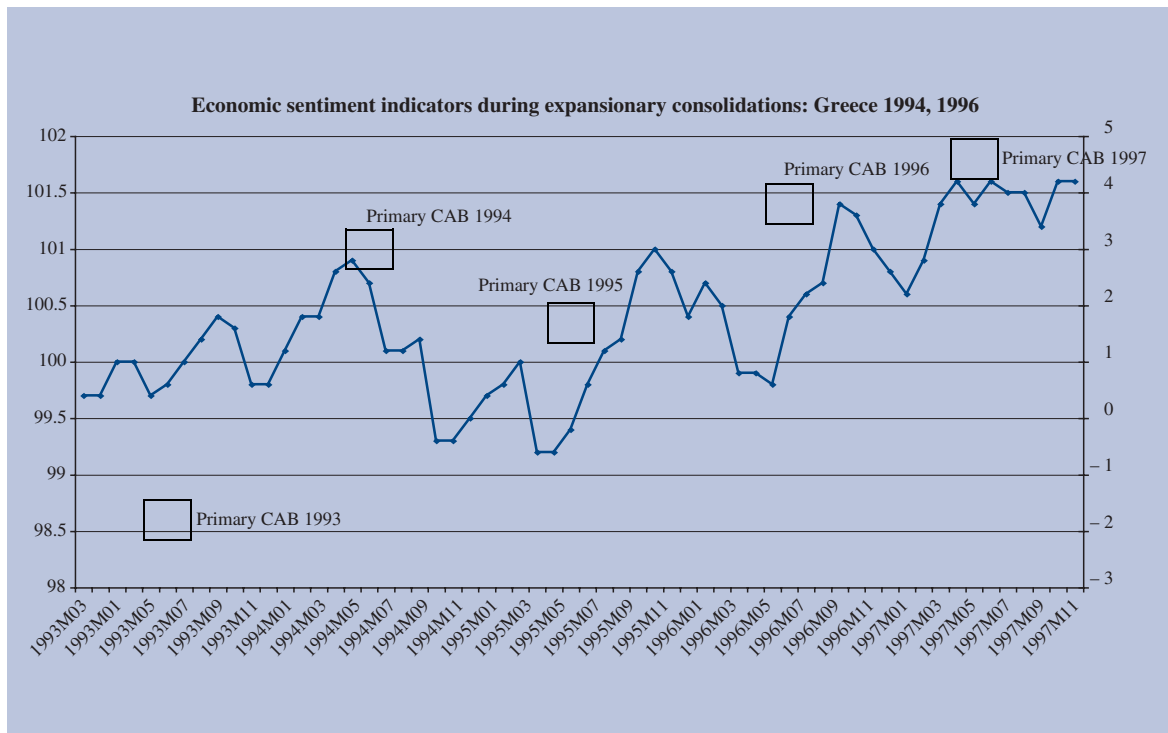
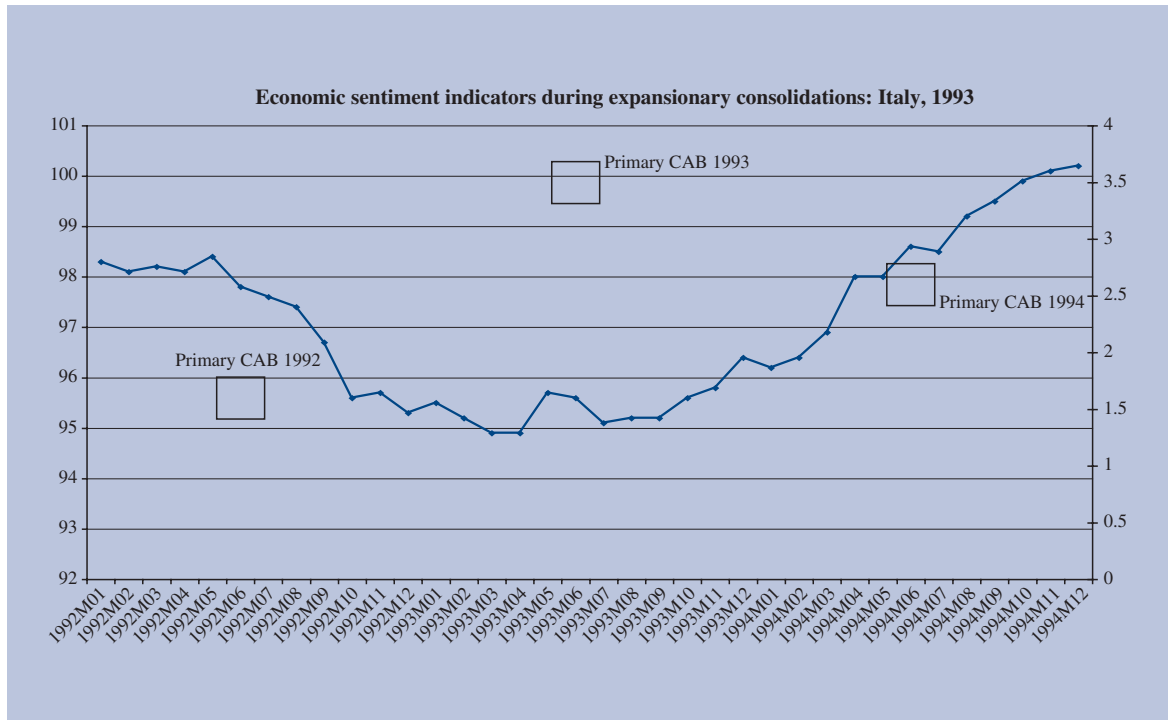
Graph IV.1: Economic sentiment indicators during expansionary consolidations



⁽¹⁾ The European Commission economic sentiment indicator is the result of monthly surveys collected on a sample of 67 000 firms and 24 000 consumers across the EU. The questions included in the surveys concern the perception of economic actors on the state of the economy in the coming months. Answers are ranked according to their degree of 'optimism', with higher scores for more optimistic answers. Answers from different economic actors are aggregated using predetermined weights (40 % for industrial firms, 20 % for households, 20 % for construction firms, 20 % for retail trade firms). Figures are seasonally adjusted and normalised such that 1995=100.

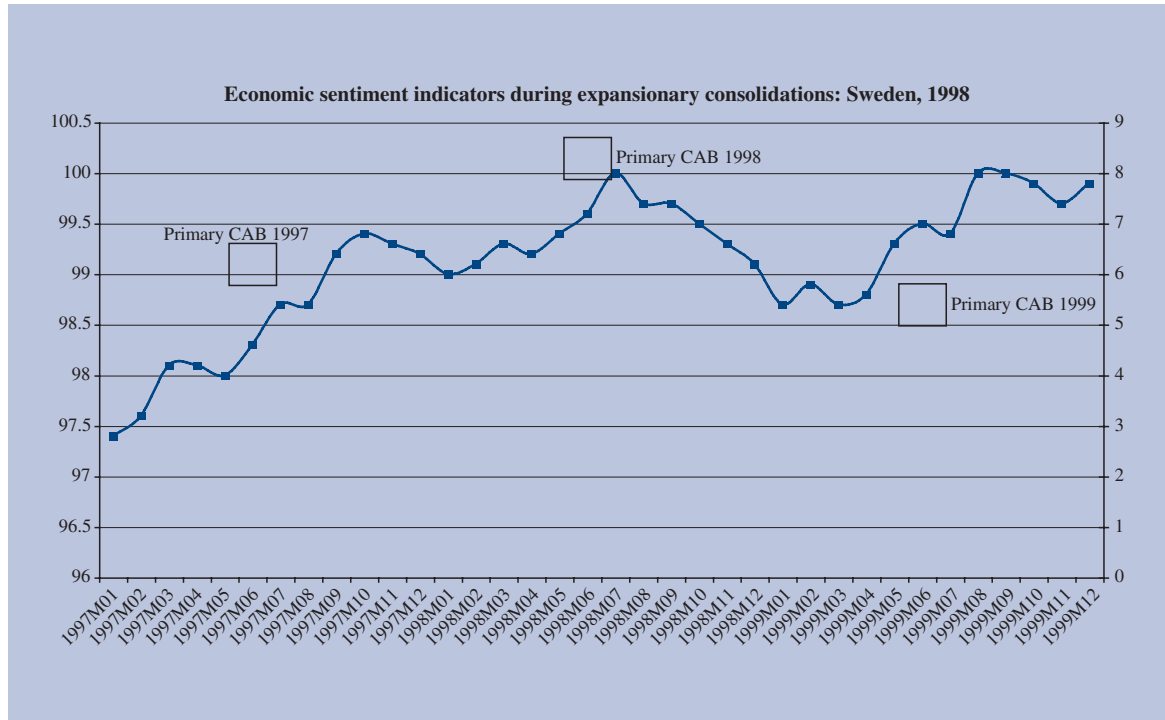
(Continued on the next page)

Box IV.1 (continued)



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Box IV.1 (continued)



It is difficult to compare annual budgetary data with monthly surveys and to attribute to specific months the effect of each budget: one should determine whether the impact on confidence materialises when the budget is announced, when it is approved or when evidence about its implementation emerges. Nevertheless, some gross information can be obtained by looking at the above figures. In all cases, an improvement in the economic sentiment indicator is observed in the months during which the consolidation was taking place. In Ireland, confidence improved after the consolidation of 1987 took place and the ESI continued to improve also after the consolidation occurred in 1988. In Italy, the consolidation of 1993 coincided with an inversion of the trend in the ESI: during 1992 confidence was falling, starting from mid-1993 confidence began to rise. In Greece, it is worthwhile to observe that the improvement in the ESI during the consolidation of 1994 was only temporary. The worsening of the primary cyclically-adjusted balance in 1995 coincided with a fall in confidence. Confidence improved again during the consolidations of 1996 and 1997. Concerning Sweden, between 1997 and 1999 the rise and fall pattern in the ESI follows quite closely that in the primary cyclically-adjusted budget balance.

This evidence is generally consistent with the view that fiscal consolidations may have expansionary effects via improved economic confidence of economic operators.

4. Assessing *ex ante* the effects of fiscal consolidations: simulation results from the QUEST model

4.1. Introduction ⁽¹⁾

This chapter describes the macroeconomic effects of fiscal consolidations based on simulations using the QUEST model. QUEST is an applied macroeconomic model whose foundations can be characterised as a modern version of the neoclassical-Keynesian synthesis. Behavioural equations in the model are based on intertemporal optimisation of households and firms with forward-looking expectations ⁽²⁾. Unemployment is generated by imperfect matching between workers and firms. Prices adjust sluggishly and the nominal wages response is delayed because of overlapping wage contracts. The model has Keynesian features in the short run, but the effectiveness of fiscal policy is more limited than in the traditional econometric models because of the built-in intertemporal budget constraints. However, since planning horizons are finite, there is no complete tax discounting and Ricardian equivalence does not hold. Moreover, total consumption is represented as the aggregation of the responses of two groups of households, one forward-looking group that follows the optimal consumption rule given by the life cycle/permanent income hypothesis and a liquidity-constrained group whose consumption depends on current disposable income.

Taxes are, in general, distortionary in the model and affect long-term employment and capital formation as well as consumption decisions by private agents. Consolidations through tax increases have therefore long-term negative

consequences in the model. The only exception to this is lump-sum taxes, which do not create any distortions, but this is of limited practical relevance.

A reduction in government expenditure in QUEST affects consumption of the liquidity-constrained households who see their current disposable income decline if wages and employment are falling. However, the non-liquidity-constrained households could increase their consumption as interest rates fall and if they anticipate higher disposable incomes in the future. The removal of distortions that this entails could boost employment and output and already affect life-time income in the short run. Expansionary effects through the consumption channel may occur in the medium term but, if a sizeable share of households is liquidity-constrained, it is unlikely that in the short run the boost to consumers' spending that might result from the fiscal consolidation will be strong enough to offset the negative impact of the reduction in government spending. Thus, the emergence of non-Keynesian effects of fiscal consolidations through consumers' spending crucially depends on the severity of credit constraints and on the degree of distortions associated with public intervention ⁽³⁾.

Besides the consumption channel, QUEST allows for the working of non-Keynesian effects through the working of the investment channel. A reduction in public expenditure, in particular public employment, will raise unemployment and exert downward pressure on wages. This, in turn, tends to boost profits and raise investment spend-

⁽¹⁾ For an extended analysis see Giudice et al. (2003).

⁽²⁾ The model has a richer theoretical structure than most macroeconomic models. Moreover, as in standard computable dynamic general equilibrium models it allows for adjustment costs and nominal rigidities. For a presentation of QUEST II model, see Roeger and in't Veld (1997, 2002).

⁽³⁾ The fraction of liquidity-constrained households in QUEST is obtained from available estimates.

ing. This is the investment channel emphasised, for instance, in Alesina et al. (2002).

The question arises whether the non-Keynesian channels described above could prevail over the traditional Keynesian channels and lead to expansionary fiscal consolidations. If this is the case, it is then relevant to understand which type of fiscal consolidations are more likely to induce a prevalence of non-Keynesian channels.

For comparability, all scenarios of consolidation in the simulations are of equal *ex ante* size and standardised to consolidations of 1 percentage point of GDP, that is, permanent increases in taxation or reductions in expenditure of 1 % of (baseline) GDP ⁽¹⁾. It should be noted that an annual budgetary adjustment equivalent to 1 % of GDP would be large relative to what Member States are envisaging in their stability and convergence programmes in order to reach the SGP goal of budget positions which are ‘close to balance or in surplus. This implies that two of the factors that are generally investigated in analysing fiscal consolidations, that is, the size of the adjustment and the initial state of public finances, are not directly explored here ⁽²⁾. The policy experiments are also applied to one country in isolation (Germany) and no attention is paid to possible cross-country spillover effects ⁽³⁾.

All scenarios assume that the fiscal consolidations are *permanent and credible*, that is, private agents fully and correctly anticipate the effects of fiscal consolidation and do not expect the fiscal policies stance to be reverted in the future. An exercise is carried out in Section 4.3.1 to assess the implications of fiscal consolidation which are perceived as non-credible, since they are reversed in the following years.

The default monetary policy assumption in the scenarios described below is based on a forward looking Taylor-

type rule. The monetary authorities are assumed to set short-term interest rates at a level that depends both on the deviation of the forecast of inflation from the target inflation rate and on the magnitude of the output gap. To evaluate the impact of the monetary policy stance on the effects of fiscal consolidation, an alternative monetary policy rule, leading to a looser policy stance, is also considered (see Section 4.3.2).

The simulation results are presented as changes in levels of relevant macroeconomic variables. These results are equally interpretable as deviations from baseline steady-state growth.

4.2. Tax increases

With distortionary taxes, it should come as no surprise that a fiscal consolidation through tax increases has a negative impact on output. The purpose of this section is merely to provide a comparison for the simulations of expenditure reductions and contrast the potential effects on output. Three simulations are carried out below: permanent tax increases of 1 % of GDP in labour income tax, corporate profit tax and VAT, respectively.

As expected, all these scenarios show negative GDP effects in the short and medium run: the tax rises increase the distortions in the economy and lower output. Labour income tax and VAT affect consumption more than investment, and they both reduce employment. In contrast, the consolidation through an increase in the corporate tax rate has the largest impact on capital formation, which falls sharply on impact, while the increase in unemployment is only of temporary nature. On the whole, these negative output effects broadly confirm the findings in the previous section that consolidations through tax rises are seldom expansionary.

4.3. Expenditure cuts

In the episode study in the previous section it was found that fiscal adjustments based on expenditure cuts seem to have a higher probability to be expansionary than those based on tax increases. The set of scenarios below are fiscal consolidations through alternative types of expenditure reductions: cuts in government purchases, in government employment or in government transfers to households.

All the policy experiments considered lead to negative GDP effects on impact in the short run, but are reversed in the medium to long run. Permanent cuts in govern-

⁽¹⁾ The simulated fiscal consolidations have an impact on the size and evolution of public debt. The solution of the model requires the debt to be sustainable. In the simulations the debt is stabilised at a 10 % lower level as a percentage of GDP through reductions over time in labour income taxes.

⁽²⁾ The non-linearities in the model are not substantial enough to analyse the importance of larger versus smaller fiscal consolidations, and the model results are close to proportional for larger adjustments than the standardised consolidations of 1 percentage point considered here. Nor are we exploring here the significance of the initial state of public finances. Instead we focus our attention on the composition of fiscal adjustments and look at the effects for different tax and expenditure categories.

⁽³⁾ Note that, as the simulations are performed under an existing EMU framework, there is also no role for an exchange rate channel, a potentially important element in some of the episodes studied in the previous chapter.

Table IV.10

Permanent increase in labour income tax of 1 % of GDP

% change from baseline	1st year	2nd year	3rd year	4th year	5th year	10th year
GDP	- 0.36	- 0.47	- 0.6	- 0.71	- 0.80	- 1.09
Private consumption	- 0.90	- 1.10	- 1.19	- 1.25	- 1.31	- 1.42
Private investment	- 0.29	- 0.57	- 0.86	- 1.09	- 1.29	- 1.91
Real wage costs	0.70	0.94	0.71	0.56	0.58	0.19
Real effective exchange rate	0.14	0.08	- 0.01	- 0.10	- 0.16	- 0.42
Absolute change from baseline						
Short-term interest rate	- 0.08	- 0.06	- 0.05	- 0.05	- 0.05	0.01
Real short-term interest rate	- 0.04	- 0.09	- 0.09	- 0.07	- 0.07	0.00
Unemployment rate	0.28	0.75	0.98	1.07	1.15	1.38
Debt (% of GDP)	- 0.37	- 1.21	- 1.92	- 2.59	- 3.29	- 7.63
Deficit (% of GDP)	- 1.00	- 0.83	- 0.74	- 0.73	- 0.82	- 0.86

Source: Commission services.

Table IV.11

Permanent increase in corporate tax of 1 % of GDP

% change from baseline	1st year	2nd year	3rd year	4th year	5th year	10th year
GDP	- 0.34	- 0.23	- 0.23	- 0.27	- 0.31	- 0.09
Private consumption	0.85	1.38	1.37	1.30	1.25	1.47
Private investment	- 4.24	- 5.29	- 5.18	- 5.01	- 4.96	- 3.96
Real wage costs	- 0.13	- 0.25	- 0.25	- 0.29	- 0.40	- 1.32
Real effective exchange rate	0.10	0.11	0.07	0.03	- 0.01	0.03
Absolute change from baseline						
Short-term interest rate	- 0.05	- 0.04	- 0.03	- 0.03	- 0.01	0.03
Real short-term interest rate	0.01	- 0.03	- 0.04	- 0.05	- 0.04	0.05
Unemployment rate	0.08	0.05	0.02	0.01	- 0.01	- 0.81
Debt (% of GDP)	- 0.44	- 1.63	- 2.80	- 3.95	- 5.11	- 9.56
Deficit (% of GDP)	- 1.12	- 1.16	- 1.18	- 1.22	- 1.21	- 0.66

Source: Commission services.

ment purchases and government employment can already boost consumption spending in the short run as forward-looking households are anticipating higher disposable income in the future ⁽¹⁾. The simulations show that this effect becomes relatively stronger over time, strong enough to offset after some years the negative effect on GDP on impact associated with reduced aggregate demand from the public sector. When instead it is transfer payments to households to be reduced, the boost to private

spending in anticipation of lower tax liabilities in the future appears not to be large enough to offset the negative impact of lower transfer receipts. Consumption remains below base, although investment spending gradually recovers.

A reduction in government employment can, from the third year on, increase investment spending. This scenario displays the largest potential gains in terms of higher growth after the initial decline in the first years. The short-term rise in unemployment in this case puts downward pressure on real wages in the private sector and increases profits for firms (Alesina et al., 2002). Lower real wage costs also boost private sector employment again in the

⁽¹⁾ Higher future disposable income is associated with the lower future taxes that become possible after the consolidation under the assumption that the debt ratio is stabilised at a 10 % of GDP lower level.

Table IV.12

Permanent increase in VAT of 1 % of GDP

% change from baseline	1st year	2nd year	3rd year	4th year	5th year	10th year
GDP	- 0.14	- 0.21	- 0.34	- 0.44	- 0.51	- 0.63
Private consumption	- 0.68	- 0.23	- 0.29	- 0.36	- 0.44	- 0.51
Private investment	- 0.15	- 0.51	- 0.80	- 0.97	- 1.12	- 1.33
Real wage costs	0.49	0.69	0.50	0.37	0.38	- 0.06
Real effective exchange rate	- 0.08	- 0.18	- 0.26	- 0.31	- 0.35	- 0.43
Absolute change from baseline						
Short-term interest rate	- 0.06	- 0.03	- 0.02	- 0.02	- 0.02	0.03
Real short-term interest rate	- 0.09	- 0.08	- 0.06	- 0.04	- 0.04	0.03
Unemployment rate	0.16	0.46	0.61	0.68	0.73	0.74
Debt (% of GDP)	- 0.49	- 1.37	- 2.15	- 2.91	- 3.71	- 8.05
Deficit (% of GDP)	- 0.93	- 0.87	- 0.82	- 0.83	- 0.9	- 0.81

Source: Commission services.

Table IV.13

Permanent reduction in government purchases of 1 % of GDP

% change from baseline	1st year	2nd year	3rd year	4th year	5th year	10th year
GDP	- 0.33	- 0.06	- 0.04	- 0.05	- 0.04	0.41
Private consumption	1.40	2.11	2.14	2.12	2.12	2.55
Private investment	- 0.63	- 0.85	- 0.86	- 0.84	- 0.81	0.15
Real wage costs	- 0.07	- 0.10	- 0.05	- 0.05	- 0.10	- 0.79
Real effective exchange rate	0.02	0.01	0.02	0.04	0.05	0.37
Absolute change from baseline						
Short-term interest rate	0.00	0.02	0.02	0.03	0.04	0.07
Real short-term interest rate	- 0.04	0.01	0.02	0.02	0.03	0.10
Unemployment rate	0.11	0.05	0.02	0.01	- 0.01	- 0.82
Debt (% of GDP)	- 0.47	- 1.79	- 2.97	- 4.15	- 5.34	- 9.70
Deficit (% of GDP)	- 1.13	- 1.17	- 1.2	- 1.23	- 1.22	- 0.61

Source: Commission services.

medium term and total employment recovers gradually. The cross-country evidence on expansionary consolidations supports this view. As found in the previous section, reductions in the wage bill of the public sector are more likely to be linked with expansionary consolidations when these are defined in terms of trend growth.

4.3.1. Temporary versus permanent cuts

One of the regularities found in cross-country analyses of fiscal consolidations is that ‘successful’ consolidations, leading to a permanent reduction in debt are more likely to produce expansionary effects than adjustments which are reversed in the subsequent years. All the

QUEST simulations presented so far concerned fiscal consolidations resulting from permanent tax increases or expenditure cuts. The hypothesis of a permanent adjustment is crucial. Since the QUEST model builds upon the assumption of rational expectations, agents anticipate the permanent reduction in government spending and the lower tax liabilities even though these will only materialise in the future.

To test the importance of the credibility of the adjustment (proxied here by its permanence), and how this feeds through the channel of agents’ expectations, the hypothesis of permanent consolidation is relaxed: the

Table IV.14

Permanent reduction in government transfers to households of 1 % of GDP

% change from baseline	1st year	2nd year	3rd year	4th year	5th year	10th year
GDP	- 0.20	- 0.15	- 0.08	- 0.06	- 0.06	0.19
Private consumption	- 0.27	- 0.27	- 0.23	- 0.22	- 0.22	0.13
Private investment	- 0.65	- 0.60	- 0.49	- 0.47	- 0.48	- 0.02
Real wage costs	- 0.09	- 0.14	- 0.07	- 0.04	- 0.03	- 0.58
Real effective exchange rate	0.08	0.15	0.18	0.19	0.19	0.34
Absolute change from baseline						
Short-term interest rate	0.01	0.01	0.00	0.00	0.01	0.04
Real short-term interest rate	0.08	0.04	0.01	0.00	0.00	0.07
Unemployment rate	0.04	0.04	0.03	0.03	0.03	- 0.46
Debt (% of GDP)	- 0.47	- 1.48	- 2.52	- 3.54	- 4.58	- 9.00
Deficit (% of GDP)	- 1.00	- 1.02	- 1.03	- 1.07	- 1.09	- 0.71

Source: Commission services.

Table IV.15

Permanent reduction in spending on government employment of 1 % of GDP

% change from baseline	1st year	2nd year	3rd year	4th year	5th year	10th year
GDP	- 0.93	- 0.59	- 0.2	0.02	0.16	0.63
Private consumption	0.87	1.21	1.46	1.59	1.66	2.06
Private investment	- 1.00	- 0.31	0.49	0.93	1.16	1.93
Real wage costs	- 1.41	- 1.97	- 1.40	- 1.04	- 0.84	- 1.12
Real effective exchange rate	0.01	0.29	0.53	0.69	0.79	1.20
Absolute change from baseline						
Short-term interest rate	0.14	0.10	0.07	0.05	0.04	0.07
Real short-term interest rate	0.28	0.26	0.17	0.12	0.08	0.11
Unemployment rate	1.48	0.65	0.23	0.07	0.02	- 0.50
Debt (% of GDP)	0.28	- 0.55	- 1.64	- 2.77	- 3.92	- 8.80
Deficit (% of GDP)	- 0.52	- 0.81	- 1.01	- 1.10	- 1.16	- 0.76

Source: Commission services.

following simulations concern therefore expenditure cuts of the same type and size as those considered previously (Tables IV.13–IV.15) but are temporary, that is, are reversed in the subsequent year.

Results are reported in Table IV.16 and show that when consolidations are temporary (and perceived by economic agents as likely to be reversed) they tend to produce larger contractionary effects in the short run. This is due to the fact that, since consolidations are only temporary, it will be unlikely that future tax liabilities will be reduced. Consequently, since agents will not expect any change in their

future income, no wealth effects will materialise in this case to offset the contractionary fiscal stance.

In all the three cases considered (reduction of government purchases, in government transfers and in government employment), without any rise in permanent income there is now a more pronounced reduction in consumer spending as current income declines. Given the real interest rates decline following the marked contraction in GDP, investment is likely to increase somewhat, but not enough to offset the negative effects of the consolidation on output.

Table IV.16

Temporary expenditure cuts (1 % of GDP)

	1st year	2nd year	3rd year	4th year	5th year	10th year
Reduction in government purchases						
GDP	- 0.75	0.14	0.07	0.04	0.03	0.01
Private consumption	- 0.12	0.09	0.07	0.05	0.06	0.17
Private investment	0.58	0.33	0.08	- 0.01	- 0.01	0.23
Real short-term interest rate	- 0.17	- 0.04	- 0.02	- 0.00	0.00	0.01
Reduction in government transfers						
GDP	- 0.21	0.04	0.02	0.01	0.02	0.12
Private consumption	- 0.56	0.03	0.03	0.03	0.04	0.14
Private investment	0.13	0.06	- 0.00	- 0.02	- 0.01	0.22
Real short-term interest rate	- 0.04	- 0.01	0.00	0.00	0.01	0.01
Reduction in spending on government employment						
GDP	- 1.21	0.21	0.23	0.14	0.10	0.12
Private consumption	- 0.36	0.09	0.17	0.11	0.09	0.13
Private investment	0.45	0.63	0.42	0.22	0.11	0.18
Real short-term interest rate	0.05	- 0.04	- 0.05	- 0.03	- 0.01	0.01

NB: Figures refer to % changes from baseline, except in the case of real short-term interest rates, where changes are reported in absolute terms.

Source: Commission services.

4.3.2. Accommodating monetary stance

One of the findings in the episodes analysis was that half the expansionary fiscal consolidations appeared to have been accompanied by a possible effective monetary relaxation (that is, falling real interest rates). All scenarios described above were characterised by a rise in real interest rates ('pure' expansionary fiscal consolidations in terms of the episode analysis in the previous section). By contrast, the scenarios presented in Table IV.17 assume a monetary policy rule (monetary targeting) consistent with a small fall in real interest rates on impact ⁽¹⁾.

This reduction in interest rates reduces the negative impact of the fiscal consolidations and helps to boost growth in all cases considered. Private consumption registers a bigger increase in the case of cuts in government purchases and government employment and a

smaller reduction in the case of cuts in government transfers. Moreover, investment is boosted further by the fact that real interest rates fall. It is to note that in the case of cuts in government purchases or transfers, fiscal consolidations accompanied by a supportive monetary stance appear to have expansionary effects already on impact.

As in previous simulations, after some negative effects in the first years of the adjustment, the largest benefits on output appear in the case of cuts in public employment, given the sizeable effects on investment.

4.4. Summary of findings

The scenarios in this chapter have illustrated the real effects of fiscal consolidations and shown under what circumstances these effects can be expansionary on output. A number of results emerge.

- The impact on output of budgetary consolidation depends on whether it takes place on the revenue or expenditure side. Tax increases are likely to have a negative impact on output both in the short and

⁽¹⁾ See Giudice, Turrini and in't Veld (2003) for details on the monetary rule assumed in the simulations reported in Table IV.17. Alternatively, the fall in interest rates could be interpreted as linked to a reduction in risk premiums. For highly indebted countries, a credible fiscal consolidation could lead to a reassessment of the markets' perceptions of the risks involved and lead to an elimination or at least a reduction of a risk premium on that countries' bonds.

Table IV.17

Permanent expenditure cuts (1 % of GDP) with accommodating monetary stance

	1st year	2nd year	3rd year	4th year	5th year	10th year
Reduction in government purchases						
GDP	0.26	0.40	0.25	0.16	0.09	0.32
Private consumption	1.54	2.36	2.27	2.22	2.18	2.51
Private investment	1.00	0.05	-0.22	-0.42	-0.57	-0.10
Real short-term interest rate	-0.54	-0.04	-0.03	-0.02	-0.01	0.08
Reduction in government transfers						
GDP	0.35	0.30	0.21	0.17	0.11	0.17
Private consumption	-0.15	-0.04	-0.10	-0.11	-0.14	0.11
Private investment	0.84	0.26	0.17	-0.01	-0.16	-0.14
Real short-term interest rate	-0.37	0.01	-0.02	-0.03	-0.02	0.05
Reduction in government employment						
GDP	-0.50	-0.36	-0.12	0.07	0.17	0.53
Private consumption	0.95	1.31	1.47	1.58	1.63	1.97
Private investment	0.17	0.05	0.68	1.00	1.18	1.66
Real short-term interest rate	-0.20	0.22	0.15	0.10	0.07	0.10

NB: Figures refer to % changes from baseline, except in the case of real short-term interest rates, where changes are reported in absolute terms.

Source: Commission services.

medium run. By contrast, the short-run negative impact on output of permanent expenditure cuts is likely to turn positive in the medium to long run. This may be the result of non-Keynesian features via the anticipated effects of higher future disposable income or profitability.

- The short-run immediate negative impact on output will be smaller in case of permanent as opposed to temporary expenditure reductions.
- The consumption channel is a major offsetting force to the standard Keynesian effects, but the investment channel can also be of great relevance for consolidations occurring through cuts in the government wage bill.
- The expansionary effects of fiscal consolidations occurring both through the consumption or the investment channel are likely to be reinforced when the fiscal consolidations are associated with a favourable monetary stance or with structural

reforms improving the efficiency of factor and product markets (see Box IV.2). Under such circumstances, positive effects on output of the fiscal consolidation may emerge already in the short run.

Overall, given the limited impact on output in the short run, in spite of a budgetary adjustment equivalent to 1 % of GDP (which is larger than what currently planned by Member States at this juncture), these results are in contrast with the assertion that fiscal consolidation should be avoided during slowdowns, and show that sizeable positive effects could materialise in the medium to long run.

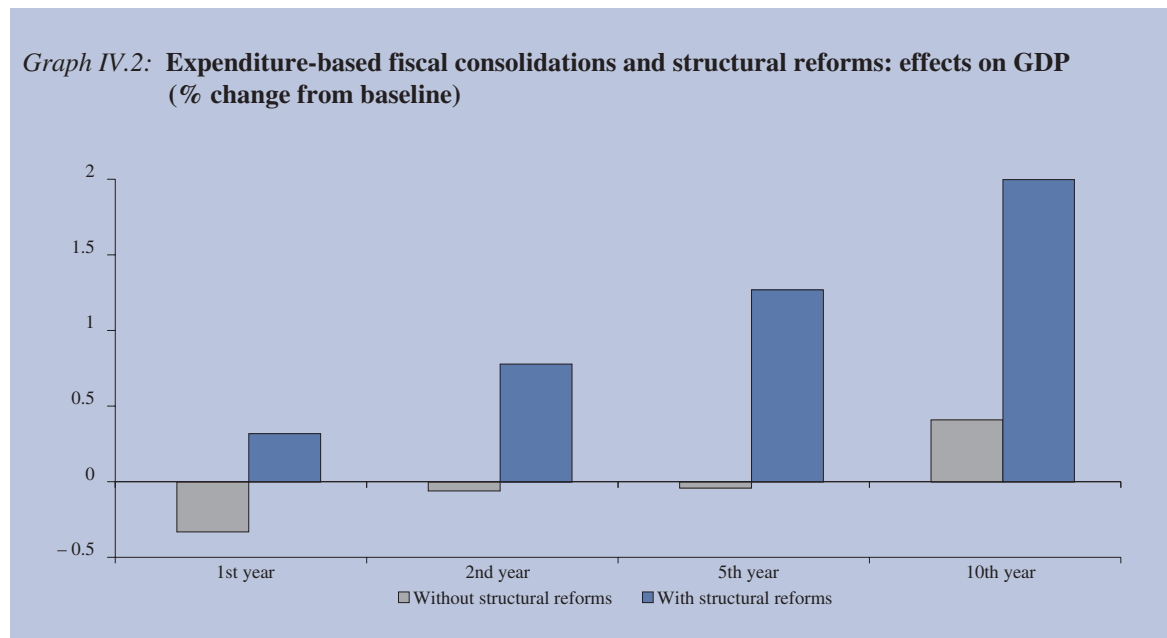
The QUEST simulations performed consider some, but not all, the possible channels through which consolidations could have expansionary effects. Further work may attempt to also take into account the effects of consolidations on the risk premia on countries' public debt, that need in this case to be determined endogenously in the model as a function of debt levels.

Box IV.2: Fiscal consolidation as catalyst for structural reforms in Germany

The evidence suggests that fiscal consolidations based on expenditure cuts are more likely to be expansionary than consolidations based on tax increases. The mechanism described in the existing literature (for example, Alesina et al., 2002) through which expenditure-based consolidations can produce expansionary effects emphasises the role of increased profit expectations associated with reduced wage pressure. A further reason why expenditure-based fiscal consolidations may have non-Keynesian effects is that they accompany and quite often induce the realisation of structural reforms in labour and product markets. The positive impact on output of fiscal consolidations may thus also be associated with expected improved profit opportunities coming from a better functioning of markets and from productivity gains that are the result of structural reforms.

In order to capture the overall impact of fiscal consolidations that occur together with structural reforms, some simulations are performed in conjunction with shocks to the parameters of the model that reproduce the effect of structural reforms. The simulations are made using the QUEST model concerning Germany and are similar to the simulations shown in Table IV.13 to Table IV.15 (respectively, reduction in government purchases, transfers, and employment). The shocks representing structural reforms are based on those presented in European Commission (2002b): they concern reforms in both the labour and product markets and reforms inducing an increase in overall efficiency. Structural reforms in the labour market are modelled as an ‘employment-friendly’ shift of the wage-setting curve encouraging employment participation and reducing the wage mark-ups. Reforms in the products markets are modelled instead via a fall in the price mark-ups, reflecting an improvement in competitive conditions. These shocks are further combined with an increase the total factor productivity parameter capturing an improvement in the overall productive efficiency ⁽¹⁾.

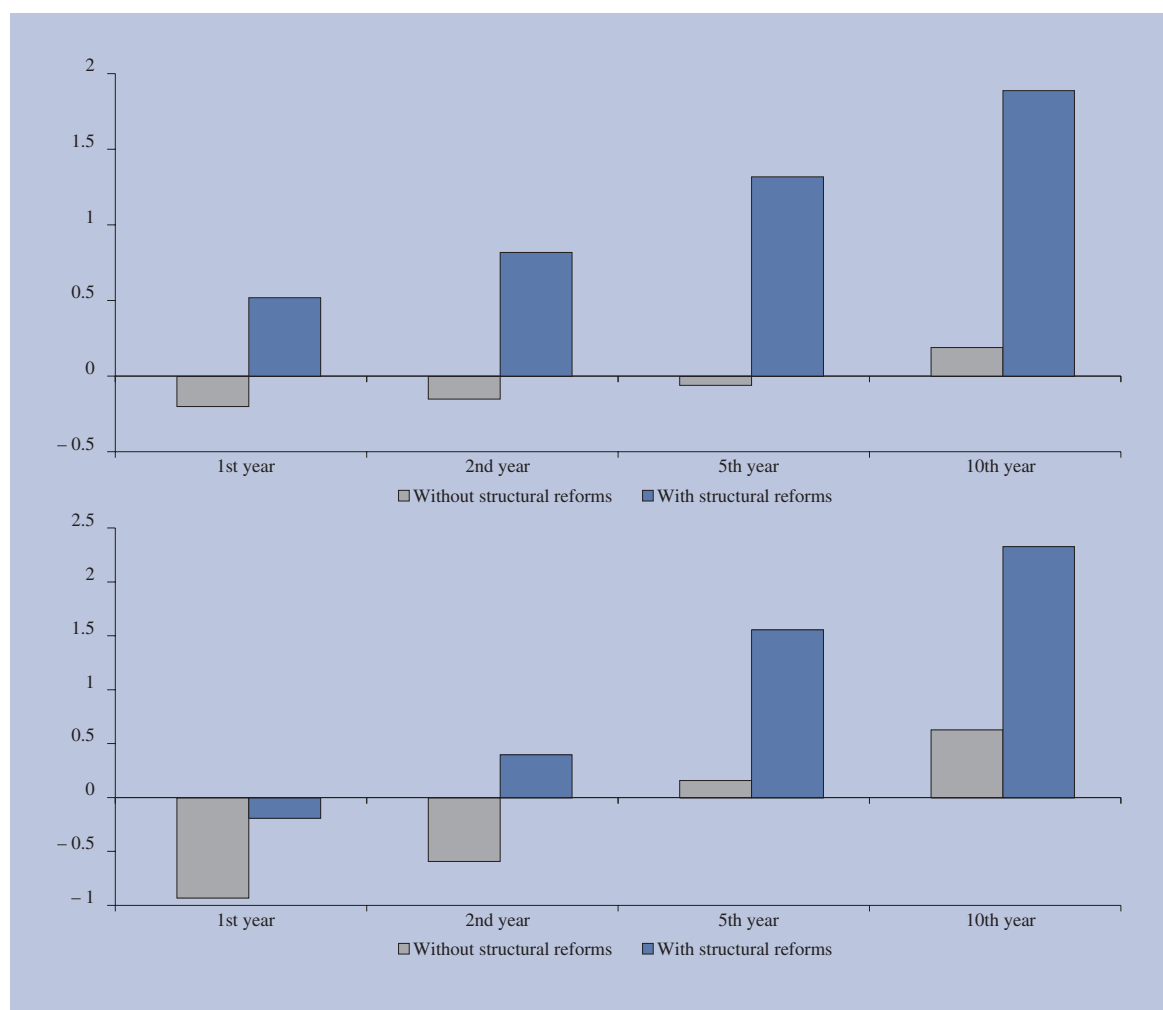
Graph IV.2: Expenditure-based fiscal consolidations and structural reforms: effects on GDP (% change from baseline)



⁽¹⁾ The size of the shocks to model parameters is one third of that assumed in the simulations presented in the European Commission (2002 b) where labour market reforms, product market reforms and productivity improvements were analysed separately. In the present simulations the assumed reduction of wages along the wage-setting curve is by 1/3 of a percentage point, as it is the supposed increase in TFP. As for the reduction in mark-ups, it is assumed to be equal to 1/6 of a percentage point.

(Continued on the next page)

Box IV.2 (continued)



Graph IV.2 reports the percentage change in baseline GDP when expenditure cuts occur with and without such structural reforms. Results show that, when expenditure cuts are accompanied by structural reforms, the effect of consolidations on output becomes generally positive already in the short run. In all the simulations performed, after two years GDP increases by about percentage points compared with the baseline. In the long run (after 10 years) the effect on output of expenditure-based fiscal consolidations is positive irrespective of whether they are accompanied by structural reforms. When structural reforms take place, however, the impact on output is about four times higher: instead of being about 0.5 percentage points, it amounts to around 2 percentage points.

In sum, it seems that expenditure-based consolidations accompanied by structural reforms in labour and product markets could have a very positive impact on output and growth not only in the medium (where it may be very large), but also in the short run.

Part V

Meeting the EU's budgetary requirements:
national expenditure rules and fiscal
relations across levels of government

Summary

The EU's fiscal rules impose important and challenging budgetary obligations on Member States. Countries are required by the Treaty to avoid excessive deficit positions (defined against a reference value for deficits of 3 % of GDP), and under the Stability and Growth Pact they are required to achieve and maintain a budget position of 'close to balance or in surplus'. These EU fiscal rules focus on the budget balance, that is, the difference between total revenues and total expenditures and not on the level or the composition of the two.

During the 1990s, and in particular since 1997, most EU countries introduced expenditure rules. There is a great deal of variety in their design as regards the types of spending items covered by a rule, how the rule is defined (in real or nominal terms, as a ceiling or a rate of growth), the time frame involved and the robustness of surveillance and enforcement mechanisms. In the majority of Member States, expenditure rules feed into the budgetary-setting process (rather than representing a binding obligation which must be respected) and *ex post* control and implementation mechanisms are rather weak. While expenditure rules for the most part were introduced with national policy objectives in mind, they can also enable Member States to meet the budget balance requirements of the Treaty and SGP by helping them to better control expenditure items that are subject to overruns. Depending on their design, they can also contribute to other policy objectives such as avoiding a pro-cyclical loosening of fiscal policy in good times (via a discretionary increase in public spending), and improving the quality of the composition of public spending.

Preliminary empirical analysis indicates that the existing rules have not had a significant impact on trends in public spending. Judging compliance with expenditure rules, however, is difficult as in many cases they cover several years and are subject to revisions. In some countries, expenditure rules are not ambitious enough and adherence with them is easily achieved: in other cases, the rule has been adjusted or abandoned if perceived as

being too ambitious. Nonetheless, even a relatively weak expenditure rule can provide useful guidance and signals to actors involved in the budgetary process.

The Treaty and SGP requirements are defined in terms of the budget balance of the general government (that is, central and local/state governments and social security), although the specific budget targets in stability and convergence programmes are set by the central government. The challenge in meeting EU budgetary requirements is therefore affected by the way in which Member States allocate fiscal functions (both revenues and expenditures) across different levels of government. This is especially the case in federal countries and the Member States where local authorities have considerable budgetary autonomy. The contribution of sub-central authorities to the overall budget position is changing in a number of countries in light of efforts to devolve certain public functions to regional/local authorities.

The direct contribution of lower levels of government to the general government deficit is generally limited since all Member States apply restrictions to local government borrowing: the exception is Germany, where net borrowing by local and state governments accounts for nearly half of the general government budget deficit in 2002. However, it should be borne in mind that *de facto* central governments often have to bear the cost of financing difficulties that emerge at sub-central level. To help comply with the EU's fiscal rules, federal Member States and Italy and Spain have recently introduced arrangements that aim at coordinating the budgetary position across levels of government (usually referred to as national stability pacts). More experience with the implementation of these arrangements is needed before conclusions can be drawn on their effectiveness in contributing to the objectives of the EU fiscal framework. *A priori*, a strong legal base and enforcement mechanism would be expected to contribute to the credibility and effectiveness of the arrangements.

The process of decentralising responsibility for some policies raises a second issue in the context of EMU, namely the operation of automatic stabilisers. Experience shows that, in general, systems are designed to shield sub-national governments from cyclical variations. However,

empirical evidence for the US and Germany suggests some degree of procyclical behaviour at state level. Further research would be needed, however, before policy conclusions can be drawn on the interaction of fiscal decentralisation and automatic stabilisation.

1. Introduction

The EU's fiscal rules impose important and challenging budgetary obligations on Member States. Countries are required by the Treaty to avoid excessive deficit positions (defined against a reference value for deficits of 3 % of GDP), and under the Stability and Growth Pact they are required to achieve and maintain a budget position of 'close to balance or in surplus'. These EU fiscal rules focus on the budget balance, i.e. the difference between total revenues and total expenditures and not on the level or the composition of the two.

A further important feature of the EU's fiscal rules is that, notwithstanding the fact that budgetary commitments are given at Community level by the central government, the requirements in terms of the budget balance concern the general government: this covers central and local (state) governments and social security, that is, it does not distinguish between the allocation of fiscal unbalances across different levels of government, but only looks at the overall budgetary position. It is the responsibility of Member States to organise their fiscal relations across different levels and sectors of government so as to ensure that they can meet the budgetary requirements set down in the Treaty and SGP

This part examines some of the challenges which Member States face in complying with the EU's fiscal rules, and also analyses a number of policy instruments that are being developed to this end.

Section 2 considers the role and effectiveness of national expenditure rules, which many Member States have introduced in recent years with the purpose of establishing a better control of public spending. It analyses the design of expenditure rules across Member States and considers how they relate to the EU framework and can contribute to the objective of sound and sustainable public finances. Particular attention is paid to a preliminary evaluation of how rules worked in practice during the first years of application.

Section 3 considers the issue of fiscal decentralisation. It provides a brief overview of the allocation of responsibility for public expenditure and revenues items across different levels of government, and then examines how this interacts with the EU framework for fiscal surveillance. Firstly, attention is paid to the contribution of each level of government to the budget balance of the general government as a whole. Consideration is given to various institutional arrangements (such as national stability pacts), that have been put in place by Member States to coordinate the budgetary positions across levels of government, in part to comply with the provisions of the Treaty and SGP. Secondly, the impact of fiscal decentralisation on the potential for automatic stabilisation is examined. Finally, the link between the EU fiscal surveillance framework and recent institutional reforms is examined in more detail in case studies on Spain and Germany.

2. Expenditure rules in EU Member States

2.1. The need for expenditure rules as a means to control public finances

Since the beginning of 1990s, a growing literature has investigated the design of fiscal rules which have been introduced in many countries as a response to growing budgetary imbalances ⁽¹⁾. According to Hallerberg et al (2001) ‘a fiscal rule is a combination of a fiscal target with a set of prescriptions of what governments are supposed to do to achieve this target’. Any *ex ante* constraint to budget deliberation could constitute a fiscal rule. Even the presentation of the budget law or a budget document with some political commitments that sets up an *ex ante* targets for at least the following year could be considered as a fiscal rule.

Kopits and Symanski (1998) define a fiscal rule as ‘a permanent constraint on fiscal policy, expressed in terms of a summary indicator of fiscal performance, such as the government budget deficit, borrowing, debt or a major component thereof’. This definition is narrower because a fiscal rule should have two specific characteristics, namely being ‘permanent’ and defined through an ‘indicator’ that can be easily monitored.

Within the wide spectrum of fiscal rules, expenditure rules are of growing relevance in a number of Member States ⁽²⁾. Growing recourse to expenditure rules can be explained by the importance of expenditure control as part of a successful strategy of budgetary consolidation ⁽³⁾. Moreover, slippage from agreed budget targets often arises on the expenditure side, that is more subject to discretionary actions.

⁽¹⁾ See for a review of the main features of fiscal rules Kell (2001), Kopits and Symanski (1998), Kopits (2001), Inman (1996).

⁽²⁾ See, for example, Brunila (2002), Hallerberg et al. (2001) and Mills and Quinet (2001) for some comparison of expenditure rules across EU Member States.

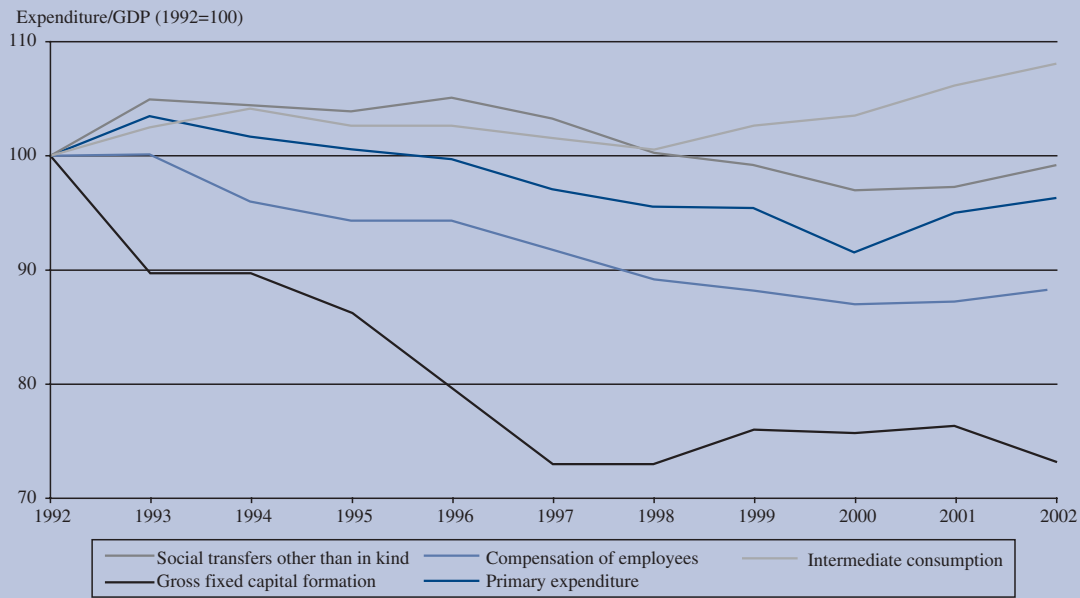
⁽³⁾ The 2001 and 2002 Broad Economic Policy Guidelines recommended Member States ‘to introduce or enhance mechanisms that help assess and control spending, including budgetary procedures’.

The issue is how national budget processes based on expenditure rules interact with the EU fiscal framework. National expenditure rules can act as complementary instruments to the EU rules-based framework for several reasons.

- First, their respect does not prevent automatic stabilisers to play, since the greatest impact of the cycle over the budget is on the revenue side.
- Second, appropriate recourse to expenditure rules at national level could also help contribute to the policy objective of improving the quality of the composition of public spending, that is, help restructure the composition of spending toward so-called productive items such as investment in infrastructures and R & D. Expenditure rules at national level could be designed in a way that places a stricter control on spending on items that are considered as being less conducive to long-term growth, and ensuring that more productive items receive more favourable consideration in budgetary consolidation efforts.
- Third, expenditure rules could also make an important contribution to broader economic and budgetary policy objectives established at EU level as part of the BEPGs and the Lisbon strategy. For example, in its communication on ‘Strengthening the coordination of budget policies’ (see Part II.2 of this report), the Commission suggested that a temporary deterioration in the budget balance could be envisaged if this is due to large structural reforms. However, this should not compromise the objective of sound and sustainable public finances. A close monitoring of Member States’ compliance with their own national expenditure rule could reduce the degree of uncertainty on the budget balance intertemporal profile.

The contribution of different expenditure items to meeting overall budgetary objectives is illustrated in Graph V.1. This shows, in index form, the evolution of

Graph V.1: Trends in different items of public expenditure at EU level



Source: Commission services.

different components of primary expenditure as a share of GDP over the last 10 years for EU-15 countries as a whole. On average, the level of primary expenditure decreased by almost 9 % between 1992 and 2000, while it increased by 5 % during the subsequent two years. Whereas spending on compensation of public employees and gross fixed capital formation fell significantly over the period, spending on intermediate consumption (purchases of goods and services by the public administration) and social transfers other than in kind actually increased ⁽¹⁾. These different trends across expenditure items illustrate that it is more difficult to curtail spending on particular categories of expenditure.

Table V.1 examines expenditure trends for several Member States for the 1998–2001 period. Public expenditure is classified according to seven main ‘functions’ of the State: several functions (such as defence, public order and safety, general public services) refer to the core activities of the State, for example, those functions that are at the base of the functioning of a modern State ⁽²⁾. Other

expenditure programmes aim at addressing market failures. These programmes include mainly education and healthcare but also economic services. Finally, part of public expenditure has primary a redistribution role, achieved through social protection programmes.

The numbers highlighted in bold show spending items which changed by more than total public spending (last column of the Table V.1) ⁽³⁾. Clearly, it should be taken in mind that the expenditure-to-GDP ratios differ markedly across different functions: social protection represents the greatest share of expenditure (around one third of total expenditure) while defence, public order and safety rarely reach more than 2 % of GDP.

With the exception of Austria, spending on healthcare in all countries increased substantially more than total expenditure during the last years. For instance, total expenditure in Italy contracted by 3 % between 1998

⁽¹⁾ Subsidies and ‘other current and capital expenditures’ are not presented due to their low share of GDP.

⁽²⁾ The so-called COFOG classification. See European Commission (2002a) for a detailed explanation of the functional classification.

⁽³⁾ The residual component (‘others’) in Table V.1 includes limited expenditures as environmental protection, community amenities and religious expenses.

and 2001, whereas healthcare expenditure increased by 10.5 %. In Portugal, spending on healthcare grew at twice the pace of total expenditure, while in Belgium, despite the strong decrease of total expenditure (– 9.5 %), healthcare increased by 8.2 %. However, healthcare expendi-

ture is not the only item that presents such a dynamic. Spending on education and social protection also tended to increase faster than total expenditure, albeit by a lesser amount and in a smaller group of countries.

Table V.1

**Trends in public expenditure items in selected EU countries
(variation in percentage points between 1998 and 2001)**

	General public services	Economic affairs	Health	Education	Social protection	Defence, public order and safety	Others	Total
BE	– 23.8	– 17.0	8.2	– 4.6	– 7.4	– 9.7	16.7	– 9.5
DK	0.0	– 12.5	3.9	10.5	– 1.6	0.0	9.1	0.3
DE	– 6.0	4.9	0.0	– 4.5	– 0.5	– 6.7	4.3	– 1.0
EL	– 9.0	100.0	8.3	2.7	1.2	4.8	0.0	0.8
IT	– 16.7	– 2.4	10.5	2.0	– 1.1	– 6.3	– 3.7	– 3.0
NL	– 11.0	18.8	2.5	2.1	– 6.0	3.3	3.1	– 1.7
AT	– 3.4	7.8	– 27.5	– 3.3	2.3	– 8.0	0.0	– 3.5
PT	1.5	3.4	11.5	3.0	5.5	– 2.7	12.0	5.0
FI	– 7.2	– 14.8	1.7	– 3.1	– 8.4	– 9.4	– 16.0	– 7.2

NB: Figures in the table show the cumulated change of expenditure-to-GDP ratios for each spending category and for total expenditure (last column). For instance, the 100 % increase registered in Greece for economic affairs spending-to-GDP ratio implies that expenditure doubled between 1998 and 2001.

Source: Commission services.

2.2. The design and implementation of expenditure rules

2.2.1. The design of expenditure rules

According to the standard theory of economic policy (Tinbergen, 1956), expenditure targets should be strictly under the control of the government since their development represents an intermediate objective to reach the final aim of budgetary control. Therefore, when designing an expenditure rule, several choices have to be made as follows:

- whether the rule should target an outcome of a particular expenditure item (or an aggregate of expenditure items) or whether it should target the effects of a particular policy measure;
- whether certain expenditure items should be excluded from an aggregate expenditure target;
- whether an expenditure target should be defined in nominal or real terms;

- whether the target should be defined in terms of a level of expenditure or as a rate of change;
- the time span of the target.

Targeting an expenditure outcome or the impact of a policy measure. A rule that targets the expenditure outcome can be defined as follows:

$$E_t^* = E_t^{(-1)} + P_t^{(-1)} \quad [1]$$

where E_t^* is the targeted outcome of expenditure item E at time t , $E_t^{(-1)}$ is the projected level of expenditure in time t forecasted at time $t - 1$, and $P_t^{(-1)}$ is the policy action planned in $t - 1$ to correct the trend and therefore to achieve the target E_t^* .

The outcome E_t is defined as:

$$E_t = E_t^{(-1)} + P_t + \delta \quad [2]$$

where P_t is the policy action as it results *ex-post* and δ is the forecast error on E_t , which is positive when expenditure turns out higher than forecasted.

Assuming that the outcome E_t equals the expected outcome E_t^* , it can be shown that:

$$P_t = P_t^{(-1)} + \delta \quad [3]$$

If the trend expenditure turns out to be lower than expected (i.e. the forecast error is negative such that $\delta < 0$), the *ex-post* policy correction ($P_t - P_t^{(-1)}$) needed to reach the target E_t^* can be smaller than what was planned *ex ante*. On the contrary, if expenditure grows faster than expected (and $\delta > 0$), then the expenditure target (E_t^*) will be overshoot even if the planned policy action ($P_t^{(-1)}$) is implemented in full.

The formulae show that the following steps are needed to define an expenditure rule: first, the definition of the expenditure item (or aggregate of expenditures) to target; second, a forecast of the trend in targeted expenditure item; third, an *ex-ante* quantification of the policy action necessary to achieve the target; fourth, the possibility to accurately verify *ex-post* compliance. In particular, they highlight the central importance of defining the appropriate target. For instance, attention should be paid as to whether to include high volatile items in an aggregate expenditure rule, as a high forecast error δ will affect the outcome rendering the expenditure rule less effective for the purpose of budgetary control ⁽¹⁾,

An alternative approach to setting a target in terms of the level of expenditure(s) would be to directly target the impact a particular policy action (P) as follows:

$$P_t = P_t^{(-1)} \quad \forall P \quad [4]$$

Under this approach, the expenditure rule is respected if the policy maker implements the announced corrective measures $P_t^{(-1)}$ irrespective of the actual outcome in terms of expenditure. The advantage of directly targeting the specific policy action is that it is not necessary to take account the economic cycle or other exogenous factors that affect the outcome. However, in practice it may be difficult to quantify *ex ante* the precise budgetary impact

of the planned policy measures, rendering it difficult to assess compliance.

Whether to exclude certain items from the aggregate expenditure target. While the main purpose of an aggregate expenditure rule is to contribute to sound public finance positions, certain categories of expenditures might be excluded from the target so as to ensure consistency with other public policy goals. At least three categories of expenditure items warrant consideration in this regard.

- Firstly, it may be appropriate to exclude interest payments from the target and focus on primary expenditure which is more under the discretionary control of government. The inclusion of interest payments within the expenditure target increases the role of forecasts errors. Other things being equal, a rule that targets an aggregate that includes interest payments can be fulfilled with a lower policy effort if interest payments are overestimated ⁽²⁾.
- Secondly, unemployment-related transfers could be excluded from the target to prevent pro-cyclical behaviour. For example, the rigid adherence to a nominal expenditure target that includes unemployment transfers in periods of low growth would *ceteris paribus* result in a tightening of the fiscal stance as de facto it would prevent part of the automatic stabilisers from operating.
- Thirdly, one may wish to exclude specific categories of productive public spending (such as public investment) from an expenditure target: this would prevent corrective measures needed to achieve the expenditure target from affecting these desirable public expenditure items.

⁽²⁾ Equation [1], when interest payments are targeted, can be rewritten as:

$$(A_t^* + I_t^{(-1)}) = (A_t^{(-1)} + I_t^{(-1)}) + P_t^{(-1)} \quad [1a]$$

where expenditure E is now the sum between interest payments I and another primary expenditure item A . The target $(A_t^* + I_t)$ is the sum of the targeted outcome on item A and the outcome on interest payments. The outcome at time t and can be rewritten as:

$$(A_t + I_t) = (A_t^{(-1)} + I_t^{(-1)}) + P_t + \varepsilon + (I_t - I_t^{(-1)}) \quad [2a]$$

Therefore, the outcome depends on the forecasted levels for A and I , the *ex-post* policy action, and the forecast error $\varepsilon + (I_t - I_t^{(-1)})$. This has two components, one is primary expenditure and one is interest payments.

If the outcome equals the targeted expenditure level, after some passages it results that:

$$P_t^{(-1)} - P_t = \varepsilon + (I_t - I_t^{(-1)}) \quad [3a]$$

⁽¹⁾ On the importance of forecast errors in the functioning of fiscal rules see also Auerbach (1994).

The definition of the target in nominal or real terms.

The difference between a real or a nominal target is relevant in the case of forecast errors in inflation projections ⁽¹⁾. In fact, price deflators differ across government expenditures items and they also differ from GDP deflators. A target defined in nominal terms has the advantage of transparency making monitoring easier. It can also help to keep expenditure under control, through a higher-than-expected adjustment, if the inflation outcome is higher than expected. However, if the rule has defined an 'escape' clause, so that higher-than-expected inflation should not force a higher real adjustment in order to fulfil the nominal target, then a nominal rule risks to produce a bias, such that a lower-than-expected inflation allows a lower adjustment effort while a higher-than-expected inflation does not entail a stronger adjustment. On the contrary, if the target is defined in real terms, compliance is not affected by inflationary developments, but it can result in it being more difficult to measure the compliance.

The definition of the target in terms of levels (absolute values or as a share of GDP) or as a rate of growth.

When the target is defined as a share of GDP, the result can depend on GDP developments and in particular on GDP forecast errors. Thus, the rule might turn out to be pro-cyclical, since the expenditure ceiling fluctuates in line with GDP around its trend. This problem can be overcome by formulating the target as a fixed rate of growth in the expenditure item(s) or as an absolute level.

The time span covered ⁽²⁾. A multiannual rule is generally superior to a rule where the target is fixed for only one year. This is because an annual rule can be more easily circumvented simply by postponing expenditures to the first day of the following budget year, and is susceptible to accounting practices. When the target is fixed *ex ante* for several years, the possibility to postpone expen-

ditures or structural adjustment to the future becomes more difficult.

2.2.2. The implementation of expenditure rules

The implementation and *ex-post* assessment mechanisms are constituent elements of an expenditure rule. Several elements warrant consideration (Kopits and Symanski, 1998): the availability of instruments to monitor and if necessary correct the dynamic of budgetary position during budget execution; provisions to deal with non-compliance including sanctions; escape clauses when failures in respecting the rule are beyond policy control.

Implementation mechanisms can have different forms and degrees of enforcement, from automatic contingency measures once the deviation from the target appears, to more flexible (and weak) measures such as non-binding suggestions for discretionary corrections.

The availability of data is essential in order to monitor and control the budget execution. Data on budgetary aggregates (such as budget balances or total expenditures) are often easier to collect and subject to less revisions than information on specific expenditure items, where different spending units of the government are involved.

To avoid a pro-cyclical or perverse outcome, an expenditure rule should usefully define provisions for catering for worse-than-expected economic conditions and/or other unexpected events (such as a flood) that require additional spending. However, while flexibility of such a nature is essential in the case of budget balance rules, the need for such provisions is less evident in the case of expenditure rules as the sensitivity of most expenditure items is very limited (apart from exceptions such as unemployment transfers).

Sanctions in the case of non-compliance with the target should always be defined *ex ante* to make the rule credible and enforceable (Inman, 1996). These could take different forms such as an obligation to amend the budget law ⁽³⁾, automatic sequesters if there is clear information that the target is not going to be fulfilled during the budget year, or pecuniary sanctions imposed by a higher level of government. While the existence of well-defined sanctions is only a necessary condition to

⁽¹⁾ See Brunila and Kinnunen (2002).

⁽²⁾ A clear example of the importance of the time span of spending rules is the experience of the Budget Enforcement Act (BEA) endorsed in 1990 in the US. In brief, a series of annual caps on public spending were set for the period 1990–95 and the rule specifies that 'enacted policies cannot raise the deficit relative to initial projected levels' (Poterba, 1996:24). A key difference with the Gramm-Rudman-Hollings (GRH) rule that has been in force during the second half of 1980s in the US is that the latter fixed targets year-by-year on the basis of the outcome of the previous year and therefore it was easier to postpone expenditure to future fiscal years. Auerbach (1994) presents evidence that, during the last years of the GRH, there was a tendency to reduce deficits of the current year at the expense of the following year.

⁽³⁾ This is the mechanism implied by the GRH rule, see Gramlich (1990).

make the rule credible, it is not a sufficient one. To be fully credible, the sanctions should have a legal or constitutional basis and should not be based on political commitment alone.

In addition, an expenditure rule is more credible if there is an independent authority that monitors the development of the budgetary position and that is in charge of the enforcement measures including the application of the sanctions. Without a clear legal basis and/or where there are no clear defined sanctions, the penalty for non-compliance with the rule is only reputational.

2.2.3. A taxonomy of expenditure rules

It is possible to classify expenditure rules according to their degree of strictness ⁽¹⁾. Following the terminology of Poterba (1996), expenditure rules are classified as being either ‘narrow’ or ‘weak’, see Table V.2.

An expenditure rule is classified as ‘weak’ if:

- the target includes volatile expenditure items, so that the actual level of spending is subject to a forecast error and is only partly influenced by the application of spending control mechanisms;

⁽¹⁾ As reported by Inman (1996), a fiscal index called an ‘ACIR stringent index’ has been developed to measure the tightness of the state’s budget balance rules constraint in US states, with higher values indicating a more stringent constraint. The index is a composite measure where several features of the fiscal rule are considered and in particular it awards points for whether the rule: ‘requires the governor to submit a balanced budget (1 point); requires the legislature to pass a balanced budget (2 points); allows the state to carry a deficit into the next fiscal year (4 points); does not allow the state to carry a deficit into the next fiscal year (6 points if a biennium budget, 8 points if an annual budget)’ (Inman, 1996:7). In addition, additional extra points are awarded if the fiscal rule is based on a legislative or constitutional instrument.

- the target includes interest payments. In this case, the target could be respected without the government taking policy actions simply if interest payments develop favourably ⁽²⁾;
- there is no *ex-post* control mechanism to verify whether *ex ante* targets have been respected, and if enforcement mechanisms are based on a political commitment rather than legal provisions ⁽³⁾.

In contrast, a rule is classified as being ‘narrow’ if:

- it targets a less volatile expenditure item(s), and it targets the budgetary impact of the policy action rather than the final outcome;
- there are well-defined mechanisms for carrying out an *ex-post* verification of compliance with targets;
- enforcement mechanisms and sanctions are defined *ex ante*;
- surveillance is carried out by an independent authority that can enforce authorities to respect the rule.

2.3. National expenditure rules

2.3.1. Main features of expenditure rules within EU Member States.

Almost all EU countries have put in place rules to control wide aggregates of expenditures. Table V.3 shows the main features of expenditure rules currently in place in

⁽²⁾ However, Mills and Quinet (2001) underline that, since the main goal of an expenditure rule is to make the objectives of a decreasing debt and a lower tax burden mutually compatible, interest payments should be kept within the targeted aggregate.

⁽³⁾ See Bohn and Inman (1996) and Kopits and Symansky (1998).

Table V.2

A taxonomy of expenditure rules

	Weak	Narrow
Design	Aggregate expenditures including interest payments	Specific target on non-volatile item(s)
	Specific target on volatile items	Target on variation in levels
Implementation	Only <i>ex ante</i> target	<i>Ex ante</i> target, <i>ex post</i> control
	Internal surveillance	Surveillance by an independent authority
Statutory instrument	Political commitment	Constitutional or legal basis
Enforcement mechanism	Reputational or economically insignificant sanctions	Economically significant (but not excessive) sanctions

Member States ⁽¹⁾. The table describes for each country the item targeted, the definition of the target (either in real or nominal terms, as a ceiling or as a rate of change), the level of application (general, central or local government), the date of introduction of the rule and the time span. It also underlines whether there are measures specified *ex ante* in case of non-compliance with the rule and possible ‘escape clauses’ in case of economic shocks. Finally, it summarises how the rule worked in practice during the first years of application.

Although the expenditure rules differ substantially across Member States, some common features can be identified ⁽²⁾. First, the expenditure rules of many Member States, either as regards their timing or structure, were influenced by the Stability and Growth Pact. Apart from Spain (which established a ceiling on nominal expenditure starting from 2003), and Portugal (where the target has been introduced in 2002), all other countries introduced expenditure rules in past years, in particular since 1997. Such rules have been generally within medium-term frameworks, in line with the medium-term focus of the SGP. However, there are cases where spending rules anticipated the SGP. Germany already had these kind of rules since the mid-1980s, while the Netherlands introduced a rule in 1994.

Second, the target tends to cover a wide aggregate of expenditure items that includes all public expenditures. In all cases except Denmark, Ireland, Greece and Italy, the aggregate includes interest payments. Public investment is netted out in the case of Denmark and Belgium. Italy recently introduced an expenditure rule (the so-called ‘expenditure freeze’ law), whereby all legislation resulting in new or higher public expenditures should explicitly specify the authorised amount ⁽³⁾.

Third, almost all Member States apply their expenditure rules to the central government (coupled with borrowing

and budgeting restrictions for lower levels of government, see Section 3.2). An exception is Germany, where expenditure rules also apply to the regional and local governments. In Italy, within the context of a domestic stability pact, ceilings are established for primary current expenditure of regions.

Fourth, most of the expenditure rules are based on political commitments rather than legislation. This explains why, in many cases, discretionary adjustments to expenditure rules have taken place when the original targets have started to act as a constraint. In some cases this has limited the effectiveness of the rule as an instrument to control public finance developments.

Besides these common characteristics, rules differ across countries in terms of specific design. Targets are formulated in levels or rates of growth, and both in nominal or real terms. These four possibilities can all be found in practice, which illustrates the diversity of arrangements that have been put in place. Real growth targets can be found in Belgium, Denmark and France. Nominal growth targets are set up in Germany, Ireland, Italy and Luxembourg. Specific ceilings on absolute values (levels) have been put in place in Spain, Italy, the Netherlands, Finland, Sweden and the UK. Specific arrangements exist in Greece and Portugal for public employment. Here, the target is the number of employees rather than financial expenses.

Overall, expenditure rules in EU countries belong to the category of ‘weak’ rules as described in Section 2.2, since, in most cases, they are based on political commitment solely. The outcome depends on policy actions in due course as well as on the development of volatile items included in the targets, or on interest payments. The implementation and enforcement mechanisms are generally less developed since the rules lack a firm legal basis. Sanctions are generally absent or economically insignificant. In sum, many expenditure rules put in place in EU countries lack some necessary features to be fully credible since they allow for the option to ignore, miss or abandon the rule when a divergence arises between targeted variables and outcomes.

2.3.2. How have national expenditure rules worked in practice

This section contains a preliminary empirical assessment on the implementation of national expenditure rules. In

⁽¹⁾ According to information available to the Directorate-General for Economic and Financial Affairs of the European Commission. Either as a specification of the general expenditure rule or as an additional requirement, most Member States also have defined ceilings for individual ministries or specific spending categories (Hallerberg *et al.*, 2001).

⁽²⁾ Case studies for several countries (the Netherlands, Italy, Finland and Sweden) are carried out in the correspondent country sections of Part VI of this report.

⁽³⁾ However, the list of expenditures that can be frozen if the spending ceiling is breached excludes important items such as pensions, public sector wages and unemployment benefits. See the country section on Italy in Chapter VI.8 of this report.

Table V.3

The features and implementation of expenditure rules within Member States (general targets)

Expenditure item	Definition of target	Level of application	Date of introduction	Time span	Action in case of non-compliance	Exceptions to rule in case of economic shocks	Experience with the rule
BE Primary expenditure	Annual real growth rate to 1.5 %, in the medium term	Originally: federal government and social security (entity 1). From 2001 onwards: federal government	First mentioned at end of 1998 as 'point of reference'	Medium term (time frame as covered by stability programme).	No measures specified <i>ex ante</i>	No automatic exceptions specified <i>ex ante</i>	Limit was respected in 2000 and 2001, but not in 1999. Difficult to judge adherence given status of medium term benchmark
DK Public consumption	Annual real growth rate to 1 % on average during 1999–2005	Central government	First mentioned in 1997, but became fully binding in 1999	Multiannual rule (three years)	No measures specified <i>ex ante</i>	No automatic exceptions specified <i>ex ante</i> . However, discretionary revisions of target have taken place, for example, in 2001 when target was raised from 1 to 2.2 %	Difficult to judge adherence, given specification of average target over several years and revisions of the target during that period. New government is implementing system that aims at recuperating slippage in subsequent years
DE Overall expenditure	Annual nominal growth rate to be agreed on yearly basis by Finanzplanungsrat (FPC)	Central, regional and local governments	Beginning of 1980s	Current and following four years	From 2004 onwards, the FPC would discuss deviations and could agree upon recommendations	No automatic exceptions specified <i>ex ante</i> . However, discretionary revisions of targets have taken place, at least in downswings	Ceiling not respected in 2002; it remains to be seen how possible recommendations by the FPC on non-compliance would affect outcomes
EL Compensation of employees	Recruitment norm 5:1 (one new recruitment for every five civil servants leaving service), except for health, education and armed forces where the norm is 1:1	Central government	1997	Indefinite	No measures specified <i>ex ante</i>	No automatic exceptions specified <i>ex ante</i>	Political commitment, not legally binding. Difficult to assess the implementation of the recruitment norm

(Continued on the next page)

Table V.3 (continued)

Expenditure item	Definition of target	Level of application	Date of introduction	Time span	Action in case of non-compliance	Exceptions to rule in case of economic shocks	Experience with the rule
ES Non-financial expenditure	Fixed ceiling set up annually in the Budget Law	Central government	2003	Annually	No measures specified <i>ex ante</i>	This limit includes a contingency fund, set at 2 % within this limit, so as to meet unforeseen events in the budget. Therefore, any unexpected non-financial expenditure increases have to be met throughout this contingency fund and/or by decreasing other spending items	To be assessed since 2003 is the first year of application
FR Total expenditure	Cumulative real growth rates, as established each year for the next three years	Mainly central government	1997	Medium term, rolling.	No measures specified <i>ex ante</i> . These targets are not legally binding and are usually adjusted in medium-term programmes of later years and the final budget for any particular year	No automatic exceptions specified <i>ex ante</i> .	The original medium-term objectives have not been respected. However, in general the increases fixed in the yearly budget have been respected, except in 2002
IE Total expenditure	Annual nominal growth of 4 % on average during 1998–2002	Central government	1997	Five years of the government's term: 1998–2002	No measures specified <i>ex ante</i> . Target abandoned in budget for 2001 as the ceiling of 4 % in nominal terms turned out to be ambitious given high nominal GDP growth	No automatic exceptions specified <i>ex ante</i>	Rule abandoned in budget for 2001 rather than adjusted to reflect higher than expected nominal GDP growth
IT Primary expenditure	Nominal ceilings or 'safeguard rules' for all provisions included in all legislation introducing new and higher expenditures	General government	End 2002	Indefinite	Application of legislation is frozen until new legislation makes funding available	No automatic exceptions specified <i>ex ante</i>	Too early to assess. However, some evidence of a reduction in general government consumption on quarterly data

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Part V
**Meeting the EU's budgetary requirements:
national expenditure rules and fiscal relations
across levels of government**

Table V.3 (continued)

Expenditure item	Definition of target	Level of application	Date of introduction	Time span	Action in case of non-compliance	Exceptions to rule in case of economic shocks	Experience with the rule
Current primary expenditure of regions	In 2002, +4.5 % compared to 2000 engagements. In 2003, 2004 and 2005: 2002 absolute value + target inflation of DPEF	Regions	End 2001	2002-04	None direct. Remote action only in case of EU sanctions following a breach of the Maastricht Treaty 3 % of GDP deficit threshold	No automatic exceptions specified <i>ex ante</i>	Too early to assess
State funding of healthcare expenditure	Ceilings on expenditure by regions over a three-year period. Revised in 2001: ceiling of EUR 71.3 billion in 2001, with annual increases in 2002-04 equal to nominal GDP growth as estimated in the medium-term plan (DPEF)	Regions	2000	2000-03 (revised target for 2001-04)	None. State-regions agreement. However, any extra deficit should be covered by regions through own resources or by expenditure cuts	No automatic exceptions specified <i>ex ante</i>	The ceiling was not respected and a new agreement between State and regions was negotiated in 2001. According to provisional figures, the ceiling was breached also in 2001
NL Expenditure as defined by the ceilings	Medium-term real expenditure ceilings, translated each year into nominal amounts	General government	First introduced in 1994; adapted in 1998 and 2002	Medium term: coverage according to cabinet period	Commitment to offset overruns of expenditure ceilings by expenditure cuts	Specific rules formulated for dividing windfalls between lowering the deficit or the tax burden	General expenditure ceiling has been adhered to, but overruns have occurred as regards the specific targets for subsectors (healthcare). It is generally assumed that the framework has had a restraining impact on expenditure.
AT Administrative expenditure	Cuts in personnel, mostly through not replacing civil servants leaving for retirement	Central government	Previous rule: 2000 Forthcoming rule: 2003	End of legislation period (previous rule: 2003 in theory) but government collapsed in 2002; for forthcoming rule: end of 2006)	No measures specified <i>ex ante</i>	No automatic exceptions specified <i>ex ante</i>	The planned personnel cuts were implemented as planned from 2000-02. Despite an increase in pension expenditure for public servants, it is assumed that this rule has had a restraining impact on expenditure

(Continued on the next page)

Table V.3 (continued)

Expenditure item	Definition of target	Level of application	Date of introduction	Time span	Action in case of non-compliance	Exceptions to rule in case of economic shocks	Experience with the rule
Total expenditure	Budget balance rule. However, budgetary targets can be attained via expenditure side measures only.	Regional and local governments	2001	End of the current financial equalisation	Financial sanctions similar to those of the excessive deficit procedure of the SGP, via revenue distribution mechanism between central and lower levels of government	The flood disaster in 2002 led to a temporary suspension of the rule, that is, not taking into account of flood-related expenditure in the years 2002 and 2003	Ceiling not respected in 2001. Not respected in 2002 but suspended for that year. In general, difficult to measure structural savings of regions
PT Compensation of employees	No new labour contracts in the central administration are to be signed unless authorised by the Minister of Finance.	Central government	2002	Current legislature (2002–05)	No measures specified <i>ex ante</i> .	The Finance Minister alone can override the freezing, in particular for sensitivity areas like healthcare	Too early to be assessed
FI Total expenditure	Freezing real central government spending at the level of 1999 outcome	Central government on-budget expenditure excluding extra-budgetary funds (pension, etc.)	1999 but annual frames for central government spending were designed already at the beginning of 1990s	Cabinet period (1999 to March 2003)	No measures specified <i>ex ante</i> .	No automatic exceptions specified <i>ex ante</i> . However, declining government debt and falling unemployment have created leeway for additional expenditure	Overruns occurred in 2001 and 2002 and according to the 2003 spending guideline central government budgetary spending is estimated at EUR 1.2 billion over the outcome of 1999. It is generally assumed that the framework has had a restraining impact on expenditure
SE Primary expenditure plus expenditure for the old-age pension system outside the budget	Annual ceiling on nominal expenditure: expenditure covered by the ceiling should not rise faster than (projected) nominal GDP	Central government	1997	Three years ahead, rolling	Biannual monitoring required by the Budget Law. If there are signs of overruns (overall) the government shall prepare a proposal for correction	No automatic exceptions specified <i>ex ante</i>	The expenditure ceilings have been respected in each year since 1997 when they were first introduced. It is generally assumed that the framework has had a restraining impact on expenditure

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*Meeting the EU's budgetary requirements:
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Table V.3 (continued)

Expenditure item	Definition of target	Level of application	Date of introduction	Time span	Action in case of non-compliance	Exceptions to rule in case of economic shocks	Experience with the rule
UK Departmental Expenditure Limits (DEL) ⁽¹⁾	Government departments are set spending plans for the level of nominal expenditure for three years ahead in so-called Comprehensive Spending Reviews (CSR). Parliamentary authority to spend must still be obtained each year	Government departments	First launched under the 1998 CSR for the period 1999–2002. A new batch of three years was set in the 2000 CSR and again in the 2002 CSR	three years. The CSR take place every two years — the third year of the previous exercise becomes the first year of the succeeding exercise	The DEL plans are binding, but they can be altered in the budget process and are subject to approval by government and parliament. Under- or overspending in one year can be offset in another year within the current three-year batch	No automatic exceptions specified <i>ex ante</i>	The government's medium-term plans published in the Budget report, and which form the framework for DEL programmes, are required, under the terms of the Code for Fiscal Stability, to meet the government's fiscal rules. They have satisfied these rules so far

(¹) The two main parts of the UK's budgeting and control framework are DEL (departmental expenditure limits) and AME (annually managed expenditure). Government departments are given three-year spending limits: the DELs. Any spending that cannot reasonably be subject to such multi-year limits is included in AME (for example, social security spending, net payments to the EC). All AME projections for future years are estimates which are updated twice-yearly in the budget and pre-budget reports. Together, AME and DEL sum to total managed expenditure (TME), a national accounts measure defined as public sector current expenditure plus net investment plus depreciation. In the attached tables, only DEL spending is included, since this is the only part of TME which is subject to multi-year limits.

particular, it examines spending on various expenditure items before and after the introduction of an expenditure rule. It also examines whether there is a link between the SGP commitments and the non-compliance with Member States' expenditure targets.

The results should be interpreted with caution. Expenditures are affected by many other factors outside direct control of policy makers: since most national expenditure rules target expenditure outcomes and not the impact of specific policy actions, it is difficult to identify the net effect of the rule on the budgetary position.

Table V.4 shows the average rate of growth of the items falling under an expenditure rule: when data on specific expenditure categories covered by a rule are not available, a close proxy is used. Averages are calculated for the three years before the introduction of the rule, and for the years following the introduction of the rule, up to 2002 ⁽¹⁾. In four countries (Denmark, France, Luxembourg and Belgium), the rule is defined in terms of real rate of growth of expenditure, while in Ireland the target is in terms of nominal rate of growth. Five countries (Sweden, Greece, the Netherlands, Austria and Finland) have a more composite definition that can be proxied to a nominal ceiling. However, since the final aim is to control expenditure, to assess whether the rule worked, the real rate of growth is used as a proxy of the target.

In five out of 10 countries, the rate of growth after the introduction of the rule has been lower compared with the years immediately prior to its introduction. In particular, the rate of growth of the expenditure targeted fell in all those countries where the target has been defined as a ceiling rather than as a rate of change: however, as shown by t-statistics, differences in means are rarely statistically significant.

Whenever there is a correction of expenditure trends, the effectiveness of an expenditure rule depends on its level of ambition. In general, over-ambitious targets risk not to be fulfilled: in some cases Member States have changed the medium-term targets when it became clear that these objectives would be difficult to respect. A target that is not ambitious enough, on the other hand, creates the risk of pushing expenditure up to the ceiling. A strict adherence to a credible and realistic framework

would have probably enhanced the credibility of the framework and contributed to the overall compliance with the EU fiscal rules.

In many cases spending rules do not seem to be sufficiently ambitious ⁽²⁾. In France, the 2000 updated stability programme fixed a target of 4.9 % in real growth (on a cumulative basis) for the three-year period 2001–03. During the same period, real GDP growth is expected to be at 4.1 % ⁽³⁾. Therefore, expenditure as a share of GDP can increase without breaching the rule ⁽⁴⁾. In Belgium, the rule fixes a real growth of primary expenditure of 1.5 % each year ⁽⁵⁾. Real GDP grew by 0.8 % in 2001, 0.7 % in 2002 and it is expected to grow by 1.3 % in 2003. Thus, compliance with the rule does not necessarily imply a reduction of the expenditure-to-GDP ratio, although admittedly the increase is at least in part due to the low growth rates.

Table V.5 investigates whether there is a link between a failure on the part of a Member State to respect its own expenditure rule, and respect of the 'close to balance or in surplus' requirement of the SGP. It compares the difference between the targeted (in the relevant stability or convergence programme) and the actual outcome of total expenditures as a share of GDP for cases identified where countries missed their expenditure rule ⁽⁶⁾. The final column shows the deterioration in the cyclically-adjusted budget balance for the year in question compared with the previous year. In all cases except Italy in 2002 and Finland in 2001 and 2002, non-compliance with a national expenditure rule coincided with a worsening cyclically-adjusted budget position. Concerning Finland, the behaviour can be explained by the fact that the Finnish expenditure rule stands out as a very ambitious one as it aims at freezing real expenditure at the level of 1999 ⁽⁷⁾. In Italy, cyclically-adjusted improvements rely mainly on one-off measures that lowered expenditure.

⁽¹⁾ 2000 for Ireland, when the rule was abandoned. Countries not included in the Table implemented expenditure rules too recently to be assessed.

⁽²⁾ An exception is Ireland; it decided not to enforce its spending limits for 2001–02 which were quite tight compared with nominal GDP growth. Finland also has an ambitious target, that is a frozen real central government spending at the 1999 level. In Sweden, the norm is that the real rate of change should be zero.

⁽³⁾ According to the European Commission spring 2003 forecasts.

⁽⁴⁾ Nevertheless, the target has been revised in the following updates of the stability programme: it became 5.2 % in the updated programme 2001 and 6.5 % in the updated programme 2002.

⁽⁵⁾ The rule regards primary expenditure in entity I (Federal government and social security).

⁽⁶⁾ Cases have been identified according to information available by the European Commission, Directorate-General for Economic and Financial Affairs.

⁽⁷⁾ See also the chapter on Finland in Chapter VI.13 of this report.

Table V.4

The impact of expenditure rules on spending trends

Item controlled	Definition of the rule	Year of introduction	Real rate of growth of the measured item ⁽¹⁾			
			3 years before the introduction of the rule (A)	After the introduction of the rule (B)	T-test for A ≠ B	
DK	Public consumption	Real rate of growth	1999	2.4	1.6	1.0
FR	Total expenditure	Real rate of growth	1997	1.7	2.1	0.8
LU	Total expenditure	Real rate of growth	1999	3.5	6.2	1.0
BE	Primary expenditure	Real rate of growth	1999	2.0	2.6	1.0
SE	Primary expenditure	Real rate of growth	1997	0.9	3.3	1.9
IE	Total expenditure	Nominal rate of growth	1997	5.6	9.4	1.6
EL	Compensation of employees	Nominal ceiling	1997	12.3	7.1	1.1
NL	Total expenditure	Nominal ceiling	1994	2.2	1.0	1.1
AT	Compensation of employees	Nominal ceiling	2000	0.0	- 2.7	0.7
FI	Total expenditure	Nominal ceiling	1999	1.1	1.0	0.0

⁽¹⁾ Nominal rate of growth for Ireland, as defined in the expenditure rule.

Source: Commission services.

Table V.5

Total expenditure targets and spending rules

	Expenditure/GDP			Changes in cyclically-adjusted budget balance (% GDP)
	Target	Outcome	Difference	
BE (1999)	48.0	50.1	2.1	- 0.4
DK (1999) ⁽¹⁾	51.9	52.4	0.5	- 1.3
DE (2002)	48.0	48.6	0.6	- 0.3
FR (2002)	52.3	53.7	1.4	- 1.1
IT (2001) ⁽²⁾	47.5	48.5	1.0	- 0.7
IT (2002) ⁽²⁾	46.7	47.5	0.8	1.0
FI (2001) ⁽³⁾	24.0	24.9	0.9	0.1
FI (2002) ⁽³⁾	24.3	25.1	0.8	0.6

⁽¹⁾ Outcome before statistical revision.

⁽²⁾ Targets recalculated by Commission services according to EU standards to ensure consistency with outcomes. Planned sales of real assets have been subtracted from the expenditure targets (0.6 percentage points of GDP, only in 2002) and additional expenditure items have been included, as required under Commission Regulation (EC) No 1500/2000 (0.3 percentage points of GDP both in 2001 and 2002). Sales of real assets lowered outcomes by 0.2 percentage points of GDP in 2001 and by 0.9 percentage points of GDP in 2002.

⁽³⁾ Central government total expenditure.

Source: Commission services on the basis of data provided by Member States in their stability or convergence programmes.

To sum up, the overall picture signals that there are no evident changes in the behaviour of expenditure once spending rules are introduced. Nevertheless, the compliance with the rule is difficult to judge. Targets are, in many cases, set up over several years and there are often revisions in due course. In some countries targets are not ambitious enough and adherence with

them is easily reached. In other cases, the rule has been adjusted or abandoned since it was perceived to be too ambitious. Moreover, the assessment of how rules worked is limited by a lack of quantitative information, so that expenditure trends are difficult to monitor. This is particularly true in those cases where the target concerns detailed expenditure categories

and/or when the rule covers only part of the general government.

2.4. Conclusions

Expenditures rules are becoming a common feature among EU Member States as an additional tool to control budgetary development. In the majority of cases they are 'ex ante' rules: they fix a target that helps to keep expenditures under control during the process of budgetary formation. However, implementation mechanisms and 'ex post' control are rather weak. As a consequence, the medium-term expenditure target tends to be revised if it becomes clear it cannot be reached.

Thus, what counts for an effective expenditure rule is a good design and the existence of control mechanisms that allow to correct trends in the course of budget implementation. Control mechanisms should be accompanied

by enforcement mechanisms to render the rule fully implemented.

In the EU context, national expenditure rules can complement the fiscal framework currently in place, but cannot be seen as a substitute. First, because they are not subject to budgetary surveillance at EU level. Second, their current designs and implementation mechanisms do not ensure the achievement and maintenance of sound public finances over the long term.

However, even a 'weak' rule can be helpful as a guidance of fiscal policy and to signal to the actors involved in the budgetary process which are the components of the budget that create more concern. Also, the redirection of public expenditure towards those items that are more conducive to economic growth becomes easier. Therefore, in all cases in which specific items less under control crowd out other, perhaps more productive, expenditures, a rule can increase the efficiency of public expenditure.

3. Fiscal relations across levels of government

3.1. Fiscal relations across different levels of government in EU Member States

In recent years, the management of public finances in EU Member States has not only been affected by the process of European integration, it has also been influenced by a process of decentralisation whereby the budgetary autonomy of lower levels of government has been increased. This reshaping of the division of budgetary competencies between layers of government within Member States has consequences for the budgetary requirements at the EU level, as the Treaty and SGP obligations concern the general government as a whole, that is, central, state and local government plus social security.

The process of transferring more budgetary authority to lower levels of government is motivated in part by political factors, namely as a way of reconciling divergence or tension between communities with national political cohesion or has been an expression of the citizens' right to participate in the conduct of public affairs (Committee of the Regions, 2001) ⁽¹⁾. Decentralisation may also be justified on economic grounds: in particular, lower levels of government may be able to better tailor the provision of public services to local needs and preferences, and to establish a link with the taxes that are needed to finance them, thereby increasing accountability at the local level. Box V.1 provides an overview of the key arguments of the theory of fiscal federalism.

There are large differences between EU Member States in the way budgetary responsibilities are divided between

different levels of government. This is in part linked to the system of government and particular whether the country is a federal (Austria, Belgium and Germany) or unitary State. However, the distinction is not clear cut. Spain and Italy could be classified in both groups, since they are unitary States with some characteristics of a federal State ⁽²⁾. The Nordic countries (Denmark, Finland and Sweden) also have some special characteristics, as they are unitary States where the principle of 'self-government' is grounded in the constitution.

A common indicator for assessing the degree of fiscal decentralisation is to look at sub-national expenditures and revenues, both as a percentage of GDP and of total public expenditures. Table V.6 reports this indicator based on the data available in the European system of accounts ⁽³⁾. The figures are based on a calculation of revenues and expenditures at different levels of government as the sum of their components, since there are no harmonised data ESA95 available for total revenues and expenditures at lower levels of government ⁽⁴⁾. These figures must be interpreted with care as they give an approximate indication of the size of lower levels of government, but do not measure budgetary autonomy.

⁽¹⁾ See page 48 of Committee of the Regions (2001) for examples of devolution in Europe. It should be noted that decentralisation is not a uniform trend in all Member States. It is a long-term process that has taken place during the last few decades. See the decentralisation web site of the World Bank (www.worldbank.org/publicsector/decentralization) for an overview of the different arguments surrounding the debate on decentralisation.

⁽²⁾ In Spain, the constitution does not directly specify the regions ('autonomous communities'), which account for a large part of public expenditure (Table V.6). Italy also has federalist characteristics, since regional authorities exercise legislative powers comparable with those of regions or states in federal Member States (Committee of the Regions, 2001).

⁽³⁾ The most common databases for cross-country comparison in this field are the Government Finance Statistics of the IMF and the OECD Revenue Statistics.

⁽⁴⁾ Total expenditure is calculated as the sum of (ESA categories are indicated): D.3 subsidies, D.4 Property income, D.5 Current taxes on income and wealth, D.62 Social benefits other than transfers in kind, D.7 Other current transfers, P.3 Final consumption expenditure, D.9 Capital transfers, P.5 Gross capital formation, K.2: Acquisitions of non-produced non-financial assets. Total Resources are calculated as the sum of K.1 Consumption of fixed capital, B.2 Operating surplus, D.2 Taxes on production and imports, D.4 property income, D.5 Current taxes on income and wealth, D.61 Social contributions, D.7 Other current transfers, D.9 Capital transfers.

Box V.1: Key arguments of the theory on fiscal federalism

The theory of fiscal federalism has developed criteria for the assignment of government activities to different layers of government. The main benefits of centralisation are the internalisation of externalities and spillovers (that is, when market failures have cross-border effects on other jurisdictions), and the exploitation of economies of scale. However, these need to be weighed against the benefits of decentralisation which include a capacity to adjust the provision of public goods and services to local preferences and needs, the avoidance of diseconomies of scale, more competition and innovation in the provision of public goods and services, and improved accountability and transparency of policy makers by establishing a more direct link between the benefits of public expenditures and the taxes levied to finance them.

Fiscal federalism yields no clear-cut policy conclusions on the assignment of public functions whose main objective is to ensure an *efficient allocation of resources*. A cost/benefit assessment is needed on a case by case basis. Some public goods/services may need to be centralised where there are large spillover effects covering the entire country (national transport infrastructure), whereas others may be more efficiently provided at local level (local transport infrastructures).

In contrast, stronger policy conclusions are drawn as regards the benefits of centralising the public function that aim at *redistribution* (either across regions or individuals) for several reasons. Firstly, the demand for redistribution policies may cover an entire country, in that citizens may be concerned about the living standards of the entire population and not just in their own locality or State. Secondly, it may be very difficult to operate redistribution policies efficiently at sub-central level: labour mobility may result in the migration of low-income persons to regions providing the most generous benefits whereas high-skilled persons may move to regions with the lowest taxes.

Fiscal federalism in general reaches strong policy conclusions on centralising the *stabilisation function*. This is because lower levels of government might not have the right incentives to provide an optimal level of stabilisation, since a considerable part of their stabilisation efforts would leak away to other jurisdictions. Furthermore, the possibilities of local governments to run counter-cyclical policies (for example, by means of letting the automatic stabilisers work) are often limited, given the existence of borrowing restrictions.

In general, the theory of fiscal federalism provides stronger arguments in favour of centralised revenue collection compared with expenditures. Centralised revenue collection could lower the costs of collection and compliance due to economies of scale, it could prevent tax evasion induced by mobile tax basis and prevent excessive tax competition. This can give rise to a 'vertical fiscal imbalance' whereby central sub-national governments have to rely on the central government to provide them with revenues to finance decentralised public expenditures.

Table V.6 shows that, in general, the federal and the Nordic countries are the most decentralised according to the indicator. When measured in terms of sub-government expenditure (that is, State and local) as a percentage of total government spending, then Denmark (57 %), Germany (43 %), Belgium (41 %), Sweden (40 %) and Spain (38 %) stand out as having a highly decentralised fiscal structure ⁽¹⁾. A second group consists of the Netherlands (35 %), Finland (34 %), Austria (33 %), Italy (30 %), the UK (26 %) and France (19 %). The most centralised Member States are Luxembourg, Portugal (both 14 %) and Greece (4 %). With respect to the development of lower levels of government over time, the figures gener-

ally show slow changes in the level of decentralisation since 1995, the first year for which figures are available for all Member States. Nevertheless, a relative increase since 1995 is recorded in the size of the states in Austria and Spain and the local level of government in Denmark, Sweden and Italy. A relative decrease is recorded in the size of the local government in the Netherlands.

Table V.7 examines the composition of public spending by sub-central levels of government in Member States where data was available. According to the theory of fiscal federalism, public spending of sub-central authorities could be expected in policy domains where there are large differences in preferences/needs across regions, but less so in areas whereas economies of scale and spillover effects prevail.

⁽¹⁾ One should keep in mind that this figure does not measure local autonomy in deciding on expenditure.

Table V.6

Expenditure and revenues at State and local government level

MS	Structure		Total expenditures						Total revenues					
			% of GDP			% of total			% of GDP			% of total		
			1995	2000	2001	1995	2000	2001	1995	2000	2001	1995	2000	2001
BE	Federal	State	14	13	14	26	27	27	13	14	14	27	27	28
		Local	7	7	7	12	14	13	7	7	7	14	13	13
DK	Unitary; local self-government	Local	32	31	31	53	56	57	33	31	31	56	53	54
DE	Federal	State	13	14	14	27	29	28	12	13	12	26	28	27
		Local	8	7	7	15	15	14	8	7	7	16	15	16
EL	Unitary	Local	2	2	2	3	4	4	2	2	2	5	4	4
ES	Unitary; federal features	State	7	9	9	15	22	23	6	8	8	16	21	21
		Local	6	6	6	13	15	15	6	6	6	15	16	16
FR	Unitary	Local	10	10	10	18	19	19	10	10	10	20	19	19
IT	Unitary; federal features	Local	13	14	14	24	30	30	13	14	15	28	30	32
LU	Unitary	Local	7	6		15	14		7	6		15	13	
NL	Unitary	Local	23	16	16	45	35	35	23	16	16	49	34	35
AT	Federal	State	8	10	10	14	18	18	9	10	10	16	20	19
		Local	9	8	8	16	15	15	8	8	8	16	16	15
PT (1)	Unitary	Local	5	7		12	14		5	5		14	12	
FI	Unitary; local self-government	Local	19	16	17	31	33	34	20	16	16	36	29	30
SE	Unitary; local self-government	Local	23	22	23	34	39	40	23	23	23	37	38	38
UK	Unitary, four constituent nations	Local	12	10	11	26	28	26	11	10	11	29	25	26
EUR-12			16	16		31	33		16	15		33	32	
EU-15			16	15		31	33		16	15		33	32	

(1) Figures for PT concern 1999.

Source: Commission services.

As expected, defence is never decentralised, reflecting the presence of spillover effects, economies of scale and political considerations. A considerable percentage of the resources of sub-central authorities are devoted to items such as education, housing, recreation and culture: decentralised provision of these items may be justified on the ground of tailoring public goods and services to local needs and preferences. The largest differences between Member States can be found in the categories of health and social security and welfare, where sub-central authorities in several countries have an important role to play.

It should be noted, however, that the scale and composition of public spending by sub-central authorities does not coincide with the actual degree of budgetary autonomy of sub-national authorities. This is because the central government can influence, to a large degree, the expenditure choices of sub-central authorities, for example by mandating standards of public goods and services that sub-central authorities must provide. Local or state

government expenditures, for example, include expenditures that are part of national programmes. In the Nordic Member States, central control is generally confined to setting a broad policy framework, leaving them a high degree of independence in areas like primary education, social and health services. Their counterparts in the Netherlands, Germany, Austria and Italy have a role too in providing the major welfare services, though with more detailed steering by higher tiers of government (Committee of the Regions, 2001).

Sub-central authorities can be financed through taxes, grants, service charges and fees (1). Table V.8 shows the main categories as according to the ESA95 classifications. Taxes that are collected by the central government and automatically transferred to the local and state gov-

(1) That is, in the absence of borrowing. See Graph V.3 on the contribution of lower levels of government to general government borrowing.

ernments (for example, as part of a tax-sharing agreement) are registered as if they were collected directly by the local or state government. According to ESA95, the category of transfers within the general government mainly shows block transfers to the local and state governments that do not correspond to any specific category of taxes.

There are large differences in the way Member States finance their expenditure at lower levels of government. In Belgium, the states rely mostly on transfers from the central government. For the states in Austria and Spain, transfers also account for a large part of their revenues, although to a lesser extent than in Belgium. In Austria, tax sharing represents another important part of income, while the states in Spain have increased their tax autonomy in the second half of the 1990s. For the German states, the transfers from the central government are much smaller and tax income is the most important source of revenue. This reflects the importance of tax sharing of national taxes with the central government.

Transfers to local governments are relatively high in the UK and the Netherlands, which indicates their relatively centralised system of financing local governments. This contrasts with Italy and France, where the autonomy of lower levels of government in raising taxes is higher. In Italy in particular, reforms in the 1990s have strongly decreased local governments' dependence on transfers from the centre and extended their autonomy in raising taxes. Finally, the data for the category of taxes on income and wealth show very large differences between Denmark, Finland and Sweden, where figures range from 10 to 15 % of GDP, and other Member States, where this figure is usually below 2 % of GDP, in line with the fact that income taxes are the most important source of income at local level for the Nordic countries.

3.2. Fiscal decentralisation and its interaction with the EU's fiscal rules

3.2.1. Fiscal decentralisation and the goal of sound and sustainable public finances

The data in Section 3.1 clearly illustrate the importance of public finances at sub-central level when considering the overall budgetary situation of a Member State. A question arises whether there is a link between the degree of fiscal decentralisation and the budgetary performance, in particular the capacity of Member States to

meet the budget balance and debt requirements for the general government set down in the Treaty and SGP.

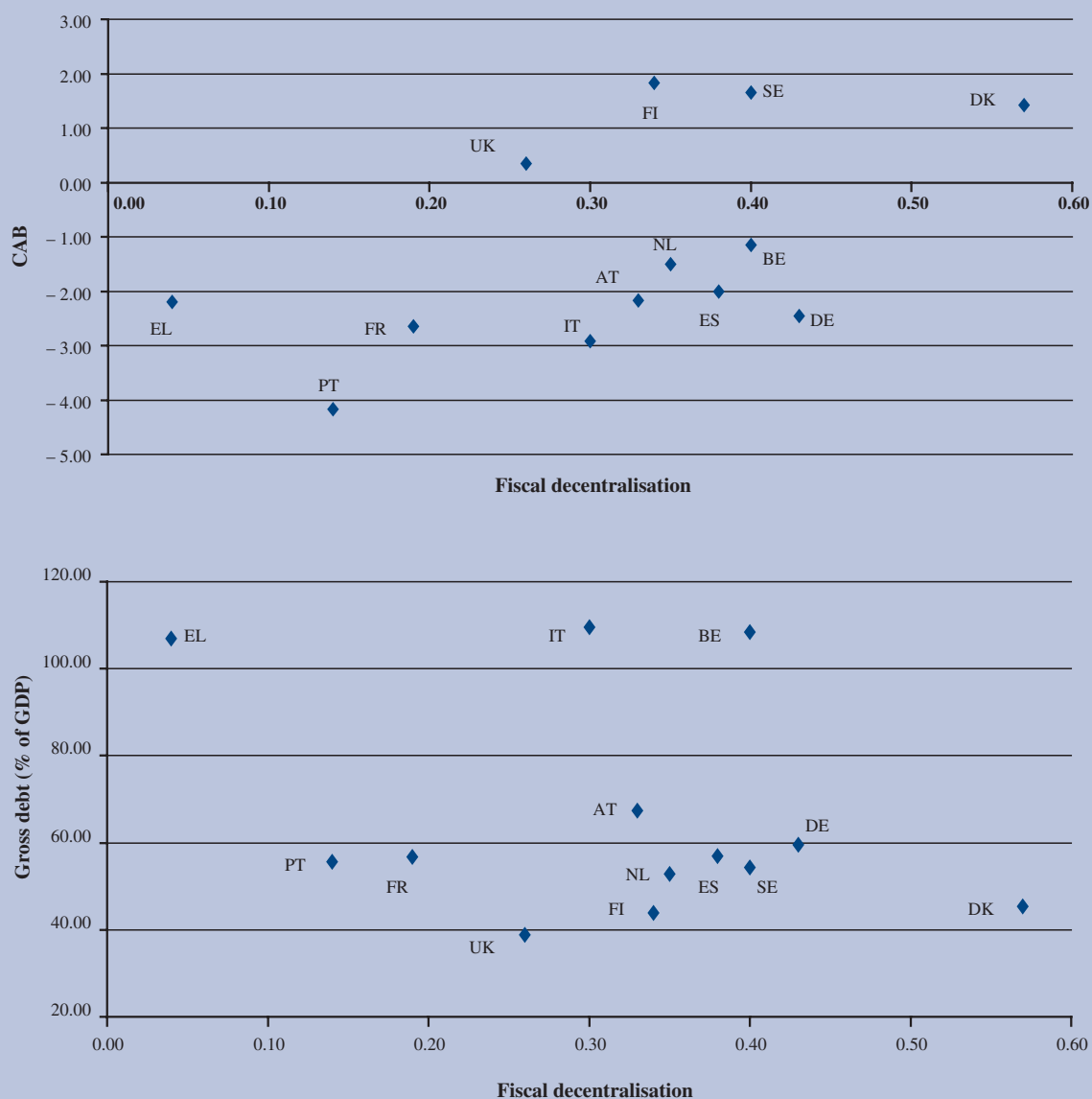
Graph V.2 compares an indicator for fiscal decentralisation with indicators for budget balance and debt. It shows that, at first glance, there is no apparent link between the degree of fiscal decentralisation and budgetary performance.

However, a possible link between fiscal decentralisation and budgetary performance may exist, depending upon whether or not a sub-central authority faces a hard budget constraint (for example, Rodden, 2000). The argument is that lower levels of government may not take adequate account of the spillover effects of their budget policies and may face incentives to shift the costs of their expenditure decisions to the central level of government. The extent to which they might be able to act according to these incentives depends on the institutional set-up of the system of financing of lower levels of government (Eichengreen and von Hagen, 1996, Rodden, 2002, Ter-Minassian and Craig, 1997).

There may be a tendency for higher levels of public spending and deficits if there is a vertical fiscal imbalance, that is, when sub-central authorities have important responsibilities for public expenditures but limited own resources and are thus reliant on transfers and grants from central authorities. These transfers may create the perception that local public spending is funded by non-residents. As a consequence, expenditure discipline and cost-awareness might deteriorate: the costs of grants may not be fully internalised at the local level, causing to demand above-optimal levels of public expenditures on items that are financed by grants for central authorities (for example, Rodden and Wibbels, 2002). This pressure for increased transfers to sub-central authorities could translate into higher deficits and debt of the general government. On a related point, sub-central authorities may engage in excessive levels of borrowing if they consider that, in the event of default, they will be bailed out by a higher level. Pressures to bail out sub-central authorities may rise with the degree of vertical imbalance, since the smaller the tax base and the control over it at sub-national level, the smaller are the possibilities at that level to raise taxes in the event of financial problems.

In response to these pressures, governments in recent years have paid close attention to the incentives embedded in the design of grants and revenue sharing arrangements with sub-central authorities. Many countries have

Graph V.2: Fiscal decentralisation and budgetary situation



Source: Commission services.

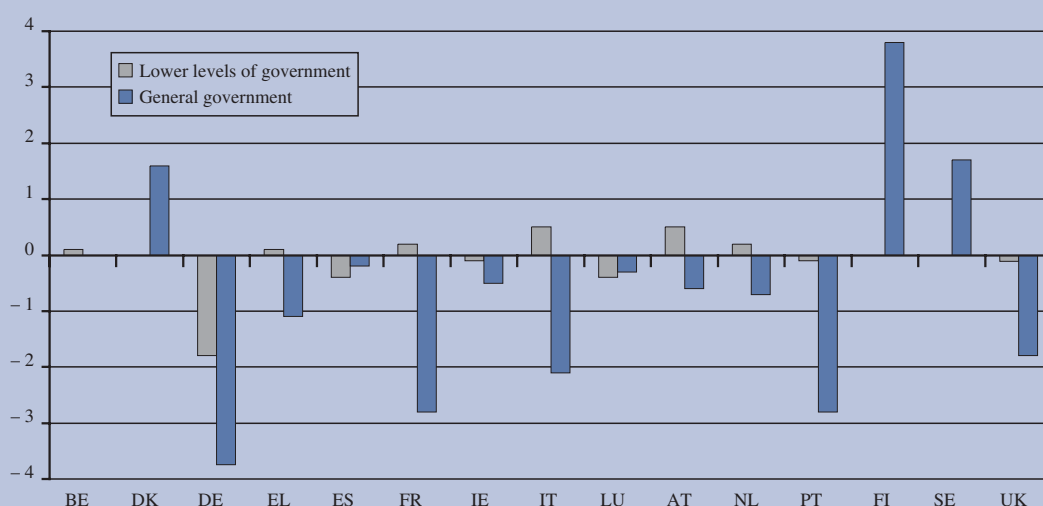
also introduced borrowing restrictions for lower levels of government (for an overview see Ter-Minasian and Craig, 1997), and empirical studies indicate that higher degrees of vertical imbalance and sub-national borrowing restrictions are indeed associated (Eichengreen and Von Hagen, 1996).

Borrowing restrictions are usually found to be effective in restraining fiscal policies at lower levels of government (for example, Bayoumi and Eichengreen, 1995). All EU countries apply restrictions to local government spending and borrowing, but in various forms and degrees (Dafflon, 2002). Their impact within the EU is examined on Graph V.3 which contrasts the general gov-

ernment budget balance (dark column) and the budget balance of local and (where relevant) state governments. Local and state governments usually balance their budgets or run small deficits or surpluses. The only notable exception is Germany, where net lending by local and state government accounts for almost half of the general government deficit in 2002.

Clearly this does not provide for an adequate picture of the overall contribution of lower levels of government to the general government budget balance. For example, a sub-national government that is facing a borrowing restriction might obtain a higher amount of grants or percentage of shared taxes from the central government, increasing the deficit at that level.

Graph V.3: The contribution of lower levels of government to general government, net lending (+) or borrowing (-) in 2002



3.2.2. Recent measures in several Member States to coordinate budgetary positions across levels of government in light of EU requirements

In recent years, a number of Member States have re-considered the fiscal relations across different levels of government which take into account the need to comply with EU budgetary requirements. These initiatives also sought to correct a form of vertical institutional imbalance, whereby the Treaty and SGP obligations concern the general government as a whole (i.e. central, state and local government plus social security) but commitments given at European level (notably in the annual updates to stability and convergence programmes) are made by the central government. Compliance with budgetary commitments given at EU levels is dependent upon the budgetary performance of all levels of government, whereas

the costs of non-compliance (either the reputational cost or ultimately in the form of a pecuniary sanction) are borne by central government.

Apart from borrowing and budgeting restrictions for sub-national authorities (as discussed in the previous section), the federal Member States and Italy and Spain have also introduced institutional arrangements at national level, usually referred to as national stability pacts. These arrangements can be summarised according to the formulation and scope of their targets, the measurement of the targets, their legal status, the process of surveillance and the enforcement including possible sanctions. The usual hypothesis is that a complete design across all these dimensions will contribute to the effectiveness of the arrangements.

In January 1999, a domestic stability pact was enacted in *Austria*. In October 2000, it was amended by an agreement between the federal government, provinces and the local authorities that covers the period until 2004. The agreement covered the joint achievement of a balanced budget by 2002 as well as financial burden sharing arrangements. The provinces undertook to contribute to an average budget surplus over the whole period of not less than 0.75 % of GDP up to 2004. Temporary under-runs of – 0.15 % of GDP are allowed if, over the whole financial burden-sharing period, the averaged value of 0.75 % GDP is maintained. The local authorities undertook to balance their budget up to 2004. Temporary overruns of 0.1 % of GDP are allowed if, over the whole period, the average position of a balanced budget is attained. The system of monitoring and enforcement includes possible fines, subject to unanimous decision from all interested parties. The flood disaster in 2002 led to a temporary suspension of the rule, that is, not taking account of flood-related expenditure in the years 2002 and 2003.

In *Belgium* the coordination of the budget balance position of various levels of government is ensured by the agreement concluded initially in 2000, and renewed in 2002, between the federal government, the communities and regions to adhere to the budgetary targets as recommended each year by the High Council of Finance ⁽¹⁾. The communities and regions draw up internal medium-term stability programmes each year, at least equal in duration to the Belgian stability programme, which are evaluated by the High Council of Finance. The agreement covers the period of 2001–05. The cooperation agreement does not include formal sanctioning procedures in case of deviation from the permissible deficits. However, the federal government can restrict the borrowing capacity of communities and regions for a period of up to two years upon recommendation of the High Council of Finance and after the regions involved have been consulted (IMF, 2001).

On 21 March 2002, the federal government and the *Länder* in *Germany* agreed on a kind of National Stability Pact for the implementation of the SGP (for a more detailed description, see the case study on Germany in Section 3.4.2). The federal government and the *Länder* (including the local governments falling within

their competence) commit to comply with the budgetary rules of EMU and ‘shall strive towards a reduction in net borrowing with the aim of achieving balanced budgets’. The Financial Planning Council, to which the Federal Minister for Finance, the Federal Minister for Commerce and Labour, the Finance Ministers of the *Länder* as well as representatives of local authorities and local authority associations belong, discusses the compatibility of the budgetary developments of territorial authorities with the provisions of the SGP. The Financial Planning Council will issue recommendations on budgetary policies — and in particular on a common expenditure line — taking into account the economic and fiscal factors. Regarding enforcement, the Financial Planning Council will discuss the reasons of non-respect of the rules and give recommendations in order to restore budgetary discipline.

In *Italy*, a domestic stability pact came into force through legislation adopted in connection with the budget law for 1999. It aims at improving the budget balances of local governments by fixing targets for the reduction of their deficits. Healthcare expenditure, which accounts for over two thirds of regional expenditure, is subject to a separate agreement. The Treasury is to monitor cash flows during the year and report on a quarterly basis to the conference for relations between regions and State and the conference for state-municipalities, which are expected to indicate measures to achieve the targets in case of divergence. Possible fines under the budgetary rules of the Treaty and the SGP are to be levied on the local authorities that have failed to meet their targets, in proportion to the overshoot for which they are responsible.

In *Spain* the General Law of Budgetary Stability enacted in 2001 has taken effect from 2003 (for a more detailed description, see the case study on Spain in Section 3.4.1). The central feature is that all general government sub-sectors should show a surplus or a balanced budget. Temporary deficits are allowed only in exceptional situations, where two-to-three year plans will be discussed in Parliament to return to a surplus or a balanced budget. The central government monitors budgetary execution and assesses the degree of fulfilment of the objectives. As a part of enforcement, the central government will be able to condition any recourse to debt by sub-national governments. Possible fines under the budgetary rules of the Treaty and the SGP will be shared by those public entities responsible for the deficits.

⁽¹⁾ Advisory board on fiscal policy of the government and communities and regions.

This short overview shows differences and similarities in the way Member States address the challenge of coordinating the overall budgetary position across levels of government. The differences reflect historical circumstances, variation in political structure and diversity in budgetary processes. Some Member States have chosen to replicate the medium-term objective of the SGP of 'close to balance or in surplus' at the local or regional level, while others have chosen to define specific budgetary targets on a yearly basis. In some cases, the arrangements are laid down in national law, while in others they are formulated as an agreement between levels of government. There are also institutional differences with respect to the way the arrangements are implemented and monitored. Finally, some arrangements specify the specific actions to be taken in case of non-compliance, such as imposing sanctions, while others do not.

More experience with the implementation of the arrangements is needed before firm conclusions can be drawn on their effectiveness in contributing to the overall fiscal objectives of the SGP. A crucial issue is how the mechanisms are implemented when a divergence arises between targets and expected outcomes that cannot be attributed to exceptional circumstances. In this respect, a strong legal base and enforcement mechanism would be expected to contribute to the credibility and effectiveness of the arrangements.

3.3. Fiscal decentralisation and automatic stabilisation

Apart from the issue of how fiscal decentralisation affects the capacity of Member State to achieve sound and sustainable public finances, it may also be relevant as regards the effects of fiscal policy on the stabilisation of economic activity, and in particular the operation of automatic stabilisers. Stabilisation could be beneficial both to smooth taxes and consumption over time and to avoid excessive output and employment variability and boom-bust fluctuations.

EMU raises particular concerns as regards the role of national fiscal policies for stabilisation purposes (see European Commission 2001a): it is widely argued that given the loss of national monetary policy in EMU, budgetary policy may need to play a more significant role in smoothing the impact of country-specific shocks on real output. The philosophy underlying the Treaty and the SGP reflects widespread scepticism on the use of discretionary fiscal policies for stabilisation

purposes (European Commission 2002a), and the norm for budgetary behaviour in EMU should be to let automatic stabilisers operate freely over the economic cycle. Adhering to budgetary positions of 'close to balance or in surplus' will provide for an adequate safety margin to prevent nominal budget deficits from breaching the 3 % of GDP reference value while letting automatic stabilisers play fully.

The traditional literature on fiscal federalism provides arguments in favour of centralising the stabilisation function. Lower levels of government might not have the right incentives to provide an optimal level of stabilisation, since a large part of their stabilisation effort would leak away to other jurisdictions. Likewise, local governments could try to free ride on the effort of others. Furthermore, the possibilities of local governments to run counter-cyclical policies (for example, by means of letting automatic stabilisers work) are, in many cases, limited given the existence of borrowing and budgeting restrictions. As a result, it is widely believed that there may be good reason to shield the income of lower levels of government to some extent from cyclical fluctuations. Ter-Minassian (1997) summarises the broad consensus in the literature that the central government should be assigned taxes that, among other things, have a higher income elasticity, 'that is, to provide the central government with stabilisation instruments, and also to shelter to the extent possible the budgets of sub-national governments from cyclical fluctuations' ⁽¹⁾. This kind of shelter can be achieved either by only assigning tax bases to lower levels of government that are sufficiently stable over the cycle, or by devising a system of shared taxes or grants that correct for cyclical variability in own taxes at lower levels of government.

The empirical literature on fiscal federalism and automatic stabilisation focuses mainly on the US, and sometimes on other large federalist States as well (such as Canada and Germany), where state budgets are large enough to potentially influence overall automatic stabilisation. The results indicate agreement that more stringent borrowing controls are associated with less cyclical response of the budget balance at the level of the states within federations (Sørensen et al (2001), Alesina and Bayoumi (1996), Bayoumi and Eichengreen (1995)). Moreover, Alesina and Bayoumi (1996)

⁽¹⁾ Ter-Minassian (1997) also provides an overview of which taxes would be more suitable for assignment to the central government or to lower levels of government.

Table V.9

Aggregate budget balances at state level (AT, BE, ES, DE), local level (DK, FI, SE) and output gaps.

		1995	1996	1997	1998	1999	2000	2001
AT	<i>B. balance</i>	0.1	0.3	0.6	0.4	0.3	0.2	
	<i>Output gap</i>	-0.8	-0.9	-1.5	0.2	0.7	1.9	0.5
BE	<i>B. balance</i>	-0.8	-0.4	-0.1	0.3	0.4	0.2	0.8
	<i>Output gap</i>	-0.7	-1.5	-0.1	0.0	1.0	2.2	1.0
ES	<i>B. balance</i>	-0.6	-0.6	-0.3	-0.3	-0.2	-0.5	-0.5
	<i>Output gap</i>	-3.0	-3.1	-1.8	-0.3	0.7	1.6	0.9
DE	<i>B. balance</i>	-1.2	-1.1	-1.2	-0.7	-0.5	-0.4	-1.3
	<i>Output gap</i>	0.2	-0.8	-1.0	-0.7	-0.2	1.1	0.4
DK	<i>B. balance</i>	0.5	-0.3	-0.4	-0.4	0.1	0.0	-0.1
	<i>Output gap</i>	0.4	0.4	0.8	0.7	1.0	1.4	0.6
FI	<i>B. balance</i>	1.4	0.9	-0.4	-0.1	-0.1	0.2	-0.3
	<i>Output gap</i>	-2.5	-1.1	1.7	2.8	2.3	4.3	1.4
SE	<i>B. balance</i>	0.0	-0.2	-4.9	-0.2	-5.4	0.3	-0.2
	<i>Output gap</i>	-0.4	-1.2	-1.0	-0.2	1.5	3.0	1.3

Source: Commission services.

find that the lower flexibility of the budget balance does not affect output variability at state level within the US, indicating that balanced budget rules for the US states are effective in enforcing fiscal discipline, but have no costs in terms of increased output variability. Lastly, Sørensen et al (2001) specifically investigate the cyclical variability of different components of the budget for the US states, indicating that state revenues and expenditure are both pro-cyclical, but the procyclicality of revenue dominates so that the overall budget balances improve during upturns and worsen during downturns. These results indicate — at least for the US — a gap between practice and the recommendation of shielding sub-national revenues and expenditure from cyclical variations. No firm conclusions are reached, however, on the desirability of automatic stabilisation at lower levels of government.

From the point of view of the EU, a relevant question is whether the trend of fiscal decentralisation might impact on the extent to which budgets of sub-national governments are shielded from cyclical variations. Greater tax autonomy at lower levels of government might increase the cyclical variability of revenue at local level and lead to a degree of procyclical behaviour if borrowing requirements are in place. For example, if tax revenues at lower levels of government decrease in a recession then expenditure would have to be cut as a result.

To investigate the issue, it is necessary to examine the variability of budget balances at the state/regional levels of government and the cyclical variability of revenues and expenditure at state levels of government. Table V.9 presents figures for aggregate net lending (–) and borrowing (+) at the state-level government for the federalist Member States (including Spain) and the local level for the Nordic countries. It also shows the development of the output gaps over time. The aggregate budget balances at state or local level generally show little cyclical variation over time. For Belgium and especially Germany, the aggregate budget balances of the states could indicate a small degree of cyclical sensitivity. Nevertheless, the limited period for which data are available does not allow for a firm conclusion in this respect.

The crucial question is whether a low degree of cyclical response of the budget balance at state or local level is due a low cyclical variability of revenues and expenditure. According to the proposition that lower levels of government should be shielded from cyclical variations in their revenues and expenditures, one would expect a steady growth in real revenues and expenditures of lower levels of government at the rate of trend GDP (in absence of any change in the size of lower levels of government). If, on the contrary, revenue and expenditure at lower levels of government would be responsive to the cycle, then a lack of cyclical movement of state budget balances could indicate a degree of pro-cyclical behaviour, possi-

bly influenced by borrowing restrictions ⁽¹⁾. In this case, the typical pattern would be that revenues show a degree of cyclical variability and that expenditures are adjusted in a pro-cyclical manner as a result.

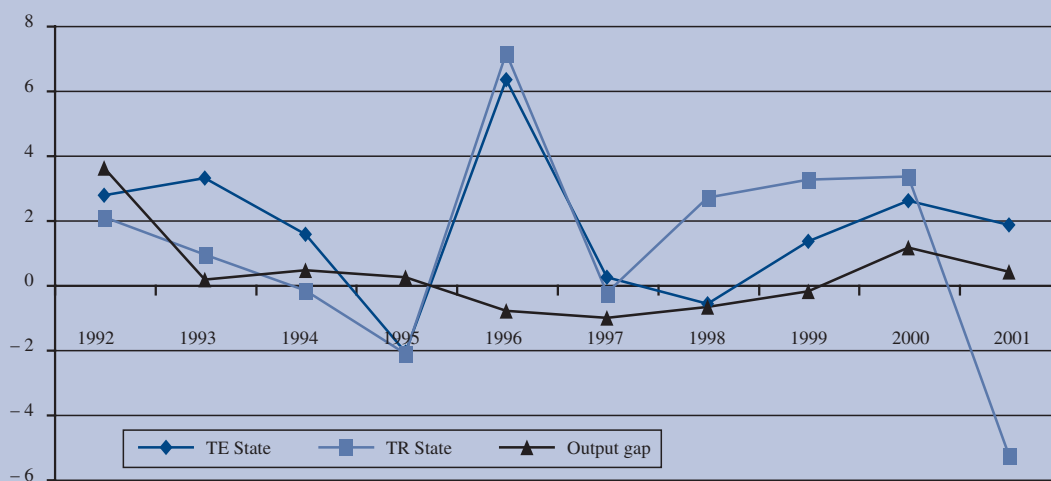
The following figures therefore plot the yearly changes in the level of real revenues and expenditures at the state/regional level of government as well as the output gaps. Graph V.4 shows the results for Germany from 1991 onwards. Changes in the level of revenues and spending show a strong correlation and seem to move to some degree at least in line with the economic cycle. The last year shows a stronger drop in revenues than expenditure, which is in line with the recent increase of the budget

deficit for the states. In sum, the figures suggest a degree of cyclical variation in revenues followed by a smaller degree of pro-cyclicality on the spending side (and hence some degree of cyclical variation of the deficit ratio at the level of the states).

Graph V.5 shows the available results for the Spanish regions. The growth rates of expenditure and revenue well above at the trend rate of GDP are in line with the increase in fiscal responsibilities of the Spanish regions as reported elsewhere (for example, Committee of the Regions, 2001) The figures seem to provide little or no indication of pro-cyclicality in spending. A relevant question, however, is whether the recent budgetary reform in Spain, which combines a higher degree of tax autonomy for lower levels of government and balanced budget requirements could lead to a greater degree of pro-cyclicality in the future (see case study on Spain in Section 3.4.1).

⁽¹⁾ Rodden (2002) presents an index of borrowing autonomy for lower levels of government, where a score of 1 implies no borrowing autonomy and a score of 5 a high degree of borrowing autonomy. The scores for the Member States as shown here are States Austria: 1.85; States Spain: 2.8; States Germany: 2.7.

Graph V.4: Germany: output gap and changes in the level of real revenues and expenditure at State level

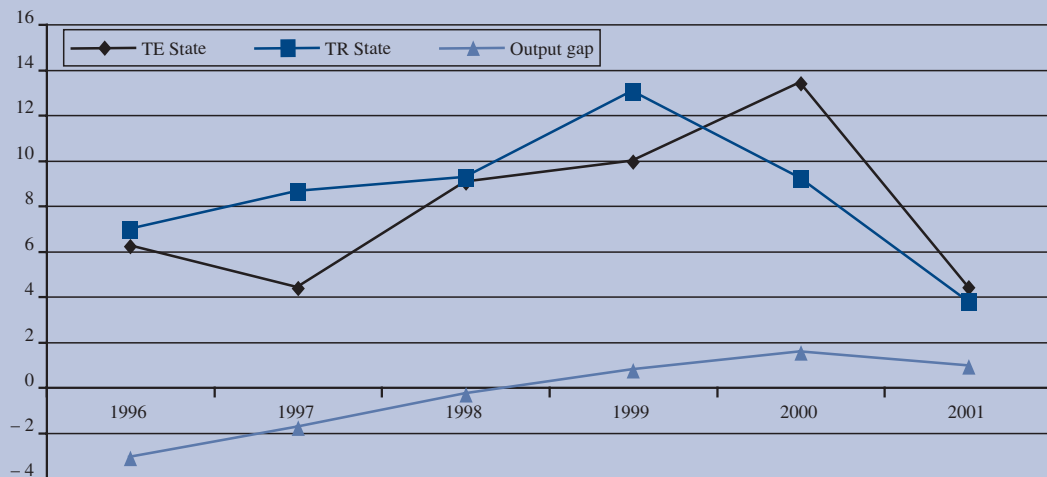


Source: Commission services.

Graph V.6 shows the results for Denmark, a unitary State with a high degree of decentralisation and local autonomy. A relevant feature of the Danish system is that block grants to lower levels of government are adjusted

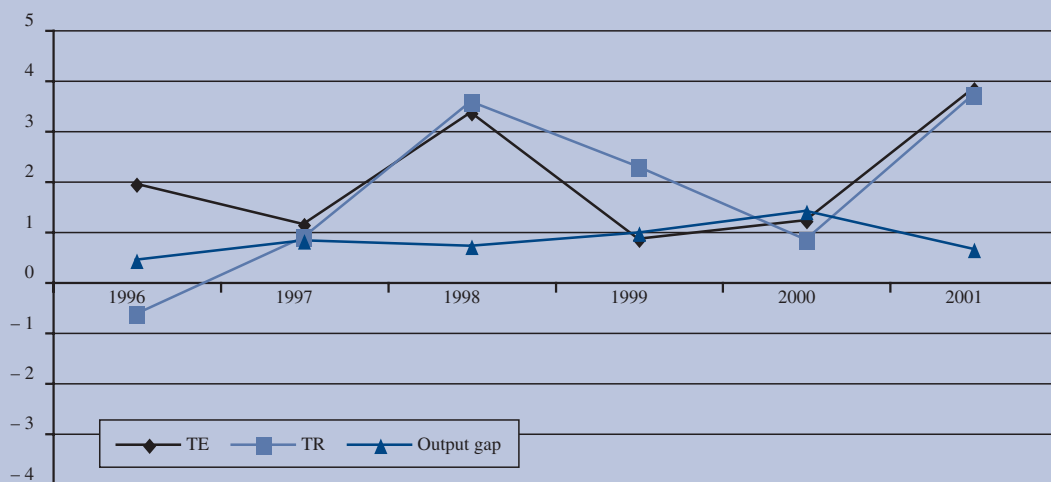
for changes in the burden of tasks that the central government assigns to local governments and the effects of business-cycle fluctuations (OECD, 2003b). These cyclical variations are covered by the 'budget guaran-

Graph V.5: Spain: output gap and changes in the level of real revenues and expenditure at State level



Source: Commission services.

Graph V.6: Denmark: output gap and changes in the level of real revenues and expenditure at local level



Source: Commission services.

tee', which implies that the State adjusts its grants for changes in expenditure (such as unemployment benefits) that are caused by cyclical variations. As expected, since local governments are not allowed to run deficits (except in short periods), changes in revenues and expenditures show a large correlation over time. In principle, the counter-cyclical adjustments of the block grant need not imply that total expenditures at local level are counter-cyclical. Nevertheless, a marked difference with the cases described above is that revenues and expenditures at local level show a rise in 2001 against a background of lower growth, which may indicate a degree of counter-cyclicity, in line with the philosophy of the SGP.

In interpreting the results of the examples above, one should be careful to recognise the preliminary nature of the analysis. The analysis is a partial one, as it only investigates the cyclical pattern of government finances at the state and local level, and is based on aggregate data for a limited period of time. A follow-up study could investigate the total degree of cyclical variability of budgets of Member States and investigate the contribution of all levels of government (that is, central, state, local and social security) as well as its actual effects on output.

3.4. Case studies

3.4.1. Spain

Introduction

Spain's budget deficit was gradually reduced during the second half of the 1990s in line with EMU fiscal rules. More recently, attention has focused on how to ensure budgetary stability in a context of increasing fiscal decentralisation. At present, territorial governments represent more than 30 % of total general government expenditure and nearly 70 % of general government investment.

The General Law of Budgetary Stability (GLBS) came into force in 2003. Its adoption follows the new financing system for regional governments implemented in 2002, which implies considerably greater taxation powers for regional authorities and widens joint fiscal responsibility. The GLBS aims at ensuring that increased decentralisation of public finances should not put at risk overall budgetary stability. It does so by requiring that all the general government sub-sectors should show a surplus or balanced budget and by introducing new budgetary proce-

dures and norms. These institutional changes are seen as more important in ensuring budgetary stability than the mere setting of quantitative targets.

The principle of budgetary stability implying a surplus or a balanced budget will be applied to all public entities. Thus, apart from the central government (State, social security and autonomous entities) and regional and local governments, public bodies (even if they are not included in the general government definition on a national accounts basis) are covered by this new legal framework. Therefore, the scope of the GLBS is wider than the general government definition on ESA95 basis.

Main principles of the GLBS

The GLBS is based on four basic principles:

- *each entity of the public sector must fulfil the criterion of budgetary stability*, which is defined in the law as 'a situation of balance or in surplus in terms of financing capacity according to ESA95 methodology'. As far as public entities and enterprises are concerned, the definition of budgetary stability is more vague. For these entities budgetary stability means 'a balanced financial situation, which might imply, if necessary, the adoption of restructuring strategies to avoid or lower economic losses and provide adequate profits for the fulfilment of their institutional purposes';
- *multiannual framework for budgetary setting*, which implies that each public entity must prepare the budget on the basis of medium-term projections (three years). This framework is in line with the time horizon of the stability programme;
- *transparency*, meaning that each public entity must provide enough information to allow the assessment of its budgetary situation and the fulfilment of the budgetary stability criterion;
- *efficiency in the use of public funds* in order to accomplish the budgetary stability criterion for each public agent. To give practical implementation to these principles, the GLBS introduces new budgetary procedures, both for the public sector as a whole and for each sub-sector.

*Budgetary procedure innovations
concerning the whole of the public sector*

All public sector entities are required to modify their specific budgetary procedures to ensure compliance with the budgetary stability criterion. The central government is responsible for the assessment of budgetary stability in the public sector as a whole ⁽¹⁾. In particular, all public entities will have to consider the following:

- budgetary deficits have to be justified by the public sector entity concerned and will require the formulation of a medium-term (three years) plan to restore a balanced budget situation;
- in the first quarter of each year, the central government will release the budgetary objectives for the next three years for the whole general government sector and for each sub-sector. These objectives are to be discussed in the Parliament together with the macroeconomic scenario for the same period set out in the stability programme;
- before 1 September of each year the General Intervention of the State (IGAE henceforth) will submit a report on the degree of fulfilment of the stability objectives in the previous year. The report will be sent to the Fiscal and Financial Policy Council (the official body responsible for coordinating fiscal policy between central and regional governments). Imbalances will have to be justified and will require the formulation of a plan to correct them;
- the financial penalties due to the non-fulfilment of the commitments assumed by Spain within SGP will be shared by those public entities responsible for the deficits.

*Budgetary procedures innovations
for central government and social security*

The following rules apply to the central government and social security system, taking into account that the budgetary stability objectives for these two sub-sectors will be considered jointly until the process of separation of social security financing is completed in 2012.

⁽¹⁾ This responsibility will be, to some extent, shared when assessing the budgetary stability for regional and local governments. The so-called 'Fiscal and Financial Policy Council', made up of central and regional authority representatives, will carry out the assessment for regional governments. In turn, the 'National Committee for Local Entities' co-assesses the financial situation of local governments.

- Before releasing the Budget Law, the Ministry of the Economy prepares a multiannual programme of expenditure and revenues for each year specifying the spending commitments for 'every budgetary policy'.
- Along with the budgetary stability objectives announced in the first quarter of each year for the next three years, the government sets a maximum expenditure limit for the State on an annual basis for the same period.
- Based on the maximum limit set for the non-financial expenditure for the State, a contingency fund is created up to a maximum of 2 % of the such limit. This fund is to be used for changes in spending commitments to meet unforeseen circumstances. The Ministry of Public Finances has to inform parliament about the use of such funds on a quarterly basis. Thus, new spending commitments have to be financed through this fund or by reducing other expenditures. It is not possible to carry over unspent amounts in the fund from one year to the following one.
- Surpluses recorded by the State are allocated to debt reduction while those registered by the social security are allocated with priority to the pension reserve fund.
- Public entities and enterprises not included in the general government sector on a national accounts basis but dependent on the central government have to contribute to budgetary stability. Thus, in case of losses affecting negatively the central government budgetary objective, a medium-term plan containing appropriate measures to remedy this situation has to be adopted. The legal procedures, contents and deadlines for these plans will be set out in a specific regulation.

*Budgetary procedure innovations
concerning regional governments*

In addition to the rules that apply to the whole of the public sector, regional governments are required to respect the following criteria.

- The budgetary stability objective for the whole regional government sub-sector released by the central government in the first quarter of each year will have to take into account a previous report by the Fiscal and Financial Policy Council. Once the budgetary stability objective for the whole regional gov-

ernment sub-sector is released by the central government, the Fiscal and Financial Policy Council has one month to translate it into budgetary objectives for each regional government. If, in this period, the Council does not reach an agreement, each regional government has to prepare its budget respecting, at least, a balanced budget objective.

- If a regional government approves its budget foreseeing a deficit or fails to achieve the budgetary stability objective set in the previous budget, a medium-term plan aiming at rectifying this situation is required. This plan must include all the necessary revenue and expenditure measures to restore budgetary stability within three years, and requires the approval by the Fiscal and Financial Policy Council. The Ministry of Public Finances is responsible for the monitoring of this plan.
- The State can condition the issuance of new debt and the recourse to bank credit by the regional governments to the fulfilment of their budgetary stability objectives. In addition, the Ministry of Public Finances is allowed to request information from regional governments and to set up a public information agency for loan operations, debt issuance and assumption of risks by regional authorities.
- Regional governments are able to take measures so as to reach budgetary stability in relation to public entities and enterprises not included in the general government sector on a national accounts basis but dependent on regional authorities.

Budgetary procedure innovations concerning local governments

The procedures that apply to local governments are broadly the same as to those addressed to regional authorities. In this case, the National Committee for Local Entities plays a role analogous to that of the Fiscal Financial Policy Council.

A tentative assessment

The GLBS can be seen as a means to keep public finances on a sound basis so as to respect the fiscal commitments undertaken at European level while allowing to share fiscal responsibility among all general government tiers. It redresses the potential asymmetry regarding budgetary stability between the central government,

which is the only responsible for fiscal commitments vis-à-vis EU authorities, and territorial governments with an increasing role in public expenditure.

The law aims at entrenching the dynamics of fiscal consolidation based on the expenditure side through the annual limit on expenditure at the State level and the so-called contingency fund. An additional positive feature of the GLBS is the multiannual stability objectives announced by the government for budgetary setting. In order to keep credibility, the budgetary target set in the first quarter of each year should be only subject to limited changes in the Budget Law and the USP.

However, despite the validity of the central goal of ensuring that fiscal decentralisation remains compatible with the budgetary stability as defined by EMU fiscal rules, some questions arise as to the means foreseen to achieve it. A principal criticism is that the objective of budgetary stability, defined in nominal terms, might hamper the stabilisation function of fiscal policy since the effect of the cycle on the budget is not taken into account. Nevertheless, the difficulty of estimating cyclically-adjusted balances at sub-national level can explain the choice of applying objectives in nominal terms.

The adoption of the GLBS complements that of the new system for financing of regional governments. By making regions finances increasingly dependent on own tax revenues, the new system of financing increases the sensitivity of regional budgets to the economic cycle, aggravating the risk of pro-cyclical policies. Should deficits occur, the responsible public entities have three years to restore the balanced budget. In case of a severe recession, this period might prove to be insufficient. Some margin of flexibility, however, can be expected in the implementation of the three-year plans to restore a balanced budget situation. The issue raised by GLBS concerning its compatibility with a proper functioning of automatic stabilisers will need some time to be assessed.

It is also claimed that the GLBS could reduce public investment, causing serious problems for a catching-up country such as Spain. The objective of a balanced budget or a surplus would mean that public investment could only be financed through current revenues. However, recent research suggests that public investment is not constrained by a ban on deficits, as no significant direction of causality has been detected between public investment and deficits.

The law could have been more ambitious in some aspects. The joint objective of budgetary stability for the State and social security system (up to 2010) will allow the State to record deficits without having to present consolidation plans at all. A stricter formulation could have required that the social security surpluses be entirely allocated to the reserve fund together with requirements for the State balances.

The transparency at each level of government is essential for the effectiveness of the GLBS. The law includes advances in this direction, particularly concerning sub-national governments for which budgetary information has traditionally been poor. The GLBS may pave the way for additional information requirements, recognising that stability and transparency are complementary.

Finally, this law will only produce the awaited results in terms of long-term sustainability only if the General Budgetary Law, which contains the main budgetary procedures, and the social security system are properly reformed. The latter is especial relevant for Spain, given the expected budgetary impact due to ageing, which cannot be tackled by the simple implementation of the GLBS.

3.4.2. Germany

The constitutional framework

In constitutional terms, the Federal Republic of Germany was actually founded by the *Länder* (see Präambel). As a consequence, Article 70 (1) of the German constitution clearly states that ‘the *Länder* have the right to legislation as long as this constitution does not defer this right to the federal level.’ The following articles then define which are the responsibilities of the federation and in which areas both government levels may intervene. In line with these regulations, Article 104a states that ‘the federation and the *Länder* are — in clear separation — in charge of the expenditures, which result from the responsibilities which this Constitution confers upon them’.

Article 106 then specifies which taxes are collected by which level of government. Article 105 (3) states that federal laws on taxation, which regard taxes at least partially collected by lower level of government, are subject to approval by the Bundesrat (Upper chamber of Parliament composed of *Länder* representatives) ⁽¹⁾. Furthermore Article 106 (3) states that the uniformity of living conditions on the federal territory has to be guaranteed.

Expenditure and revenue by levels of government

On the basis of these constitutional provisions, the regional and local governments play a substantial role for the development of public finances in Germany, as indicated already in Table V.7.

On average, expenditure by regional governments is of a similar magnitude as federal spending. If one incorporates spending by local entities, federal expenditure accounts for only 40 % of total expenditure by all levels of government (that is, excluding social security systems). As shown in Graph V.3, the share of lower levels of government account for almost half of the general government budget deficit.

Given the importance of lower levels of government for public spending and revenue collection, the coordination of budgetary policies is obviously very relevant for the respect of the SGP. Furthermore, given that only the federal government is at the European level responsible for the respect of the deficit and debt criteria, the Federal Minister has a strong interest in having his policies supported by the other levels of government. In the run-up to EMU, however, attempts to agree upon a national stability pact failed, due to constitutional problems and political considerations. Recently, however, the responsibilities of the Finanzplanungsrat (Financial Planning Council) have been clearly reinforced.

The role of the Financial Planning Council

The Finanzplanungsrat itself consists of the Federal Minister for Finance, the *Länder* Ministers of Finance, the Federal Minister for Economics and representative(s) of local authorities. It meets twice a year (normally in June and November), following the presentation of the economic forecast and the respective meeting of the working group *Steuerschätzung* (‘tax revenues estimate’) ⁽²⁾. Given that the April economic forecast has a medium-term time horizon (that is, normally the following three years), the June meeting of the Finanzpla-

⁽¹⁾ Following regional elections in the *Länder* of Lower Saxony and Hesse, Christian Democratic-led *Länder* governments currently ‘control’ 41 votes out of a total of 69 votes, conferring on the opposition parties an important role in economic policy-making.

⁽²⁾ At the end of January, the Federal Government normally presents its *Jahreswirtschaftsbericht* (annual economic review), which also contains its economic projections; for the spring meeting of the Finanzplanungsrat, these projections can be revised. The projection of the Federal Government serves as a basis for discussion in the Finanzplanungsrat; however, current projections of economic research institutes and of international organisations including the EU are also presented. The medium-term projections of the federal government are only published once a year, in April.

nungrat also discusses medium-term budgetary projections, while the November meeting — based on the short-term forecast published in October — will only discuss prospects for the current and the following year.

Automatic stabilisation

When the Finanzplanungsrat met for the first time in March 1968, it was to contribute to the fine-tuning of the business cycle, in line with Article 109 (2) of the German constitution, whereby the federal government and the *Länder*, in their budgetary management, have to respect the requirements of the overall macroeconomic equilibrium⁽¹⁾. Since the early 1980s, the focus has shifted to fiscal consolidation; in the mid-1990s, it was decided that the rise in (nominal) expenditure of all levels of government should not exceed 2 % per year. Regarding the issue of automatic stabilisation, past experience shows that lower levels of government tend to follow a pro-cyclical pattern; if in one year tax revenues turn out to be higher than originally budgeted, nominal deficits first tend to decline. In the following year, the growth rate of expenditure would clearly accelerate (see Graph V.4).

The Law on Budgetary Principles

Following the adoption of the SGP and the introduction of the euro, the Ecofin Council, in its opinion on the updated German stability programme, had repeatedly recommended to the German authorities to agree upon a kind of 'national stability pact' in order to make the attainment of the budgetary targets of the updated programmes more credible and in order to avoid pro-cyclical policies. In line with this recommendation, a modification to Article 51a *Haushaltsgrundsatzgesetz* ('Law on Budgetary Principles') was decided upon on 20 December 2001.

Article 51a (1) of the new law now contains a clear reference to the responsibilities of all levels of government to respect Article 104 of the EU Treaty and proclaims the overall aim of bringing the deficit down in order to reach a balanced budget. Article 51a (2) states that 'the Finanzplanungsrat will issue recommendations on

budgetary policies, in particular on a common expenditure line., taking into account the economic and fiscal factors. The Finanzplanungsrat... shall discuss the consistency of budgetary developments, in particular of the development of expenditures and deficits by the federation and by the *Länder* (including the local authorities), with the regulations of Article 104 of the EU Treaty and with the European Stability and Growth Pact.' Finally, Article 51a (3) now stipulates that in case of non-respect of the principles described in Article 51a (1) and (2), the Finanzplanungsrat will discuss the reasons thereof and 'give recommendation in order to restore budgetary discipline'.

Following the Commission recommendation to the Council of 30 January 2002 to give an early warning to Germany, the date of implementation of the new Article 51a *Haushaltsgrundsatzgesetz* was carried forward from 1 January 2005 to 1 July 2002.

Furthermore, in its special meeting of March 2002, the Finanzplanungsrat agreed upon ambitious expenditure targets for 2003 and 2004. Federal expenditure was projected to decrease by 0.5 % per year and *Länder* expenditure was to rise by 1 % per year in nominal terms only. In the November 2002 meeting, it was decided that the expenditure line for 2005 and 2006 should be discussed in the first meeting in 2003. Furthermore, not least due to the costs implied by reconstruction from the floods of summer 2002, the expenditure pattern was changed, but the targeted overall rise in expenditure remained almost unchanged.

In its opinion on the updated stability programme adopted in January 2003, the Council urged the German authorities to respect the agreed expenditure targets for 2003 and 2004 and to reach an agreement on ambitious expenditure targets for 2005 and 2006.

While recent legal developments clearly constitute an improvement compared with the preceding rules, it remains to be seen how effective the new law turns out to be in practice: The lack of threat of sanctions going above recommendations could imply less compliance with mutually agreed targets.

⁽¹⁾ 'Bund und Länder haben bei ihrer Haushaltsführung des Erfordernissen des gesamtwirtschaftlichen Gleichgewichts Rechnung zu tragen'.

Part VI

Member State developments

1. Belgium

Recent developments

Despite an unfavourable macroeconomic context, a 0.1 % of GDP general government surplus was achieved in 2002. Initially, a government surplus of 0.3 % of GDP was planned in the 2002 budget under a 1.3 % real GDP growth assumption; however, in the course of the year, activity proved to be more subdued than expected and real GDP growth reached 0.7 % only.

In March and July 2002, budgetary control exercises were organised associating all levels of government. Expenditures were contained, particularly at federal level of government; applying the 'anchor principle', which consists in holding the utilisation rate of credits

under or at the rate of 2001 in part of the year, was instrumental in controlling spending. In the social security sector, health spending was better controlled. Thus, the government primary surplus in 2002 was maintained at a high level, 6.1 % of GDP.

The government debt ratio, which reached 108.5 % of GDP in 2001, was lowered to 105.3 % of GDP in 2002. During the period 2000–02, the pace of debt reduction slowed primarily due to low GDP growth in real and nominal terms. Moreover, in 2001 and to a lesser extent in 2002, financial operations included in the stock-flow adjustment decelerated the reduction process; these operations consisted of the assumption by the State of debt in a number of public entities.

Table VI.1

Composition and balances of general government, Belgium ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	0.1	0.4	0.1	- 0.2	- 0.1
— Total revenue	49.5	49.8	50.2	49.5	49.2
Of which: — current taxes	30.4	30.2	30.4	30.2	29.8
— social contributions	16.1	16.4	16.5	16.4	16.4
— Total expenditure ⁽²⁾	49.4	49.4	50.1	49.7	49.3
Of which: — collective consumption	7.8	7.9	8.1	8.1	8.1
— social transfers ⁽³⁾	28.7	29.3	30.0	30.5	30.5
— interest expenditure	6.8	6.5	6.0	5.5	4.9
— gross fixed capital formation	1.8	1.5	1.6	1.4	1.5
Primary balance ⁽²⁾	6.9	7.0	6.1	5.3	4.8
Pm Tax burden	45.9	46.0	46.3	45.9	45.5
Government debt	109.6	108.5	105.3	102.7	98.9
Pm Cyclically-adjusted balance	- 1.2	- 0.4	0.1	0.2	0.0
Pm Cyclically-adjusted primary balance	5.6	6.2	6.1	5.7	4.9

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data for 2001 (except cyclically-adjusted) include UMTS receipts of 0.2 % of GDP.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

The 2003 budget expected the general government accounts to be in balance on the basis of a 2.1 % real GDP growth assumption. Attaining a government surplus of this order of magnitude was also recommended in the 2002 BEPGs. The balanced budget objective is expected to be reached while implementing further tax cuts that are to be compensated by equal decline in interest payments.

The federal government real primary expenditure is projected to increase by 1.3 % in 2003. The general government primary surplus was expected to decline somewhat in 2003 as a result of a reduction in the primary surplus of Entity I (Federal government and social security). The government debt ratio was projected to be lowered to an estimated 102.3 % of GDP and no ad hoc financial operations are planned for 2003.

However, due to further deterioration in the external environment, the real GDP growth assumption underlying the budget estimates was revised downwards to 1.4 % in February 2003, while the government balance objective was maintained. Such an adjustment is possible by further containment of federal expenditure applying the 'anchor principle', higher-than-expected tax revenues registered at the end of 2002 and a more favourable projection for interest payments (made possible by interest rate developments).

In the 2003 Commission spring forecasts, real GDP growth is further adjusted downward to 1.2 % in 2003; consequently under the assumption of no further adjustment measures, a government deficit of 0.2 % of GDP is forecasted. At the same time the government debt is expected to decline to 102.7 % of GDP in 2003.

Reducing the debt ratio within a global budgetary strategy

In recent years, Belgium has succeeded in reducing its government debt ratio by means of achieving high government primary surpluses. The 2002 update of the stability programme projects a reduction in the government debt ratio to 94 % of GDP in 2005: this is to be achieved by sustaining primary surpluses in the order of 5.5 % of GDP. The programme also states that no financial operations are foreseen in the time period covered by the stability programme (2002–05), although a decision to assume a part of the debt of the national railway company (SNCB) may have an impact in coming years.

The need to run down debt levels is motivated in part by concerns about the projected budgetary impact of ageing populations (see Part I.3) of this report. The strategy of the Belgian authorities to meet the budgetary costs of ageing populations is based on achieving a steady decline in the government debt ratio by sustaining high primary surpluses even beyond the time horizon of the stability programme. However, sustaining a high primary surplus over the very long run poses a substantial budgetary challenge, especially if, at the same time, other budgetary objectives such as a reduction in the tax ratio are being pursued in parallel.

The Belgian authorities are currently making a much needed effort to alleviate the tax burden weighing particularly on labour. Since 1999, social security contributions paid by employers have been lowered and a programme of tax cuts is currently being implemented covering the period 2002–05. In order to foster labour market participation, which is low in Belgium by international standards, particularly among older workers, both demand and supply of labour are to be encouraged. Fiscal measures have been decided aiming at a phased reduction in personal income taxes over the period 2002–05, also reducing the 'marriage penalty', better providing for children charges and sustaining 'green' initiatives. The global impact of the reform is estimated in the 2002 update of the stability programme at 1.3 % of GDP in 2006.

In 2003, personal income taxes have been cut by 0.4 % of GDP including, in particular, lowering the top rate, implementing the final stage of phasing out of the crisis contribution and introducing an income tax credit for low-wage earners. At the same time, as from April 2002, further reductions in social security contributions have been introduced, concerning both contributions paid by employees, in order to improve low-paid categories' disposable income and contributions paid by employers particularly for older workers. Moreover, in 2003, rates for enterprises income taxes have been lowered from 40.17 to 33.99 % while the more favourable fiscal regime for SME has been maintained, the tax rates applied to them being reduced from 28.84 to 24.98 %. These measures in favour of the enterprises are meant to be budgetary neutral, being compensated by offsetting measures.

As far as pensions reform is concerned, draft legislation has been tabled to Parliament, providing a regulatory framework for the 'second pillar' of supplementary pensions. This covers about one third of the employees in

the private sector. Reform of the healthcare sector is also an objective of the government.

A measure specific to Belgium is the creation of a Silver Fund (September 2001) financed by budgetary surplus, social security surpluses and non-tax revenues. In 2003, EUR 625 million should be allocated

to the Fund from non-tax revenues. At the end of the year, the capital of the Fund is expected to reach about 0.7 % of GDP (excluding interests on investments). Use of the reserves of the Fund will be allowed from 2010 only, under the condition that the level reached by the government debt ratio would be below 60 % of GDP.

Table VI.2

Key figures of the Belgian stability programme ⁽¹⁾ (2003–05)

	2001	2002	2003	2004	2005
Real GDP growth (annual % change)	0.8	0.7	2.1	2.5	2.5
General government budget balance (% of GDP)	0.3	0.0	0.0	0.3	0.5
Primary surplus (% of GDP)	6.9	6.1	5.5	5.6	5.6
Government debt (% of GDP)	108.6	106.1	102.3	97.9	93.6

⁽¹⁾ UMTS receipts excluded (0.2 % of GDP in 2001).

Source: 2002 update of the stability programme of Belgium.

2. Denmark

Recent developments and medium-term prospects

In 2002, a surplus of 2.0 % of GDP was recorded, the sixth consecutive year with a surplus. Swaps amounted to 0.13 % of GDP leaving the surplus in national accounts definition at 1.9 % of GDP ⁽¹⁾. This compares with a target surplus of 1.6 % of GDP in the most recent update of the convergence programme, and the difference is mainly due to higher-than-expected tax revenues.

Compared to 2001, the surplus fell by 0.8 percentage points of GDP. In addition to the effects of slower growth, this resulted from the disappearance of the one-off effect of the UMTS-sale in 2001 amounting to 0.2 percentage points of GDP ⁽²⁾, and secondly the impact of 'the special pension contribution' being changed from a public pension scheme to a private one (as a result of the redistributive element being removed from the scheme) which has led to a permanent reduction of the budget balance of percentage point.

Revenues are still affected by the volatile pension fund yield tax. The taxation on pension fund yields was changed in 2000 ⁽³⁾. The change has resulted in revenues being far more volatile. It is estimated that revenues can fluctuate by slightly more than 1 % of GDP on average, leading to increased volatility of the surplus on public finances of the same amount, and changes are very difficult to predict. Furthermore, the prolonged downturn in the stock market has resulted in this tax generating

hardly any revenues in 2001 or 2002 and only small revenues are expected in 2003 as well. In a year with 'normal' stock market developments, the tax is expected to generate revenues of around 1 % of GDP.

The tax burden fell markedly in 2002 due to the aforementioned changes to 'the special pension contribution'. In the forecast period, the tax burden is set to decline only marginally despite the inclusion of an announced tax reform in 2004 amounting to 0.4 % of GDP. This is a result of the revenue lost by the tax reform being more than outweighed by the positive effects of increased GDP growth on public finances and by the fact that the pension fund yield tax as mentioned should begin to generate revenues again.

The ratio of primary expenditure to GDP was largely unchanged in 2002. Over the forecast horizon, a fall of around 1 % of GDP in total government expenditure is projected, mostly as a result of declining interest payments.

Government consumption rose in real terms by 1 % in 2002. This is in line with the multiannual target of 1 % increase in consumption growth, but slightly lower than the target actually set for the year. The target for the year was set at 1.3 % with a subsequent reduction of the target in 2003 to 0.7 %, averaging 1 % over the two years.

Over the forecast horizon, continued surpluses on general government finances are expected at around 2 % of GDP every year. This should result in the debt-to-GDP ratio being reduced from the current level of 45 to 40 % by the end of 2004. In cyclically-adjusted terms, the primary balance remains largely unchanged over the forecast horizon, thereby indicating that the fiscal policies are neutral with respect to the cycle.

The government's medium-term public finance strategy continues to be focused on reducing the debt by keeping surpluses of 1 –2 % of GDP on average every year towards 2010 and adherence to the tax freeze. The debt-

⁽¹⁾ Compared to the figures used in the autumn forecast, Statistics Denmark has implemented methodological changes to the public finance statistics amounting to a downward revision of the surplus of 0.13 % of GDP.

⁽²⁾ It should still be noted that Statistics Denmark has decided to treat the UMTS proceeds as an annuity over the next 20 years, which is not in line with Eurostat's recommendation.

⁽³⁾ The tax rate on yields on equities was increased and the tax rate on yields on bonds was reduced to ensure the same tax rate on yields from the two types of assets. As the development in prices on equities is far more volatile than on bonds, the volatility of the revenues from this tax has increased markedly. Given the poor performance of the stock market in 2001, this resulted in lower revenues.

Table VI.3

Composition and balances of general government, Denmark

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽¹⁾	2.6	2.8	2.0	1.8	2.1
— Total Revenue	57.3	58.1	57.0	56.2	56.1
Of which: — current taxes	46.8	47.2	47.2	46.9	46.9
— social contributions	3.3	3.2	2.7	2.6	2.6
— Total expenditure ⁽²⁾	54.7	55.0	54.9	54.4	54.0
Of which: — collective consumption	7.7	7.7	8.0	8.0	8.0
— social transfers ⁽²⁾	34.9	35.4	35.6	35.7	35.4
— interest expenditure	4.2	3.9	3.6	3.3	3.2
— gross fixed capital formation	1.7	1.9	1.7	1.7	1.7
Primary balance ⁽²⁾	6.8	7.0	5.6	5.1	5.3
Pm Tax burden	49.6	49.9	49.3	49.0	49.0
Government debt	47.4	45.4	45.2	42.7	39.9
Pm Cyclically-adjusted balance	1.5	2.3	1.9	2.0	2.2
Pm Cyclically-adjusted primary balance	5.7	6.3	5.5	5.3	5.4

⁽¹⁾ Data exclude UMTS receipts amounting to 0.2 % of GDP in 2001.

⁽²⁾ In kind and other than in kind.

Source: Commission spring 2003 economic forecasts.

reduction strategy has mainly been implemented in order to prepare public finances for the budgetary impact of an ageing population. Sustainability calculations show that the public finances are in a good position to handle the impact of rising expenditure due to the ageing population. However, in order to make room for the targeted % average annual growth in real public consumption ⁽¹⁾, increases in labour force participation rates are needed to ensure the continued high surpluses.

Tax freeze and tax reform

When the current government took office late in November 2001, a novelty was introduced into Danish public finances as a tax freeze was implemented. This section deals with the implications of the tax freeze for expenditure control and tax reforms.

The tax freeze means that no direct or indirect tax — whether legislated in *kroner* or as a percentage — can be increased. Furthermore, a nominal ceiling has been put on the property value tax. However, if there are compelling reasons for introducing or raising a tax rate, another

tax rate has to be reduced by an amount which leaves total tax revenues unchanged ⁽²⁾.

The introduction of the tax freeze has several implications. First, the wording of the tax freeze is actually slightly misleading, as the implication of the tax freeze is a trend-wise reduction of the tax burden. The reduction of the tax burden stems from the fact that excise duties expressed in *kroner* and the tax base for property value tax are no longer adjusted in parallel with price increases, thereby eroding the effective value of revenues from these sources. The erosion is estimated to be around % of GDP between 2002 and 2010.

Second, given the overall target for public finances of a surplus of 1 –2 % of GDP every year, the tax freeze also has implications for the need for expenditure control. If the tax freeze is strictly implemented, it implies that the marginal budget improvement in order to secure the surplus will have to be taken on the expenditure side, as the tax side has to be taken as given. This would mark a break compared to the historic tradition,

⁽¹⁾ The multiannual target for public consumption growth has been 1 % for the years up to 2004, in 2004 and 2005 the target is % and from 2006 the target is reduced to %.

⁽²⁾ The definition of the tax freeze also covers user charges and fees, thereby covering all sources of income for the public sector.

Table VI.4

Key figures of the Danish convergence programme (2001–06)

	2001	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	1.0	1.5	2.2	1.8	1.7	n.a.
General government budget balance (% of GDP)	2.8	2.1	2.2	2.5	2.4	n.a.
Primary surplus (% of GDP)	4.3	3.4	3.3	3.5	3.3	n.a.
Government debt (% of GDP)	44.7	43.9	42.1	39.2	36.7	n.a.

Source: 2002 update of the convergence programme of Denmark.

where marginal budget improvements often have been found by increasing taxes.

A very tentative assessment might suggest that the tax freeze actually has acted as a mechanism of discipline of expenditure control for 2003, and thereby supported the achievement of a growth rate of real public consumption lower than 1 %.

The strict implementation of the tax freeze is, however, not given, as it implies adherence by all levels of government. In Denmark, counties and municipalities have completely autonomous taxing powers and they govern around two thirds of public consumption. Each year an agreement is made between central government and the associations of counties and municipalities concerning expenditures in counties and municipalities and the block grant from the State to these. These agreements are, however, not legally binding for individual counties and municipalities.

In order to ensure the implementation of the tax freeze, the government therefore announced that any breach of the tax freeze would be penalised by the central government. This penalising mechanism consists of central government recuperating the extra revenues earned from tax increases and using it for reducing State taxes, leaving the counties and municipalities with a higher tax burden, but no extra revenues.

Despite the announcement of a sanction mechanism, breaches of the tax freeze did occur in late 2002 when counties and municipalities made their budgets for 2003. This could perhaps be viewed as a test by counties and municipalities of whether the government would be willing and able to implement sanctions. However, counties and municipalities have so far only agreed to respect the tax freeze for 2003. No agreements have been made for subsequent years, and a risk therefore exists that the gov-

ernment might find it more and more difficult to enforce the tax freeze.

As mentioned previously, the tax freeze in itself implies a reduced tax burden over time. The reduction is achieved via reducing the tax burden on property and goods submitted to excise duties. It is not as a result of an explicit political prioritisation that the reduction in taxes falls on these items, but only a result of the fact that these tax rates happened to be expressed in terms of *kroner* and not in percentage terms, when the tax freeze was implemented.

Increasing the labour supply is considered to be one of the main challenges for the Danish economy, but the current prioritisation of where tax reductions are taking place as a result of the tax freeze does not seem to address this problem to any large degree.

Judging by comments made by leading ministers, a very strict interpretation has been chosen for the interpretation of when ‘compelling reasons arrive’ for changing a tax rate ⁽¹⁾, thereby effectively blocking for revenue-neutral tax reforms which might reduce further the taxes on earned income while increasing other tax rates.

The government has announced a tax reform from 2004 to 2007, especially intended to help increase the labour supply. The proposal includes an increase in the threshold for the intermediate bracket of the State tax and the introduction of an earned income tax credit. When fully implemented the tax reductions are estimated to be % of GDP by 2007.

The main objective of the reform is stated to be an increase in the labour supply by reducing marginal taxes.

⁽¹⁾ An example given of a reason for changing a tax rate is tax changes imposed by a decision within the EU.

However, the way the reform is constructed is probably one of the more expensive ways to increase the labour supply, so if this was the only target, more could have been achieved for the same costs by reducing the top State tax or further reductions to the intermediate State tax. It therefore appears that also there has been a strong eye to distributional effects in the proposal for the tax reform. This focus does not seem to be an obvious policy choice at the expense of increasing labour supply further, given the very equal income distribution in Denmark.

The overall reduction of % of GDP is larger than what had been announced as tax cuts within the governments

medium-term projection. However, if the induced labour supply effect is too small to achieve the targets set in the public finance strategy and further additional fiscal leeway cannot be found, consideration could be given to implementing a less rigid interpretation of when 'compelling reasons arrive' for changing a tax rate, in order to increase the scope for reducing taxes on earned income by a reprioritisation within the current tax framework. This would also be in line with the Council opinion on the Danish convergence programme 2001 in which the tax freeze was first presented, where it was noted that the tax freeze should not be an impediment to reductions of marginal taxes on labour.

3. Germany

Recent developments

Following a revised 2001 outcome of 2.8 % of GDP, the general government deficit is currently estimated to have reached 3.6 % of GDP in 2002. This rise in the deficit is mostly due to a marked shortfall in tax revenues compared with the official May 2002 tax estimate and another widening of the deficit in social security sectors. Not surprisingly, the debt ratio has breached the respective Treaty criterion by rising to close to 61 % of GDP by end-2002. With the 2002 general government deficit clearly above the respective reference value of the Treaty, the Council on 21 January 2003 decided that an excessive deficit existed in Germany. The Council *inter alia* recommended to the German government to implement up to 21 May 2003 the measures announced in the budget for 2003 amounting to 1 % of GDP and to bring the deficit below the 3 % of GDP reference value of the Treaty by 2004 at the latest.

The 'annual economic report' by the federal government implies — in line with the updated German stability programme of December 2002 — a decline in the nominal deficit to 2.8 % of GDP in the current year. However, the Commission's spring forecast for the 2003 deficit is clearly more pessimistic (3.4 % of GDP): this is mostly due to the Commission forecast for nominal GDP growth in 2003 being more than 1 percentage point of GDP lower than projected by the federal government in its annual economic report of January 2003. Furthermore, the government's deficit projection still incorporates a considerable rise in tax revenues from the tax amnesty and the *Steuervergünstigungsabbaugesetz*, which was, however, rejected by the Bundesrat on 14 March ⁽¹⁾. Finally, the Commission forecast does not incorporate all of the expenditure savings projected at the level of the Federal

Labour Office by the federal government. According to information available in early May 2003, the cyclically-adjusted balance would improve in 2003 by around 0.8 percentage points of GDP.

In 2004, accelerating growth conducive to employment creation should result in a more important fall in the nominal deficit, in spite of the implementation of the next step of income tax reform with a volume of 0.3 percentage points of GDP. The debt ratio, however, is projected to rise further to 63 % of GDP. Based on the standard no-policy-change assumption ⁽²⁾ and due not least to the planned tax cuts, the improvement in the cyclically-adjusted deficit in 2004 would be minor.

A low nominal rise in expenditures and strict expenditure control are indispensable to create the margin for the tax cuts planned for 2004 (0.3 % of GDP) and for 2005 (around 1 % of GDP). To make the achievement of the ambitious expenditure targets of the December 2002 update of the German stability programme more probable, a profound reform of social security systems is an absolute necessity.

Budgetary impact of current reforms

Following the general elections in September 2002, the reconfirmed federal government has embarked on a more ambitious course in economic policy matters: More courageous structural reforms are to be implemented with the overall objective of increasing the growth potential of the German economy and reducing unemployment. At the same time, the federal government claims that budgetary consolidation will

⁽¹⁾ In early April, this law was still under discussion in the 'Mediation Committee' (Vermittlungsausschuss) between the Bundestag and Bundesrat.

⁽²⁾ The spring 2003 deficit forecast for 2004 is based on the assumption of unchanged social security contribution rates. Furthermore, none of the measures announced by the Chancellor on 14 March could be taken into account, as some of them are not yet outlined in detail or have not yet been introduced into the legislative procedure.

Table VI.5

Composition and balances of general government, Germany ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	1.1	- 2.8	- 3.6	- 3.4	- 2.9
— Total revenue	47.0	45.5	45.0	45.4	45.5
Of which: — current taxes	24.6	23.0	22.6	23.0	23.2
— social contributions	18.6	18.5	18.4	18.6	18.5
— Total expenditure	45.9	48.3	48.6	48.9	48.4
Of which: — collective consumption	8.0	7.9	7.8	7.9	7.8
— social transfers ⁽³⁾	29.9	30.0	30.7	31.0	30.7
— interest expenditure	3.4	3.3	3.2	3.2	3.3
— gross fixed capital formation	1.8	1.7	1.6	1.6	1.6
Primary balance	4.5	0.5	- 0.4	- 0.2	0.3
Pm Tax burden	43.2	41.5	40.7	41.3	41.4
Government debt	60.2	59.5	60.8	62.7	63.0
Pm Cyclically-adjusted balance	- 2.1	- 3.0	- 3.3	- 2.6	- 2.4
Pm Cyclically-adjusted primary balance	1.3	0.3	- 0.1	0.6	0.8

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data for 2000 (except cyclically-adjusted) include UMTS receipts of 2.5 % of GDP.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

continue, in spite of some expenditure-raising measures announced in the meantime (for example, the investment programme for local public investment and the programme for the promotion of private construction — both announced by Chancellor Schröder on 14 March 2003).

Regarding the labour market, the first proposals presented in August 2002 by the Hartz Commission have already been implemented in January and in April 2003 (incentive schemes for older workers; creation of personal service agencies; gradual benefit phase-out for low income earners). Furthermore, the government has announced that further proposals in line with those advanced by the Hartz Commission would enter into force in 2004. In addition to the more structural measures, the rules for entitlement to *Arbeitslosenhilfe* (assistance for the long-term unemployed) have been tightened, as the income of the unemployed person's partner is now being taken into account.

For public finances, the overall impact of these measures is clearly positive, but in general difficult to quantify. The projections of the federal government in this regard appear very optimistic: Based on a real GDP growth forecast for 2003 of 1 %, the average number of unemployed is projected to reach 4.21 million, a rise by

150 000 on the preceding year. At the same time, the federal budget assumes that the Bundesanstalt für Arbeit (Federal Labour Office) — in stark contrast to 2002 — will need no federal transfers in the current year. In spite of a projected rise by 150 000 in the overall number of unemployed in 2003, the number of unemployed people entitled to *Arbeitslosengeld* is to decrease by 203 000, to a large part due to the implementation of the above-mentioned measures.

On 14 March, Chancellor Schröder in an official 'declaration of the government' to the Bundestag announced additional reform measures: regarding *Arbeitslosenhilfe*, the maximum period of entitlement shall be reduced to 12 to 18 months, from presently up to 32 months. The current benefit withdrawal for long-term unemployed taking up work will be reduced and the sanctions for those who refuse a job offer will be tightened. Finally, *Arbeitslosenhilfe* and *Sozialhilfe* (social assistance) are to be merged, with the benefit level of *Arbeitslosenhilfe* going down to the level of *Sozialhilfe*.

Without any doubt, these measures will increase incentives to take up a job instead of relying on social benefit payments which in the past often discouraged unemployed from accepting a job offer. Furthermore, they are

fully in line with the projections of the updated stability programme submitted by Germany in December 2002, which projected a clear decrease of the share of 'social transfers other than in kind' from a (rounded) 19 % of GDP in 2002 to 18 % in 2004 — the year when most of these measures are to be implemented.

Regarding healthcare, the government declaration of 14 March announced a whole catalogue of different measures: insurers are to gain stronger bargaining power

and shall be allowed to negotiate costs directly with doctors and the cost sharing by patients shall be increased to raise their cost awareness. The Chancellor also proposed that in the future employees should seek a private insurance for the continued salary payment in case of sickness, which is currently paid by the public health system.

According to the Chancellor, the overall aim of the reform of the public healthcare system is to bring the contribution rate down below 13 % of gross income

Table VI.6

Key figures of the German stability programme (2002–06)

	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	0.5	1.5	2.3	2.3	2.3
General government budget balance (% of GDP)	- 3.8	- 2.8	- 1.5	- 1.0	0.0
Primary surplus (% of GDP)	- 0.5	0.5	2.0	2.0	3.0
Government debt (% of GDP)	61.0	61.5	60.5	59.5	57.5

Source: 2002 update of the stability programme of Germany.

(from a currently estimated 14.4 %). While this target is highly welcome given the negative effect of current contribution rates on employment, the tax financing of the so-called *versicherungsfremden Leistungen* ⁽¹⁾ also announced by the Chancellor may constitute a risk to the very ambitious consolidation programme laid out in the most recent update of the German stability programme of December 2002. Furthermore, Mr Schröder remained elusive on some aspects, indicating only that parts of the necessary measures were being prepared by the respective ministries, while important questions regarding the financing part should be presented by the Rürup Commission in May.

Regarding the pension system, the government declaration conceded that the projections underlying the recent reform (*Riester-Rente*) have already proved too optimistic and underlined that he expected detailed proposals from the Rürup Commission on how to further adopt the pension system.

In his speech of 14 March, the Chancellor also announced measures aimed at liberalising regulations for crafts and at reducing bureaucracy, especially for small and

medium-sized companies. As had been frequently pointed out by the Commission in the past, the implementation of such measures appears very important to raise the currently very low growth potential of the German economy. However, their impact on public finances will, in the short term, probably be negligible. In the medium term, however, stronger average growth appears as the best way to put public finances on a sustainable basis.

All in all, the reform measures already implemented or currently discussed go into the right direction. However, at the current juncture, many proposals are not yet elaborated in such a way as to allow a final judgement on whether their implementation would allow the achievement of the very ambitious budgetary targets of the updated German stability programme of December 2002. In particular, it remains to be seen how courageous the proposals for the health and pension system turn out and whether the currently discussed reforms will actually be implemented.

In this regard, a reform of the social security systems, aimed at cutting expenditures and at bringing contribution rates down to acceptable levels appears as the best means to raise the growth potential of the German economy and to put public finances again on a sustainable basis.

⁽¹⁾ Benefits currently paid by health insurance systems, deemed not to be covered by contributions.

4. Greece

Recent developments

Despite strong economic growth in 2002, the general government deficit was only slightly reduced to 1.2 % of GDP from 1.4 % in 2001. The government gross debt fell after two consecutive years of increase but remained at a high level equal to 104.9 % of GDP in 2002.

The favourable domestic economic conditions in combination with measures of further containment of tax evasion and enhancement of the tax base contributed to an increase in total revenues at the targeted rate. However, the general government surplus of 0.8 % of GDP anticipated in the 2002 State budget and in the 2001 stability programme did not materialise, mainly due to the disappearance of the one-off effects of the UMTS-sale in 2001 and the reclassification of a number of operations which primarily affected the expenditure side and to a lesser extent government revenues. In addition, overruns in almost all categories of primary expenditures increased the deficit of the State budget to 3.5 % of GDP compared to the estimated 2.9 %. The primary surplus in 2002 declined to 4.3 % of GDP from 4.9 % achieved in 2001.

The 2003 State budget projects a central government deficit of 4.3 % of GDP corresponding to a general government deficit of 0.9 % of GDP. Notwithstanding the significant increase in the deficit of ordinary budget as well as in the deficit of public investment programme, the State budget deficit in percent of GDP is estimated to be the same as in 2002 as a result of the projected high GDP growth. On the other hand, the surplus of social security funds and local authorities which is estimated to slightly increase in 2003, appears to be the main factor shaping the foreseen reduction in the general government deficit ⁽¹⁾.

⁽¹⁾ According to the last notification (March 2003), the surplus of social security funds and local government amounted to 2.7 % of GDP in 2001 and is estimated to have been equal to 3.5 % of GDP in 2002.

According to the Commission forecasts, the general government deficit for 2003 is projected to stand at 1.1 % of GDP compared to an estimated 1.2 % of GDP in 2002. The deceleration in government consumption expenditures projected in the State budget could be considered rather optimistic ⁽²⁾. In fact, the uncertainty characterising some categories of expenditures, mainly wages, may result in an overshooting of the projected primary expenditures. The general government consolidated gross debt-to-GDP ratio is projected to stand at 101 % at the end of 2003, compared to 100.2 % estimated in the State budget and in the 2002 stability programme.

In the 2002 stability programme, a further improvement in the budgetary position is projected throughout the period covered by the programme. The central government deficit is expected to stand at 3.7 % in 2004 and to decline to 2.3 % in 2006. The general government deficit is projected to turn into a surplus from 2005 onwards and the government debt ratio is expected to decline by 12.3 percentage points in the period 2004–06, reaching 87.9 % of GDP at the end of 2006.

The projected progressive deceleration in primary spending, is subject to the risks mentioned above. Considering the foreseen slowdown in budget revenues, an overshooting of the projected spending would lead to a rather slower than the expected reduction in the general government debt-to-GDP ratio.

Revisions of budgetary data and their impact on the general government deficit and debt

In 2002, the bilateral discussions between Eurostat and the Greek statistical authorities led to a significant revi-

⁽²⁾ In the 2002 update of the stability programme government final consumption expenditure is estimated to increase by 2.5 % in 2003 compared to 6.7 % in 2002. However, according to revised data, in 2002 the general government consumption expenditure appears to have been increased by 11.5 % in nominal terms.

Table VI.7

Composition and balances of general government, Greece ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	- 1.9	- 1.4	- 1.2	- 1.1	- 1.0
— Total revenue	47.0	45.6	46.5	46.0	45.2
Of which: — current taxes	10.8	9.6	9.4	9.3	9.0
— social contributions	14.0	13.9	14.0	13.9	13.9
— Total expenditure ⁽²⁾	48.9	47.0	47.7	47.1	46.2
Of which: — collective consumption	9.7	9.3	9.7	9.5	9.4
— social transfers ⁽³⁾	22.6	22.2	22.5	22.4	22.2
— interest expenditure	7.0	6.3	5.5	5.2	4.9
— gross fixed capital formation	4.0	3.9	3.8	4.0	3.9
Primary balance ⁽²⁾	5.1	4.9	4.3	4.1	3.9
Pm Tax burden	38.8	36.6	36.4	36.2	35.7
Government debt	106.2	107.0	104.9	101.0	97.0
Pm Cyclically-adjusted balance	- 1.9	- 2.3	- 1.8	- 1.8	- 1.9
Pm Cyclically-adjusted primary balance	5.1	4.0	3.7	3.4	3.0

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data include UMTS receipts amounting to 0.5 % of GDP in 2001.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

sion of the Greek budgetary data for 2000 and 2001. In fact, the agreed changes resulted in an upward revision of the government debt ratio while the anticipated government surpluses for 2001 and 2002 turned into deficits. The slow decline in the debt ratio from 1997 onwards, has been reversed and in fact, the debt ratio increased both in 2000 and 2001.

The reclassifications required by Eurostat, were related to large debt management financial operations that have been reflected in the unusually high stock-flow adjustments as well as to government expenditures previously excluded from the budget ⁽¹⁾. Specifically, the increase in general government deficit for the years 2000 and 2001 resulted from treating debt assumptions as well as capital injections to public enterprises as capital transfers. Moreover, before the adjustments, the debt management related financial operations were either not included or incorrectly treated in government books creating a picture of government balances not corresponding to the actual evolution of the debt-to-GDP ratio. Thus, the treatment of debt creating financial operations

according to generally accepted practices is expected to improve the transparency and credibility of the Greek budgetary accounts.

The reclassified operations can be grouped into the following categories:

- *Capital injections.* The treatment of capital injections (that is of increases in the share capital of public enterprises) in the ESA government accounts is not straightforward. These transactions are recorded as financial transactions, without any direct impact on the government deficit, when the national accountants consider that the government is acting as a shareholder, which provides funds and expects to receive property income in future. However, when the capital injections are no more than a grant that is paid to cover losses or to compensate the company for public services, the transaction should be recorded as government expenditure and included in the government deficit. In the case of Greece, Eurostat considered that the distinction between these two cases was not strict enough and asked the Greek statistical service to record capital injections to a group of enterprises in the deficit.

⁽¹⁾ The large financial operations which affected the evolution of the debt ratio were mirrored in the stock-flow adjustments which reached 7.1 % of GDP in 2001 and stood at 3.7 % of GDP in 2002.

Table VI.8

Key figures of the Greek stability programme (2001–06)

	2001	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	4.1	3.8	3.8	4.0	3.7	3.6
General government budget balance (% of GDP)	- 1.2	- 1.1	- 0.9	- 0.4	0.2	0.6
Primary surplus (% of GDP)	5.1	4.4	4.4	4.6	5.0	5.2
Government debt (% of GDP)	107.0	105.3	100.2	96.1	92.1	87.9

Source: 2002 update of the stability programme of Greece.

- *Debt assumptions.* According to the ESA95 rules, the assumption of State guaranteed debt of public or private companies, is recorded as capital transfer, that is a government expenditure. However, Greece used to register debt assumptions as financial transactions and not as government expenditure.
- *Coinage.* In Greece, as in most EU Member States, coins are issued by the Treasury and are a component of government debt. This implies that the proceeds collected by government at the issuance of coins have a financial nature and therefore do not have any direct favorable effect into the deficit ⁽¹⁾. However, in Greece, the coinage proceeds used to be recorded as government revenue and improved the deficit. The correction of this accounting inconsistency had a negligible impact on the years before 2002, since the regular issuance of coins is very small. However, for 2002, the impact was quite considerable since it was the year that the whole stock of coins in circulation was replaced because of the euro cash changeover.
- *Securitisation.* The Greek government has been relatively active in securitising expected future revenue. The Greek statistical authorities used to record the securitisation proceeds outside the government deficit and therefore the Eurostat decision of July 2002 did not have any impact on the Greek government deficit. However, Eurostat also decided that the proceeds collected through securitisation should be treated as loans and therefore included in the government debt.
- Finally Eurostat considered that, according to the ESA95 rules, share exchangeable and share convert-

ible bonds should be treated as the normal government bonds and should be included in the stock of government debt.

The agreed total revisions of budgetary accounts amounted to 1.3 % of GDP in 2001 and 1.9 % of GDP in 2002. Correspondingly, the debt ratio was revised by 7.3 percentage points in 2001 and 8.0 percentage points in 2002.

Specifically, in 2001 more than half of the revision of the general government deficit was accounted for by the capital injections to public enterprises. The rest of the adjustments resulted almost entirely from debt assumptions, whereas the impact on interest payments was less than 0.1 % of GDP.

Overall, the estimated surplus of 0.1 % of GDP reported in the September 2002 notification was turned into a deficit equal to 1.2 % of GDP in the revised notification submitted in November 2002, whereas in the March 2003 notification the general government deficit for 2001 was further raised to 1.4 % of GDP due mainly to an increase in public investment and interest payments.

Concerning government debt, an amount equal to 5.4 % of GDP related to proceeds from securitisation of future revenues and share convertible bonds was already included in the debt in the September 2002 notification. However, the proceeds from share exchangeable bonds, added an amount equal to 1.9 % of GDP raising the government debt to 107 % of GDP from 105.1 % of GDP reported in the September 2002 notification.

In 2002, the reclassification of capital injections to public enterprises raised government deficit by 0.7 % of GDP while debt assumptions added another 0.2 % of GDP to the deficit. In the same year an amount equal to 0.4 % of GDP, representing proceeds from coinage, was

⁽¹⁾ In fact, there is even a small detrimental impact into the government deficit as the cost of minting the coins is recorded as government expenditure.

excluded from government revenues. Moreover, the general government deficit for 2002 was further increased by 0.6 % of GDP due mostly to the budgetary outcome of the year, reaching 1.9 % of GDP. Thus, the estimated surplus of 0.8 % of GDP reported in the 2001 update of the stability programme turned into a deficit of 1.1 % of GDP. The same deficit is reported in the 2002 update while the March 2003 notification reports a higher deficit equal to 1.2 % of GDP due to higher public investment spending.

Government debt was similarly revised upwards by 8 % of GDP in 2002, the main contributors to this increase being the same as in 2001. Thus, the estimated government debt of 97.3 % of GDP reported in the 2001 update of the stability programme was revised up to 105.3 % of

GDP in the 2002 update. However, the March 2003 notification reports a slightly lower debt ratio equal to 104.9 % of GDP due to a higher than the previously estimated increase in GDP.

The correction of budgetary data while improving the credibility of the Greek public accounts points at the same time to the imperative need for further and more decisive consolidation of the Greek public finances. All the adjustments in the budgetary data were linked to current expenditures indicating the persisting pressures for increases in public spending even under the favourable conditions of strong growth. Additional measures are therefore required to limit current spending and bring down the debt ratio at a faster pace in view of the expected budgetary costs from an ageing population.

5. Spain

Recent developments

Since the mid-1990s, Spain's fiscal strategy, based on expenditure restraint, has been successful in reducing the general government deficit from 6.6 % of GDP in 1995 to 0.1 % in 2002. In the same period, the debt-to-GDP ratio declined from 63.9 % in 1995 to 54.0 % in 2002. While fiscal consolidation was supported by the strong expansion of the economy until mid-2001, the reduction of the deficit continued in 2001–02. The balanced budget in 2002 was obtained thanks to revenue buoyancy, supported by relatively strong domestic demand and employment creation, coupled with savings on public consumption and interest payments. In particular, the corporate income tax posted a record increase (24 % on a cash basis) due to a surge in declared capital gains following the introduction of a favourable regime for their reinvestment. Additionally, civil service pay was increased below the CPI inflation rate, helping to moderate public consumption. Finally, the interest payments fall reflected both the decreasing debt burden and lower interest rates. In cyclically-adjusted terms, the fiscal stance in 2002 can be regarded as slightly restrictive.

As a result, the GDP share of current resources rose to 39.5 % in 2002 (39.0 % in 2001) while total current expenditure remained broadly stable at 35.3 % of GDP (35.1 % in 2001). The slight increase in public saving as a percentage of GDP was accompanied by the marginal increase in the share of gross capital formation, reaching 3.3 % of GDP in 2002.

In the baseline scenario of the 2002–06 updated stability programme, a target of a general government balanced budget is envisaged for 2003 and 2004 (maintaining the target for 2003 and revising only marginally the target for 2004 with respect to the previous update). Targets for 2005 and 2006 are small surpluses of 0.1 % and 0.2 % of GDP respectively. The primary surplus is set to remain broadly unchanged at close to 2.7 % of GDP throughout the programme period.

The debt-to-GDP ratio is expected to continue to decline by around 2 percentage points every year throughout the programme period, falling below 47 % of GDP by 2006. These objectives assume the economy grows at a rate close to potential (3 %) between 2003 and 2006 with higher inflation compared with the previous update (average annual growth of the GDP deflator of 2.8 % and 2.5 % respectively). The fiscal strategy continues to rely on restraint of primary current expenditure, supported by lower interest payments, while allowing for a strengthening of public investment. The programme incorporates the effects of the recently implemented reform of personal income tax, with an estimated direct cost of 0.4 % of GDP in 2003 and 2004 (see next section for details).

Finally, the programme incorporates the full effect of the new financial system for regional governments, which has involved further decentralisation of tax and spending powers. The parallel implementation of the General Law of Budgetary Stability, which prescribes that all public entities have to present their accounts in balance or in surplus ⁽¹⁾, is meant to provide further support to the consolidation strategy in a context of higher fiscal decentralisation.

For 2003, the target of a general government balanced budget is being tested given the worsening in the macroeconomic scenario and the implementation of the personal income tax reform. By comparison, the Commission forecasts a deficit of 0.4 % of GDP based on GDP growth of 2.0 %, reflecting also a less optimistic assessment of the effects of the tax reform on domestic demand. However, for the rest of the projection period fiscal objectives appear to be based on cautious growth assumptions and seem attainable (for comparison, the Commission services forecast a GDP growth of 3 % and a slight deficit of 0.1 % in 2004 on an unchanged policy

⁽¹⁾ Deficit budgets can be presented in certain circumstances if justified and returning to balance or surplus within the three-year planning period (see the case study on Spain's General Law of Budgetary Stability in Chapter V.5).

Table VI.9

Composition and balances of general government, Spain

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽¹⁾	- 0.9	- 0.1	- 0.1	- 0.4	- 0.1
— Total revenue	39.0	39.2	39.6	39.3	39.5
Of which: — current taxes	22.2	21.8	22.6	22.3	22.4
— social contributions	13.3	13.6	13.5	13.5	13.5
— Total expenditure ⁽²⁾	39.9	39.3	39.7	39.8	39.6
Of which: — collective consumption	7.5	7.4	7.5	7.6	7.6
— social transfers ⁽²⁾	22.4	22.3	22.6	22.8	22.7
— interest expenditure	3.3	3.1	2.9	2.7	2.5
— gross fixed capital formation	3.1	3.2	3.3	3.4	3.4
Primary balance ⁽²⁾	2.5	3.0	2.8	2.2	2.4
Pm Tax burden	35.7	35.6	36.1	35.9	35.8
Government debt	60.5	56.9	54.0	52.5	50.5
Pm Cyclically-adjusted balance ⁽¹⁾	- 1.6	- 0.8	- 0.4	- 0.4	- 0.1
Pm Cyclically-adjusted primary balance ⁽¹⁾	1.7	2.3	2.5	2.3	2.4

⁽¹⁾ Data exclude UMTS receipts amounting to 0.1 % of GDP in 2000.

⁽²⁾ In kind and other than in kind.

Source: Commission spring 2003 economic forecasts.

Table VI.10

Key figures of the Spanish stability programme (2001–06)

	2001	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	2.7	2.2	3.0	3.0	3.0	3.0
General government budget balance (% of GDP)	- 0.1	- 0.2	0.0	0.0	0.1	0.2
Primary surplus (% of GDP)	3.0	2.7	2.8	2.7	2.7	2.7
Government debt (% of GDP)	57.1	55.2	53.1	51.0	49.0	46.9

Source: 2002 update of the stability programme of Spain.

basis). All in all, the underlying budgetary position improves by over a percentage point over the programme period, to a surplus of 0.3 % of GDP in 2006.

**The new income tax reform in Spain:
main features and implications**

Main features of the new tax reform

The new personal income tax was approved at the end of 2002. The 2003 income tax declaration on incomes earned in 2002 will still be based on the previous system and the first tax declaration according to the new tax rules will be submitted in June 2004. However, the effects of this reform are already evident in 2003 as the

new tax rates are currently being applied to income subject to withdrawal at the source.

The reform introduces fewer and smaller changes than the previous reform adopted in 1998 of which the new reform is considered to be a continuation. Accordingly, the measures aim at simplifying further the tax system, by lowering the number of tax brackets, and increasing the income threshold below which an individual is no longer required to file a tax return. The major changes can be summed up as follows:

Minimum and maximum marginal rates are lowered from 18 and 48 % to 15 and 45 % respectively (20 and 56 % in the income tax prevailing up to 1998). In turn,

the number of tax brackets is reduced from six to five (see Table 1).

The minimum level of earned income which implies the obligation of filling a tax return is increased to EUR 22 000 when this income stems from a single wage earner compared to EUR 21 035 in the previous system ⁽¹⁾. The new tax keeps the concept of taxable income introduced in the 1998 reform: taxable income is obtained after deducting a tax-free allowance, the so-called 'exempted minimum living standard', which replaced a vast set of tax reliefs. As in the previous scheme, this tax-exempt minimum living standard varies depending on personal and family circumstances. However, these thresholds have now been raised. For instance, the basic individual exempted income increases by 2.8 % to EUR 3 400.

The reform introduces a more favourable fiscal treatment for some disadvantaged groups to promote their insertion in the labour market and raise employment. Specifically, tax reliefs for working women with children (EUR 1 200 for every child aged below three); higher tax reliefs for unemployed workers accepting a job implying geographical mobility; tax advantages for disabled workers and workers aged above 65.

With a view to remedying low geographic mobility of workers, partially attributable to the poor functioning of the housing market, the new income tax establishes fiscal advantages for letting of accommodation. This includes a relief of 25 % of net rental income an additional relief of 25 % for five years for housing at present unoccupied and let before the end of 2004.

A more favourable fiscal treatment of income from capital in the reform is targeted at promoting saving. In particular, realised capital gains (net worth gains) on assets held for more than one year are now taxed at 15 % (18 % previously), while tax relief for capital incomes from assets held for more than two years is raised to 40 from 30 %. In addition, capital gains obtained from investment funds will not be taxable as long as they are reinvested in other funds.

Private pension plans are promoted by raising the thresholds to be deducted in the tax base. In addition, pension

insurance contracts are to have a similar fiscal treatment as pension funds when the main purpose of the insurance policy is long-term saving for retirement.

Finally, the withholding tax rate applied to interest from deposits, capital gains stemming from share sales and other non-labour incomes is lowered from 18 to 15 % in line with the minimum marginal income tax.

A tentative assessment of the new income tax

The new income tax regime does not change dramatically the existing structure put in place by the 1998 tax reform. However, the reform is likely to reinforce the reduction in the share of taxation directly paid by households observed since the mid-1990s. According to official estimates, the current reform will involve a reduction of the effective average income tax rate of 11 %, while by level of income the impact is officially estimated as being progressive. However, estimates carried out by independent researchers highlight an uneven impact of the reform with a significant reduction in the effective average tax rate occurs only for the lowest and the highest income brackets ⁽²⁾; marginal tax rates for middle-range incomes are broadly unchanged.

The reform can be expected to boost the labour supply given the reduction in the marginal tax rate at the bottom of the income scale. The tax relief introduced for working women with children aims at increasing the female employment rate, which at present is very low. It might also have some positive impact on the fertility rate which is one of the lowest among developed countries. The fiscal rebates on labour incomes for workers aged above 65 could also have positive effects on the labour participation of older workers.

The more favourable taxation of unemployed workers accepting a job offer implying a move to another place of residence is a positive measure, given the low labour mobility in Spain and the wide disparities in unemployment between regions. Nevertheless, mobility is unlikely to increase significantly in the absence of a reform of the current benefit system and a better functioning of the housing market. In this respect, the new fiscal treatment of letting of accommodation might imply an increase in the current rather limited supply of this kind in Spain. However, some doubts arise on the final effect of this measure, given the absence of reduction in the current

⁽¹⁾ According to the Spanish Statistical Institute, the average gross wage (including non-labour costs) in annual terms is estimated at approximately EUR 23 450.

⁽²⁾ See, for example, Pampillon and Raymond (2002).

fiscal relief for housing purchase, which is more favourable than that envisaged for letting.

In general, the new income tax contains positive measures to encourage labour participation and improve the functioning of labour market. However, a fuller assessment will only be possible after a certain period of time.

As for the fiscal treatment of saving, a positive aspect of the new income tax refers to long-term savings related to retirement. The rise in the annual thresholds to qualify for tax relief for private pension contributions is a positive measure in the light of the future financial pressures on the public pension system stemming from ageing. Likewise, the tax exemption for capital gains realised on an investment fund and reinvested in another fund should promote saving. Additionally, this measure is expected to increase competition not only among different types of funds but also among financial institutions.

Regarding the macroeconomic and budgetary impact, according to government estimates the income tax reform will add 0.5 percentage points to GDP growth (although whether this impact takes place over one or two years is not specified). The estimated loss of revenues is set at 0.3 % of GDP in 2003, including the second-round effects caused by the reform. This estimate might prove optimistic: given the average tax reduction of 11 %, the cost of the reform excluding second-round effects could be roughly estimated at around 0.6 % of GDP. As to the effects on growth, both in terms of immediate impact and second-round effects, an econometric simulation performed with the Commission QUEST model suggests that the impact of the reform on GDP growth is an increase by 0.1 % in 2003. In the medium term, this impact is estimated as adding around 0.2 percentage points per year to GDP between 2004 and 2006.

Table VI.11

Main features of recent tax reforms

1998 income tax				2002 income tax			
Net tax base up to EUR	Taxable income	Rest up to EUR	Marginal tax rate	Net tax base up to EUR	Taxable income	Rest up to EUR	Marginal tax rate
0.00	0.00	3 678.19	18.0	0.00	0	4 000	15.0
3 678.19	662.07	9 195.48	24.0	4 000.00	600	9 800	24.0
12 873.70	2 868.99	12 260.64	28.3	13 800.00	2 952	12 000	28.0
25 134.32	6 338.75	15 325.80	37.2	25 800.00	6 312	19 200	37.0
40 460.30	12 039.95	26 973.42	45.0	45 000.00	13 416	—	45.0
67 433.55	24 177.99	—	48.0	—	—	—	—

6. France

Recent developments

In 2002, the situation of French public finances deteriorated markedly. The general government deficit reached 3.1 % of GDP, thus breaching the 3 % of GDP reference value of the Treaty. This outcome is to be compared with a general government deficit of 1.4 % of GDP planned by the French authorities in the Finance Law for 2002. For the first time since 1998, the general government debt ratio increased in 2002, reaching 59.1 % of GDP, up from 56.8 % of GDP in 2001. The larger part of the slip-page in the 2002 general government deficit is due to a deterioration in the cyclically-adjusted budget position: according to Commission calculations, the cyclically-adjusted balance worsened by 1.1 percentage points of GDP in 2002, to reach 3.3 % of GDP. This results from (1) an overrun in expenditures, (2) the implementation of tax cuts worth percentage point of GDP, and (3) a relatively low tax-to-GDP elasticity. The remaining reflects a base effect due to the incorporation in the deficit of a capital injection in the firm RFF (Réseau Ferré de France), worth 0.1 percentage point of GDP, and the impact of adverse cyclical developments. Indeed, real GDP grew by 1.2 % last year, as against 2.5 % projected in the budget for 2002. According to Commission calculations, the cyclical component of the deficit worsened by 0.5 percentage points of GDP in 2002.

The developments in public finances in 2002 provide evidence of the existence of an excessive deficit position in France. The Commission has therefore decided in March 2003 to initiate an excessive deficit procedure (EDP) in the case of France. This procedure follows the early warning issued by the Council in January 2003, and recommending that France 'ensures that the 3 % of GDP reference value for the general government deficit will not be breached in 2003'. A recommendation to the Council to recommend to France measures to correct the excessive deficit has been adopted by the Commission on 7 May 2003 and is expected to be endorsed by the Ecofin Council on 3 June.

However, under current policies, French public finances are expected to deteriorate further in 2003: the budget for 2003 does not contain measures reducing sizeably the underlying deficit and unfavourable cyclical developments will continue weighing on fiscal revenues. The general government deficit is projected by the French authorities to reach 3.4 % of GDP, and by the Commission to reach 3.7 % of GDP. In the same year, the gross government debt is projected by the Commission and the French authorities to breach the 60 % Treaty reference value.

These projections are subject to downside risks. In particular, after a year of freeze in real wages, wage claims by unions in the central government sector could trigger stronger than projected current expenditures. This effect could overlap with the financing of the priorities of the new government in the field of national security. On the other side, the French authorities decided to cancel expenditures worth 0.1 % of GDP, and to freeze credits for an amount of 0.15 % of GDP. However, as long as they are not cancelled, the credits frozen can still be spent in the current budgetary exercise.

In 2004, despite the acceleration in economic activity to a close to potential rate, the general government deficit is projected by the Commission, under a no policy change assumption, to decrease only marginally to 3.5 % of GDP. The decline in the deficit in 2004 will be burdened by the lagged impact of the low 2003 GDP growth on fiscal revenues. The French authorities expect a stronger decline in the government deficit in 2004 to 2.9 %. This forecast is based on the assumption that measures ensuring an improvement in the cyclically-adjusted balance by 0.5 percentage point of GDP in 2004 will be implemented in the budget for that year.

The urgency of reforming the French pension system

As in many other European countries, public finances in France will face problems arising from ageing popula-

Table VI.12

Composition and balances of general government, France ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	- 1.4	- 1.5	- 3.1	- 3.7	- 3.5
— Total revenue	51.2	51.0	50.5	50.3	50.3
Of which: — current taxes ⁽³⁾	27.7	27.5	25.5	25.5	25.5
— social contributions	16.3	16.3	16.3	16.3	16.3
— Total expenditure ⁽⁴⁾	52.6	52.5	53.7	54.1	53.8
Of which: — collective consumption	9.3	9.2	9.3	9.3	9.2
— social transfers ⁽⁴⁾	31.7	31.7	32.8	33.2	33.2
— interest expenditure	3.1	3.1	3.2	3.2	3.3
— gross fixed capital formation	3.2	3.1	3.1	3.1	3.0
Primary balance ⁽⁴⁾	1.7	1.6	0.0	- 0.5	- 0.2
<i>Pm</i> Tax burden	45.0	44.7	44.0	43.8	43.9
Government debt	57.2	56.8	59.1	61.8	63.1
<i>Pm</i> Cyclically-adjusted balance	- 2.3	- 2.2	- 3.3	- 3.5	- 3.3
<i>Pm</i> Cyclically-adjusted primary balance	0.9	0.9	- 0.3	- 0.3	0.1

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data include UMTS receipts amounting to 0.1 % of GDP in 2001.

⁽³⁾ Taxes on production and imports and current taxes on income and wealth.

⁽⁴⁾ In kind and other than in kind.

Source: Commission services.

Table VI.13

Key figures of the French stability programme (2002–06)

	2001	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	1.8	1.2	2.5	2.5	2.5	2.5
General government budget balance (% of GDP)	- 1.4	- 2.8	- 2.6	- 2.1	- 1.6	- 1.0
Primary balance (% of GDP)	1.7	0.4	0.6	1.0	1.5	2.0
Government debt (% of GDP)	56.8	58.7	59.1	58.9	58.3	57.0

Source: 2002 update of the stability programme of France. The figures presented from 2004 are those of the 'cautious' scenario of the stability programme, which projects real GDP growth at 2.5 % as from 2004 and was considered by the Commission as the most plausible one.

tion over the next decades. Existing projections show that the old-age dependency ratio will increase rapidly, to almost double between 2000 and 2050. In the absence of further reforms, the share of pension expenditures to GDP will increase by around 4 percentage points of GDP over the next 40 years. The pension system, today broadly balanced, could then post a deficit as high as 3.8 % of GDP in 2040.

While the magnitude of ageing comparable in France to that expected in the other EU countries, the timing will be somewhat different, as the larger part of the demographic change will occur earlier in France than in most

other EU countries. Pension expenditures will start increasing faster than GDP as from 2005, and the growth differential will widen markedly as from 2010. Pension expenditures are projected to increase by 3 percentage points of GDP in France between 2000 and 2020, and by only 1 percentage point of GDP on average in the EU.

Therefore, reforming the pension system in view to ensure its financial sustainability is urgent. The French authorities committed themselves to implement a comprehensive reform of the pension system before the summer 2003. This commitment follows a long period of broad consultations with the social partners. Since the

implementation of the reforms of 1993 and 1995, which increased the number of contribution years giving right to a full pension, the main new measure has been the creation of a Pension Reserve Fund in 1999. This Fund is projected to have accumulated assets for a total amount of 10 % of GDP in 2020 and is only intended to smooth the financial shock during the retirement of the early baby boom cohorts. Indeed, the assets of the fund will be largely insufficient to cover increased spending on pensions.

Limited information has been released up to now on the main lines along which the reform will be based (see Box VI.I). However it appears likely that a driving principle is to safeguard the compulsory schemes financed on a pay-as-you-go basis, which the national strategy report regards as an essential condition for inter- and intra-generational solidarity. The reinforcement of the third pillar, based on encouraging private saving, seems also to be among the intentions of the current government, as well as the willingness of putting on a more equal footing conditions for retirement in the public and in the private sectors.

In this context, any possible reform of the pension system will necessarily be organised around the modification of the three essential parameters of the system: (1) the replacement ratio, (2) the rate of social contributions, and (3) the retirement age. The reform will probably rely on a change of all these parameters. Indeed, according to

the estimates presented by the French authorities in the national strategy report on pensions, achieving the sustainability of the pension system changing only one of these parameters would require too large an effort. Current estimates show that solving the problem via a reduction in the replacement ratio alone requires a reduction of this parameter by more than 30 percentage points. In the same vein, changing only the average retirement age would necessitate an increase by at least six years of the contribution period, and relying only on increasing social contributions would imply an increase in the labour cost by more than 6 %.

If this latter option was to be followed, the resulting increase in the labour cost would be huge and could have strong negative effects on labour demand. It is indeed generally accepted that a rise in the labour cost by 1 percentage point reduces the demand for labour by 0.3–0.5 percentage points. This option would not be fully compatible with the Lisbon strategy, neither satisfy the objective of fairness across generations.

Finally, in France still exists a large scope for increasing the effective retirement age by encouraging labour supply of older people as the employment rate of older workers is among the lowest in the EU. This could be achieved notably by strengthening the link between contribution and benefits in order to increase the incentives to remain at work when entering in more mature cohorts.

Box VI.I: Main features of the French pension system

The French pension system is based on compulsory pay-as-you-go schemes, which cover 98 % of total pension expenditure and are financed by social security contributions and taxes. The larger scheme is the general scheme which covers the majority of workers of the private sector. Civil servants and State enterprise employees are covered by a variety of special schemes, which are generally more generous than those for private sector employees. The basic schemes contain solidarity elements and give pension on the basis of the number of contribution years. Alongside the basic schemes, compulsory complementary schemes exist, which cover workers by category (AGIRC for managers and for ARRCO other employers). The benefit formula of these supplementary schemes is based on a point system and ensures a close link between contributions and benefits.

On its current form, the system is relatively generous compared to other countries. Indeed, the legal retirement age, set at 60, and the effective average retirement age, currently at 58.7 years according to Eurostat, are among the lowest in the EU. The replacement ratio is relatively high in France compared to other EU countries, and retired households are at no higher risk of poverty than other households, as a minimum level is guaranteed. The current system provides weak incentives to contribute beyond the age at which a full pension entitlement is acquired.

7. Ireland

Recent developments

After five years of surpluses, with a peak of 4.3 % of GDP in 2000, the out-turn for the general government balance in 2002 is estimated to have been a negligible deficit of 0.1 % of GDP (or 0.2 % of GDP excluding UMTS receipts), around percentage point below target ⁽¹⁾. As in 2001, the deviation from target is due to a large tax undershoot and some expenditure overruns (on a general government basis). While cyclical developments are undoubtedly in part to blame for the large revenue shortfalls of the past two years, difficulties seem to have arisen in accurately costing tax packages and forecasting revenues. Regarding expenditure in 2002, savings on interest payments and public investment partly compensated for overruns on current primary spending. Given high nominal growth, the debt-to-GDP ratio, which has been the second-lowest in the EU since 2000, fell by three percentage points to one third of GDP at the end of 2002.

The cyclically-adjusted balance is estimated to have deteriorated by almost 1 percentage point of GDP in 2002. Although calculations of the output gap are subject to a particularly large margin of error in Ireland, this points to a discretionary easing of budgetary policy in 2002 rather than broadly neutral as planned in the previous update of the stability programme 2002–04 and as recommended by the broad economic policy guidelines for 2002. By the same measure, fiscal policy was loosened by more than 3 percentage points of GDP over the period 2000–02.

By contrast, the budget plans for 2003, unveiled on 4 December 2002 together with the new stability programme 2003–05, implement a tightening of fiscal

policy by some % of GDP. The budget for 2003 ⁽²⁾ increases the tax take by 0.9 % of GDP compared to a no-policy change scenario, two thirds of which comes from increases in indirect taxes and stamp duties. On the expenditure side, a 1 % cut in nominal capital spending (which translates into a very significant real cut in view of high construction inflation) makes room for increased current spending. Even so, the budget plans a marked reduction in the growth rate of current discretionary expenditure ⁽³⁾, to 8 % for 2003 from 15 % in 2002 and 22 % in 2001. The main measures regarding current spending are a relatively modest social welfare package and a rise in the public sector pay and pensions bill by 11 % ⁽⁴⁾.

The original budget-day target for the general government balance in 2003, a deficit of 0.7 % of GDP, was revised to 0.8 % in March ⁽⁵⁾. The Commission spring 2003 economic forecasts project a slightly better outcome, with a deficit of 0.6 % of GDP for 2003, corresponding to a restrictive fiscal stance. In 2004, the deficit is expected to widen further to 0.9 % of GDP (on a no-policy change basis).

According to the updated stability programme, the general government deficit is projected to reach 1.2 % of GDP in 2004 and to remain at that level in 2005. These targets incorporate technical provisions for unspecified future budget measures with a full-year cost of 0.7 % of GDP in each year, which is subject to review ‘in light of emerging economic conditions’. They also include

⁽¹⁾ For this assessment, the original budget-day target (+0.7 % of GDP) has been adjusted to (i) include UMTS receipts of 0.2 % of GDP and (ii) exclude a transfer from the Central Bank of 0.5 % of GDP which had to be reclassified below the line.

⁽²⁾ The rest of this paragraph is based on the budget plans in terms of the Exchequer cash accounts.

⁽³⁾ This refers to the concept of ‘voted’ current spending, for which annual approval by Parliament is needed and which excludes, *inter alia*, the service of the national debt and the contribution to the EU budget.

⁽⁴⁾ This includes a provision of 0.4 % of GDP for payment of the first quarter of the ‘benchmarking’ awards (backdated to December 2001). The benchmarking process was initiated in mid-2000 to adjust pay rates in the public sector by reference to rates in the private sector for comparable jobs. The benchmarking body’s report of mid-2002 recommended pay increases differentiated by grade, leading to an 8.9 % rise in public sector pay costs with an estimated full-year cost of 0.8 % of GDP.

⁽⁵⁾ From the March 2003 reporting of government deficits and debt levels in accordance with Council Regulation (EC) No 3605/93, as amended by Council Regulation (EC) No 475/2000.

Table VI.14

Composition and balances of general government, Ireland

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽¹⁾	4.3	1.1	-0.2	-0.6	-0.9
— Total revenue	36.4	35.2	33.7	33.5	32.8
Of which: — current taxes	26.8	25.2	23.9	23.9	23.4
— social contributions	5.6	5.8	5.7	5.6	5.6
— Total expenditure ⁽¹⁾	32.0	34.1	33.9	34.1	33.7
Of which: — collective consumption	5.2	5.5	5.7	5.8	5.8
— social transfers ⁽²⁾	16.7	17.8	18.2	18.7	18.4
— interest expenditure	2.1	1.6	1.4	1.5	1.5
— gross fixed capital formation	3.7	4.6	4.4	3.9	3.8
Primary balance ⁽¹⁾	6.5	2.7	1.1	0.9	0.6
<i>Pm</i> Tax burden	32.1	30.7	29.3	29.2	28.7
Government debt	39.3	36.8	33.3	33.4	33.3
<i>Pm</i> Cyclically-adjusted balance ⁽¹⁾	2.6	0.0	-0.9	-0.3	0.1
<i>Pm</i> Cyclically-adjusted primary balance ⁽¹⁾	4.6	1.5	0.4	1.2	1.6

⁽¹⁾ Data exclude UMTS receipts amounting to 0.2 % of GDP in 2002.

⁽²⁾ In kind and other than in kind.

Source: Commission spring 2003 economic forecasts.

Table VI.15

Key figures of the Irish stability programme (2003–05)

	2001	2002	2003	2004	2005
Real GDP growth (annual % change)	5.7	4.5	3.5	4.1	5.0
General government budget balance (% of GDP) ⁽¹⁾	1.6	-0.5	-0.7	-1.2	-1.2
Primary surplus (% of GDP) ⁽¹⁾	3.1	1.0	0.9	0.3	0.4
Government debt (% of GDP)	36.7	34.1	34.0	34.5	34.9

⁽¹⁾ Data exclude UMTS receipts amounting to 0.2 % of GDP in 2002 and include contingency provisions (against unforeseen developments) of 0.4 % of GDP in 2004 and 0.8 % of GDP in 2005.

Source: 2002 update of the stability programme of Ireland.

contingency provisions (against unforeseen developments) of 0.4 % of GDP in 2004 and 0.8 % in 2005. In cyclically-adjusted terms, the targets for 2004–05 imply a broadly neutral stance, but, excluding the contingency provisions, would have a tightening bias. The debt ratio is projected to rise by less than 1 percentage point over the programme period, to just below 35 % by 2005. Without the build-up of non-general government assets in the National Pensions Reserve Fund (NPRF) ⁽¹⁾, however, the (gross) debt ratio would continue to fall to 2005.

⁽¹⁾ The NPRF receives 1 % of GNP annually from general government resources. At the end of 2002, it was worth over 7 % of GNP.

Recent initiatives on expenditure management

Driven by the need to improve infrastructure and public services, discretionary spending almost doubled between 1997 and 2002 ⁽²⁾. The occurrence of overruns and concerns about securing ‘value for money’ raise the issue of whether control and management systems are adequate. This section reviews progress on implementing the recommendations on expenditure management in

⁽²⁾ Total ‘voted’ spending (see above) rose by 92.4 %.

the 1996 report 'Delivering better government' (DBG), thereby putting the range of measures taken or announced since 2002 in context ⁽¹⁾.

In 1994, the *strategic management initiative* (SMI) was launched to enhance the quality of public services. As a follow-up, the DBG report proposed to change management structures, human resource management and financial management systems ⁽²⁾. Concerning the latter, it made the following recommendations.

Firstly, DBG favoured moving to *multiannual budgeting*. The budget for 1997 marked a first step in this direction, producing aggregate budgetary projections on a no-policy change basis for 1998 and 1999. Subsequent budgets have provided more detailed projections over a three-year horizon, thus covering the same period as the stability programmes that have accompanied each budget. In 2000 it was decided to defer the original plan to introduce three-year financial envelopes for each department, because existing multi-year programmes (such as the three-year social partnership agreements ⁽³⁾ and the seven-year investment programme) were considered to provide sufficient medium-term guidance. In November 2002, however, the Minister for Finance announced that he was considering extending working with five-year financial envelopes (as is currently done for public transport) to other large capital spending areas ⁽⁴⁾.

Secondly, DBG sought to *delegate financial authority* to the maximum extent possible. This would be accompanied by the requirements that each department report at year-end on outcome versus plan — not only financially, but also in output terms — and that regular expenditure reviews be carried out (see next point) ⁽⁵⁾.

Thirdly, the government launched the *expenditure review initiative* (ERI) in May 1997, which was originally intended to review all expenditure from a results

perspective over a three-year period. This turned out to be over-ambitious and, by end-2000, only 62 reviews had been completed with 21 more underway, together representing at most 37 % of government spending. Drawing on an assessment of the ERI by the Comptroller and Auditor General ⁽⁶⁾, the government decided in mid-2001 to adopt somewhat revised arrangements: (i) the selection of topics for review should ensure that the ERI focuses on significant areas of expenditure and critical areas of government policy; (ii) the Department of Finance is to enhance its provision of central support; and (iii) departments are encouraged to publish the reviews they carry out. The topics for review in the second round (2002–04) were approved in May 2002 and include two pilot cross-departmental reviews.

Related to this, the government set up an *Independent Estimates Review Committee* (IERC) in the course of 2002 to help prepare the spending plans for 2003 ⁽⁷⁾. The objective of this group of three former civil servants was to find EUR 900 million (0.7 % of GDP) worth of savings on the estimated cost of maintaining the 'existing level of service' in 2003 ⁽⁸⁾. This was to be achieved by identifying programmes (i) which were no longer justified because of changed circumstances or (ii) which could be deferred or spread over a longer period; and by suggesting new delivery or user-charging mechanisms. The ensuing budget was based on a reduction of the existing level of service cost in 2003 by 0.6 % of GDP. A similar review is to be carried out in 2003 regarding the spending targets for 2004–05.

Fourthly, DBG recommended to *strengthen the administrative budget system* introduced in 1991. Administrative budgets cover the administrative (or running) costs of departments, of which pay constitutes by far the largest part. Each department has to agree with the Department of Finance on a level of administrative spending for three years and can manage these funds rather flexibly (rights to switch, to carry-over and to appoint staff, all subject to certain limits). The system has been enhanced and extended to other departments and offices. The IERC's report recommended to introduce an efficiency dividend of 2 %.

⁽¹⁾ See also National Economic and Social Council (2002).

⁽²⁾ See Coordinating Group of Secretaries (1996). A working group, set up to oversee implementation of DBG's financial management recommendations, produced detailed proposals in July 1999.

⁽³⁾ These agreements not only contain a wage clause, but also cover tax and spending measures.

⁽⁴⁾ In addition, revised arrangements for capital spending are being put in place, providing detailed information of the size and time-scale of spending commitments.

⁽⁵⁾ In this context, DBG recommended that departments be rewarded for suggesting savings. In November 2002, the Minister for Finance announced that savings would be earmarked to the same department for use in high-priority areas.

⁽⁶⁾ See Comptroller and Auditor General, (2001).

⁽⁷⁾ The IERC's report to the Minister for Finance is available at www.budget.gov.ie.

⁽⁸⁾ This concept has recently replaced the no-policy change basis and allows a clearer distinction between technical and policy adjustments.

Fifthly, as recommended by DBG, a new *management information system* is to be implemented by the end of 2005. In addition to cash data, it will provide data on an accruals basis. In addition to financial data, it will provide non-financial information. By focusing on outputs, it will enable measurement of performance, thus providing valuable information for value for money studies and expenditure reviews. The development of performance measurement systems has received much attention under the social partnership process because recent national agreements have included a conditionality clause for public sector pay rises. The final pay rise under the *Programme for prosperity and fairness* (expiring mid-2003) was conditional on developing and agreeing performance indicators and making sufficient progress towards modernisation targets. All pay rises in the proposed new agreement, *Sustaining progress*, are similarly dependent on verifiable progress on modernisation and flexibility ⁽¹⁾.

Apart from reforms prompted by DBG, several measures have recently been taken to address the need to remain within spending allocations, which has become more pressing in view of the tighter budgetary situation. In November 2002, the Minister for Finance announced that the assessment of expenditure overrun risks would be improved and that contingencies to cater for unforeseen pressures would be introduced. Special attention would be given to demand-led schemes. In January 2003, a report on accountability was endorsed containing recommendations to strengthen internal financial control and audit systems and to adopt formal risk management strategies.

An area of particular concern regarding budgetary control and value for money is the health sector ⁽²⁾. In 2002, an Independent Commission on Financial Man-

agement and Control Systems was set up to make recommendations on how to enhance the timeliness and quality of the available financial information in the health service. While not yet published, its report is expected to highlight serious deficiencies in existing financial management procedures and to recommend the establishment of a new national health services executive as well as the urgent implementation of new budgetary and accountability systems and performance management programmes ⁽³⁾.

Finally, two recent measures are worth mentioning even though they are not directly concerned with improving the management of expenditure. In November 2002, the government decided to publish intra-year spending profiles by department, which can be compared with the evolution of expenditure as published in the monthly cash Exchequer accounts. The profiles for 2003 (also for tax revenues) were published at the end of January. In a further move to enhance the transparency of spending developments, the Department of Transport decided to issue monthly progress reports on major transport and infrastructure projects. The first such fiche was published in early March for the Luas (Dublin light-rail) project; it provides the original and updated estimates of (i) total cost and (ii) completion dates.

In conclusion, the 1996 DBG report constituted an ambitious programme to improve public expenditure management. While progress has been made on several fronts, implementation of the recommendations remains incomplete. The measures announced during 2002 will further improve expenditure management, but some issues require ongoing attention, such as the roll-out of the management information system — and its contribution to securing value for money — as well as the medium-term planning of spending.

⁽¹⁾ The new agreement not only awards general pay rises (a cumulative 7 %) but also allows for a gradual and full implementation of the benchmarking awards (8.9 % on average — see footnote above). The first tranche of benchmarking (25 %) is unconditional and is to be paid in 2003, backdated to December 2001.

⁽²⁾ The involvement of the private sector in the provision of healthcare, as in the delivery of public investment, falls outside the scope of this contribution.

⁽³⁾ *Irish Times*, 30 and 31 January 2003.

8. Italy

Recent developments

The general government accounts recorded a deficit of 2.3 % of GDP in 2002, against an initial target of 0.5 % of GDP. The considerable shortfall with respect to plans is in part explained by economic growth assumptions, which from the outset did not sufficiently reflect the observed deterioration in the global economic outlook⁽¹⁾. It is also due to the emergence of stronger than initially assessed expenditure trends, also as a result of the marked revision of the 2001 budgetary out-turn⁽²⁾. Almost half of this revision (around 0.5 percentage points of GDP), was due to an underestimation of expenditure of the central and the decentralised administrations. In the course of 2002, the government took steps to address the serious deficiencies that had appeared in the budgetary process, by passing a law tightening expenditure controls (reviewed in the next section) and adopting provisions aimed at improving the information base on disbursements of the central government and the decentralised administrations.

The 2002 budgetary out-turn benefited from a lower debt servicing costs than projected for that year in the November 2001 stability programme update⁽³⁾. Legislation enforced in the second half of the year, blocking additional tax credits for employment creation and

investment, increasing tax receipts, curbing healthcare expenditure and, as recalled above, improving expenditure controls, played a role in keeping the government deficit in check. In addition, measures of a temporary nature contributed over 1 percentage point of GDP to the 2002 result: sales of public real assets, largely through securitisation, amounted to 0.9 % of GDP and receipts from a tax amnesty on assets held abroad were 0.1 % of GDP.

According to Commission calculations, after the deterioration recorded in 2001, the cyclically-adjusted budget balance improved markedly in 2002, although the cyclically-adjusted primary balance posted a much smaller recovery. If the impact of sales of real estate is netted out in both years, however, the cyclically-adjusted overall budget balance shows only very slender improvement between 2001 and 2002, while the cyclically-adjusted primary balance deteriorates by 0.4 percentage points.

The general government debt ratio decreased by almost 3 percentage points of GDP to 106.7 % in 2002, well below the government's own revised estimate of 109.4 %, mainly thanks to operations carried out in the final months of the year, most notably a debt conversion which reduced the face value of government debt by 1.9 % of GDP⁽⁴⁾.

The update of the stability programme, covering the period 2002–06, targets a reduction in the actual deficit ratio to 1.5 % of GDP in 2003, with the budget approaching a balance in 2005, the year in which the debt ratio is to fall below 100 % of GDP. The budgetary target for 2003 relies heavily, as in 2002, on one-off measures, including the sale of publicly-owned real estate assets through securitisation operations, an accelerated tax liti-

⁽¹⁾ Moreover, since 2001, official projections of tax receipts have tended to be consistently higher than would be warranted by already overoptimistic growth forecasts.

⁽²⁾ In March 2002, the Italian statistical office reported a deficit of 1.4 % of GDP for 2001. The 2001 deficit estimate was then revised upwards three times: to 1.6 % in June 2002, mainly because of a higher estimate for healthcare expenditure; to 2.2 % in July 2002, as a result of Eurostat's decision on the treatment of securitisation in national accounts; and to 2.6 % in February 2003, following a further correction of healthcare expenditure and State sector expenditure (chiefly purchases of goods and services) and revenue (tax receipts). After the latest revision, the discrepancy between deficit reported in the government accounts in cash terms and the Maastricht deficit (in accrual terms) is significantly reduced in 2001.

⁽³⁾ The sensitivity of Italian government debt to changes in interest rates is still relatively high, given that over a third of it consists of short-term or variable rate instruments. In 2002, interest expenditure was also reduced by EUR 1.9 billion through swap operations.

⁽⁴⁾ Other factors influencing the result were financial operations which reduced the cash deficit, including the disposal of loans and other financial assets by the Cassa di Risparmio di Roma (the public savings and loans bank) in December 2002, the effect of the re-evaluation of the euro on debt denominated in foreign currencies and a reduction compared to end-2001 in the assets held by the Treasury with the Bank of Italy at end-2002.

Table VI.16

Composition and balances of general government, Italy

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽¹⁾	- 1.8	- 2.6	- 2.3	- 2.3	- 3.1
— Total revenue	46.2	45.8	45.2	45.1	44.3
Of which: — current taxes	29.8	29.6	28.8	28.2	28.0
— social contributions	12.7	12.6	12.7	12.8	12.8
— Total expenditure ⁽¹⁾	48.0	48.5	47.5	47.4	47.5
Of which: — collective consumption	7.1	7.1	7.0	7.2	7.2
— social transfers ⁽²⁾	27.9	28.3	28.9	28.9	28.8
— interest expenditure	6.5	6.4	5.7	5.3	5.1
— gross fixed capital formation	2.4	2.5	1.8	2.1	2.6
Primary balance ⁽¹⁾	4.6	3.8	3.4	3.0	2.0
<i>Pm</i> Tax burden	42.7	42.5	41.8	41.7	41.1
Government debt	110.6	109.5	106.7	106.0	104.7
<i>Pm</i> Cyclically-adjusted balance ⁽¹⁾	- 2.4	- 3.1	- 2.1	- 1.8	- 2.7
<i>Pm</i> Cyclically-adjusted primary balance ⁽¹⁾	4.1	3.3	3.6	3.5	2.4

⁽¹⁾ Data exclude UMTS receipts amounting to 1.2 % of GDP in 2000.

⁽²⁾ In kind and other than in kind.

Source: Commission spring 2003 economic forecasts.

Table VI.17

Key figures of the Italian stability programme (2002–06)

	2001	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	1.8	0.6	2.3	2.9	3.0	3.0
General government budget balance (% of GDP)	- 2.2	- 2.1	- 1.5	- 0.6	- 0.2	0.1
Primary surplus (% of GDP)	4.4	3.8	4.5	5.0	5.3	5.5
Government debt (% of GDP)	109.9	109.4	105.0	100.4	98.4	96.4

Source: 2002 update of the stability programme of Italy.

gation settlement scheme and new tax amnesties. The 2004 budgetary objective depends on replacing the main one-off measures implemented in 2003 and on an additional significant budgetary correction.

The Commission's spring forecasts show a deficit in nominal terms of 2.3 % of GDP in 2003, on the back of one-off measures amounting to 1.2 % of GDP. In 2004, the 'no policy change' projection of 3.1 %, principally a result of the expiry of one-off measures, implies that a very substantial fiscal correction would have to be carried out that year. The debt ratio also remains distant from the targeted values, although it decreases over the forecast period. The difference between the Commission's forecasts and the targets in the stability pro-

gramme are in part due to a markedly lower assumption for real GDP growth in 2003, in part to a more cautious evaluation of the fiscal policy measures (although the evaluation of the temporary measures — programmed sales of public real assets and tax amnesties — is aligned with the official estimates). Interest rates at historically low levels are expected to continue to exert a dampening effect on the interest burden. The cyclically-adjusted deficit would improve in 2003 by 0.3 percentage points of GDP over the previous year, while the cyclically-adjusted primary balance would remain largely stable.

On 18 April 2003, the Ministry for the Economy and Finance released a new projection for the general government deficit in 2003, which now stands at 2.3 % of

GDP, based on an economic growth forecast of 1.1 % (as against 2.3 % in the November 2002 stability programme update). This is likely to have negative repercussions on the planned medium-term adjustment path, making the policy dilemma concerning the necessary adjustment in 2004 more acute.

Monitoring and controlling public expenditure: the 'expenditure freeze' law

Amongst the provisions adopted in 2002 to correct fiscal imbalances, Law No 246/2002 (the so-called *legge blocca spese*, 'expenditure freeze' law) represents, in the intentions of the Italian authorities, an important instrument to improve the control of expenditure and to allow timely correction of any deviation from the public finance objectives established in government's medium-term economic and financial plan (DPEF). The law is an example of how the need to fulfil obligations under the Stability and Growth Pact provides an incentive to change national rules and procedures, emphasising budgetary discipline and fiscal sustainability.

The overriding principle of ensuring the consistency of fiscal trends with budgetary objectives is contained in article 81 of the Italian Constitution, which states that 'With the adoption of the budget no new taxes and no new expenditures can be established' (indent 3) and 'Any other law [beyond the budget] that establishes new expenditures must indicate the means through which they will be financed' (indent 4). The implementation of the constitutional principle has proved problematic. In 1978, a series of instruments (including the Financial Law) were introduced in order to rationalise the budgetary process and control public finances⁽¹⁾. Since the late 1980s, legislation introducing new/higher current or capital expenditures or lower revenues, above and beyond the financing means provided by the Financial Law in the special capital and current account funds, can be financed only within the limits of new/higher receipts and/or reductions of other current expenditure, with an additional constraint that capital revenues cannot be used to finance current expenditure⁽²⁾. All legislation introducing higher expenditure or lowering revenues and any amendment to existing legislation must be complemented by a technical report quantifying the budgetary impact of each provision and supplying indications on means of financing.

⁽¹⁾ Law No 468/1978.

⁽²⁾ Law No 362/1988.

Inevitably, there is a risk of underestimating the budgetary impact of proposed policy measures or overestimating the impact of provisions ensuring their financing. This would not represent an insurmountable problem in the presence of effective expenditure control mechanisms. However, the experience is that budgetary monitoring and control have suffered from the complexity and opaqueness of budgetary procedures, delays in availability of information, loose practices and institutional weaknesses.

The 'expenditure freeze' law aims at making existing control mechanisms more effective. To do so, it introduces new stringent procedures, on the one hand facilitating the monitoring and control of the implementation of legislation, and on the other hand allowing emergency action to deal with significant slippages from the overall public finance objectives of the government's medium-term economic and financial plan (DPEF)⁽³⁾.

In practice, all legislation introducing new or higher expenditure must indicate for every year and for every provision the 'authorised expenditure', that is, depending on the type of law, either the maximum ceiling of disbursements or the expenditure forecast attached to the provision. In the first case, the General Accounting Office (Ragioneria Generale dello Stato, RGS), which is the arm of the Ministry for the Economy and Finance entrusted with surveillance and control powers, determines whether the ceilings are reached and in this event blocks further expenditure appropriations⁽⁴⁾. The Minister for Economy and Finance reports to Parliament and the application of legislation is suspended unless additional financing can be provided through a new legislative provision. In the second case, legislation must define a 'specific safeguard clause' to compensate for expenditure in excess of forecast. Surveillance is entrusted to the RGS.

The provisions for 'emergency action' empower the Minister for the Economy and Finance to intervene in the general case in which the RGS detects a 'significant divergence' from the overall budgetary objectives of the DPEF⁽⁵⁾. In this case, the Minister for the Economy and

⁽³⁾ This may be considered the more structural aspect of the law, as suggested by Grilli (2003).

⁽⁴⁾ An appropriation is a legal obligation to carry out a payment and as such it is distinct from a disbursement, which is the moment in which the payment is effectively carried out.

⁽⁵⁾ The size of the budgetary slippage which gives rise to a 'significant divergence' is not defined in the law. An estimated divergence of 0.3–0.5 percentage points from the revised budgetary objective of 2.1 % of GDP was considered grounds in late 2002 for applying the law (Grilli, 2003).

Finance proposes the necessary corrective measures to the Council of Ministers. The government decides on the measures and the Prime Minister adopts a decree (*atto di indirizzo*), containing the general guidelines for the government action to secure more effective expenditure monitoring and control. The relevant Parliamentary Committees have 15 days to express an opinion, after which the Minister for the Economy and Finance can in any case adopt the necessary measures by decree. Crucially, the Minister for the Economy and Finance can limit State budget appropriations, by fixing proportional across-the-board cuts on State expenditure, excluding wages of public sector employees, pensions, and other fixed or obligatory expenditure ⁽¹⁾.

Finally, the new law also bars the widespread practice of administrations charging new expenditure appropriations to a financial year after it has ended (that is, 31 December). In addition, it reduces the number of years during which capital expenditure arrears can be carried over in the budget. Both these measures are likely to exert a dampening effect on expenditures.

Given the short period elapsed since the adoption of 'expenditure freeze' law, a full evaluation of its impact must necessarily be left for future discussion ⁽²⁾. At this stage it is only possible to examine some of its features, which may shed light on its potential to ensure an effective control of expenditures.

In some respects, the law is less innovative than it might appear: budget appropriations for some non-obligatory expenditures (for example, purchases of goods and services) already constituted absolute expenditure ceilings. Yet in view of the prevailing practices, the reinstating of procedures should not be underrated. Moreover, the monitoring of expenditures is now carried out more stringently on each single provision, instead of in terms of balance-sheet items, as in the past.

A shortcoming of the law is the limited field of application in case of detection of a significant budgetary slippage: de facto the expenditure cuts concern essentially expenditures for goods and services and some capital expenditures. Moreover, while the 'significant divergence' is identified for the general government, the domain of application of the law is restricted to expenditure of the central government and of non-territorial public institutions and organisations, such as universities or social security funds ⁽³⁾, leaving out expenditure of the local administrations ⁽⁴⁾. This represents a clear limitation in the light of past experience (the significant overruns due to regional expenditure for healthcare in 2000 and 2001) and of the budgetary control challenges generated by the decentralisation process. Another weakness of the law could be the fact that, since expenditure cuts in case of significant divergence are uniformly applied, in principle this does not allow selective action. Finally, the 'emergency' instrument of the law has intrinsically temporary effects: in the absence of more fundamental action, in the following fiscal year, past expenditure levels can again be reinstated.

The innovative features of the 'expenditure freeze' law are undoubtedly the wide-ranging powers granted to the Ministry for Economy and Finance, in particular the obligation for the RGS to suspend expenditure appropriations when the ceilings are reached and the possibility (not the obligation) for the minister to act in the event of significant divergences (even, if necessary, by superseding the role of parliament). The effective implementation of the emergency procedures depends to a great extent on the relative powers of the Ministry for Economy vis-à-vis the rest of the government. In any case, the power to impose across the board expenditure limitations is justified by the seriousness of the event, a significant divergence. This confers to the instrument an exceptional nature, whose effectiveness may well depend on its implicit threat content. The threat of *ex post* action may enhance *ex ante* the role of the Ministry for Economy in the phase in which the budget is drawn, giving added substance to the pivotal role it has long been assigned in the budgetary process. Moreover, the credibility of a more stringent application of surveillance procedures, together with the risk of across the board expenditure

(1) Interest on public debt, accrued liabilities for loan reimbursements, obligations ensuing from Community law and international agreements, obligations ensuing from contracts, etc. The law does not contain an exhaustive list of expenditures. In practical terms, the RGS has chosen to identify as 'obligatory expenditure' also 'juridically complete obligations vis-à-vis third parties' (Grilli, 2003).

(2) The ministerial decree of end-November 2002 established a cut in budgetary appropriations of 15 %. The RGS estimates this resulted in a reduction of EUR 1.8 billion (0.2 % of GDP) in the State sector borrowing requirement and EUR 2.1 billion (0.2 % of GDP) in the general government deficit (Maastricht definition).

(3) The Minister for Economy can reduce working expenses of non-territorial public institutions. Surveillance is carried out by the internal audit bodies.

(4) In 2002 the law was applied also to the local health institutions (*aziende sanitarie locali*, ASL). However, the action spurred strong reaction from the regions and the ASL. As a result, the Minister for the Economy has ruled that in future the law will not be applied to regional funding for healthcare.

limitations, will likely discourage unrealistic *ex ante* expenditure projections.

The law should increase reliability of budgetary forecast and transparency, enhance surveillance, strengthen controls on expenditures and avoid overruns and its applica-

tion should allow quick action to address budgetary imbalances. However, it remains to be seen whether its provisions, in particular the freezing of laws reaching their authorised expenditure limits and the across the board limitations on all State non-obligatory expenditure, leads to an effective control of expenditures.

9. Luxembourg

Recent developments

Luxembourg has enjoyed many consecutive years of high growth and substantial fiscal surpluses. In 2000 and 2001, the general government surplus even increased to the unprecedented levels of 6.1 and 6.4 % of GDP respectively. In 2001, the general government balance increased by an estimated 2 percentage points of GDP due to a transaction concerning the satellite company ASTRA. This was recorded as the sale of a non-produced non-financial asset, that is, as a negative capital expenditure. In 2002, the fiscal accounts remained in surplus: net lending of general government amounted to 2.6 % of GDP. The outcome for 2002 was more favourable than previously expected in the light of the economic slowdown, largely owing to strong corporate tax revenues and lower-than-expected expenditure from special funds.

In 2002, tax revenues remained strong in spite of the sharp economic slowdown. This is to a large extent due to high corporate tax revenues, partly reflecting the lagged impact of strong earnings in previous years with high economic growth. Some acceleration in the collection of corporate tax arrears played a decisive role as well, while income tax receipts also remained relatively favourable. In 2002, taxes on income and wealth increased by 7.5 %, while the receipts of indirect taxes rose by a modest 2.2 %. By contrast, the rate of growth of social security premium revenue slowed down to 6.6 %, compared to an increase of around 13 % in 2001. Total current resources of general government increased by around 5 %. However, total current expenditure rose much faster, at around 10 % which is higher than the increase by around 9 % in 2001. Strong increases in the public wage bill (by approximately 10 %) and in social transfers other than in kind (by some 14 %) were mainly responsible for the acceleration in expenditure. The latter largely reflect the substantial increases in pension and social security payments agreed among social partners at the so-called *Rentendösch*. In addition, total public investment also increased rapidly in 2002, by 11.6 %,

compared to close to 10 % in 2001. As a consequence, the ratio of total harmonised government expenditure to GDP (disregarding the satellite transaction mentioned above) rose by some 1 percentage points to more than 45 %, the highest level since the mid-1990s.

Relatively strong revenue from corporate taxes can be expected to continue into 2003 and possibly 2004, despite adverse developments in corporate profits over the last few years. This is the case because the receipts can be levied up to five years back. Hence, payment of a considerable part of claims accrued in the favourable years before 2001 is still due, while the advances to be paid are still relatively high as they are being computed on the basis of the still-favourable company accounts of a few years back. As regards the development of taxable personal income, the effect of decelerating employment and compensation on revenue will be mainly felt from 2003 onwards only.

According to the Commission spring 2003 forecasts, the general government balance is expected to deteriorate in 2003 and 2004, to a deficit of 0.2 and 1.2 % of GDP respectively. This reflects the lagged impact of the economic slowdown on tax revenue and social security contributions, in combination with continued high rates of growth of public current and investment expenditure. As regards tax revenues, inevitably the impact of the collection of tax arrears will fade after some years. This will also influence revenues of local government that are directly linked to corporate taxes. Adverse developments in the central government accounts would account for most of the deterioration of the general government balance in 2003 and 2004, while local government revenues would be affected negatively by the effects of the earlier tax reforms from 2004 onwards. By contrast, the balance of social security funds would still be positive, albeit to a lesser extent than in recent years. The already low gross government debt ratio is forecast to decline somewhat further to 3.4 % of GDP in 2004.

Table VI.18

Composition and balances of general government, Luxembourg ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	6.1	6.4	2.6	- 0.2	- 1.2
— Total revenue	45.7	46.6	48.1	46.0	45.1
Of which: — current taxes	30.2	29.7	30.6	30.0	29.1
— social contributions	11.4	12.4	12.9	12.9	12.6
— Total expenditure ⁽²⁾	39.6	40.2	45.5	46.3	46.4
Of which: — collective consumption	6.7	7.1	7.7	8.0	8.2
— social transfers ⁽³⁾	23.3	24.9	27.3	28.9	29.7
— interest expenditure	0.3	0.3	0.4	0.2	0.2
— gross fixed capital formation	4.1	4.3	4.7	5.2	5.5
Primary balance ⁽²⁾	6.4	6.7	3.0	0.0	- 1.1
<i>Pm</i> Tax burden	41.5	41.8	43.2	42.6	41.3
Government debt	5.6	5.6	5.3	4.1	3.4
<i>Pm</i> Cyclically-adjusted balance	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Pm</i> Cyclically-adjusted primary balance	n.a.	n.a.	n.a.	n.a.	n.a.

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ UMTS receipts excluded

⁽³⁾ In kind and other than in kind.

Source: Commission services.

Table VI.19

Key figures of the Luxembourg stability programme ⁽¹⁾ (2001–05)

	2001	2002	2003	2004	2005
Real GDP growth (annual % change)	1.0	0.5	1.2	2.4	3.1
General government budget balance (% of GDP)	6.1	- 0.3	- 0.3	- 0.7	- 0.1
Primary balance (% of GDP)	6.4	0.2	0.0	- 0.5	0.1
Government debt (% of GDP)	5.3	5.1	4.1	3.8	2.9

⁽¹⁾ UMTS receipts excluded.

Source: 2002 update of the stability programme of Luxembourg.

**Fiscal prospects in a period
of weaker growth**

Luxembourg is a very open economy sensitive to cyclical swings, which have a sizeable impact on public finances. The sensitivity of government finances to the business cycle is accentuated by the large cross-border flows of workers (which affect the payment of social security contributions) and the large exposure to the highly volatile financial sector. However, reliable estimates of the impact of the current economic slowdown on government finances in Luxembourg are very difficult to make for a number of reasons.

First, the higher volatility of key macroeconomic aggregates and the importance of cross-border labour flows leads to a higher margin of uncertainty for fiscal projections compared to larger EU economies (the net payments of excise taxes from the customs union with Belgium is a notably difficult item). Second, the structure of the tax system is such that a sizeable part of taxes are collected with substantial and variable lags. This also makes it harder to assess the impact of the tax reforms of 2000 and 2001 on revenue. Finally, the impact of operations of special funds that accumulated from the fiscal surpluses achieved in past years may cloud forecasts of changes in the government balance based on past trends.

Clearly, the starting position of government finances of Luxembourg is very favourable, given the healthy surplus reached before the current economic slowdown started, the very low level of government debt (which stood at 5.3 % of GDP in 2002) and the sizeable net asset position stemming from cumulated surpluses. However, some potential risk factors should not be underestimated. Most importantly, the rise in government expenditure in Luxembourg has been very strong in the recent years. Total government expenditure increased by a cumulative 40 % between 1998 and 2002; the average yearly increase during that period was around 8 %. Public investment also increased very rapidly in the past few years, by close to 10 % on average in nominal terms between 1998 and 2002.

Luxembourg has accumulated some reserves that are available to cushion the negative budgetary impact of a transitory economic slowdown. However, such reserves could not cater for the long-term impact on the budget position of a prolonged slowdown in economic growth.

Existing reserves should be used to fund the budgetary costs of ageing that will increase markedly in the longer term. Thus, the existence of substantial reserves in the social security system (estimated at around 22 % of GDP in 2001) is fully justified by the budgetary costs of age-

ing and is necessary to guarantee the payment of pension claims also for non-resident workers in the event of reduced employment growth. In addition, the existence of substantial surpluses in social security funds is not a feature that can be for certain in the medium term, as they depend on continuing rapid growth of employment of both residents and cross-border workers.

While it is clearly important to address the budgetary consequences stemming from a cyclical slowdown, a perhaps even more daunting challenge for fiscal policy in the period ahead stems from the possibility that economic growth may slow down for a prolonged period to rates well below the ones enjoyed for many years in the past decades. At the present juncture, estimates of the rate of potential real GDP growth of the Luxembourg economy are surrounded by large margins of uncertainty. However, it seems likely that in the years ahead, Luxembourg will experience growth rates that on average will be lower than in the decade up to and including 2000. Hence, policy measures might be needed to adjust the growth of public expenditure to a rate consistent with the revenue base. This would help ensure that a budgetary position close to balance or in surplus would be achieved and maintained in the medium term.

10. The Netherlands

Recent developments

The fiscal accounts in the Netherlands deteriorated markedly in 2002 against the background of a sharp economic slowdown. After having reached a surplus of 0.1 % of GDP in 2001, the general government balance turned into a deficit of 1.1 % of GDP in 2002 (a worse outcome than the 0.5 % of GDP deficit expected in the 2003 budget). This deterioration mainly reflects the impact of the economic slowdown, as well as the lagged impact of tax reforms. Revenue shortfalls related mainly to corporate taxes and increases in tax-exempt pension premiums paid into private schemes. According to Commission calculations, the cyclically-adjusted general government deficit remained broadly constant in 2002, at around 1 % of GDP.

The fiscal outlook is highly uncertain at the time of writing due to the political situation. Following elections in May 2002, a new cabinet was formed in July. The coalition parties formulated their policy proposals in a coalition agreement known as the 'strategic accord', which set out the fiscal policy objectives for the whole 2003–06 cabinet term of office. However, the cabinet fell on 16 October 2002, which led to general elections on 22 January 2003. At the time of writing of this report, negotiations to form a new coalition government following the elections are still ongoing. The 2003 budget was approved by Parliament with some relatively minor changes, despite the fall of the government, and contains a package consisting of reallocations, expenditure increases in some areas, and tax revenue raising measures. The net combined impact of these measures on the government balance is an estimated improvement of around EUR 5 billion or approximately 1 percentage point of GDP in 2003. According to the 2003 budget, this would result in a stabilisation of the deficit at 0.5 % of GDP in 2003, with real GDP growth of 1 %.

However, in the absence of additional measures, the deficit in 2003 will increase further than forecast in the budget, due to the less favourable starting position of public finances in 2002 according to the latest data available and the worsened

economic outlook. Under the technical assumption of no policy changes and assuming real GDP growth of 0.5 %, the Commission spring 2003 forecasts expect the general government balance to deteriorate in 2003 to a deficit of 1.6 % of GDP as unfavourable cyclical developments will continue weighing on fiscal revenues. The deficit would increase further to 2.4 % of GDP in 2004 under the no policy change assumption, reflecting the weakness of the expected upturn as well as the lagged impact of slow growth in 2003. According to the estimates in the spring forecast, the cyclically-adjusted general government balance would improve slightly in 2003 and deteriorate again to a deficit of around 1 % of GDP in 2004 ⁽¹⁾. As a result of projected deficits and low economic growth the gross government debt ratio would fall only slightly in 2003 and increase again somewhat in 2004, to 52.8 % of GDP.

An incoming government will most likely announce consolidation measures even though a full assessment can only be given on the basis of a coalition agreement. Hence, for 2004 the current projected deficit may be interpreted as an upper bound to expected deficits. An important challenge for the incoming government is to leave some scope for automatic stabilisers to work, while achieving the necessary improvement of the underlying balance.

The sensitivity of public finances to the business cycle and the importance of expenditure rules

As in other open EU economies, Dutch government finances are sensitive to cyclical swings in activity. The very marked deterioration of government finances, to a large extent due to the impact of the economic slowdown

⁽¹⁾ Note that the forecast horizon here covers the period up to 2004. Owing to the characteristics of the estimation method, the outcome for the cyclically-adjusted balance in *any* year will change when the forecast horizon is altered. Thus, forecasts covering a longer time horizon, such as, for instance, used in stability programmes, will typically yield a somewhat different result even if the same input data would be used for the period up to and including 2004.

Table VI.20

Composition and balances of general government, the Netherlands ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	2.2	0.1	- 1.1	- 1.6	- 2.4
— Total revenue	47.4	46.5	46.1	45.9	45.3
Of which: — current taxes	24.2	24.5	24.4	23.9	23.5
— social contributions	17.1	15.3	14.8	15.6	15.3
— Total expenditure ⁽²⁾	45.3	46.4	47.2	47.5	47.7
Of which: — collective consumption	10.6	10.9	11.3	11.2	11.3
— social transfers ⁽³⁾	23.8	23.9	24.8	25.2	25.4
— interest expenditure	3.9	3.5	3.2	3.0	2.9
— gross fixed capital formation	3.2	3.4	3.5	3.6	3.5
Primary balance ⁽²⁾	6.1	3.6	2.1	1.5	0.5
<i>Pm</i> Tax burden	41.6	40.0	39.4	39.6	38.9
Government debt	55.8	52.8	52.6	52.4	52.8
<i>Pm</i> Cyclically-adjusted balance	- 0.6	- 1.0	- 1.0	- 0.4	- 1.1
<i>Pm</i> Cyclically-adjusted primary balance	3.3	2.5	2.2	2.6	1.8

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data for 2000 and 2001 (except cyclically-adjusted) include UMTS receipts of 0.7 % and 0.2 % of GDP respectively.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

that started in 2001, testifies to this. According to Commission calculations based on the spring 2003 forecasts, the cyclically-adjusted general government balance remained stable in 2002 (showing an estimated deficit of 1.0 % of GDP). Thus, the deterioration of the nominal general government balance by 1.2 percentage points in 2002 seems to be wholly accounted for by cyclical factors, with a shortfall in revenues being the main determinant.

The precise impact of cyclical conditions on public finances of course also depends on the composition of GDP growth. Typically, a change in the growth rate of domestic demand will have a more profound impact on the fiscal accounts than a shock to external demand. In addition, the structure of revenue and expenditure also determines the sensitivity of public finances to the business cycle. For instance, the share of corporate taxes, which are highly sensitive to cyclical conditions, in total tax receipts has increased markedly in the Netherlands in the past decade or two. In 1987, this share was approximately 13 % of total tax revenue. It increased to more than 17 % in 1997 and 1998 and stood at around 16 % in 2001.

This mainly reflects three factors. First, an increase in corporate tax receipts as a percentage of GDP, from 3.6 % in 1987 to 4.1 % in 2001. Second, the fact that the substantial reduction in the overall tax burden since the

late 1980s was largely achieved through a reduction in income taxes, thus raising the relative share of corporate taxes as a source of revenue. Third, the economic boom of the second half of the 1990s, which strongly boosted corporate tax receipts. The latter effect is likely to be at least partially reversed as the impact on tax revenue of lower corporate profits in the wake of the cyclical downturn feeds through. Thus, seen from a longer-term perspective the increasing share of corporate taxes as a source of revenue has arguably increased the sensitivity of Dutch government finances to cyclical fluctuations.

Expenditure restraint is important in the current situation to avoid a further deterioration of the general government balance in response to prolonged weak economic activity. A continuation of the basic tenets of the current budgetary framework, which uses expenditure rules as a cornerstone for fiscal policy, may be a useful instrument to help maintain stable government finances in the medium term and contain the growth of public expenditure. In this respect the Dutch experience may be instructive (see part V of this report for an analysis of the role of expenditure rules in the EU context).

It suggests that it helped reduce the incidence of ad-hoc measures in response to unexpected changes in the volatile nominal government balance. Note, however, that

while the use of real expenditure ceilings should in principle facilitate the working of automatic stabilisers, it effectively mitigates somewhat their working on the expenditure side. That said, this need not be a major drawback since, in the Netherlands, automatic stabilisers mainly work via the income side.

Rules to limit the increase of a large part of total public expenditure under pre-determined ceilings defined in real terms were introduced in the Netherlands by the first purple cabinet in 1994, to be applied from 1995 onwards. Since then relevant government expenditure was successfully kept below these ceilings (see Table VI.21 for the outcome during the second purple cabinet), although this was facilitated by strong economic growth and consequent lower expenditure (mainly on interest payments and unemployment benefits) for most of the period 1996–2002 covered. This enabled a redistribution of windfalls to sub-sectors of general government with higher-than-projected expenditure growth as well as additional expenditure increases in areas such as healthcare, education, infrastructure investment and public safety.

The overall experience with the expenditure rule since the mid-1990s has been positive, as it is widely believed that it helped contain expenditure growth. Furthermore, clearly defining fixed expenditure margins for the whole cabinet period helped anchor expectations of economic actors. However, the fact that the budgetary framework was respected was not enough to prevent public finances from deteriorating in the wake of the economic slow-

Table VI.21

Expenditure in the Netherlands — relevant ceilings and outcome

	1999	2000	2001	2002
Targeted (bn EUR)	150.7	157.3	166.6	174.0
Outcome	149.2	156.3	166.6	173.8
Overrun (+)/ underachievement (-)	- 1.5	- 1.0	0.0	- 0.2

Source: Ministry of Finance.

down. This was partly because higher revenue and lower expenditure during the years of higher-than-expected economic growth had been used to intensify spending, rather than to use it as an additional buffer. But more importantly, one has to bear in mind that the parameters of any budgetary rule need to be adjusted to changing economic prospects, in order to ensure that fiscal policy remains consistent with a budgetary position close to balance or in surplus in the medium term.

In the strategic accord the outgoing government retained many of the basic characteristics of the previous budgetary expenditure rule, with some modifications (see Box VI.2). It should be noted that the future of the budgetary framework is uncertain at the present juncture with negotiations to form a new government still ongoing. In any case, the budgetary rules put in place by an incoming government will be put to a genuine test, given the severity of the economic slowdown.

Box VI.2: The Dutch framework for expenditure ceilings

The budgetary framework adopted by the outgoing government resembles the one embedded in the coalition agreement of the two previous governments. The use of expenditure ceilings in real terms for a large part of total expenditure is the pivotal mechanism of the framework ⁽¹⁾. In particular, each of the three main sectors of the general government (central government, social security and healthcare) will have to respect separate expenditure ceilings for the relevant expenditure items identified (irrespective of revenues). In case overruns occur, they should be compensated within each sector.

- Fiscal projections are based on cautious macro-economic assumptions.
- The automatic stabilisers will be allowed to work freely on the revenue side as long as the government balance will be between 0 % of GDP and a surplus of 2.5 % of GDP. There are also provisions in case a (nominal) surplus of more than 1 % of GDP would emerge — a scenario that, at present, appears to be not very relevant.

⁽¹⁾ A technical change to the framework adopted by the previous government is that in the deflator for gross domestic expenditure will be used to calculate expenditure ceilings in nominal terms. The previous budgets used the GDP deflator, which is more sensitive to shocks to the terms of trade.

11. Austria

Recent developments and medium-term prospects

In 2002, general government finances in Austria weakened markedly. From a surplus of 0.3 % of GDP in 2001, the budgetary position deteriorated by almost 1 percentage point to a deficit of 0.6 % of GDP despite the fact that output growth accelerated slightly to 1.0 % from 0.7 % in 2001. This outcome compares with an initial objective of a balanced budgetary position set in the November 2001 stability programme based on a real growth assumption of 1.3 % and also exceeds the deficit target of – 0.2 % of GDP retained in the low-growth scenario assuming a real GDP expansion of 0.9 %.

While in 2001 a strong rise in tax revenues helped to improve the cyclically-adjusted position despite low output growth, the decline in domestic demand in 2002 depressed tax revenues. The gross tax intake, accounting for 97 % of the revenues in the budget 2002, fell short of the budgeted amounts by 3.2 % or 0.8 % of GDP. However, the marginal item ‘other revenues’, increased to the extent that total revenues came in only slightly below the budget (by – 0.1 % or 0.03 % of GDP).

Although expenditure exceeded the budgeted figure by 2.3 % or 0.6 % of GDP, this increase was lower than anticipated against the background of rising unemployment and almost stagnating employment, entailing lower pension contributions and thus higher federal outlays for public pensions. In addition, the flood disaster in summer 2002 and the emergency package adopted in its aftermath was expected to increase spending but had, contrary to expectation, virtually no budgetary impact in 2002.

These factors had led the Austrian fiscal authorities to a preliminary deficit estimate of 1.0 % of GDP in 2002. Due to statistical reasons and data revisions, the actual deficit of 0.6 % of GDP turned out clearly lower, despite a decline in the surplus at the *Länder* level.

The March 2003 update of the stability programme projects that in the near term the general government financial position will deteriorate markedly, both in nominal and in cyclically-adjusted terms, before improving again as late as in 2007. The deficit will remain on average at 1 % of GDP until 2007, which is in sharp contrast to the objective of the previous programme aiming at a balanced budget position in 2003, and a small surplus in 2004 and 2005.

Specifically, according to the stability programmes the deficit is forecast to deteriorate from 0.6 % in 2002 to 1.3 % of GDP in 2003 despite higher output growth. While a temporary improvement is expected in 2004, the planned income tax reform will take its toll as of 2005, when the deficit is estimated to increase to 1.5 % of GDP and to remain above 1 % of GDP in 2006. A sizeable improvement to a deficit of 0.4 % of GDP is forecast only for 2007.

The budgetary strategy has changed significantly compared with the previous programme. The highlights of the new strategy are twofold: a fundamental reform of the public pension system, tackling many of its key problems, and a sizeable income tax reform.

On the revenue side, the tax reform is intended to reduce the tax burden to 43 % of GDP by the year 2006. It is estimated to cost EUR 3 billion or 1.3 % of GDP and to take effect in two steps, a smaller one in 2004 (EUR 1 billion) and a more substantial one of EUR 1 billion or almost 1 % of GDP in 2005. The reform aims at lowering taxes for low and middle incomes as well as on retained profits, strengthening work incentives for lower incomes, reducing non-wage labour costs and rendering the tax system more environment-friendly. Conversely, an increase in energy taxes effective as of 2004 should entail additional revenues of EUR 450 million or some 0.3 % of GDP.

On the expenditure side, a comprehensive pension reform, which is announced to start in 2004 and will be phased in until 2009, is without doubt the most remarkable feature of the updated stability programme.

Table VI.22

Composition and balances of general government, Austria ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	- 1.5	0.3	- 0.6	- 1.1	- 0.4
— Total revenue	50.8	52.3	51.4	51.0	50.7
Of which: — current taxes	27.9	29.8	29.4	30.0	30.7
— social contributions	16.9	17.0	16.9	17.1	17.0
— Total expenditure ⁽²⁾	52.2	52.0	52.0	52.1	51.1
Of which: — collective consumption	7.5	7.6	7.4	7.5	7.4
— social transfers ⁽³⁾	30.2	30.2	30.7	31.6	31.8
— interest expenditure	3.6	3.6	3.5	3.5	3.4
— gross fixed capital formation	1.5	1.2	1.2	1.1	1.1
Primary balance ⁽²⁾	2.2	3.8	3.0	2.4	3.0
<i>Pm</i> Tax burden	43.5	45.6	45.1	45.8	46.4
Government debt	66.8	67.3	68.7	68.5	66.8
<i>Pm</i> Cyclically-adjusted balance	- 2.5	- 0.0	- 0.6	- 1.0	- 0.4
<i>Pm</i> Cyclically-adjusted primary balance	1.2	3.5	2.9	2.5	3.0

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data for 2000 (except cyclically-adjusted) include UMTS receipts of 0.4 % of GDP.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

Table VI.23

Key figures of the Austrian stability programme (2002–06)

	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	0.9	1.4	2.0	2.5	2.5
General government budget balance (% of GDP)	- 0.6	- 1.3	- 0.6	- 0.3	0.2
Primary surplus (% of GDP)	3.2	2.3	2.7	1.9	2.2
Government debt (% of GDP)	67.8	67.0	65.1	63.8	62.1

Source: 2002 update of the stability programme of Austria.

This reform, if fully implemented, would rein in the structural upward pressure on spending and could prove central to ensuring the long-term sustainability of government finances. Further cuts in government personnel, measures to raise efficiency in the healthcare sector, and restructuring the federal railways complement expenditure side measures.

As regards the regional authorities, the national stability pact between the federal and lower levels of government is temporarily suspended owing to the flood disaster in summer 2002. Although the regional authorities had committed themselves to achieve on average annual surpluses of 0.7 % of GDP over the medium term, this obli-

gation is not binding in 2002 and 2003 as far as flood-related spending is concerned.

Mainly due to a substantial upward revision of public debt by 6.6 percentage points of GDP (details see below), the debt-to-GDP ratio stood at 68.7 % at the end of 2002, which was 9.1 percentage points above the 59.6 % objective set in the November 2001 stability programme. As a consequence, the projected decline in the debt-to-GDP ratio is delayed compared with the previous version of the programme. The debt ratio is planned to drop below the 60 % benchmark with a delay of five years, by 2007, decreasing by more than 8 percentage points from its peak in 2002, helped by further privatisa-

tion of public assets and the expiration of a special financing scheme for State-owned enterprises (details see section below).

Sharp increase in debt for statistical reasons

The debt-to-GDP-ratio was significantly revised upwards following a Eurostat decision ⁽¹⁾ on securitisation operations and also due to the inclusion of debt issued for public enterprises which had been erroneously omitted. First, Eurostat's decision on securitisation operations entailed a reclassification of debt within the government sector and resulted in an increase of public debt by EUR 2 593 million or 1.2 % of GDP in 2001. The second reclassification concerned bonds issued by the Austrian government in order to finance certain public enterprises (*Rechtsträgerfinanzierung*), which had not been included in gross debt. At the end of 2002, these operations amounted to EUR 11.7 billion or 5.4 % of GDP. Thus, the total effect of these two revisions is an increase in the debt-to-GDP ratio by 6.6 percentage points in 2002.

Securitisation operations — The case of the Blue Danube Loan Funding GmbH

In the case of Austria, Eurostat's decision on securitisation operations concerns debt issued by a 'special purpose vehicle', set up by the *Land* Niederösterreich (province of Lower Austria). In an effort to comply with the national stability pact, which obliges lower levels of government to attain an annual surplus of 0.75 % of GDP, some provinces sold their mortgage loan portfolios, that is, accounts receivable relating to State-subsidised housing. Economically this makes sense, as proceeds are re-invested to bear interest on the financial market and, thus, increase revenues.

To this end, the *Land* Niederösterreich set up a company, the 'Blue Danube Loan Funding GmbH' (BDLF), to which it sold its mortgage loan portfolio, consisting of accounts receivable relating to some 150 000 State-subsidised housing loans. The buyer purchased the right to collect principal and interest from this portfolio.

The BDLF financed this purchase by issuing bonds for an amount of EUR 2 593 million in 2001. The final maturity date of these bonds is May 2049. From May

2012 onwards, the issuer will have the right to redeem the bonds (first every five years, that is, in May 2017, May 2022 and May 2027, and at any date thereafter).

Yet, despite the sale, Niederösterreich keeps guaranteeing payment of the principal and interest, as well as any other amount due, should the issuer, for any reason, fail to meet its obligation.

Eurostat considers that guarantees by the State government imply an insufficient transfer of risk. Therefore, the debt of this 'special purpose vehicle' was reclassified within the government sector, entailing an increase of public debt by EUR 2 593 million or 1.2 % of GDP in 2001.

Financing public undertakings — *Rechtsträgerfinanzierung*

In Austria, a favourable financing scheme for State-owned enterprises was put in place in 1998 with the aim of minimising their financing costs. Under this scheme (*Rechtsträgerfinanzierung*) the federal government issues bonds in its own name and forwards the amounts raised as loans to the respective enterprise, mainly Asfinag, ÖBB, SCHIG, ÖIAG ⁽²⁾, all owned to 100 % by the government.

For the bondholder, the government remains debtor of principal and interest, that is, bondholders have a direct claim on the government, which is committed to make the corresponding payments. An internal agreement between the government and the State-owned enterprises, however, specifies that the respective enterprise redeems all payments, principal and interest, i.e. the government is also creditor.

According to the Treaty and successive regulations ⁽³⁾, public debt — for the purpose of the EDP notification — is a *gross* concept and therefore all debt issued by general government without exception has to be included ⁽⁴⁾. Due to a misinterpretation of the reporting rules, the Austrian authorities had netted out accounts receivable and payable resulting from the government's double role

⁽¹⁾ Decision of Eurostat on deficit and debt, No 80/2002 of 3 July 2002, 'Securitisation operations undertaken by general government'.

⁽²⁾ Asfinag — road infrastructure, ÖBB — federal railways, SCHIG — railway infrastructure, ÖIAG holding of public enterprises.

⁽³⁾ Regulation (EC) No 3605/93.

⁽⁴⁾ This is further specified in the Council minutes of 22 November 1993, when Regulation (EC) No 3605/93 was adopted, where a statement reads: 'The Council and the Commission agree that the amounts outstanding in the government debt from the financing of public undertakings will be the subject of a separate presentation which will reveal the institutional characteristics in force on the subject in the Member States'.

as creditor and debtor in these operations. As a consequence, bonds issued in order to finance public undertakings had not been included in the compilation of public debt until 2002. As of the spring 2003 notification, the reporting practice was corrected and the gross concept applied, entailing an upward revision of government debt by EUR 11.7 billion or 5.4 % of GDP in 2002

Economically, the *Rechtsträgerfinanzierung* enables State-owned enterprises to borrow money at very favourable interest rates, benefiting from both bigger emission volumes and Austria's AAA credit rating. As a consequence, issuance of these debt instruments has progressively increased since 1998. Government bonds passed on as loans to State-owned companies represented only 11.6 % of these enterprises' long-term liabilities in 1998, increased to 47.2 % in the year 2001 and are estimated to have represented almost 54 % in 2002. The interest rate spread between government bonds and bonds issued in the companies' own name, although being 100 % gov-

ernment owned, ranged from 42 to 63 basis points. As a result, cumulated interest savings since 1998 are estimated to total EUR 73.3 million or 0.3 % of GDP.

As liabilities relating to financing State-owned companies need to be reported as government debt, this instrument is now being abandoned, entailing two consequences. First, financing costs for State-owned companies will increase, since their emission volumes are fairly small, even if bundled for several enterprises. Moreover, in order to raise funds on the capital market, each of these firms needs a credit rating, hinging among other factors on the enterprise's relative independence of the government. In most cases, these firms are not autonomous in their decision making, such as setting prices, which impacts negatively on the credit rating (road tolls, for example, are set by the transport ministry and not by Asfinag). Second, the decline in the debt-to-GDP ratio after peaking in 2002 should be fairly pronounced, since by 2012 all claims relating to the *Rechtsträgerfinanzierung* will be settled.

12. Portugal

Recent developments

According to the March 2003 notification as revised by Eurostat ⁽¹⁾, the general government deficit in 2002 is estimated at 2.7 % of GDP and the debt ratio at 58.1 %. Implementation in 2002 of the 2001 stability programme update was severely hampered by the significant budgetary slippage registered in 2001, which led the Council on 5 November 2002 to decide that an excessive deficit exists in Portugal. The extent of the budgetary slippage registered in 2001 has had considerable knock-on effects in 2002, not least because it was recognised only with a considerable delay.

However, even in a situation of incomplete information, the Portuguese authorities realised in April 2002 that the budgetary situation was developing less favourably than foreseen in the stability programme update of December 2001, requiring corrective measures. Therefore, a rectifying budget was approved in June 2002, including saving measures worth about 0.6 % of GDP, notably a rise in the normal VAT rate from 17 to 19 %, and a reduction in investment expenditure ⁽²⁾. Following the approval of the rectifying budget, the new deficit target for 2002 was raised by 1 percentage point to 2.8 % of GDP. Therefore, the preliminary deficit estimate complies with the target as set in the rectifying budget.

During 2002, budgetary execution at the central government level developed less favourably than projected in

the rectifying budget, basically because of weaker activity than expected (GDP growth is estimated at % as against an initial forecast of 1 %), faltering domestic demand which depressed tax revenue, particularly in the second half of the year, and disappointing revenues from sales of government property. Therefore, in order to comply with the deficit target set in the rectifying budget and given uncertainties regarding the outcome for the healthcare sector and local authorities, the Portuguese authorities adopted a number of one-off measures at the end of the year, notably a tax amnesty, which in total are estimated to have yielded additional revenue of about 1 % of GDP ⁽³⁾.

The reduction in the general government deficit from 4.2 % of GDP in 2001 to 2.7 % in 2002 resulted basically from a strong increase in total revenue of about 1.3 percentage points of GDP, while total expenditure remained relatively stable at about 46.3 %, virtually unchanged from 2001. On the one hand, the increase in total revenue, despite the current unfavourable cyclical conditions, is due to the rise in indirect taxes by about 10.2 % caused by the discretionary rise in the standard VAT rate in June, together with the favourable impact of the tax amnesty decided at the end of the year on direct taxes and social security contributions (more 4.1 and 7.9 %, respectively).

On the other hand, the virtual stabilisation in the total expenditure-to-GDP ratio conceals a sharp rise in current primary expenditure, which was offset by an equivalent decline in capital expenditure. It is important to recall that in the period that led to the budgetary slippage of 2001, current primary expenditure grew consistently above nominal GDP. As regards current primary expenditure,

⁽¹⁾ Eurostat news release 30/2002 of 17 March 2003. The Portuguese government deficit was revised upwards by Eurostat to exclude revenue received by the Portuguese government at the occasion of the liquidation of the EFTA industrial development fund for Portugal, which had been set up in 1976. The revision is worth EUR 139.5 million (or 0.1 % of GDP). According to Eurostat, the ESA95 rules imply that this kind of liquidation proceeds have no impact on the deficit. As a consequence, the government deficit for 2002 has been revised from 2.6 % of GDP (the figure notified by the Portuguese authorities) to 2.7 %.

⁽²⁾ The rectifying budget included other measure, notably the freezing of hiring by the government, the closure and merger of public institutes, and the end of new interest rate subsidies to mortgage loans. The rectifying budget also provided for the sale of government property.

⁽³⁾ In mid-November 2002, the government declared an amnesty for interest surcharges on the payment of arrears on tax and social security contributions if paid before the end of 2002. The tax amnesty was a huge success, the extent of which was largely unanticipated, having brought in an additional EUR 1 367 million in revenue (or about 1 % of GDP).

Table VI.24

Composition and balances of general government, Portugal ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	- 2.8	- 4.2	- 2.7	- 3.5	- 3.2
— Total revenue	42.3	42.1	43.5	43.5	43.6
Of which: — current taxes	24.8	24.2	24.8	24.8	25.0
— social contributions	11.8	11.9	12.2	12.1	12.0
— Total expenditure ⁽²⁾	45.1	46.3	46.3	47.0	46.9
Of which: — collective consumption	8.4	8.5	8.7	8.7	8.6
— social transfers ⁽³⁾	24.5	24.8	25.6	25.8	25.8
— interest expenditure	3.2	3.1	3.0	3.1	3.0
— gross fixed capital formation	3.8	4.1	3.6	3.6	3.6
Primary balance ⁽²⁾	0.4	- 1.1	0.3	- 0.4	- 0.2
<i>Pm</i> Tax burden	36.7	36.2	37.1	37.0	37.0
Government debt	53.3	55.6	58.1	59.4	60.2
<i>Pm</i> Cyclically-adjusted balance	- 4.0	- 4.6	- 2.5	- 2.6	- 2.1
<i>Pm</i> Cyclically-adjusted primary balance	- 0.8	- 1.5	0.5	0.5	0.9

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data include UMTS receipts amounting to 0.3 % of GDP in 2000.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

Table VI.25

Key figures of the Portuguese stability programme (2003–06)

	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	0.7	1.3	2.7	3.1	3.5
General government budget balance (% of GDP)	- 2.8	- 2.4	- 1.9	- 1.1	- 0.5
Primary balance (% of GDP)	0.2	0.8	1.2	1.9	2.5
Government debt (% of GDP)	58.8	58.7	57.5	55.3	52.7

Source: 2002 update of the stability programme of Portugal.

no progress has yet been achieved in curbing the rise to 37.9 % of GDP, which increased by 1.1 percentage points in 2002.

The growth rate of current primary expenditure has stabilised at around 8 % per year in the 2001–02 period that is more than 2 percentage points above the average growth rate of nominal GDP. The growth rate of collective consumption, which decelerated only from 7.9 % in 2001 to 7.4 %, together with an increase in the GDP ratio of total social transfers by 0.8 percentage points to 25.6 %, resulting in part from the dynamics of pension expenditure at unchanged policies, and in part from the first step in the intended convergence

of minimum pensions towards the minimum net wage, which is due to be completed by 2006. The rise in current primary expenditure in 2002 was offset by the reduction in government investment, which fell by about 7.4 % in comparison with 2001. This raises questions about the quality of overall expenditure.

In the meantime, the government adopted a number of measures that are likely to yield over time significant benefits: the freezing of hiring in the central government, a policy of wage moderation in the general government, and a comprehensive set of measures to curb healthcare spending.

Compliance with the budgetary target for 2003 is a major challenge on the road to sound public finances

The achievement of the Portuguese authorities in 2002 deserves due credit, in particular given the difficult conditions under which it was obtained, but the budgetary adjustment must be confirmed in 2003. In this respect, the Council opinion of 7 March on the 2002 stability programme update emphasised the need to ensure that the government deficit in 2003 be further reduced well below 3 % of GDP and that the debt ratio be kept below the 60 % of GDP reference value. Failure to comply with the deficit target for 2003 would constitute a severe set-back for economic policy for three reasons: first, it would undermine policy credibility; second, it would not support the correction of a number of imbalances affecting the economy, notably the external balance; and thirdly, in order to secure government accounts close to balance by 2006 as envisaged in the current stability programme update, steady progress has to be achieved on fiscal consolidation. Therefore, it is paramount to secure both a timely and determined implementation of structural reforms.

In the last update of the stability programme, the Portuguese authorities have outlined an ambitious programme of structural reforms, which is in line with the broader

strategy defined in the 2002 broad economic policy guidelines. The twin aims of these reforms are: first, the pursuit of the process of budgetary consolidation on a sustainable basis, and second, to enhance the growth potential of the economy. Reforms in key areas, notably in public administration, education, healthcare, and social security, are likely to have a direct impact on budgetary consolidation. Other reforms (for instance in the labour market) are likely to have an indirect impact on fiscal consolidation, either by fostering a more efficient use of resources, or by broadening the tax bases as a result of successful supply-side policies.

However, the medium-term budgetary consolidation strategy foresees only limited progress on expenditure reduction in 2003 because structural reforms take time to yield benefits. In fact, only from 2004 onwards, budgetary consolidation is to be achieved through a sustained and significant reduction in the primary expenditure-to-GDP ratio. In the meantime, given the weakness of economic activity, the likely shortfall in tax revenue, combined with the wearing-off of the significant amount of one-off measures adopted in 2002, it is difficult to imagine how the Portuguese authorities will be able to meet the government deficit target of 2.4 % of GDP for 2003 without recourse to additional one-off measures, which have yet to be announced.

13. Finland

Recent developments and medium-term prospects

Owing to an equally strong boost from domestic and foreign demand, real GDP growth recovered somewhat to 1.6 % in 2002, and was held back by a strong inventory run-down in the manufacturing and shipping industries. On the back of substantial deceleration in economic activity since 2000 when GDP rose by 5.5 %, the general government financial surplus fell slightly to 4.7 % ⁽¹⁾ of GDP in 2002, although exceeding the estimate of the stability programme update of November 2002 by 0.9 percentage points.

The change in public finances since 2000 results from a normalisation of exceptionally high capital and corporate tax revenue from 2000–01. The better-than-expected outcome in 2002 owes mainly to certain one-off timing factors in corporate, capital gains and option tax income. Overall, these factors are estimated to have amounted to about 1 % of GDP. In addition, a decline in taxation on used cars together with a rise in corporate and energy tax intake increased tax revenue more than was expected. In spite of these exceptional revenues, the surplus of central government finances fell by 0.3 percentage points to 1.7 % of GDP. Local government finances continued to post a small deficit of 0.3 % of GDP although the finalisation of taxation of the tax year 2001 increased municipal revenue by some 0.3 % of GDP at the end of 2002. Social security institutions largely maintained their position, thanks also to the ongoing preparation for age-related future expenditure pressures, with a surplus of 3.3 % of GDP.

In spite of good indirect tax accrual, the general government revenue ratio slid marginally by 0.2 percentage points to

just below 54 % in 2002. This was mainly the result of revenue shortfalls due to discretionary income tax cuts of the order of 0.5 % of GDP as well as the normalisation of corporate and capital tax revenue. On the other hand, government income from sales of property rose markedly.

On the expenditure side, a repeated slippage in central government spending and higher social benefits following a marked rise of pensioners contributed to a rise of general government expenditure by 0.2 percentage points to 49.2 % of GDP, in spite of a significant fall in interest payments. Central government real expenditure was about 1 % higher in real terms in 1999–2001 compared with the target of freezing the spending at 1999 levels. In 2002, the cumulative overrun was more pronounced, about 3 %. This owes to discretionary increases in permanent expenditure in many areas of the budget. According to the budget for 2003, the deviation from the spending guidelines is expected to continue with the anticipated cumulative overrun of the central government expenditure target reaching 3 % in real terms ⁽²⁾. Consequently, the central government's aim of achieving a structural surplus of 1 to 2 % of GDP in the medium term seems all the more challenging in the future.

Due to a still strong primary surplus of 7 % of GDP and substantial privatisation proceeds of about 1.9 % of GDP, the general government debt ratio fell to 42.7 % in 2002 from 43.8 % in the previous year, i.e. close to the estimate of the updated stability programme. The stock-flow adjustment decelerated the fall of government debt as the pension funds continued to restructure their assets by shifting large parts of their Finnish government bonds to bonds issued in other countries of the euro area. Although the government's aim of pushing the central government debt ratio to below 50 % of GDP ⁽³⁾ by 2003

⁽¹⁾ It should be noted that Statistics Finland revised the national accounts data at the beginning of 2003 by changing the base year of price data to 2000 from 1995. Along with other small changes in classification, this revised upwards net lending of general government for earlier years by about 0.1–0.2 percentage points.

⁽²⁾ In fact, in budgets for 2002 and 2003, direct VAT-income distribution to the social insurance institution was increased, implying a cumulative overrun of about 4 %.

Table VI.26

Composition and balances of general government, Finland ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	6.9	5.1	4.7	3.3	3.0
— Total revenue	55.9	54.2	53.9	52.8	52.0
Of which: — current taxes	35.0	32.7	32.9	32.2	31.6
— social contributions	12.2	12.5	12.3	12.1	12.0
— Total expenditure	48.9	49.0	49.2	49.5	49.0
Of which: — collective consumption	7.6	7.3	7.6	7.7	7.7
— social transfers ⁽³⁾	29.6	29.9	30.5	30.9	30.7
— interest expenditure	2.9	2.7	2.2	2.2	2.1
— gross fixed capital formation	2.6	2.6	2.8	2.7	2.7
Primary balance	9.8	7.9	7.0	5.4	5.0
<i>Pm</i> Tax burden Inclusive social contribution	48.0	46.0	45.9	45.0	44.4
Government debt	44.5	43.8	42.7	42.3	41.4
<i>Pm</i> Cyclically-adjusted balance	4.1	4.2	4.8	3.7	3.3
<i>Pm</i> Cyclically-adjusted primary balance	6.9	7.0	7.0	5.8	5.4

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ No UMTS receipts included.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

Table VI.27

Key figures of the Finnish stability programme ⁽¹⁾ (2002–06)

	2001	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	0.7	1.6	2.8	2.6	2.5	2.4
General government budget balance (% of GDP)	4.9	3.8	2.7	2.1	2.6	2.8
Primary surplus (% of GDP)	5.6	4.2	2.9	2.3	2.6	2.7
Government debt (% of GDP)	43.4	42.5	41.9	41.9	41.4	40.7

⁽¹⁾ No UMTS receipts included.

Source: 2002 update of the stability programme of Finland.

(42.4 % of GDP in 2002) has been reached, the need to create a safety margin against age-related expenditure pressures warrants a further reduction in the debt ratio.

The November 2002 update of the stability programme foresees a general government surplus of 2.7 % of GDP in 2003. Recently, this estimate was revised to 2.6 %, which deviates markedly from the Commission services estimate of 3 %. The difference is due mainly to a more

pessimistic national estimate of the costs in 2003 of lowered car taxation and on a less optimistic view of domestic demand. Also, the normalisation effect of 2000–01 corporate and capital tax revenues in 2003 are estimated to be larger in the national forecast.

In view of expected cuts of excise duties on tobacco and alcohol owing to the end of EU exemption, the stability programme of November 2002 foresees the general government surplus to continue moderating to just over 2 % of GDP in 2004 which further deviates from the Commission estimate of 3 %. This follows largely from the

⁽³⁾ Excluding income from sales of government property.

no-policy-change assumption of the Commission forecast. In the light of mounting tax competition on corporate income and the experience of expenditure slippage in the recent past, renewed efforts to control central government spending seem to be warranted if the government is to secure a sustainable path of public finances.

Experiences with the expenditure rule

At the beginning of the 1990s, following one of the most severe economic depression in Finland, the government added a new tool into the budget process to achieve consolidation in public finances (see Part V of this report for an analysis on expenditure rules in the EU context). Annual expenditure limits (so-called 'frames') were introduced for central government spending to help budgetary planning in the medium term. In particular, the government sought to terminate the chronic accumulation of central government deficits caused by hiking social security spending and reducing overall revenues. During the first half of the 1990s, the frames also included targets for the central government personnel, but this feature was eradicated by 1995 whereas plans on interest payments for the State debt have always been included in the frames.

Expenditure rule

Expenditure frames turned into spending ceilings when the current/stepping aside government took office in 1999, and defined as one of its fiscal policy targets to freeze central government real expenditure at the level of the 1999 original budget (EUR 32 billion) for its term of office until 2003. According to the government programme of 1999, all spending needs would be financed within the spending ceilings, implying savings measures should any new expenditure items arise. The 2000 update of the stability programme further stipulated: 'the parliamentary factions of the ruling parties have agreed to refrain from using any automatic savings generated by a decrease in unemployment and reduced debt servicing to cover new spending items or levels, should the economic cycle so require'. In view of the government's other fiscal policy targets of reducing central government debt to below 50 % of GDP and cutting labour taxes by EUR 1.7–1.9 billion over the election period, adhering to strict spending control was therefore essential.

Annually in February/March, the government agrees on expenditure frames by the ministries for the next four-

year period taking into account existing legislation, all relevant coming spending items (*inter alia* wage rises) and large specific development plans. Thus, on the one hand, indexation-induced 'automatic' spending increases are included in the frames and, on the other hand, any major developing process can be agreed and included upon the spending plans already in advance. On the other hand, as the government drafts new frames every year, there is a customary tendency of overrunning the previous frames instead of using the previously agreed frame as a basis for next year's budget, thereby effectively undermining the genuine purpose of the expenditure frames. Expenditure frames lack the status of being legally binding, nor is there any requirement of covering the possible overruns. Individual ministries are obligated to draft their budget proposal for the next year according, to the frames agreed by the government in spring although the ministries can include developing projects into the budget proposals thus deviating from the initial expenditure frame.

Assessment of accomplishment

Budgetary consolidation during the past decade has been successful and the on-budget ⁽¹⁾ expenditure fell by well over 10 percentage points ⁽²⁾ of GDP between 1995 and 2001 (see Table 13.3; from 36.4 % of GDP in 1995 to 24.9 % in 2001). Particularly for the early years, much of this owed to expenditure frames while part of the fall in expenditure ratio in later years is also due to robust growth of nominal GDP ⁽³⁾ and sturdy privatisation proceeds ⁽⁴⁾. Owing to the revenue from sales of government property, interest payments on government debt have decreased faster than was targeted in the government programme of achieving the level of central government debt of below 50 % of GDP ⁽⁵⁾ by the end of the term of the government.

⁽¹⁾ Central government finances also include extra-budgetary funds, such as the National Housing Fund of Finland, the State Pension Fund, the Development Fund of Agriculture and Forestry, and the Intervention Fund of Agriculture.

⁽²⁾ Budgetary outcomes of different years are not strictly comparable over the period owing to some of the functions having been transferred to net budgeting and some others to State-owned companies.

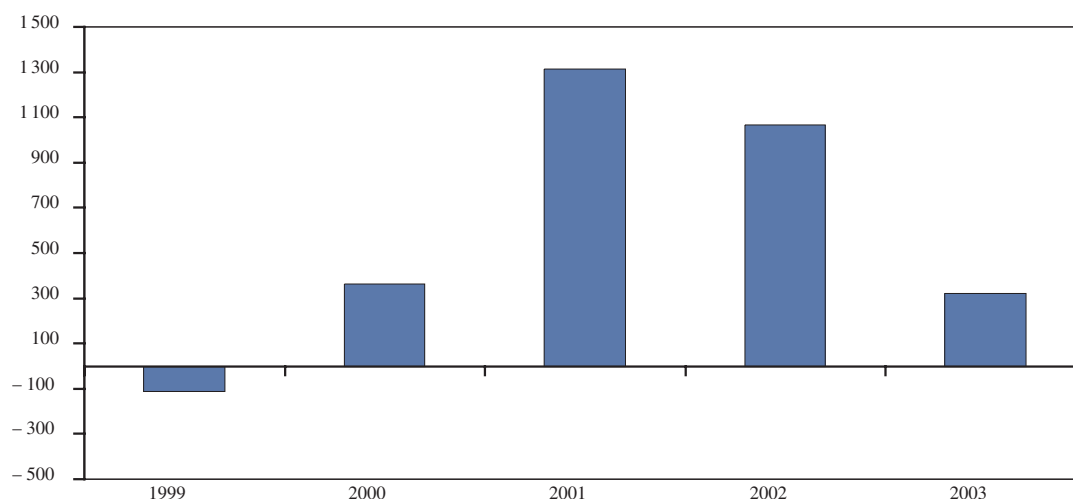
⁽³⁾ Of about 6 % per year on average.

⁽⁴⁾ Totalling to EUR 6.7 billion or 5 % of GDP during 1999–2002.

⁽⁵⁾ Estimated at 42.2 % of GDP in 2002. The target was later complemented to exclude privatisation proceeds. The debt-to-GDP ratio is estimated at about 47 % in 2002 if all the income from property sales had been excluded from the use of reducing the central government debt.

Table VI.28

Difference of budgetary outcomes and expenditure ceilings (excluding interest payment), million EUR



Source: Commission services.

In spite of clearly successful budgetary consolidation during the second half of the 1990s, the current expenditure rule has not been fully adhered to. Central government real expenditure, including falling interest payments on government debt, is estimated to exceed the target of the 1999 budget level by somewhat over

EUR 1 billion in 2003. Central government nominal spending by ministries increased by EUR 5.5 billion whereas interest payments decreased by EUR 1.3 billion, about 1 percentage point of GDP, between 1999 and 2003. The over-shooting was mild in 2000, but accelerated sharply in 2001 making for an overrun in 1999–2001

Table VI.29

Central government expenditure frames 1994–2003, million EUR in nominal terms

Year	Expenditure ceiling (as defined in t-1)	Budgetary outcome	Difference btw target and outcome, %	Outcome, % of GDP
1994	28 056	31 780	13.3	36.2
1995	31 352	34 626	10.4	36.4
1996	33 583	34 042	1.4	34.5
1997	33 411	31 817	-4.8	29.7
1998	31 928	32 424	1.6	27.9
1999	32 060	32 120	0.2	26.8
2000	32 460	32 953	1.5	25.3
2001	32 595	33 765	3.6	24.9
2002 ⁽¹⁾	34 195	35 249	3.1	25.1
2003 ⁽¹⁾	35 625	35 755	0.4	24.5

(1) Latest budget proposal for the year in question.

Source: Commission services.

of about 1 % in real terms. In 2002–03, the overrun was more pronounced, about 3 %. Part of the overrun results from a deceleration in the growth of social security contributions which has increased transfers from the central government budget to social security funds. To a large extent, however, the increased central government spending is due to increasing transfer payments to local government, whilst consumption expenditure also grew markedly, in particular in 2002.

Source of overrun

The expenditure ceilings are expressed by administrative branches, that is, ministries, not by functions. Consequently, the ceilings bring a certain lack of flexibility and coordination as every ministry strives for the optimal budgetary funding for itself. Furthermore, the ministries have a tendency to overrun the expenditure ceiling of spring when they present their budget proposal to the Ministry of Finance in July, after only five to six months of agreement of the ceilings. The general shortcoming is that the expenditure ceilings are changed annually instead of adhering to them for their whole four-year period. Furthermore, as the government complements the annual budget with two to three supplementary budgets in the course of the budget year, only modest effort is given to adhere to spending ceilings, or the original budget, for the year in question. The current expenditure rule applies only over the government's term of office. In addition, the last word in compiling the budget rests with parliament which has often taken a softer approach on adhering to the spending ceilings agreed by the government.

Latest expenditure ceilings

On 27 February 2003, the government reached an agreement on the expenditure frames for the next four-year period up to 2007 ⁽¹⁾ (see Table 13.4.). According to the latest ceilings, central government total expenditure in 2004–07 is estimated to exceed the level of the 2003 budget expenditure by about 1 % in real terms. The fall of interest expenditure on government debt is expected to discontinue ⁽²⁾ owing to a rise of nominal debt. Consequently, nominal expenditure seems to grow by about EUR 2 billion between 2003 and 2007. The deci-

sion on ceilings include all currently decided future spending items and expected social transfers on, *inter alia*, unemployment. Furthermore, guidelines take into account the expenditure pressure arising from rising healthcare costs and they further assume a 75 % cost indexation on local government state grants instead of the current 50 %.

Overall, spending ceilings for 2004–07 assume a virtual freeze on real expenditure, which, in view of fixed interest expenses, imply that central government is expected to spend more money merely on price rises and wage increases over the coming four-year period. Furthermore, falling interest outlays no longer seem to offer leeway for extra spending.

Improving the expenditure rule

Implied by the expenditure overruns and the current obscure structure of the expenditure rule, it appears that expenditure ceilings should be made operationally more simple. To this end, the authorities should consider reformulating the real expenditure target so as to avoid transparency problems. That could be achieved, for example, by explicitly agreeing how nominal government expenditure will be adjusted for inflation. On the other hand, nominal targets are more transparent and therefore easier to monitor. Additionally, nominal targets require correctional measures in case of faster-than-expected inflation.

Additional improvement could be gained from applying the four-year ceilings in full, that is, using them as the true medium-term targets instead of changing the ceilings every year. An overall priority plan for the total central government spending would be helpful in that regard. In addition, the current supplementary budget procedure should be reformulated to take better account of the existing spending limit and budget for each year. It seems that stricter enforcement of the limits should be implemented. To this end, spending decisions which overrun the ceilings should be offset by spending cuts.

It would pay off to consider whether interest payments on public debt should be excluded from the ceilings, thereby avoiding a loosening of the spending targets in case of falling interest expenses (see also Part V of this report). Additionally, this implies also considering the possibility to exclude other cyclical expenses, such as unemployment benefits, too. Taking this analysis further, one-off-type income measures could also be excluded from the budgetary planning.

⁽¹⁾ These guidelines are only indicative as the new government, to be elected on 16 March 2003, will renegotiate the final spending ceilings for 2004–07 to be used when preparing the budget proposal for 2004 in autumn 2003.

⁽²⁾ The government expects interest payments to fall by another EUR 300 million in 2004 from 2003, but to resume a rising trend between 2005 and 2007.

Table VI.30

Central government expenditure frames for 2004–07 by ministries, million EUR at 2004 prices and costs

Administrative branch	2004	2005	2006	2007
Council of State	45	45	51	42
Foreign Affairs ⁽¹⁾	747	783	823	864
Justice	663	651	671	665
Interior	1 435	1 447	1 431	1 418
Defence	2 049	2 116	2 121	2 124
Finance	5 441	5 560	5 680	5 765
Education	6 017	6 003	6 005	6 000
Agriculture and Forestry	2 636	2 659	2 682	2 626
Transport and Communications	1 768	1 629	1 485	1 426
Trade and Industry	948	943	948	959
Social Affairs and Health	8 727	8 775	8 826	8 837
Labour	2 101	2 044	2 009	1 970
Environment	657	647	640	635
Primary expenditure	33 337	33 405	33 473	33 433
Interest payments on State debt ⁽¹⁾	3 127	3 068	3 076	3 088
Total	36 464	36 473	36 549	36 521

⁽¹⁾ Interest and Development Cooperation expenses at current prices.

Source: Commission services.

14. Sweden

Recent developments and medium-term prospects

The Swedish government finances have been in surplus each year since 1998. The overriding goal of fiscal policy is to maintain sound public finances. To achieve this, Sweden's medium-term budgetary strategy is three-fold and consists of: (i) nominal ceilings on central government expenditure set annually for three years ahead, (ii) a medium-term balanced budget constraint for local governments and (iii) a 2 % of GDP surplus target for general government finances on average over the business-cycle. The latter forms an integral part of Sweden's strategy to cope with the budgetary consequences of ageing populations.

In 2002, the surplus was 1.3 % of GDP (1.7 % expected in the latest convergence programme), down markedly from 4.5 % of GDP in 2001. Higher expenditure and in particular lower revenue contributed to the lower surplus recorded in 2002. Higher public consumption and transfer payments to households contributed to the rise in the expenditure-to-GDP ratio. Lower tax receipts from both households and companies contributed to the fall in the revenue-to-GDP ratio. This reflects in part the tax cuts on labour income implemented in 2002.

Central government expenditure covered by the ceiling (cash basis) in 2002 came out just below the ceiling previously set. The use of expenditure ceilings on central government as a means for medium-term budgetary planning is covered in more detail in the following section.

The cyclically-adjusted balance fell to 0.9 % of GDP in 2002 from 3.6 % of GDP in 2001, and the cyclically-adjusted primary balance fell to 3.8 % of GDP from

6.8 % of GDP. This indicates a considerable easing of the fiscal stance in 2002 ⁽¹⁾.

The general government debt ratio was 52.4 % of GDP in 2002, down by 2 percentage points compared with 2001. The debt reduction was lower than the surplus in general government finances, mainly due to the net acquisition of financial assets in 2002.

In 2003, the surplus in government finances is expected by the Commission services to fall somewhat to 0.8 % of GDP as economic activity is forecast to be weaker. GDP growth of 1.4 % is expected compared with 1.9 % in 2002. The expenditure-to-GDP ratio is expected to rise in 2003 as a result of the weaker economic activity foreseen. Higher transfer payments to households are projected, in part as unemployment is forecast to rise and in part as sickness insurance payments should be higher than in the previous year. This suggests that the ceilings on central government expenditure will be breached on the basis of the budget for 2003, presented in October 2002. Indeed, the Swedish authorities announced, in the Spring Fiscal Policy Bill released on 15 April, measures to cut expenditure, in line with the Budget Law.

The revenue-to-GDP ratio is expected to rise in spite of the weaker economic activity foreseen. This is in part due to higher tax rates levied by several local governments in 2003, resulting in higher tax revenues for the general government sector as a whole. The cyclically-adjusted surplus is expected to rise by 0.2 percentage points of GDP and the cyclically-adjusted primary sur-

⁽¹⁾ In the 2002 updated convergence programme an adjustment for the timing of recording of taxes is made, which reduces the balance in particular in 2001 but also in 2002. The Swedish approach of adjusting the periodisation of taxes gives considerable effects for some years. This means that the budget balance for 2000 is strengthened by 1 percentage point and weakened by 2.5 and 0.5 percentage points in 2001 and 2002, respectively. Smaller effects are projected for 2003 and 2004. On the basis of such an additional adjustment, the fiscal stance is still expansionary in 2002, but to a lesser degree.

plus is expected to rise by 0.1 percentage points, reflecting a slightly restrictive stance in 2003.

In the latest update of the Swedish convergence programme, the general government finances were projected to show surpluses of 1.5 % of GDP in 2003 and 1.6 % of GDP in 2004. These budgetary projections were based on real GDP growth of 2.5 % in 2003 and in 2004. The social security sector was projected to continue to show considerable surpluses in the years to 2004. For the local government sector, slight surpluses in 2003 and 2004 were projected, whereas for the central government deficits of around 1 % of GDP were projected. Overall, both the revenue and expenditure-to-GDP ratios were projected to decline in 2003 and 2004. The government gross debt-to-GDP ratio fell below 60 % in 2000 and is expected to fall further, to 49.3 % by 2004. The targets set for public finances were considered to be in accordance with the requirements of the Stability and Growth Pact by the Council, as evident from their latest opinion on the updated Swedish convergence programme ⁽¹⁾.

The overall thrust of the Spring Fiscal Policy Bill is restrictive and the outlook for the economy and the public finances were revised downwards compared with the 2002 convergence programme (and the budget for 2003). The surplus in the public finances were revised downwards to 0.4 % of GDP in 2003 (from 1.5 %) and to 1.0 % of GDP in 2004 (from 1.6 %). In 2005 and 2006, surpluses of 1.4 and 2.1 % of GDP, respectively, were projected. These budgetary projections were based on real GDP growth of 1.4 % in 2003 (down from 2.5 %), 2.4 % in 2004 (down from 2.5 %), 2.6 % in 2005 and 2.5 % in 2006.

The Commission's spring forecasts suggest that the surplus in the public finances will reach a low in 2003 and a surplus of 0.8 % of GDP is projected at the back of lower GDP growth compared with 2002. In 2004, a higher surplus of 1.2 % of GDP is projected, in line with higher GDP growth. The difference between the Commission's spring forecasts and the projections in the Spring Fiscal Policy Bill regarding the budget balance in particular in 2003 can mainly be attributed to the revenue side. In particular, the Swedish authorities project a smaller rise in current tax receipts, compared with the Commission. This smaller rise can be explained by an assumption rather than a forecast of wage increases

(hourly earnings) of 3.5 %, which may well be on the low side. The budget also projects a larger fall in corporate direct taxes, compared with the Commission. In addition, the main new measure in the Bill — of reducing sickness insurance — results in lower taxable income and therefore lower tax receipts, as benefits are taxed. Moreover, a decline in the debt ratio is expected and the debt ratio is projected by the Commission to fall below 50 % of GDP in 2004.

Sustaining sound public finances — the first real test for the procedure of ceilings on central government expenditure

The Swedish Government introduced with the 1996 Budget Law a procedure of expenditure ceilings on central government to be set three years ahead. This procedure has proven useful in that it limits the risk for slip-page in the budget, as it imposes institutional restrictions on increased spending. It has also been successful in the sense that these ceilings have been adhered to each year since 1997, and expenditure also came out below the ceilings in 2002 (see Table VI.33 below). At the same time, general government expenditure in relation to GDP has been on a declining trend. It can therefore be said that the fiscal policy framework has been instrumental in strengthening the Swedish public finances. It has allowed Sweden to introduce substantial tax cuts in 2000–02 while keeping the public finances in surplus.

Sweden experienced remarkable economic growth between 1998 and 2000, averaging 4.2 %, accompanied by strong employment growth and a reduction of the unemployment rate, from 8.2 % in 1998 to 5.6 % in 2000 (and further to 4.9 % in 2001). This has acted in the direction of limiting the demand and need for expenditure increases beyond projections.

However, Swedish economic growth, as in most other economies, was more subdued in 2001 and 2002, averaging 1.5 %, and is set to be slightly below that in 2003. Moreover, employment growth was virtually flat in 2002 and is expected to be slightly negative in 2003. This is expected to result in a rise in the unemployment rate, widely regarded as being near the NAIRU. In the budget for 2003, the contingency reserves (the buffers within the ceilings) were narrowed for 2003 and 2004. Moreover, it is likely that there will be overruns in some expenditure areas if economic growth comes out below the government's expectations. Indeed, in the 2003 Spring Fiscal Policy Bill GDP growth was revised

⁽¹⁾ OJ C 26, 4.2.2003.

downwards from 2.5 to 1.4 % in 2003. Moreover, the contingency reserves (the buffers within the ceilings) were narrowed further for 2003 and 2004.

The Budget Law states that the government should twice a year report to Parliament (this has been done when presenting the Fiscal Policy Bill in the spring and the Budget Bill in the autumn in the past). If signs of overruns should emerge, the government should propose measures to correct these if the overall ceiling is threatened. However, Parliament may decide on changing the ceilings, which illustrates that the procedure has some

flexibility. The government has declared on several occasions that it stands ready to take restraining measures on expenditure, in order to ensure adherence to the ceilings set overall, in line with the Budget Law. In the Spring Fiscal Policy Bill, proposals to contain expenditure in 2003 and 2004 were included.

The fact that expenditure cuts were proposed in the Spring Bill suggests that the Swedish authorities do take the procedure of expenditure ceilings seriously. This lends support to the continuation of the hitherto successful strategy of maintaining expenditure control.

Table VI.31

Composition and balances of general government, Sweden ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance	3.4	4.5	1.3	0.8	1.2
— Total revenue	60.9	61.7	59.5	59.9	59.7
Of which: — current taxes	37.5	38.6	36.4	37.2	37.3
— social contributions	14.9	15.5	15.6	15.4	15.2
— Total expenditure	57.4	57.2	58.2	59.1	58.5
Of which: — collective consumption	8.6	8.7	9.0	9.1	9.0
— social transfers ⁽²⁾	36.0	36.2	36.9	37.9	37.7
— interest expenditure	4.0	3.3	2.9	2.7	2.6
— gross fixed capital formation	2.9	3.0	3.2	3.3	3.3
Primary balance	7.5	7.7	4.2	3.5	3.9
<i>Pm</i> Tax burden Inclusive social contribution	52.5	54.2	51.9	52.6	52.5
Government debt	52.8	54.4	52.4	50.9	49.5
<i>Pm</i> Cyclically-adjusted balance	1.4	3.6	0.9	1.1	1.5
<i>Pm</i> Cyclically-adjusted primary balance	5.5	6.8	3.8	3.9	4.2

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ In kind and other than in kind.

Source: Commission services.

Table VI.32

Key figures of the Swedish convergence programme (2001–04)

	2001	2002	2003	2004	2005	2006
Real GDP growth (annual % change)	1.2 ⁽¹⁾	2.1	2.5	2.5	2.3	:
General government budget balance (% of GDP)	4.8	1.7	1.5	1.6	2.0	:
Primary surplus (% of GDP)	6.0	2.3	2.0	2.1	:	:
Government debt (% of GDP)	56.6	53.6	50.9	49.3	48.0	:

NB: In the 2003 Spring Fiscal Policy Bill released on 15 April, the following projections were made: GDP growth: 1.4 % in 2003, 2.4 % in 2004, 2.6 % in 2005 and 2.5 % in 2006. General government budget balance (% of GDP): 0.4 % in 2003; 1.0 % in 2004; 1.4 % in 2005 and 2.1 % in 2006. Government debt (% of GDP): 51 % in 2003, 50 % in 2004, 48.4 % in 2005, and 46.4 % in 2006.

Source: 2002 update of the convergence programme of Sweden.

Several commentators have argued that the introduction of a rule-based framework for public finances and a procedure for ensuring expenditure control has been instrumental in strengthening Swedish public finances and has added to the achievement of macroeconomic stability. Indeed, Mr. Lars Heikensten, Governor of the Swedish Riksbank recently said ⁽¹⁾ that ‘if there is a short-term room for manoeuvre and if it is possible to achieve higher growth and employment without the inflation target being threatened, this opportunity should be taken by lowering the repo-rate. To let the rule-based fiscal policy framework go when it, for the first time, is being tested thoroughly, would send a very negative signal to all who assesses the Swedish economic situation’.

To this end, the proposed increase in the levels of sickness and family insurance ⁽²⁾ was postponed in the Spring Bill. Moreover, cuts in the sickness insurance benefit levels and a prolongation of the period the employer pays ‘sickness wage’ from 14 to 21 days were proposed. This, together with other expenditure cuts and postponements amounted to SEK 5.3 billion (0.2 % of GDP) in 2003 and SEK 10.8 billion (0.4 % of GDP) in 2004. Even so, the budgetary margins for 2003 and 2004 are very narrow at SEK 0.4 billion and 1.1 billion respectively. With the proposed expenditure cuts, the fiscal stance is restrictive, in particular in 2003 and to a lesser extent in 2004–06. Tax increases in the local government sector this year contribute to this. The Spring Bill notes that the restrictive fiscal stance ‘lessens the need for a tightening of monetary policy in the recovery phase’.

- ⁽¹⁾ On 18 March at a hearing in the Parliament’s sub-committee on finance. On the same day, the Riksbank announced that the Executive Board had decided to cut the repo-rate by 25 basis points, to 3.5 %.
- ⁽²⁾ Proposal in the budget for 2003 to raise the level from 7.5 to 10 times the basic amount.

In order to strengthen the chances of respecting the expenditure ceiling for 2003, some expenditure components were advanced from 2003 to 2002, suggesting a slightly better starting position in 2003. However, this type of operation may adversely affect the credibility of the expenditure ceiling procedure as a mean to avoid slippage. In addition, it does jeopardise the very idea of containing expenditure. This is evident from the national accounts definition, where tax expenditures are booked, properly, as expenditures. Indeed, in the report published on 12 March 2002 by the government-appointed Committee on Stabilisation Policy for Full Employment if Sweden joins the Monetary Union, the use of the expenditure ceilings in Sweden is being addressed in the context of ensuring maintained expenditure control in ‘good times’. The report notes that ‘[...] the so-called budget margin — the difference between the government expenditure ceiling and estimated expenditure — has come to be viewed more as a “room for new expenditure increases” than as a safety margin for dealing with uncertainty in expenditure forecasts’.

Hence, in order to ensure a successful use of expenditure ceilings on central government as a means to contain expenditure in the medium term, Sweden would gain from a stricter implementation of the so-called budget margin to reflect an adequate margin for forecast errors. In the short-term (in 2003–04), the discretionary cuts in spending introduced with the Spring Fiscal Policy Bill strengthens the chances of adhering to the ceilings set when they are being tested thoroughly for the first time since the procedure was introduced. It lends support to the continuation of the hitherto successful strategy of maintaining expenditure control. This should put Sweden in a better position to continue the strategy of sustaining surpluses in public finances over the cycle and would also make room for the continuation of the strategy of lowering taxes.

Table VI.33

Central government expenditure in % of GDP

	1997	1998	1999	2000	2001	2002	2003	2004
Expenditure, central government	36.5	36.4	36.2	34.6	34.7	34.7	:	:
Expenditure ceiling, central government in t-1	38.3	36.5	36.2	34.8	34.8	34.7	33.8	33.5

NB: the figures for central government are on a cash basis (national definition). For 2003 and 2004, the Commission services spring 2003 forecast for nominal GDP is used. The expenditure ceiling for 2004 as given in t-2. A technical adjustment to the ceilings in 2003 and 2004 in the Spring Fiscal Policy Bill results in a ceiling (in % of GDP) of 33.9 % in 2003 and 33.7 % in 2004. In addition, new expenditure ceilings for 2005 and 2006 were not proposed in the Spring Fiscal Policy Bill, contrary to the information in the 2002 updated convergence programme. The Bill states that ceilings for these years will be presented with the budget for 2004. However, the Spring Bill includes indicative expenditure ceilings. These were (in % of the Bill’s GDP) 33.6 % in 2005 and 33.4 % in 2006.

Sources: Swedish Budget Bills for 1997–2003, The 2003 Spring Fiscal Policy Bill, Commission services.

15. United Kingdom

Recent developments and medium-term prospects

The government finances in 2002 moved into deficit, following four years of surpluses. The estimated out-turn for the general government balance was a deficit of 1.3 % of GDP following a surplus of 0.8 % in 2001. In the financial year 2002–03, the out-turn is now estimated to be a deficit of 2.3 % compared to 1.8 % in the convergence programme. Part of the rise from the convergence programme is due to an allocation for the war with Iraq. A reason for the move into deficit in 2002, was the result of planned rises in government expenditure in excess of GDP growth, but also receipts were lower than expected due to the effects of the global economic slowdown on financial markets and companies. The tax burden is estimated to have decreased from 38 % of GDP in 2001 to a little under 37 % in 2002. In particular, taxes on income actually fell, in part, to the aforementioned effect on the financial sector. A rise in current consumption and capital expenditure as a percentage of GDP, was partly offset by a fall in interest payments as UK gross debt relative to GDP continued to fall. The cyclically-adjusted primary surplus, as a percentage of GDP, fell in 2002 as planned expenditure rose as a percentage of GDP. The general government debt fell to 38.4 % of GDP at the end of 2002 from 38.9 % at the end of 2001.

The public finances are expected to weaken again in 2003 and the general government finances are expected to show a deficit of 2.5 % of GDP in that year. The authorities, in the budget announced in April, expect a similar deficit of 2.4 % of GDP in 2003–04 compared to 2.2 % in the convergence programme. This weakening in the government finances is due to planned expenditure rises over the period to financial year 2003–04 which are only partially offset by rises in national insurance contributions. Further, government expenditure is expected to be temporarily inflated, in 2003, as a result of the costs of the war with Iraq. In addition, the public finances will continue to be affected, albeit temporarily, by a continu-

ation of lower than expected tax receipts resulting from the weakness in financial markets. In sum, the rise in the cyclically-adjusted balance is around 1 % of GDP between 2002 and 2003 on the Commission services projections, as the cyclically-adjusted deficit rises to 2 % of GDP in 2003 and 2004 from 1 % in 2002. This expansionary stance is not expected to present problems in the UK where inflation is amongst the lowest in the EU and, indeed, rises in general government expenditure, especially capital expenditure, should help maintain respectable GDP growth of 2 % in 2003.

The Commission services are projecting a deficit of 2.5 % of GDP in 2004; the same as in 2003. The latest budget projections show the public finances moving into deficit of 2.4 % of GDP in 2003–04, as stated above, and a deficit of 2.1 % of GDP in 2004–05 falling to 1.9 % in 2005–06. The slightly lower deficits of the authorities, as compared to the Commission services, can be largely explained by a more optimistic growth forecast for 2004. However, in the short term, these projected deficits of the authorities are a little higher than those in the convergence programme due to a more negative output gap, but in 2006–07 and subsequently, the deficit is projected at 1.7 % of GDP a little above that of the convergence programme and it is also 1.7 % in cyclically-adjusted terms. This deficit persists as the result of addressing the low level of government investment.

Gross debt as a percentage of GDP is expected to be around 40 % in 2007–08 in the budget projections. This is relatively low. On current policies and assumptions, the UK is well placed to meet the budgetary costs associated with an ageing population.

The UK approach to public investment

The government has introduced a number of reforms to fiscal policy making and public expenditure planning and control to ensure that public investment is main-

Table VI.34

Composition and balances of general government, United Kingdom ⁽¹⁾

(as % of GDP)

	2000	2001	2002	2003	2004
Government balance ⁽²⁾	1.6	0.8	- 1.3	- 2.5	- 2.5
— Total revenue	40.6	40.7	39.5	39.5	39.7
Of which: — current taxes	30.4	30.3	29.2	29.0	29.0
— social contributions	7.6	7.6	7.5	7.9	8.1
— Total expenditure ⁽³⁾	36.7	39.9	40.7	41.9	42.2
Of which: — collective consumption	7.4	7.5	7.6	7.8	7.8
— social transfers ⁽³⁾	24.6	25.4	25.9	26.2	26.2
— interest expenditure	2.8	2.4	2.0	2.0	2.1
— gross fixed capital formation	1.1	1.2	1.3	1.7	1.8
Primary balance ⁽³⁾	6.7	3.2	0.8	- 0.4	- 0.4
<i>Pm</i> Tax burden	38.2	38.0	36.7	36.9	37.1
Government debt	42.1	38.9	38.4	39.0	39.8
<i>Pm</i> Cyclically-adjusted balance	1.2	0.7	- 1.0	- 2.0	- 2.0
<i>Pm</i> Cyclically-adjusted primary balance	3.9	3.1	1.1	0.0	0.0

⁽¹⁾ Commission spring 2003 economic forecasts.

⁽²⁾ Data include UMTS receipts amounting to 2.4 % of GDP in 2000.

⁽³⁾ In kind and other than in kind.

Source: Commission services.

Table VI.35

Key figures of the United Kingdom's convergence programme (2001–02 to 2006–07)

	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07
Real GDP growth (annual % change)	1.5	2.0	2.8	3.0	2.8	2.5
General government budget balance (% of GDP)	- 0.2	- 1.8	- 2.2	- 1.7	- 1.6	- 1.6
Primary balance (% of GDP)	1.0	- 0.8	- 1.2	- 0.6	- 0.6	n.a.
Government debt (% of GDP)	38.2	37.9	38.8	38.9	38.9	39.1

Source: 2002 update of the convergence programme of United Kingdom.

tained at levels appropriate to securing the government's goals ⁽¹⁾.

These reforms reflect the view that, in recent years, public investment had fallen to very low levels as a proportion of GDP (only 0.5 % in net terms in 1999–2000). Among the EU economies, the ratio of public sector net investment to GDP in the UK was around the lowest over the period 1970–2004. The reforms also reflect the importance the government attaches to public invest-

ment, in its own right, as an important ingredient in advancing two of its five long-term goals, namely:

- raising the sustainable rate of UK productivity to deliver, rising national prosperity (by improving the nation's infrastructure);
- establishing world-class public services with significant extra investment tied to reform and results.

The following describes the UK approach to public investment in four important areas, namely the role of public investment in the macroeconomic framework, the broad planning approach to public investment in the

⁽¹⁾ Most recently, these were described in the Treasury publication, '2002 Spending review departmental investment strategies: a summary'. (December 2002).

spending ‘rounds’, the departmental allocation and assessment of investment by results and the role of private/public partnerships in delivering investment.

The macroeconomic framework

The UK’s own fiscal rules, introduced in 1997, are now well known:

- the golden rule: over the economic cycle, the government will borrow only to invest and not to fund current spending; and
- the sustainable investment rule: public sector net debt as a proportion of GDP will be held over the economic cycle at a stable and prudent level.

Thus, the intent can be seen to promote (public sector) capital investment while ensuring sustainable public finances over the long term as borrowing for investment is conducted in a responsible way.

The chart reveals the low level to which investment had fallen in recent years and also shows the pick-up since the rules were established, though investment still remains at low levels. Of course, part of the historical fall is explained by the decisions of governments to move out of activities previously delivered by the public sector, but the fall is not fully explained by these changes.

The broad planning approach

Public investment allocations play an important role in the four key themes of the 2002 spending review namely, raising productivity, extending opportunity, strong and secure communities, and Britain in the world. Within the increased level of resources devoted to investment, the government has focused on four priority areas — education, transport, health and housing.

Public sector investment falls within the budgeting regime which is intended to secure compliance with the fiscal rules. The main ingredients of this, as far as investment is concerned, are:

- firm and fixed three-year departmental expenditure limits (DEL) to help departments plan and manage resources with greater certainty over the medium term (so extending planning horizons from the historic levels of one year, to fixed three-year spending plans, and with longer-term plans for key programmes such as transport and health);

- separate resource (current) and capital budgets, consistent with the distinction in the fiscal rules. Departments can only spend capital allocations on capital programmes. This helps to ensure that investment is not sacrificed to meet short-term current pressures;
- full end-year flexibility which allows departments to carry forward under-spends from one year to the next;
- coherent investment strategy to deliver assets necessary to support public services.

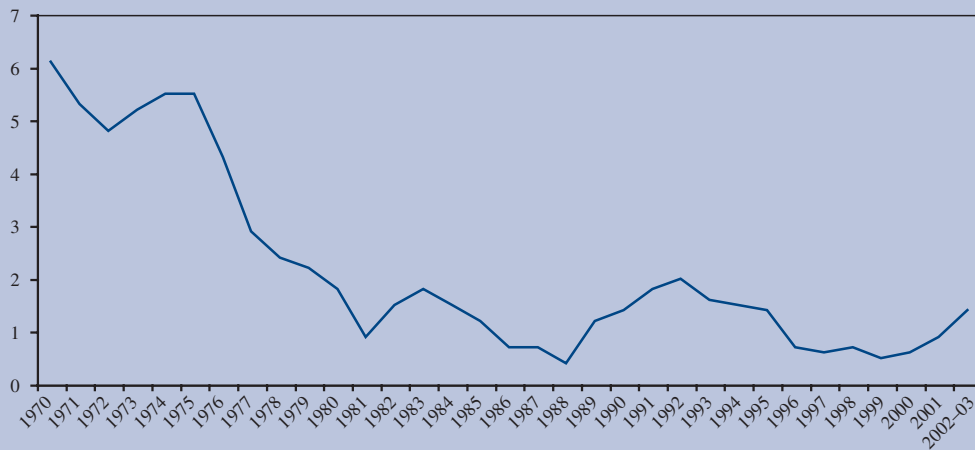
The recent spending review established department spending plans for the three years — 2003–04 to 2005–06. Net investment is planned to rise from 1.2 % of GDP in 2002–03 to 2.1 % in 2005–06 and is projected to rise further to 2.2 % of GDP by 2007–08 which, if achieved as planned, would bring investment up to rates last seen at the end of the 1970s (see Graph VI.1).

While spending has risen significantly, especially recently, it would be fair to say that there has been some slippage from previously announced plans. In the first spending review of 1998 (covering the years from 1998–99 to 2000–01) net investment was planned to rise to 1.2 % of GDP in 2000–01. In the event the out-turn in that year was 0.5 % of GDP. A reason for the undershoot is that departments have taken time to respond to the step change in capacity to manage investment programmes.

Departmental allocations and assessment of results

Overall totals for public investment are established consistent with meeting the fiscal rules and achieving the government’s broad objectives. Departments each have what are called public service agreements (PSAs). These set out the outcomes that departments are aiming to achieve and the targets that underpin them. Overall capital budgets for departments are then agreed in the spending review appropriate to the established PSAs. Departments then prioritise within these allocations. Departmental investment strategies (DISs) explain how investment will contribute to the achievement of these objectives. The strategies are also backward looking such that progress on previous strategies can be evaluated. However, since the PSAs are, in some cases, to be achieved over a longer time frame than three years, the contribution so far is critical to achieving the overall target. Departments strive to achieve best practice for project appraisal based on guiding principles in the Treasury’s ‘Green Book’.

Graph VI.1: Public sector net investment, % of GDP



The role of the private sector in public investment

Investment secured through public–private partnerships (PPPs) and the private finance initiative is not included in the totals for public sector investment. The way these work is that the public sector buys services from a private sector partner. The private sector partner undertakes the capital investment, and its ability to manage risks allocated to it can result in the provision of a service at a price that represents value for money. Approval of a PFI scheme depends on an assessment of the lifetime costs of providing and maintaining the underlying asset (a school say) and the running costs of delivering the required service.

The government stresses that PPPs must be seen in context and that PFI contracts make up 10–15 % of total

investment in any one year but do not replace the ‘significant’ investment committed by the government itself. They are pursued only when they represent better value than the public service alternative.

Assessment

The UK approach establishes a comprehensive framework for the determination of public investment from its role in the macroeconomic fiscal rules to its role in meeting specific objectives of government policy. While investment is rising rapidly now, it has often come in under projections since the new framework was set up in 1997. The challenge for the authorities will be to ensure that investment rises as planned and to ensure, and demonstrate, that public investment has played its intended role in securing the policy outcomes desired.

Part VII

Resources

1. Code of best practice on the compilation and reporting of data in the context of the excessive deficit procedure

This code of best practice ⁽¹⁾ aims at clarifying and streamlining procedures, both at the Member State and the Commission levels, when compiling and reporting government accounts, in particular data for government deficit and debt, covering the previous four years (*actual data*) and the current year (*planned data*) in the context of the excessive deficit procedure (EDP). The code respects the definitions, deadlines or obligations established by the legal acts in force. The reporting procedure is governed by Regulation (EC) No 3605/93 ⁽²⁾. The Protocol on the EDP annexed to the Treaty stipulates in Article 4 that ‘The statistical data to be used for the application of this Protocol shall be provided by the Commission’. Therefore, the Commission fulfils the role of statistical authority. However, it does not directly compile government data in the Member States but depends on data compiled and reported by the national authorities. For that reason, the accurate and speedy compilation of budgetary data and their prompt reporting to the Commission is of utmost importance.

The Commission’s role as statistical authority in the context of the EDP is exercised by Eurostat, on behalf of the Commission.

1.1. Compilation of budgetary data by Member States

Actual data: The actual data of the ESA95 government accounts shall be compiled by the national statistical

institutes (NSIs), and where applicable by the national central banks (NCBs). In certain Member States, in view of current national institutional arrangements, actual data can be compiled by the ministries of finance (MOF). The NSIs act in full scientific independence, in strict respect of the accounting rules as defined in Regulation (EC) No 3605/93, Regulation (EC) No 2223/96 ⁽³⁾ (the ESA95 regulation), and in the ESA95 manual on government deficit and debt. Central, regional and local government and the social security funds shall ensure that the accurate basic data and other information needed for compiling reliable ESA95 accounts is made available to the compiling authorities in time and with sufficient detail.

Planned data: The planned data are, in general, provided by the ministries of finance on the basis of the ESA95 government accounts. They shall be the most recent official forecasts, taking into account the most recent budgetary decisions and economic developments and prospects, and should be produced shortly before the reporting deadline where possible. The planned data together with the actual data must form a consistent time series.

1.2. Reporting of budgetary data by Member States to the Commission

Reporting deadlines: Member States shall strictly comply with the reporting deadlines before 1 March and before 1 September as laid down by Regulation

⁽¹⁾ Endorsed by the Ecofin Council of 18 February 2003.

⁽²⁾ OJ L 332, 31.12.1993, p. 7, as amended by Council Regulation (EC) No 475/2000 (OJ L 58, 3.3.2000, p. 1), and Commission Regulation (EC) No 351/2002 (OJ L 55, 26.2.2002, p. 23).

⁽³⁾ OJ L 310, 30.11.1996, p. 1, as amended. The amendments most relevant for general government data are Regulation (EC) No 1500/2000, OJ L 172, 12.7.2000, p. 3, Regulation (EC) No 2516/2000, OJ L 290, 17.11.2000, p. 1, Regulation (EC) No 995/2001, OJ L 139, 23.5.2001, p. 3, and Regulation (EC) No 2558/2001, OJ L 344, 28.12.2001, p. 1.

(EC) No 3605/93 ⁽¹⁾. The reporting institutions — for actual data in general the NSI (in cooperation with the NCB, where applicable) or in certain cases the MOF, and for planned data in general the ministry of finance — take responsibility for the content, timeliness and transmission of their respective part of the report.

Reporting tables: The Commission shall, in cooperation with the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB), as soon as possible put forward a more detailed set of reporting tables and required supplementary information, on the basis of the legal acts in force ⁽²⁾. This shall be implemented by the March 2004 notification.

Revisions: Member States shall inform the Commission, as soon as they become available, of revisions of the actual accounts and of major revisions of the planned data. Major revisions should be properly documented including a breakdown of the revisions. In any case, revisions have to be reported and properly documented if the reference values as specified in the relevant Treaty Protocol are being surpassed.

1.3. Securing the quality of the actual budgetary data

Statistical inventory: For the purpose of data quality assessment by the Commission, the NSIs (in cooperation with the NCBs and the MOFs, where applicable) shall, following a proposal by Eurostat and after consultation of the CMFB, during 2004 provide a detailed inventory of the methods, procedures and sources used for the compilation of actual government deficit and debt data ⁽³⁾. This inventory shall be updated regularly.

⁽¹⁾ Should a Member State because of unexpected and unforeseen reasons be unable to comply with the deadlines, it will promptly inform the Commission of the reasons for the delay and inform them of the expected reporting date. In case such unexpected and unforeseen reasons concern planned data, the Member State could report planned and actual data separately. The Member States shall inform the Commission which national institutions are responsible for the EDP reporting.

⁽²⁾ More detailed information at the level of government sub-sectors (central, regional and local government and social security funds) is needed on actual data.

⁽³⁾ Such an inventory already exists for the compilation of GNP/GNI and GDP in the context of the Communities' fourth resource (Council Directive 89/130/EC of 13 February 1989 on the harmonisation of the compilation of GNP at market prices, OJ L 49, 21.2.1989, p. 26).

Resolving methodological issues: When there are doubts on the correct accounting treatment of a specific government measure, without prejudice to the authority exercised by Eurostat on behalf of the Commission, Member States are strongly advised to at the earliest stage organise consultations at national level between the finance ministry, the NSI, and where applicable the NCB. In cases where the doubts prevail, the NSI shall formally ask Eurostat to rule on the matter. Eurostat shall liaise with other Commission departments, and if necessary with the ECB, and give prompt advice about the recording of the government transaction in question in the ESA95 accounts ⁽⁴⁾. In cases which are not covered adequately by ESA95, or are particularly complex or of general interest, Eurostat shall consult the CMFB before taking a decision ⁽⁵⁾. The Member States shall provide Eurostat and the CMFB with the information necessary to decide on any accounting issue. Eurostat as a general rule shall publish its decision, together with the CMFB opinion, within the timetable laid down in the CMFB rules of procedure for consultations on EDP statistics. The decisions of Eurostat shall be systematically presented in the ESA95 Manual on Government Deficit and Debt, which is regularly updated and which may lead to amendments of ESA95 in case of substantial clarifications. In case amendments are required, the Commission shall initiate secondary legislation in conformity with the rules on competence and procedure laid down in the Treaty and Regulation (EC) No 2223/96 (the ESA95 regulation). Eurostat can also take decisions on the accounting of government transactions on its own initiative. The CMFB may also provide opinions on its own initiative.

Monitoring of data: Eurostat assesses the compliance of the reported data with the accounting rules, including the completeness, plausibility and consistency of the data. The Member States shall promptly provide the Commission access to the information required for the purpose of this assessment. Eurostat may when necessary examine in depth the ESA95 government accounts of each Member State. Eurostat may request the assistance of other parties represented in the CMFB, and may publish the results, taking due account of the confidentiality of statistical data.

⁽⁴⁾ The formal request, including the necessary information for a Eurostat ruling, should be made in due time to ensure that no accounting issue is left pending at the time of the notifications.

⁽⁵⁾ The CMFB is a consultative body and its opinion is therefore not binding for Eurostat. However, Eurostat takes the utmost account of the opinions expressed by the CMFB.

1.4. Publication of the budgetary data by the Commission

Actual data: Eurostat shall assess and publish for each Member State the actual government deficit and debt figures, within two weeks after the reporting deadline. Delays in the reporting by any Member State do not constitute a motive for Eurostat to delay its publication. Any reservation expressed when publishing the actual data, including if necessary and possible amendments by Eurostat and a reference to the objected figures, shall be communicated no later than two working days before this publication, to the Member State concerned and to the EFC President. When the issue is subsequently resolved, the withdrawal of the reservation is also published. Following revisions, the Commission (Eurostat), recording the results of the debate with the Member State, shall within two weeks publish on their web site

the updated government accounts and the effects on government deficit and debt.

Planned data: The Commission does not publish the reported planned data. However, the planned data are communicated by the Commission to the EFC. These data do not preclude the Commission (Directorate-General for Economic and Financial Affairs) to publish their own forecasts.

Reporting to the EFC: In a report on the main reporting results to the EFC within one month after the reporting deadline, the Commission shall summarise major issues or problems in the reporting tables submitted by the Member States, with a view to find solutions and to constantly improve the quality and timeliness of data. The EFC may request further information or a follow-up to the report.

2. Glossary

Accession countries Countries that will become members of the EU in May 2004 and include Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

Automatic stabilisers Various features of the tax and spending regime which react automatically to the economic cycle and reduce its fluctuations. As a result, the budget balance tends to improve in years of high growth, and deteriorate during economic slowdowns.

Broad economic policy guidelines (BEPGs) Annual guidelines for the economic and budgetary policies of the Member States. They are prepared by the Commission and adopted by the Council of Ministers responsible for Economic and Financial Affairs (Ecofin).

Budget balance The balance between total public expenditure and revenue in a specific year, with a positive balance indicating a surplus and a negative balance indicating a deficit. For the monitoring of Member State budgetary positions, the EU uses *general government aggregates*. See also *structural budget balance*, *primary budget balance*, and *primary structural balance*.

Budgetary rules Rules and procedures through which policy-makers decide on the size and the allocation of public expenditure as well as on its financing through taxation and borrowing.

Budgetary sensitivity The variation in the budget balance in percentage of GDP brought about by a change in the output gap. In the EU, it is estimated to be 0.5 on average.

Candidate countries Countries that wish to accede to the EU. Besides the *accession countries*, they include Bulgaria, Romania and Turkey.

Close-to-balance requirement A requirement contained in the *Stability and Growth Pact*, according to

which Member States should, over the medium term, achieve an overall *budget balance* close to balance or in surplus.

Code of conduct on the format and content of the stability and convergence programmes Policy document endorsed by the Ecofin Council in July 2001 setting down the information requirements and key definitions to be followed by Member States in preparing their stability or convergence programmes.

Convergence programmes Medium-term budgetary and monetary strategies presented by each of those Member States that have not yet adopted the euro. They are updated annually, according to the provisions of the *Stability and Growth Pact*. Prior to the third phase of EMU, convergence programmes were issued on a voluntary basis and used by the Commission in its assessment of the progress made in preparing for the euro. See also *stability programmes*.

Crowding-out effects Offsetting effects on output due to changes in interest rates and exchange rates triggered by a loosening or tightening of fiscal policy.

Cyclical component of budget balance That part of the change in the *budget balance* that follows automatically from the cyclical conditions of the economy, due to the reaction of public revenue and expenditure to changes in the *output gap*. See *automatic stabilisers*, *tax smoothing* and *structural budget balance*.

Cyclically-adjusted budget balance See *structural budget balance*.

Demand and supply shocks Disturbances that affect the economy on the demand side (for example, changes in private consumption or exports) or on the supply side (for example, changes in commodity prices or technological innovations). They can impact on the economy either on a temporary or permanent basis.

Dependency ratio A measure of the ratio of people who receive government transfers, especially pensions, relative to those who are available to provide the revenue to pay for those transfers.

Direct taxes Taxes that are levied directly on personal or corporate incomes and property.

Discretionary fiscal policy Change in the *budget balance* and in its components under the control of government aiming at stabilising the economy. It is usually measured as the residual of the change in the balance after the exclusion of the budgetary impact of *automatic stabilisers*. See also *fiscal stance*.

Early-warning mechanism is part of the preventive elements of the SGP, and is activated when there is significant divergence from the budgetary targets set down in a stability or convergence programme.

Economic and Financial Committee (EFC) Formerly the Monetary Committee, renamed the Economic and Financial Committee as of January 1999. Its main task is to prepare and discuss (Ecofin) Council decisions with regard to economic and financial matters.

Economic Policy Committee (EPC) Group of senior officials whose main task is to prepare discussions of the (Ecofin) Council on structural policies. It plays a large role in the preparation of the BEPGs, and it is active on policies related to labour markets, methods to calculate cyclically-adjusted budget balances and ageing populations.

Effective tax rate The ratio of broad categories of tax revenue (labour income, capital income, consumption) to their respective tax bases.

ESA95/ESA79 European accounting standards for the reporting of economic data by the Member States to the EU. As of 2000, ESA95 has replaced the earlier ESA79 standard with regard to the comparison and analysis of national public finance data.

Excessive deficit procedure (EDP) A procedure according to which the Commission and the Council monitor the development of national *budget balances* and *public debt* in order to assess the risk of an excessive deficit in each Member State. Its application has been further clarified in the *Stability and Growth Pact*. See also *stability programmes* and *Stability and Growth Pact*.

Expenditure rules A subset of *fiscal rules* that target (a subset of) public expenditure.

Fiscal consolidation A continuous improvement in the *budget balance*, either specified by the amount of the improvement or the period over which the improvement continues.

Fiscal decentralisation The transfer of authority and responsibility for public functions from the central government to intermediate and local governments or to the market.

Fiscal federalism A subfield of public finance that investigates the fiscal relations across levels of government.

Fiscal impulse The estimated effect of fiscal policy on GDP. It is not a model-free measure and it is usually calculated by simulating an econometric model. The estimates presented in the present report are obtained by using the Commission services' model *QUEST*.

Fiscal rule A permanent constraint on fiscal policy, expressed in terms of a summary indicator of fiscal performance, such as the government budget deficit, borrowing, debt, or a major component thereof. See also *budgetary rule*, *expenditure rules*.

Fiscal stance A measure of the discretionary fiscal policy component. In this report, it is defined as the change in the *primary structural budget balance* relative to the preceding period. When the change is positive (negative) the fiscal stance is said to be expansionary (restrictive).

General government As used by the EU in its process of budgetary surveillance under the *Stability and Growth Pact* and the *excessive deficit procedure*, the general government sector covers national government, regional and local government, as well as social security funds. Public enterprises are excluded, as are transfers to and from the EU budget.

Government budget constraint A basic condition applying to the public finances, according to which total public expenditure in any one year must be financed by taxation, government borrowing, or changes in the monetary base. In the context of EMU, the ability of governments to finance spending through money issuance is prohibited. See also *stock-flow adjustment*, *sustainability*.

Hodrick-Prescott (HP) filter A statistical technique used to calculate trend GDP and *output gaps* by filtering actual GDP.

Indirect taxation Taxes that are levied during the production stage, and not on the income and property arising from economic production processes. Prominent examples of indirect taxation are value added tax (VAT), excise duties, import levies, energy and other environmental taxes.

Interest burden *General government* interest payments on public debt as a share of GDP.

Maastricht reference values for public debt and deficits Respectively, a 60 % *general government* debt/GDP ratio and a 3 % *general government* deficit/GDP ratio. These thresholds are defined in a protocol to the Maastricht Treaty on European Union. See also *Excessive deficit procedure*.

Maturity structure of public debt The profile of total debt in terms of when it is due to be paid back. Interest rate changes affect the budget balance directly to the extent that the *general government* sector has debt with a relatively short maturity structure. Long maturities reduce the sensitivity of the *budget balance* to changes in the prevailing interest rate. See also *public debt*.

Minimal benchmarks Values indicating a budgetary position that would provide a cyclical safety margin for the *automatic stabilisers* to operate freely during economic slowdowns without leading to excessive deficits. The minimal benchmarks are estimated by the European Commission. They do not cater for other risks such as unexpected budgetary developments and interest rate shocks and should not be confused with the *close to balance or in surplus* medium-term requirement of the Pact.

Monetary conditions index (MCI) An indicator combining the change in real short-term interest rate and in the real effective exchange rate to gauge the degree of easing or tightening of monetary policy.

Mundell-Fleming model Macroeconomic model of an open economy which embodies the main Keynesian hypotheses (price rigidity, liquidity preference). In spite of its shortcomings, it remains useful in short-term economic policy analysis.

NAIRU Non-Accelerating Inflation Rate of Unemployment.

Non-Keynesian effects Supply-side and expectations effects which reverse the sign of traditional Keynesian multipliers. Hence, if non-Keynesian effects dominate, fiscal consolidation would be expansionary.

Old age dependency ratio Population aged over 65 as a percentage of working age population (usually defined as persons aged between 15 and 64).

Output gap The difference between actual output and estimated potential output at any particular point in time. See also *cyclical component of budget balance*.

Pay-as-you-go pension system (PAYG) Pension system in which current pension expenditures are financed by the contributions of current employees.

Pre-accession economic programmes (PEPs) Annual programmes submitted by candidate countries which set the framework for economic policies. The PEPs consist of a review of recent economic developments, a detailed macroeconomic framework, a discussion of public finance issues and an outline of the structural reform agenda.

Pre-accession fiscal surveillance framework (PFSF) provides the framework for budgetary surveillance of candidate countries in the run up to accession. It closely approximates the policy coordination and surveillance mechanisms at EU level.

Policy-mix The overall stance of fiscal and monetary policy. The policy-mix may consist of various combinations of expansionary and restrictive policies, with a given *fiscal stance* being either supported or offset by monetary policy.

Primary budget balance The *budget balance* net of interest payments on *general government* debt.

Primary structural budget balance The *structural (or cyclically-adjusted) budget balance* net of interest payments.

Pro-cyclical fiscal policy A *fiscal stance* which amplifies the economic cycle by increasing the *structural primary deficit* during an economic upturn, or by decreasing it in a downturn. It can be contrasted with

(discretionary) counter-cyclical policy that has the opposite effects. A neutral fiscal policy keeps the *cyclically-adjusted budget balance* unchanged over the economic cycle but lets the *automatic stabilisers* work. See also *tax-smoothing*.

Production function approach A means to estimate the potential level of output of an economy on taking inputs on labour and capital as well as trend factor productivity into account. This is used to estimate the *output gap* that is a key input in the estimation of cyclical budget component.

Public debt Consolidated gross debt for the *general government* sector. It includes the total nominal value of all debt owed by public institutions in the Member State, except that part of the debt which is owed to other public institutions in the same Member State.

Public goods Those goods and services that are consumed jointly by several economic agents and for which there is no effective pricing mechanism that would allow private provision through the market.

Public investment The component of total public expenditure through which governments increase and improve the stock of capital employed in the production of the goods and services they provide.

Public-private partnerships (PPP) Agreements that transfer to the private sector investment projects that traditionally have been executed or financed by the public sector. To qualify as a PPP, the project should concern a public function, involve the general government as the principal purchaser, be financed from non-public sources and engage a corporation outside the general government as the principal operator that provides significant inputs in the design and conception of the project and bears a relevant amount of the risk.

Quasi-fiscal activities Activities promoting public policy goals carried out by non-government units.

QUEST The Directorate-General's macroeconomic model of the EU Member States plus the US and Japan.

Ricardian equivalence Under fairly restrictive theoretical assumptions on the consumer's behaviour (*inter alia* infinite horizon for decision making), the impact of fiscal policy does not depend on whether it is financed by tax increases or by a widening deficit. The basic reason-

ing behind this statement dates back to Ricardo and was revisited by Robert Barro in the 1970s.

Securitisation Borrowing (issuing of bonds) with the intention of paying interest and capital out of the proceeds derived from assets (use or sale of) or from future revenue flows.

Sensitivity analysis An econometric or statistical simulation designed to test the robustness of an estimated economic relationship or projection, given various changes in the underlying assumptions.

Significant divergence A sizeable excess of budget balance over the targets in the stability or convergence programmes, that triggers the *early warning* procedure of the *SGP*.

'Snowball' effect The self-reinforcing effect of public debt accumulation or decumulation arising from a positive or negative differential between the interest rate paid on public debt and the growth rate of the national economy. See also *government budget constraint*.

Social security contributions (SSC) Mandatory contributions paid by employers and employees to a social insurance scheme to cover for pension, healthcare and other welfare provisions.

Stability and Growth Pact (SGP) Approved in 1997, the SGP clarifies the provisions of the Maastricht Treaty regarding the surveillance of Member State budgetary policies and the monitoring of budget deficits during the third phase of EMU. The SGP consists of two Council regulations setting out legally binding provisions to be followed by the European institutions and the Member States and two resolutions of the European Council in Amsterdam (June 1997). See also *excessive deficit procedure*.

Stability programmes Medium-term budgetary strategies presented by those Member States that have already adopted the euro. They are updated annually, according to the provisions of the *Stability and Growth Pact*. See also *convergence programmes*.

Stock-flow adjustment The stock-flow adjustment (also known as the debt-deficit adjustment) ensures consistency between the net borrowing (flow) and the variation in the stock of gross debt. It includes the accumulation of financial assets, changes in the value of debt denominated in foreign currency, and remaining statistical adjustments.

Structural budget balance The actual *budget balance* adjusted for its *cyclical component*. The structural balance gives a measure of the underlying trend in the budget balance, when taking into account the automatic effect on the budget of the economic cycle. It is referred to also as the *cyclically-adjusted budget balance*. See also *primary structural budget balance*.

Sustainability A combination of budget deficits and debt that ensure that the latter does not grow without bound. While conceptually intuitive, an agreed operational definition of sustainability has proven difficult to achieve.

Tax gaps Measure used in the assessment of the *sustainability* of public finances. They measure the difference between the current tax ratio and the constant tax ratio over a given projection period to achieve a predetermined level of debt at the end of that projection period.

Tax smoothing The idea that tax rates should be kept stable in order to minimise the distortionary effects of taxation, while leaving it for the *automatic stabilisers* to smooth the economic cycle. It is also referred to as neutral *discretionary fiscal policy*. See also *cyclical component of fiscal policy*.

UMTS Third generation of technical support for mobile phone communications. Sale of UMTS licences gave rise to sizeable one-off receipts in 2001.

Wagner's law Theory according to which public spending — since it comprises 'luxury goods' with high elasticity to income — would tend to rise as a share of GDP as per-capita income increases.

Welfare state Range of policies designed to provide insurance against unemployment, sickness and risks associated with old age.

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4. Useful Internet links

European Union

European Commission	europa.eu.int/comm
Directorate-General for Economic and Financial Affairs	europa.eu.int/comm/dgs/economy_finance/index_en.htm
European Council	ue.eu.int/
European Parliament	www.europarl.eu.int/

Economics and finance ministries

Belgium	treasury.fgov.be/interthes	Ministère des Finances — Ministerie van Financien
Denmark	www.fm.dk	Ministry of Finance
Germany	www.bundesfinanzministerium.de	Bundesministerium der Finanzen
Spain	www.mineco.es/	Ministerio de Economía y Hacienda
France	www.finances.gouv.fr	Ministère Économie, Finances et l'Industrie
Ireland	www.irlgov.ie/finance	Department of Finance
Italy	www.tesoro.it	Ministero dell'Economia e delle Finanze
Luxembourg	www.etat.lu/FI	Ministère des Finances
Netherlands	www.minfin.nl	Ministerie van Financien
Austria	www.bmf.gv.at	Bundesministerium für Finanzen
Portugal	www.min-financas.pt	Ministério das Finanças
Finland	www.vn.fi/vm	Ministry of Finance
Sweden	finans.regeringen.se	Finansdepartementet
United Kingdom	www.hm-treasury.gov.uk	Her Majesty's Treasury
Bulgaria	www.minfin.bg	Ministry of Finance
Cyprus	www.mof.gov.cy	Ministry of Finance
Czech Republic	www.mfcr.cz	Ministry of Finance
Estonia	www.fin.ee	Ministry of Finance
Hungary	www.p-m.hu	Ministry of Finance
Latvia	www.fm.gov.lv	Ministry of Finance
Lithuania	www.finmin.lt	Ministry of Finance
Malta	mfea.gov.mt	Ministry of Finance and Economic Affairs
Poland	www.mofnet.gov.pl	Ministry of Finance
Romania	www.mfinante.ro	Ministry of Finance
Slovak Republic	www.finance.gov.sk	Ministry of Finance
Slovenia	sigov1.sigov.si/mf	Ministry of Finance
Turkey	www.maliye.gov.tr	Ministry of Finance

Japan	www.mof.go.jp	Ministry of Finance
United States of America	www.ustreas.gov	Department of the Treasury
Central banks		
European Union	www.ecb.int	European Central Bank
Belgium	www.nbb.be	Banque Nationale de Belgique/ Nationale Bank van België
Denmark	www.nationalbanken.dk	Danmarks Nationalbank
Germany	www.bundesbank.de	Deutsche Bundesbank
Greece	www.bankofgreece.gr	Bank of Greece
Spain	www.bde.es	Banco de España
France	www.banque-france.fr	Banque de France
Ireland	www.centralbank.ie	Central Bank of Ireland
Italy	www.bancaditalia.it	Banca d'Italia
Luxembourg	www.bcl.lu	Banque centrale du Luxembourg
Netherlands	www.dnb.nl	De Nederlandsche Bank
Austria	www.oenb.co.at	Oestereichische Nationalbank
Portugal	www.bportugal.pt	Banco de Portugal
Finland	www.bof.fi	Suomen Pankki
Sweden	www.riksbank.com	Sveriges Riksbank
United Kingdom	www.bankofengland.co.uk	Bank of England
Bulgaria	www.bnb.bg	Bulgarian National Bank
Cyprus	www.centralbank.gov.cy	Central bank of Cyprus
Czech Republic	www.cnb.cz	Czech National Bank
Estonia	www.eestipank.info	Eesti Pank
Hungary	www.mnb.hu	National Bank of Hungary
Latvia	www.bank.lv	Bank of Latvia
Lithuania	www.lb.lt	Lietuvos Bankas
Malta	www.centralbankmalta.com	Central Bank of Malta
Poland	www.nbp.pl	Narodowy Bank Polski
Romania	www.bnro.ro	National Bank of Romania
Slovak Republic	www.nbs.sk	National Bank of Slovakia
Slovenia	www.bsi.si	Bank of Slovenia
Turkey	www.tcmb.gov.tr	Central Bank of the Republic of Turkey
Japan	www.boj.or.jp	Bank of Japan
United States of America	www.federalreserve.gov	Board of Governors of the Federal Reserve System
Statistical offices		
European Union	europa.eu.int/comm/eurostat	Eurostat
Belgium	www.bnb.be	National Bank of Belgium
Denmark	www.dst.dk	Danmarks Statistik
Germany	www.statistik-bund.de	Statistisches Bundesamt Deutschland

Greece	www.statistics.gr	National Statistical Service of Greece
Spain	www.ine.es	Instituto Nacional de Estadística
France	www.insee.fr	Institut National de la Statistique et des Etudes Economiques
Ireland	www.cso.ie	Central Statistics Office
Italy	petra.istat.it	Istituto nazionale di statistica
Luxembourg	statec.gouvernement.lu	Service Central de la Statistique et des Etudes Economiques
Netherlands	www.cbs.nl	Centraal Bureau voor de Statistiek
Austria	www.oestat.gv.at	Österreichisches Statistisches Zentralamt
Portugal	www.ine.pt	Instituto Nacional de Estatística
Finland	www.stat.fi	Tilastokeskus / Statistics Finland
Sweden	www.scb.se	Statistiska Centralbyrån / Statistics Sweden
United Kingdom	www.statistics.gov.uk	Office for National Statistics
Bulgaria	www.nsi.bg	National Statistical Institute
Cyprus	www.pio.gov.cy/dsr	Statistical Service
Czech Republic	www.czso.cz	Czech Statistical Office
Estonia	www.stat.ee	Statistical Office
Hungary	www.ksh.hu	Central Statistical Office
Latvia	www.csb.lv	Central Statistical Bureau
Lithuania	www.std.lt	Statistics Lithuania
Malta	www.nso.gov.mt	National Statistics Office
Poland	www.stat.gov.pl	Polish Official Statistics
Romania	www.insse.ro	National Institute of Statistics
Slovak Republic	www.statistics.sk	Statistical Office
Slovenia	www.sigov.si/zrs	Statistical Office
Turkey	www.die.gov.tr	State Institute of Statistics
Japan	www.stat.go.jp/english/index.htm	Statistics Bureau/Statistics Centre
United States of America	www.fedstats.gov/	Federal Statistical Agencies

International organisations

Bank for International Settlements	www.bis.org
EBRD	www.ebrd.com
IMF	www.imf.org
OECD	www.oecd.org
United Nations	www.un.org
World Bank	www.worldbank.org
World Trade Organisation	www.wto.org

Statistical annex

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Table A.1.1

Resources and expenditure of general government

(% of GDP)

Belgium	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	12.2	12.0	12.2	12.1	12.1	12.3
2. Current taxes on income and wealth	18.0	19.1	16.7	16.3	16.2	16.2
3. Social contributions	14.9	17.1	16.9	17.5	17.8	18.1
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	2.6	2.3	1.8	1.9	1.8	1.8
6. Total current resources	47.6	50.4	47.5	47.7	47.8	48.3
7. Government consumption expenditure	17.3	16.7	13.9	14.3	14.2	14.6
8. Of which compensation of employees	13.4	13.0	11.2	11.5	11.6	12.0
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	23.6	24.8	23.1	24.0	24.4	24.6
12. Interest payments	5.9	10.3	10.4	10.0	10.6	10.6
13. Subsidies	3.6	3.7	2.8	2.9	2.7	2.6
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	51.3	56.2	51.1	52.2	52.9	53.4
16. Gross savings	- 3.7	- 5.8	- 3.6	- 4.5	- 5.0	- 5.1
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	47.6	50.4	47.5	47.7	47.8	48.3
19. Gross fixed capital formation	4.4	2.5	1.3	1.4	1.4	1.6
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	56.1	59.3	52.9	53.9	54.8	55.5
22. Tax burden	45.7	49.2	46.6	46.8	46.9	47.5
23. Net lending (+) or net borrowing (-)	- 8.6	- 8.9	- 5.4	- 6.2	- 6.9	- 7.2

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
12.6	12.2	12.2	12.7	12.9	12.9	13.2	13.1	12.6	13.0	13.0	13.0
17.4	17.8	16.7	16.6	17.1	17.6	17.1	17.3	17.6	17.6	17.3	16.9
17.5	17.4	16.8	16.7	16.5	16.6	16.4	16.1	16.4	16.6	16.5	16.4
:	:	14.8	14.6	14.5	14.5	14.4	14.2	14.4	14.6	14.4	14.3
1.5	1.5	3.1	3.2	3.0	3.0	2.8	2.9	3.0	3.0	2.8	2.8
48.9	48.9	48.8	49.3	49.4	50.0	49.5	49.4	49.5	50.1	49.5	49.1
14.5	14.5	21.4	21.7	21.2	21.1	21.2	21.2	21.7	22.1	22.5	22.5
12.0	12.1	11.9	11.9	11.7	11.6	11.6	11.4	11.6	12.0	12.0	12.0
:	:	7.9	7.8	7.8	7.7	7.8	7.8	7.9	8.1	8.2	8.2
:	:	13.5	13.9	13.4	13.4	13.4	13.4	13.8	14.0	14.4	14.4
24.0	24.2	16.6	16.6	16.3	16.1	15.6	15.3	15.5	16.0	16.2	16.3
9.9	8.8	9.3	8.9	8.0	7.6	7.0	6.8	6.6	6.1	5.6	5.0
2.4	2.4	1.5	1.6	1.4	1.5	1.5	1.5	1.6	1.5	1.5	1.5
:	:	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	1.9	1.9
51.9	50.9	50.7	50.8	48.9	48.3	47.4	46.8	47.3	47.9	47.8	47.2
-3.0	-2.0	-2.0	-1.5	0.5	1.7	2.1	2.7	2.2	2.2	1.8	1.9
:	:	0.4	0.4	0.6	0.5	0.6	0.5	0.6	0.5	0.5	0.5
48.9	48.9	48.5	49.1	49.5	50.0	49.6	49.6	49.8	50.4	49.7	49.4
1.6	1.4	1.8	1.6	1.6	1.6	1.8	1.8	1.5	1.7	1.5	1.5
:	:	1.0	1.1	1.5	1.3	1.4	1.3	0.9	1.0	1.1	1.1
53.7	52.7	52.8	52.9	51.4	50.7	50.1	49.5	49.4	50.4	50.0	49.6
48.4	48.5	46.8	47.0	47.5	48.0	47.6	47.5	47.6	48.1	47.7	47.3
-4.8	-3.9	-4.3	-3.8	-2.0	-0.8	-0.5	0.1	0.4	0.0	-0.3	-0.2

Table A.1.2

Resources and expenditure of general government

(% of GDP)

Denmark	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	18.0	17.8	17.0	16.7	16.6	16.9
2. Current taxes on income and wealth	25.1	27.8	28.3	28.5	29.0	30.1
3. Social contributions	1.6	2.5	2.3	2.3	2.4	2.5
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	6.1	7.1	7.5	7.2	8.0	8.4
6. Total current resources	50.8	55.3	55.1	54.7	56.0	57.9
7. Government consumption expenditure	27.0	25.6	25.6	25.7	25.8	26.8
8. Of which compensation of employees	18.0	17.4	17.7	17.7	17.8	18.1
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	16.3	15.9	18.0	18.7	19.2	20.3
12. Interest payments	3.7	9.3	7.3	7.3	6.7	7.3
13. Subsidies	3.0	2.8	3.3	3.2	3.8	3.9
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	50.0	54.4	54.9	55.7	56.3	58.9
16. Gross savings	0.7	0.9	0.2	-1.0	-0.4	-1.0
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	50.8	55.3	55.1	54.7	56.0	57.9
19. Gross fixed capital formation	3.3	2.1	1.6	1.5	1.9	1.8
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	53.1	56.4	56.1	57.1	58.2	60.7
22. Tax burden	44.7	48.0	47.6	47.5	48.0	49.5
23. Net lending (+) or net borrowing (-)	-3.2	-2.0	-1.0	-2.4	-2.2	-2.8

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
17.3	17.2	16.9	17.3	17.5	18.2	18.1	17.2	17.3	17.5	17.5	17.4
30.6	30.3	30.4	30.6	30.3	29.9	30.8	29.6	29.9	29.7	29.5	29.6
2.8	2.6	2.6	2.6	2.6	2.6	3.2	3.3	3.2	2.7	2.6	2.6
:	:	1.6	1.6	1.6	1.6	2.2	2.4	2.3	1.7	1.7	1.7
7.5	6.8	6.8	7.1	6.7	6.6	6.0	5.8	6.1	5.7	5.4	5.3
58.1	57.0	56.8	57.7	57.1	57.4	58.1	55.8	56.5	55.6	55.0	54.9
25.9	25.7	25.8	25.9	25.5	26.0	25.8	25.3	25.9	26.1	26.1	26.0
17.5	17.3	17.3	17.3	17.1	17.5	17.4	17.0	17.2	17.5	17.5	17.6
:	:	8.4	8.5	8.2	8.2	8.0	7.7	7.7	8.0	8.0	8.0
:	:	17.4	17.4	17.3	17.8	17.9	17.6	18.1	18.2	18.1	18.1
21.7	20.8	20.4	19.8	18.8	18.3	17.8	17.3	17.3	17.6	17.6	17.5
6.7	6.4	6.4	6.1	5.7	5.3	4.8	4.3	4.0	3.7	3.5	3.3
3.7	3.6	2.5	2.6	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.0
:	:	2.2	2.4	2.4	2.6	2.6	2.6	2.7	2.7	2.6	2.6
58.8	57.4	57.3	56.8	54.9	54.6	53.2	51.6	52.0	52.2	51.8	51.4
-0.7	-0.5	-0.5	0.9	2.2	2.8	4.9	4.2	4.5	3.3	3.2	3.5
:	:	0.6	0.4	0.5	0.5	0.6	0.5	0.5	0.7	0.5	0.5
58.1	57.0	58.0	58.8	58.3	58.7	59.5	57.2	58.0	57.3	56.3	56.2
1.8	1.8	1.8	2.0	1.9	1.7	1.7	1.7	1.9	1.7	1.7	1.7
:	:	0.5	0.3	0.4	0.5	0.6	0.6	0.1	0.4	0.4	0.4
60.7	59.2	60.3	59.8	58.0	57.6	56.3	54.7	55.0	55.4	54.7	54.2
50.7	50.1	50.2	50.7	50.7	51.0	52.3	50.2	50.6	50.1	49.8	49.8
-2.6	-2.2	-2.3	-1.0	0.4	1.1	3.2	2.5	3.0	1.9	1.6	2.0

Table A.1.3

Resources and expenditure of general government

(% of GDP)

Germany ⁽¹⁾	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	12.9	12.3	12.1	12.2	12.4	12.7
2. Current taxes on income and wealth	12.5	12.3	10.9	11.3	11.6	11.2
3. Social contributions	16.6	17.1	16.5	17.5	17.8	18.4
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	2.3	3.1	2.6	2.6	3.1	3.0
6. Total current resources	44.3	44.9	42.1	43.5	44.9	45.3
7. Government consumption expenditure	19.9	19.6	17.8	19.0	19.5	19.6
8. Of which compensation of employees	10.8	10.4	9.5	10.1	10.4	10.6
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	16.9	16.4	15.4	16.7	17.3	18.4
12. Interest payments	1.9	3.0	2.5	2.6	3.2	3.2
13. Subsidies	2.3	2.2	2.1	2.4	2.1	2.1
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	41.9	42.4	40.8	42.3	43.4	44.8
16. Gross savings	2.4	2.5	1.3	1.2	1.4	0.5
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	44.3	44.9	42.1	43.5	44.9	45.3
19. Gross fixed capital formation	3.5	2.3	2.2	2.6	2.8	2.7
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	47.1	46.0	44.1	46.8	47.6	48.8
22. Tax burden	41.7	41.4	39.2	40.8	41.5	42.0
23. Net lending (+) or net borrowing (-)	- 2.9	- 1.1	- 2.0	- 3.2	- 2.8	- 3.5

⁽¹⁾ From 1991 including former East Germany

⁽²⁾ The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5

Line 7 = line 9 + line 10

Line 15 = total of lines 9 to 14

Line 16 = line 6 - line 15

Line 18 = line 6 + line 17

Line 21 = line 15 + line 19 + line 20

Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions (2)									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
13.1	12.7	11.4	11.4	11.4	11.6	12.2	12.0	11.9	11.8	12.0	12.0
10.8	11.1	11.1	11.5	11.2	11.5	12.0	12.5	11.1	10.8	11.0	11.2
18.9	19.1	18.8	19.4	19.7	19.3	19.0	18.7	18.5	18.4	18.6	18.5
:	:	17.7	18.3	18.6	18.2	17.9	17.6	17.5	17.4	17.6	17.5
3.0	2.7	3.5	3.4	3.2	3.1	3.0	2.8	3.1	3.0	2.9	2.8
45.9	45.6	44.8	45.7	45.5	45.5	46.2	46.0	44.6	44.1	44.5	44.5
19.4	19.5	19.8	20.0	19.5	19.2	19.1	19.1	19.0	19.1	19.1	18.9
10.3	10.2	9.0	8.9	8.7	8.5	8.4	8.2	8.0	7.9	7.9	7.8
:	:	8.4	8.4	8.1	8.0	8.0	8.0	7.9	7.9	7.9	7.8
:	:	11.4	11.6	11.3	11.2	11.1	11.1	11.1	11.3	11.2	11.1
18.6	19.0	18.1	19.3	19.3	19.0	18.9	18.8	18.9	19.4	19.8	19.6
3.3	3.7	3.7	3.7	3.6	3.6	3.5	3.4	3.3	3.2	3.2	3.3
2.1	2.1	2.1	2.0	1.8	1.9	1.8	1.7	1.6	1.5	1.4	1.3
:	:	1.2	1.3	1.4	1.4	1.6	1.7	1.6	1.7	1.7	1.7
44.9	45.6	44.9	46.2	45.6	45.0	45.0	44.6	44.4	44.9	45.2	44.7
1.0	0.0	-0.1	-0.5	-0.1	0.5	1.2	1.4	0.2	-0.8	-0.7	-0.2
:	:	0.6	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4
45.9	45.6	46.1	46.9	46.6	46.6	47.3	47.0	45.5	45.0	45.4	45.5
2.6	2.3	2.3	2.1	1.9	1.9	1.9	1.8	1.7	1.6	1.6	1.6
:	:	1.6	1.2	1.2	1.3	1.3	-1.1	1.7	1.6	1.6	1.6
48.4	49.0	49.6	50.3	49.4	48.8	48.8	45.9	48.3	48.6	48.9	48.4
42.5	42.5	42.3	43.1	43.1	43.1	43.8	43.9	42.1	41.5	42.0	42.1
-2.6	-3.4	-3.5	-3.4	-2.7	-2.2	-1.5	1.1	-2.8	-3.6	-3.4	-2.9

Table A.1.4:

Resources and expenditure of general government

(% of GDP)

Greece	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	10.5	12.5	13.9	14.6	15.3	14.7
2. Current taxes on income and wealth	4.6	4.6	5.4	5.5	5.4	5.7
3. Social contributions	9.4	11.6	11.5	11.1	11.0	11.9
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	1.9	1.7	1.7	2.2	2.5	3.1
6. Total current resources	26.3	30.3	32.5	33.3	34.1	35.4
7. Government consumption expenditure	13.5	16.1	15.1	14.2	13.7	14.3
8. Of which compensation of employees	9.4	11.4	12.5	11.5	10.9	10.9
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	9.4	14.2	15.0	14.9	14.8	15.1
12. Interest payments	2.0	4.9	10.0	9.3	11.5	12.6
13. Subsidies	2.2	5.2	4.0	3.5	3.6	3.9
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	26.4	37.7	41.9	39.7	41.1	43.3
16. Gross savings	-0.1	-7.4	-9.4	-6.4	-7.0	-7.9
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	26.3	30.3	32.5	33.3	34.1	35.4
19. Gross fixed capital formation	2.1	3.7	2.8	3.1	3.5	3.3
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	29.0	41.9	48.4	44.7	46.8	49.0
22. Tax burden	24.6	28.9	31.0	31.4	31.9	32.6
23. Net lending (+) or net borrowing (-)	-2.6	-11.6	-15.9	-11.4	-12.6	-13.6

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
14.3	14.2	13.6	14.0	14.3	14.4	15.1	15.2	14.8	14.4	14.3	14.1
6.8	7.2	7.4	7.1	7.8	9.5	9.9	10.8	9.6	9.4	9.3	9.0
12.1	12.4	12.6	12.9	13.3	13.6	13.6	14.0	13.9	14.0	14.0	13.9
:	:	10.5	10.8	11.1	11.5	11.4	11.8	11.7	11.8	11.9	11.8
3.8	4.2	2.9	2.9	3.4	2.9	2.9	3.2	3.6	3.6	3.6	3.4
36.9	38.1	36.5	36.9	38.8	40.3	41.5	43.2	41.9	41.4	41.1	40.4
13.8	15.3	15.3	14.5	15.1	15.3	15.4	15.7	15.3	15.8	15.5	15.2
10.6	11.3	11.3	10.7	11.6	11.6	11.7	11.7	11.6	12.2	12.1	11.9
:	:	9.5	8.5	8.8	9.3	9.4	9.7	9.3	9.7	9.5	9.4
:	:	5.9	6.0	6.3	6.0	6.0	6.0	6.0	6.1	6.0	5.9
15.2	15.5	15.1	15.4	15.6	15.8	15.8	16.6	16.3	16.4	16.4	16.3
13.9	12.8	11.2	10.5	8.2	7.8	7.2	7.0	6.3	5.5	5.2	4.9
3.6	3.3	0.4	0.5	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1
:	:	1.3	1.3	1.1	1.3	1.2	1.1	1.1	0.8	0.8	0.7
44.0	45.1	43.3	42.2	40.2	40.2	39.8	40.5	39.2	38.7	38.0	37.3
-7.1	-7.1	-6.8	-5.3	-1.5	0.1	1.7	2.6	2.7	2.7	3.0	3.0
:	:	1.6	2.2	2.4	2.6	2.0	:	:	:	:	:
36.9	38.1	39.3	40.3	42.4	44.1	44.7	47.0	45.6	45.1	46.0	45.2
3.1	3.3	3.2	3.2	3.4	3.6	3.5	4.1	3.9	3.8	4.0	3.9
:	:	1.7	1.2	1.6	1.6	2.0	3.1	2.7	2.6	2.5	2.4
46.8	48.5	49.4	47.7	46.4	46.6	46.5	48.9	47.0	46.3	47.1	46.2
33.4	34.0	34.4	34.8	36.0	38.1	39.3	40.6	38.9	38.3	38.0	37.5
-9.9	-10.5	-10.2	-7.4	-4.0	-2.5	-1.8	-1.9	-1.5	-1.2	-1.1	-1.1

Table A.1.5

Resources and expenditure of general government

(% of GDP)

Spain	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	6.3	9.1	10.3	10.3	10.9	10.1
2. Current taxes on income and wealth	6.7	8.2	11.6	11.6	12.0	11.5
3. Social contributions	12.7	12.7	12.9	13.2	14.0	14.3
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	3.9	4.2	3.7	4.1	4.0	5.0
6. Total current resources	29.6	34.2	38.4	39.2	40.9	40.9
7. Government consumption expenditure	12.9	14.2	15.0	15.6	16.4	16.9
8. Of which compensation of employees	9.4	10.2	10.7	11.1	11.8	11.8
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	11.8	13.8	13.9	14.7	15.5	16.2
12. Interest payments	0.4	1.9	3.9	3.7	4.3	5.0
13. Subsidies	1.9	2.4	2.4	2.6	2.5	3.1
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	27.7	33.9	36.8	38.0	40.2	42.6
16. Gross savings	0.6	0.3	1.7	1.2	0.7	- 1.7
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	29.6	34.2	38.4	39.2	40.9	40.9
19. Gross fixed capital formation	1.8	3.6	4.9	4.8	4.0	4.1
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	31.7	40.4	42.6	43.5	44.9	47.6
22. Tax burden	26.1	30.6	35.4	35.7	37.5	36.5
23. Net lending (+) or net borrowing (-)	- 2.5	- 6.2	- 4.2	- 4.3	- 4.0	- 6.7

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions (1)									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
10.6	10.3	10.2	10.2	10.5	11.1	11.7	11.7	11.4	11.7	11.8	11.9
11.0	11.0	10.1	10.3	10.5	10.2	10.2	10.5	10.5	10.9	10.6	10.6
14.0	13.1	13.0	13.2	13.1	13.0	13.1	13.3	13.6	13.5	13.5	13.5
:	:	12.0	12.2	12.2	12.1	12.2	12.5	12.7	12.7	12.7	12.7
4.2	3.6	4.1	4.2	4.0	3.7	3.7	3.4	3.6	3.4	3.4	3.5
39.8	38.0	37.4	37.8	38.0	38.0	38.6	38.9	39.0	39.5	39.3	39.4
16.2	16.0	18.1	18.0	17.5	17.5	17.4	17.6	17.5	17.6	17.8	17.7
11.3	11.2	11.3	11.3	10.9	10.7	10.6	10.5	10.4	10.2	10.3	10.3
:	:	8.0	7.8	7.7	7.5	7.4	7.5	7.4	7.5	7.6	7.6
:	:	10.1	10.1	9.9	9.9	10.1	10.1	10.1	10.1	10.2	10.1
15.8	15.1	13.9	13.8	13.3	12.8	12.4	12.3	12.2	12.5	12.6	12.6
4.7	5.3	5.2	5.4	4.8	4.3	3.6	3.3	3.1	2.9	2.7	2.5
2.9	3.0	1.1	1.0	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.1
:	:	0.9	1.0	1.1	1.2	1.2	1.2	1.2	1.3	1.2	1.2
41.3	40.3	39.2	39.1	37.6	36.8	35.8	35.6	35.1	35.3	35.3	35.1
-1.5	-2.3	-1.8	-1.3	0.4	1.2	2.9	3.2	3.9	4.2	3.9	4.3
:	:	1.4	1.4	1.0	0.6	0.7	0.6	0.7	0.5	0.5	0.5
39.8	38.0	38.4	38.8	38.6	38.3	39.0	39.0	39.2	39.6	39.3	39.5
3.9	3.7	3.7	3.1	3.1	3.3	3.4	3.1	3.2	3.3	3.4	3.4
:	:	2.5	2.0	1.5	1.6	1.4	1.5	1.5	1.5	1.5	1.5
45.9	45.0	45.0	43.7	41.8	41.4	40.2	39.8	39.3	39.7	39.8	39.6
36.1	35.0	34.0	34.4	34.8	35.0	35.6	36.1	36.0	36.6	36.4	36.3
-6.1	-7.0	-6.6	-5.0	-3.2	-3.0	-1.2	-0.8	-0.2	-0.1	-0.4	-0.1

Table A.1.6

Resources and expenditure of general government

(% of GDP)

France	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	14.9	15.6	14.9	14.5	14.3	14.3
2. Current taxes on income and wealth	8.2	8.9	8.7	9.2	8.8	9.0
3. Social contributions	19.1	20.8	20.6	20.7	20.9	21.1
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	3.2	3.8	4.0	3.9	4.1	4.1
6. Total current resources	45.3	49.1	48.2	48.2	48.0	48.4
7. Government consumption expenditure	17.7	19.1	17.7	17.9	18.5	19.4
8. Of which compensation of employees	13.4	14.4	13.0	13.1	13.4	14.0
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	18.6	21.7	20.9	21.4	22.0	23.2
12. Interest payments	1.4	2.8	2.9	2.9	3.2	3.3
13. Subsidies	2.5	3.0	2.1	2.2	2.2	2.5
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	41.7	48.6	45.7	46.7	48.4	50.7
16. Gross savings	3.7	0.5	2.4	1.4	-0.4	-2.2
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	45.3	49.1	48.2	48.2	48.0	48.4
19. Gross fixed capital formation	3.3	3.2	3.5	3.5	3.5	3.2
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	45.4	52.0	49.7	50.2	51.8	54.1
22. Tax burden	42.9	46.3	45.1	45.4	45.0	45.6
23. Net lending (+) or net borrowing (-)	0.0	-2.8	-1.5	-2.0	-3.9	-5.6

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
14.7	14.9	15.4	16.1	16.0	16.0	15.9	15.5	15.0	15.1	15.0	15.2
9.2	9.4	8.5	8.9	9.5	11.7	12.2	12.2	12.5	11.6	11.4	11.3
20.7	21.0	20.5	20.7	20.3	18.1	18.3	18.2	18.2	18.3	18.4	18.3
:	:	18.7	18.9	18.4	16.3	16.5	16.3	16.4	16.5	16.5	16.4
3.7	3.8	3.6	3.9	3.8	3.6	3.5	3.5	3.7	3.5	3.5	3.5
48.3	49.0	47.9	49.6	49.6	49.3	49.9	49.4	49.3	48.5	48.2	48.2
19.2	19.0	23.9	24.2	24.2	23.4	23.3	23.2	23.2	23.9	24.0	23.9
14.0	14.1	13.7	13.9	13.8	13.7	13.7	13.5	13.5	13.7	13.8	13.6
:	:	9.8	9.9	10.0	9.4	9.3	9.3	9.2	9.4	9.3	9.2
:	:	14.1	14.3	14.2	14.1	14.0	14.0	14.0	14.5	14.7	14.7
22.9	23.0	18.5	18.7	18.8	18.4	18.2	17.8	17.8	18.1	18.4	18.4
3.5	3.7	3.6	3.8	3.6	3.5	3.2	3.1	3.1	3.1	3.2	3.3
2.3	2.3	1.5	1.5	1.5	1.4	1.3	1.2	1.3	1.3	1.2	1.2
:	:	1.6	1.7	1.6	1.6	1.7	1.7	1.6	1.8	1.8	1.7
50.4	50.4	49.1	49.9	49.6	48.3	47.8	47.0	47.1	48.1	48.6	48.5
-2.1	-1.4	-1.1	-0.3	-0.1	1.1	2.1	2.3	2.2	0.4	-0.4	-0.3
:	:	0.4	0.3	0.8	0.3	0.4	0.4	0.3	0.4	0.6	0.6
48.3	49.0	49.6	51.3	51.8	51.1	51.7	51.2	51.0	50.3	50.2	50.2
3.1	3.2	3.3	3.2	3.0	2.9	3.0	3.2	3.1	3.1	3.0	3.0
:	:	1.5	0.9	0.9	1.1	1.3	1.0	0.9	0.9	0.9	0.8
54.0	53.8	55.1	55.4	54.9	53.7	53.5	52.6	52.5	53.5	54.0	53.7
46.0	46.6	45.2	46.4	46.5	46.4	47.0	46.5	46.2	45.5	45.2	45.2
-5.7	-4.8	-5.5	-4.1	-3.0	-2.7	-1.8	-1.4	-1.5	-3.1	-3.7	-3.5

Table A.1.7

Resources and expenditure of general government

(% of GDP)

Ireland	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	15.3	16.8	15.6	15.2	15.2	14.4
2. Current taxes on income and wealth	11.5	13.1	13.1	13.7	14.1	14.9
3. Social contributions	4.4	5.1	5.0	5.2	5.3	5.3
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	3.3	3.9	2.3	2.5	2.5	2.4
6. Total current resources	34.6	38.8	35.9	36.7	37.0	37.0
7. Government consumption expenditure	18.2	16.9	14.2	15.1	15.4	15.3
8. Of which compensation of employees	11.8	11.5	9.9	10.5	10.7	10.8
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	11.6	15.2	13.4	14.1	14.6	14.5
12. Interest payments	6.0	9.4	7.4	7.2	6.7	6.3
13. Subsidies	7.2	7.5	5.6	5.6	4.7	5.0
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	39.5	45.1	36.7	37.9	38.2	38.0
16. Gross savings	-4.9	-6.3	-0.8	-1.2	-1.2	-1.0
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	34.6	38.8	35.9	36.7	37.0	37.0
19. Gross fixed capital formation	5.4	3.7	2.0	2.1	2.0	2.2
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	46.2	49.1	38.1	38.9	39.4	39.3
22. Tax burden	31.2	34.9	33.6	34.0	34.4	34.5
23. Net lending (+) or net borrowing (-)	- 11.6	- 10.2	- 2.2	- 2.3	- 2.4	- 2.3

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
15.3	14.6	13.5	13.7	13.5	13.1	13.1	13.2	12.1	12.2	12.4	12.3
15.2	13.5	13.6	14.1	14.0	13.8	13.7	13.6	13.0	11.8	11.5	11.2
5.2	4.7	6.8	6.3	5.9	5.6	5.6	5.6	5.8	5.7	5.6	5.6
:	:	5.0	4.6	4.4	4.2	4.3	4.4	4.5	4.5	4.5	4.4
2.1	1.8	2.8	2.9	2.7	2.5	2.2	2.1	2.5	2.5	2.4	2.3
37.7	34.6	36.7	37.0	36.1	35.0	34.5	34.6	33.5	32.1	31.9	31.3
15.2	14.2	16.5	15.8	15.2	14.5	13.9	13.8	14.8	15.2	15.4	15.4
10.5	9.6	10.2	9.7	9.2	8.5	8.0	7.8	8.2	8.3	8.6	8.5
:	:	6.5	6.3	6.0	5.8	5.4	5.2	5.6	5.7	5.8	5.8
:	:	10.0	9.5	9.2	8.7	8.5	8.6	9.2	9.5	9.7	9.6
14.4	13.7	11.8	11.4	10.6	9.7	8.7	8.0	8.5	8.8	9.0	8.8
5.6	5.0	5.4	4.6	3.8	3.5	2.5	2.1	1.5	1.3	1.5	1.5
4.5	4.1	1.0	1.0	1.0	0.8	0.8	0.8	1.1	0.9	0.8	0.7
:	:	2.1	2.4	2.2	2.2	2.1	2.0	2.1	2.1	2.2	2.2
37.1	34.8	36.7	35.1	32.8	30.7	28.0	26.6	28.0	28.2	28.9	28.5
0.6	-0.2	0.0	1.8	3.3	4.3	6.5	7.9	5.5	3.9	3.0	2.8
:	:	1.8	1.7	1.8	1.6	1.6	1.3	1.4	1.3	1.2	1.1
37.7	34.6	39.4	39.4	38.6	37.2	36.7	36.4	35.2	33.7	33.5	32.8
2.3	2.4	2.3	2.4	2.5	2.7	3.2	3.7	4.6	4.4	3.9	3.9
:	:	1.6	1.2	1.1	0.9	2.9	1.1	1.1	0.8	1.0	0.9
39.2	36.7	41.5	39.6	37.1	35.0	34.7	31.9	34.1	33.7	34.1	33.7
35.5	32.9	35.1	35.0	34.2	33.4	33.0	33.1	31.7	30.4	30.3	29.7
-1.6	-2.1	-2.1	-0.1	1.4	2.3	2.0	4.5	1.2	0.0	-0.6	-0.9

Table A.1.8

Resources and expenditure of general government

(% of GDP)

Italy	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	9.3	9.5	11.3	11.8	11.8	12.7
2. Current taxes on income and wealth	9.7	13.0	14.3	14.4	14.6	16.1
3. Social contributions	12.9	13.5	14.3	14.6	14.9	15.4
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	2.4	2.9	2.9	3.0	3.3	3.6
6. Total current resources	34.4	39.0	42.8	43.8	44.5	47.7
7. Government consumption expenditure	15.0	16.6	17.4	17.4	17.5	17.5
8. Of which compensation of employees	11.1	11.8	12.7	12.6	12.5	12.4
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	14.5	17.3	18.3	18.4	19.5	19.7
12. Interest payments	5.5	8.0	9.4	10.1	11.4	12.0
13. Subsidies	3.5	3.4	2.5	2.6	2.3	2.7
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	39.0	45.9	48.5	49.5	51.6	53.1
16. Gross savings	-4.6	-6.9	-5.7	-5.7	-7.1	-5.4
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	34.4	39.0	42.8	43.8	44.5	47.7
19. Gross fixed capital formation	3.2	3.7	3.3	3.2	3.0	2.6
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	43.0	51.5	53.8	53.8	54.0	57.1
22. Tax burden	31.7	36.1	40.0	40.9	41.5	44.2
23. Net lending (+) or net borrowing (-)	-8.7	-12.5	-11.0	-10.0	-9.5	-9.4

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
12.4	12.4	12.1	11.8	12.4	15.3	15.1	15.0	14.5	14.6	14.5	14.5
14.8	14.5	14.8	15.4	16.2	14.5	15.2	14.7	15.1	14.2	13.7	13.6
14.8	14.7	14.8	15.0	15.3	12.8	12.7	12.7	12.6	12.7	12.8	12.8
:	:	13.0	14.6	14.9	12.5	12.4	12.4	12.3	12.4	12.5	12.5
3.6	3.7	3.1	3.2	3.2	3.2	3.3	3.0	3.2	3.1	3.0	3.0
45.5	45.3	44.8	45.5	47.2	45.9	46.3	45.5	45.3	44.6	44.0	43.8
17.0	15.9	17.9	18.1	18.2	17.9	18.0	18.3	18.8	18.8	18.9	18.7
11.9	11.3	11.2	11.5	11.6	10.7	10.7	10.6	10.7	10.7	10.8	10.7
:	:	7.3	7.3	7.2	7.1	7.2	7.1	7.1	7.0	7.2	7.2
:	:	10.6	10.8	11.0	10.8	10.8	11.2	11.7	11.8	11.6	11.5
19.7	19.1	16.7	16.9	17.3	17.0	17.2	16.8	16.6	17.1	17.3	17.4
10.9	11.3	11.5	11.5	9.4	8.3	6.8	6.5	6.4	5.8	5.3	5.1
2.4	1.9	1.5	1.5	1.2	1.3	1.2	1.2	1.2	1.0	0.9	0.9
:	:	1.1	1.3	1.3	1.3	1.4	1.3	1.4	1.4	1.4	1.4
51.0	49.1	48.6	49.2	47.4	45.8	44.6	44.1	44.4	44.1	43.8	43.4
-5.4	-3.9	-3.8	-3.7	-0.2	0.1	1.7	1.4	1.0	0.5	0.2	0.4
:	:	0.9	0.4	1.0	0.7	0.5	0.4	:	:	:	:
45.5	45.3	45.8	46.1	48.4	46.8	47.1	46.2	45.8	45.2	45.1	44.3
2.3	2.2	2.1	2.2	2.2	2.4	2.4	2.4	2.5	1.8	2.1	2.6
:	:	2.5	1.6	1.3	1.5	1.6	0.2	1.5	1.6	1.4	1.3
54.6	52.9	53.4	53.2	51.1	49.9	48.9	46.9	48.5	47.7	47.5	47.5
42.1	41.9	42.3	42.9	44.4	43.2	43.5	43.0	42.7	41.9	41.4	41.2
-9.1	-7.6	-7.6	-7.1	-2.7	-3.1	-1.8	-0.7	-2.7	-2.5	-2.3	-3.1

Table A.1.9

Resources and expenditure of general government

(% of GDP)

Luxembourg	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	12.5	14.9	14.9	14.7	15.3	15.9
2. Current taxes on income and wealth	15.7	17.6	:	:	:	:
3. Social contributions	13.4	12.4	:	:	:	:
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	6.3	5.7	:	:	:	:
6. Total current resources	48.0	50.6	:	:	:	:
7. Government consumption expenditure	14.5	13.7	12.5	12.1	12.3	12.0
8. Of which compensation of employees	10.2	9.8	:	:	:	:
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	21.7	20.8	:	:	:	:
12. Interest payments	1.2	1.0	0.4	0.4	0.3	0.3
13. Subsidies	2.9	3.1	3.0	3.0	2.9	2.8
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	40.8	39.5	:	:	:	:
16. Gross savings	7.2	11.2	:	:	:	:
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	48.0	50.6	:	:	:	:
19. Gross fixed capital formation	6.5	4.0	4.4	4.5	5.1	5.0
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	48.4	44.4	:	:	:	:
22. Tax burden	39.2	42.1	:	:	:	:
23. Net lending (+) or net borrowing (-)	-0.4	6.3	4.7	1.8	0.7	1.5

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 – line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 – line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
16.1	16.2	12.5	12.6	12.7	12.8	13.5	14.1	13.4	13.5	13.3	12.9
:	:	17.5	17.9	17.4	16.4	15.6	15.4	15.5	16.5	16.2	15.7
:	:	12.5	12.1	11.5	11.2	11.1	11.1	12.1	12.7	12.7	12.4
:	:	11.2	11.0	10.5	10.2	10.2	10.3	11.2	11.8	11.7	11.5
:	:	5.7	5.4	5.4	5.2	4.8	4.6	4.9	4.9	4.5	4.4
:	:	48.2	48.1	47.0	45.6	45.0	45.2	45.9	47.6	46.7	45.4
11.9	12.6	18.5	18.9	17.9	16.8	16.7	15.7	16.8	18.3	19.2	19.6
:	:	9.7	9.7	9.3	8.8	8.3	7.8	:	:	:	:
:	:	8.0	8.0	7.7	7.1	6.9	6.5	6.9	7.6	7.9	8.0
:	:	10.5	10.9	10.3	9.7	9.8	9.2	9.9	10.7	11.3	11.6
:	:	16.5	16.2	15.5	14.8	14.4	13.6	14.4	16.2	17.1	17.6
0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.2	0.2
2.8	2.1	1.8	2.1	1.9	1.8	1.5	1.6	1.6	1.7	1.7	1.6
:	:	3.1	2.7	2.9	3.2	3.4	3.1	3.1	2.8	2.8	2.8
:	:	40.2	40.3	38.6	37.0	36.3	34.3	36.1	39.3	41.1	41.8
:	:	8.0	7.8	8.4	8.6	8.7	10.9	9.9	8.3	5.6	3.6
:	:	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
:	:	47.6	47.5	46.6	45.1	44.5	44.6	45.4	47.2	45.2	44.3
4.2	4.5	4.6	4.7	4.2	4.5	4.5	4.0	4.2	4.6	5.1	5.4
:	:	1.5	1.3	1.2	1.2	0.9	1.1	-0.5	1.4	0.9	-0.5
:	:	45.5	45.5	43.3	42.1	41.0	38.7	39.1	44.7	45.5	45.6
:	:	42.5	42.6	41.7	40.4	40.3	40.6	41.0	42.7	42.2	41.0
2.7	1.8	2.1	2.0	3.2	3.1	3.5	6.0	6.3	2.5	-0.2	-1.2

Table A.1.10

Resources and expenditure of general government

(% of GDP)

The Netherlands	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	11.7	11.7	11.9	11.9	12.3	12.4
2. Current taxes on income and wealth	15.2	12.3	15.0	16.3	15.3	16.1
3. Social contributions	17.5	19.8	16.4	17.3	17.8	17.8
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	6.4	8.8	4.9	5.2	4.8	4.6
6. Total current resources	50.7	52.5	48.1	50.6	50.2	51.0
7. Government consumption expenditure	16.8	15.2	14.0	13.9	14.1	14.3
8. Of which compensation of employees	12.4	10.6	9.3	9.2	9.4	9.6
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	25.4	26.4	26.2	26.3	26.8	26.9
12. Interest payments	3.7	6.2	5.8	5.9	6.0	6.0
13. Subsidies	3.0	3.5	2.9	3.1	3.1	2.9
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	49.4	51.7	49.7	50.3	51.1	51.3
16. Gross savings	1.3	0.9	-1.6	0.3	-0.9	-0.3
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	50.7	52.5	48.1	50.6	50.2	51.0
19. Gross fixed capital formation	3.2	2.3	2.0	2.1	2.0	2.0
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	54.8	56.1	53.0	53.4	54.0	54.1
22. Tax burden	43.9	43.4	42.9	45.2	44.8	46.2
23. Net lending (+) or net borrowing (-)	-4.1	-3.5	-4.9	-2.8	-3.8	-3.1

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
12.4	12.3	10.7	11.2	11.4	11.6	12.2	12.1	12.6	12.7	12.6	12.5
13.6	12.5	12.4	12.9	12.4	12.2	12.2	12.1	11.9	12.0	11.3	11.1
18.4	18.2	17.2	16.6	16.6	16.4	17.1	17.1	15.3	15.0	15.6	15.3
:	:	16.0	15.5	15.5	15.3	16.0	16.0	14.2	14.0	14.6	14.3
4.1	3.7	6.0	5.8	5.5	5.0	4.7	4.8	5.2	5.2	4.9	4.6
48.4	46.6	46.3	46.5	45.9	45.2	46.2	46.1	45.1	44.9	44.4	43.5
13.9	13.8	24.0	23.1	22.9	22.7	22.9	22.7	23.2	24.3	24.2	24.4
9.3	9.3	10.8	10.4	10.2	10.1	10.2	10.0	10.1	10.4	10.6	10.6
:	:	11.6	11.3	11.0	10.8	10.9	10.6	10.9	11.3	11.2	11.3
:	:	12.5	11.9	11.9	11.9	12.0	12.0	12.3	13.0	13.0	13.1
26.0	25.1	15.3	14.8	13.9	13.0	12.5	11.8	11.6	11.8	12.2	12.4
5.7	5.7	5.9	5.6	5.2	4.9	4.5	3.9	3.5	3.2	3.0	2.9
2.5	1.8	1.1	1.2	1.5	1.5	1.6	1.5	1.5	1.5	1.4	1.2
:	:	1.1	1.2	1.3	1.3	1.4	1.7	1.6	1.8	1.6	1.6
49.4	47.7	47.4	45.9	44.7	43.4	42.8	41.5	41.4	42.6	42.5	42.5
- 1.0	- 1.1	- 1.1	0.6	1.3	1.8	3.4	4.6	3.7	2.3	2.0	1.0
:	:	0.3	0.6	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4
48.4	46.6	47.3	47.8	47.1	46.5	47.6	47.4	46.5	46.3	45.9	45.3
2.0	1.9	3.0	3.1	2.9	2.9	3.0	3.2	3.4	3.5	3.6	3.5
:	:	0.4	- 0.1	- 0.2	0.0	0.2	- 0.3	0.6	0.5	0.4	0.4
52.1	50.5	51.4	49.6	48.2	47.2	46.9	45.3	46.4	47.5	47.5	47.7
43.8	42.5	41.5	41.7	41.5	41.1	42.4	42.2	40.7	40.3	40.4	39.7
- 3.6	- 3.8	- 4.2	- 1.8	- 1.1	- 0.8	0.7	2.2	0.1	- 1.2	- 1.6	- 2.4

Table A.1.11

Resources and expenditure of general government

(% of GDP)

Austria	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	15.8	16.3	15.7	15.5	15.6	15.7
2. Current taxes on income and wealth	12.5	14.0	11.6	12.2	12.7	12.8
3. Social contributions	14.4	14.6	15.5	15.6	16.2	16.8
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	2.8	2.9	4.4	4.4	4.8	4.6
6. Total current resources	45.6	47.8	47.1	47.7	49.2	49.9
7. Government consumption expenditure	17.4	18.4	18.4	18.7	19.1	19.9
8. Of which compensation of employees	11.6	12.4	11.7	11.8	12.0	12.5
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	18.4	19.8	19.5	19.7	19.9	21.5
12. Interest payments	2.4	3.5	4.0	4.2	4.2	4.3
13. Subsidies	2.9	2.8	2.8	3.1	3.0	3.1
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	41.3	44.7	44.9	45.9	46.5	49.1
16. Gross savings	4.2	3.1	2.2	1.8	2.7	0.8
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	45.6	47.8	47.1	47.7	49.2	49.9
19. Gross fixed capital formation	4.3	3.6	3.2	3.2	3.2	3.2
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	47.2	50.2	49.6	50.6	51.2	54.1
22. Tax burden	42.7	44.8	42.6	43.2	44.4	45.3
23. Net lending (+) or net borrowing (-)	- 1.7	- 2.4	- 2.4	- 3.0	- 2.0	- 4.2

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5

Line 7 = line 9 + line 10

Line 15 = total of lines 9 to 14

Line 16 = line 6 - line 15

Line 18 = line 6 + line 17

Line 21 = line 15 + line 19 + line 20

Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
15.7	15.5	14.3	14.5	14.9	14.9	15.0	14.6	14.7	15.0	14.6	14.9
11.3	11.9	12.0	13.1	13.5	13.6	13.4	13.3	15.1	14.1	15.1	15.3
17.2	17.3	17.4	17.5	17.4	17.2	17.2	16.9	16.9	16.8	16.9	16.8
:	:	15.2	15.3	15.3	15.2	15.2	14.9	15.0	14.9	14.8	14.7
4.4	4.5	5.7	5.2	3.8	3.6	3.6	3.5	4.5	4.1	4.1	4.0
48.6	49.2	49.4	50.3	49.5	49.2	49.1	48.2	51.1	50.0	50.6	50.9
20.0	19.8	20.4	20.3	19.7	19.5	19.8	19.2	19.1	18.7	19.3	19.2
12.4	12.4	12.6	12.4	11.5	11.3	11.4	11.0	10.1	9.9	10.0	9.9
:	:	8.1	8.1	7.8	7.8	7.9	7.5	7.4	7.0	7.4	7.3
:	:	12.4	12.2	11.9	11.7	11.9	11.7	11.7	11.6	11.9	11.9
21.7	21.6	19.5	19.5	18.9	18.5	18.7	18.5	18.8	18.8	19.3	19.3
4.0	4.3	4.4	4.4	4.0	3.9	3.7	3.8	3.7	3.6	3.7	3.6
2.5	2.9	2.9	2.6	2.6	2.8	2.6	2.4	2.6	2.7	2.9	2.7
:	:	2.5	2.6	2.5	2.7	2.8	2.6	3.3	4.0	3.1	3.1
48.6	49.6	49.8	49.4	47.7	47.4	47.5	46.5	47.5	47.7	48.3	47.9
0.0	-0.4	-0.4	0.9	1.8	1.8	1.6	1.7	3.7	2.4	2.3	3.0
:	:	0.2	0.2	0.3	0.1	0.3	0.2	0.2	0.2	0.2	0.2
48.6	49.2	52.0	52.8	52.1	51.7	51.8	50.7	52.2	51.5	51.0	50.7
3.3	2.8	3.1	2.8	2.0	1.9	1.7	1.5	1.2	1.2	1.1	1.1
:	:	2.0	2.2	2.1	2.5	2.5	2.0	2.6	2.2	2.7	2.7
53.5	54.2	57.3	56.8	54.1	54.2	54.2	52.4	52.1	52.2	52.3	51.3
44.0	44.7	44.9	45.9	46.7	46.4	46.3	45.5	47.4	46.2	47.3	47.7
-4.9	-5.0	-5.3	-4.0	-2.0	-2.5	-2.4	-1.6	0.1	-0.8	-1.3	-0.6

Table A.1.12

Resources and expenditure of general government

(% of GDP)

Portugal	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	12.2	13.7	13.0	12.9	13.7	12.9
2. Current taxes on income and wealth	5.6	7.8	7.9	8.8	9.8	9.0
3. Social contributions	8.0	8.6	10.1	10.5	11.1	11.7
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	2.0	2.7	2.9	3.1	3.6	3.1
6. Total current resources	27.8	32.7	33.9	35.2	38.1	36.8
7. Government consumption expenditure	13.3	14.0	15.0	16.7	16.8	17.4
8. Of which compensation of employees	10.2	10.2	11.8	12.8	13.8	14.2
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	9.3	10.4	11.4	12.5	13.4	15.0
12. Interest payments	2.6	7.4	7.8	7.6	7.0	6.0
13. Subsidies	6.0	6.8	1.4	1.3	1.2	1.3
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	31.3	38.7	35.3	37.7	37.3	38.8
16. Gross savings	-3.5	-6.0	-1.4	-2.5	0.8	-2.0
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	27.8	32.7	33.9	35.2	38.1	36.8
19. Gross fixed capital formation	4.2	3.2	3.2	3.3	3.7	3.9
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	36.2	42.8	38.8	41.0	41.0	42.7
22. Tax burden	24.6	28.3	31.3	32.6	35.0	34.1
23. Net lending (+) or net borrowing (-)	-8.4	-10.1	-4.9	-5.8	-2.9	-5.9

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
13.4	13.6	13.6	14.0	13.8	14.3	14.8	14.5	14.4	15.1	15.2	15.5
8.8	9.1	8.9	9.5	9.6	9.3	9.8	10.4	9.8	9.7	9.6	9.5
11.5	11.7	11.0	10.9	11.2	11.2	11.4	11.8	11.9	12.2	12.2	12.0
:	:	10.1	10.2	10.5	10.5	10.6	10.9	11.0	11.3	11.3	11.2
2.6	2.8	4.1	4.3	4.0	4.0	4.0	3.6	3.7	3.9	3.9	3.9
36.3	37.1	37.6	38.7	38.6	39.0	40.0	40.3	39.8	40.9	40.7	40.9
17.1	17.3	18.6	18.9	19.0	18.9	19.7	20.5	20.8	21.3	21.3	21.0
13.7	13.7	13.6	13.7	13.8	14.0	14.4	15.0	15.2	15.4	15.0	14.5
:	:	7.6	7.3	7.8	7.6	7.9	8.4	8.5	8.7	8.7	8.6
:	:	11.0	11.7	11.3	11.3	11.8	12.1	12.3	12.6	12.6	12.4
14.8	15.1	11.8	11.9	11.7	11.7	11.9	12.4	12.5	13.0	13.2	13.4
6.1	6.2	6.3	5.4	4.2	3.5	3.2	3.3	3.2	3.0	3.1	3.0
1.2	1.1	1.3	1.5	1.2	1.5	1.7	1.1	1.3	1.4	1.4	1.4
:	:	1.6	1.9	2.0	2.1	2.2	2.4	2.2	2.3	2.3	2.3
39.1	39.5	39.6	39.6	38.2	37.7	38.7	39.6	40.0	41.0	41.4	41.3
-2.8	-2.3	-2.1	-0.9	0.4	1.2	1.3	0.7	-0.2	0.0	-0.7	-0.4
:	:	1.9	2.1	2.3	1.6	1.8	1.4	1.9	2.3	2.3	2.3
36.3	37.1	39.6	41.0	41.2	41.0	42.4	42.3	42.1	43.5	43.5	43.7
3.5	3.6	3.7	4.2	4.4	4.0	4.2	3.9	4.1	3.6	3.7	3.6
:	:	1.5	1.8	2.0	2.0	1.8	1.2	1.9	1.3	1.6	1.6
42.1	42.7	45.0	45.8	44.8	44.1	45.3	45.2	46.4	46.2	47.1	46.9
34.4	34.7	33.8	34.5	34.8	34.9	36.1	36.7	36.1	37.0	36.9	37.0
-5.9	-5.6	-5.5	-4.8	-3.6	-3.2	-2.9	-2.9	-4.3	-2.7	-3.6	-3.3

Table A.1.13

Resources and expenditure of general government

(% of GDP)

Finland	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	13.1	14.1	14.9	15.0	14.7	14.5
2. Current taxes on income and wealth	14.2	16.5	17.7	17.6	16.9	15.2
3. Social contributions	10.9	11.4	12.9	13.6	14.6	15.0
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	3.8	5.1	5.9	6.8	7.6	8.0
6. Total current resources	42.0	47.0	51.4	53.1	53.7	52.7
7. Government consumption expenditure	17.6	19.8	20.8	23.8	24.3	22.8
8. Of which compensation of employees	12.1	13.9	14.4	16.8	17.3	16.2
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	12.5	15.3	15.5	19.3	23.2	24.7
12. Interest payments	1.0	1.8	1.4	1.9	2.6	4.5
13. Subsidies	3.2	3.1	2.8	3.4	3.5	3.3
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	34.6	40.5	42.2	50.5	55.8	57.7
16. Gross savings	7.4	6.5	9.2	2.6	-2.1	-5.0
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	42.0	47.0	51.4	53.1	53.7	52.7
19. Gross fixed capital formation	3.8	3.7	3.7	3.8	3.5	2.8
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	38.6	44.2	46.1	54.5	59.5	60.6
22. Tax burden	38.3	42.3	45.8	46.6	46.5	44.9
23. Net lending (+) or net borrowing (-)	3.3	2.9	5.3	-1.5	-5.7	-7.9

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
14.2	13.5	13.4	13.5	14.2	14.0	14.2	13.6	13.2	13.5	13.5	13.2
16.8	16.7	17.4	19.0	18.5	18.9	18.9	21.4	19.5	19.4	18.7	18.4
15.8	14.7	14.8	14.2	13.4	13.0	13.1	12.2	12.5	12.3	12.1	12.0
:	:	14.6	14.0	13.2	12.9	13.1	12.2	12.5	12.3	12.1	12.0
6.7	6.9	7.3	6.8	6.2	6.0	5.4	6.2	6.4	6.3	6.1	6.0
53.5	51.9	52.8	53.6	52.3	51.8	51.6	53.4	51.6	51.5	50.4	49.7
21.8	21.2	22.7	23.1	22.3	21.6	21.6	20.7	20.8	21.6	21.9	21.8
15.3	14.8	15.2	15.5	14.5	13.8	13.8	13.2	13.2	13.4	13.6	13.6
:	:	8.5	8.6	8.5	8.1	8.0	7.6	7.3	7.6	7.7	7.7
:	:	14.3	14.5	13.8	13.5	13.6	13.2	13.5	13.9	14.1	14.1
24.5	22.8	22.1	21.4	19.8	18.3	18.1	16.5	16.4	16.5	16.8	16.6
5.0	5.2	4.0	4.3	4.3	3.6	3.1	2.9	2.7	2.3	2.2	2.1
3.0	3.2	2.8	2.0	1.8	1.7	1.6	1.5	1.4	1.4	1.4	1.4
:	:	2.0	2.2	2.4	2.3	2.4	2.4	2.3	2.4	2.4	2.4
56.4	54.1	53.6	53.0	50.5	47.4	46.8	44.0	43.7	44.1	44.6	44.3
-2.9	-2.2	-0.7	0.6	1.8	4.4	4.8	9.4	7.9	7.3	5.8	5.4
:	:	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
53.5	51.9	55.5	56.5	55.1	54.3	54.1	55.9	54.2	54.0	52.8	52.0
2.9	2.7	2.7	2.9	3.1	2.9	2.8	2.6	2.7	2.8	2.7	2.7
:	:	0.6	0.9	0.3	0.3	0.3	0.2	0.4	0.2	0.2	0.2
59.5	56.9	59.4	59.5	56.4	52.8	52.1	48.9	49.0	49.2	49.5	49.0
47.2	45.5	46.3	47.4	46.7	46.4	46.8	47.8	45.7	45.6	44.6	44.0
-6.1	-5.0	-3.9	-3.0	-1.3	1.5	2.0	6.9	5.2	4.7	3.3	3.0

Table A.1.14

Resources and expenditure of general government

(% of GDP)

Sweden	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	13.1	16.0	16.5	17.2	15.8	14.6
2. Current taxes on income and wealth	20.9	20.3	22.6	19.2	19.9	19.5
3. Social contributions	14.8	13.6	15.0	15.0	14.4	13.4
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	7.3	9.3	8.4	8.2	9.1	8.9
6. Total current resources	56.1	59.2	62.6	59.6	59.1	56.4
7. Government consumption expenditure	28.5	27.1	26.4	26.4	27.1	26.3
8. Of which compensation of employees	20.2	18.3	18.1	18.3	18.8	18.0
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	17.6	18.2	19.2	20.6	22.9	23.6
12. Interest payments	4.0	8.1	4.8	5.0	5.3	5.8
13. Subsidies	4.2	4.9	4.6	4.9	5.4	5.5
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	55.4	59.3	56.3	58.1	62.4	63.1
16. Gross savings	0.7	-0.1	6.3	1.4	-3.3	-6.6
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	56.1	59.2	62.6	59.6	59.1	56.4
19. Gross fixed capital formation	4.1	3.0	2.3	2.2	2.6	1.0
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	60.0	63.0	58.5	60.7	66.6	67.9
22. Tax burden	51.0	52.6	57.0	54.3	52.7	50.0
23. Net lending (+) or net borrowing (-)	-3.9	-3.7	4.0	-1.1	-7.5	-11.5

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5
- Line 7 = line 9 + line 10
- Line 15 = total of lines 9 to 14
- Line 16 = line 6 - line 15
- Line 18 = line 6 + line 17
- Line 21 = line 15 + line 19 + line 20
- Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
13.9	13.4	15.7	16.1	16.3	17.2	18.4	16.3	16.4	17.1	17.5	17.5
19.7	20.1	19.5	20.9	20.9	21.7	21.2	21.2	22.2	19.3	19.7	19.8
13.4	13.7	13.7	14.7	14.5	14.5	13.2	14.9	15.5	15.6	15.4	15.2
:	:	13.1	14.2	14.0	14.0	12.7	14.3	14.9	15.0	14.8	14.6
8.3	7.9	8.2	7.8	6.9	6.9	6.1	5.9	5.0	5.0	7.1	7.1
55.3	55.0	57.1	59.5	58.6	60.3	58.9	58.3	59.1	56.9	59.7	59.6
25.3	24.0	27.3	27.9	27.3	27.5	27.5	26.8	27.2	28.0	28.3	28.1
17.0	16.1	16.7	17.2	16.8	16.2	15.8	15.7	16.0	16.3	16.0	15.9
:	:	8.4	8.6	8.4	8.3	8.4	8.4	8.5	8.7	8.8	8.8
:	:	18.9	19.2	18.9	19.2	19.1	18.5	18.8	19.3	19.5	19.4
23.3	21.8	20.6	19.6	18.9	18.7	18.2	17.5	17.4	17.6	18.5	18.3
6.4	6.6	6.6	6.6	6.3	5.5	4.8	4.1	3.2	3.2	2.7	2.7
4.9	4.7	3.7	3.2	2.7	2.2	2.0	1.6	1.5	1.6	1.6	1.5
:	:	2.0	1.7	1.7	1.9	1.8	2.2	2.3	2.3	4.6	4.5
61.7	59.4	60.2	59.0	56.9	55.8	54.3	52.1	51.6	52.7	55.7	55.1
- 6.4	- 4.3	- 3.1	0.5	1.8	4.5	4.6	6.2	7.5	4.2	4.0	4.5
:	:	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55.3	55.0	60.4	62.4	61.5	63.1	61.7	60.9	61.8	59.6	59.9	59.7
2.8	2.7	4.0	3.5	3.1	3.2	3.2	2.9	3.0	3.3	3.3	3.3
:	:	0.6	0.1	0.6	- 0.7	0.2	0.0	0.1	0.1	0.1	0.1
64.9	62.3	67.8	65.4	63.2	60.8	60.4	57.5	57.2	58.5	59.1	58.5
49.4	50.1	49.6	52.4	52.4	54.1	53.4	53.0	54.7	52.4	53.1	53.0
- 9.6	- 7.3	- 7.4	- 2.9	- 1.7	2.3	1.3	3.5	4.6	1.1	0.8	1.2

Table A.1.15

Resources and expenditure of general government

(% of GDP)

United Kingdom	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	15.8	16.0	15.6	16.0	15.6	15.3
2. Current taxes on income and wealth	13.4	14.5	13.8	12.8	12.1	11.4
3. Social contributions	6.0	6.8	6.2	6.2	6.1	6.1
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	4.5	4.1	2.7	2.5	2.3	2.2
6. Total current resources	39.8	41.4	38.3	37.4	36.1	35.1
7. Government consumption expenditure	21.7	21.2	20.3	21.2	21.6	21.5
8. Of which compensation of employees	12.8	12.2	11.5	11.7	11.8	10.7
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	10.6	12.8	10.6	11.8	13.1	13.8
12. Interest payments	4.7	5.0	3.1	2.7	2.7	2.8
13. Subsidies	2.5	2.0	1.1	1.0	1.1	1.1
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	40.3	42.0	35.8	36.9	39.3	40.0
16. Gross savings	-0.5	-0.5	2.4	0.5	-3.2	-4.9
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	39.8	41.4	38.3	37.4	36.1	35.1
19. Gross fixed capital formation	2.5	2.1	2.3	2.1	2.0	1.8
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	43.2	44.3	39.2	39.7	42.2	42.8
22. Tax burden	33.5	35.4	33.3	33.1	32.2	31.3
23. Net lending (+) or net borrowing (-)	-3.4	-2.9	-0.9	-2.3	-6.1	-7.7

(¹) The table is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5

Line 7 = line 9 + line 10

Line 15 = total of lines 9 to 14

Line 16 = line 6 - line 15

Line 18 = line 6 + line 17

Line 21 = line 15 + line 19 + line 20

Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions ⁽¹⁾									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
15.4	15.7	13.1	13.2	13.5	13.4	13.8	13.8	13.6	13.7	13.6	13.5
11.8	12.6	14.9	14.7	15.0	16.2	16.1	16.6	16.7	15.5	15.4	15.5
6.2	6.2	7.5	7.4	7.4	7.5	7.3	7.6	7.6	7.5	7.9	8.1
:	:	6.8	6.7	6.8	6.9	6.6	6.9	7.0	6.8	7.2	7.4
2.2	2.2	2.9	3.0	2.7	2.7	2.7	2.5	2.7	2.3	2.1	2.2
35.6	36.7	38.4	38.2	38.6	39.8	39.9	40.4	40.5	39.0	39.0	39.3
21.2	20.9	19.6	19.3	18.4	18.0	18.5	18.7	19.3	20.0	20.7	20.7
9.1	8.4	8.3	7.9	7.5	7.2	7.2	7.2	7.4	7.6	8.0	8.0
:	:	8.3	8.1	7.6	7.3	7.3	7.4	7.6	7.7	7.9	7.9
:	:	11.3	11.2	10.8	10.7	11.2	11.4	11.7	12.4	12.8	12.8
13.6	13.4	15.4	14.8	14.4	13.7	13.4	13.3	13.7	13.5	13.5	13.4
3.2	3.4	3.7	3.7	3.7	3.6	2.9	2.8	2.4	2.1	2.0	2.1
1.1	1.1	0.8	0.9	0.7	0.6	0.4	0.5	0.6	0.6	0.6	0.6
:	:	1.8	1.9	2.0	2.1	2.1	2.3	2.2	2.4	2.4	2.6
39.8	39.7	41.3	40.6	39.2	38.0	37.3	37.6	38.2	38.6	39.2	39.3
-4.2	-3.0	-2.9	-2.3	-0.6	1.8	2.6	2.9	2.4	0.4	-0.2	0.0
:	:	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
35.6	36.7	38.9	38.6	38.9	40.1	40.3	40.9	41.0	39.4	39.5	39.7
1.8	1.7	2.0	1.5	1.2	1.2	1.1	1.1	1.2	1.3	1.7	1.9
:	:	1.2	0.9	0.7	0.6	0.6	-1.9	0.7	0.7	0.9	0.9
42.3	42.1	44.6	43.0	41.1	39.8	39.1	36.9	40.2	40.6	41.9	42.2
31.9	32.9	36.5	36.1	36.6	37.8	37.9	38.6	38.4	37.1	37.4	37.6
-6.7	-5.4	-5.8	-4.4	-2.2	0.2	1.1	4.0	0.8	-1.3	-2.5	-2.5

Table A.1.16

Resources and expenditure of general government

(% of GDP)

Euro area ⁽¹⁾	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	12.2	12.5	12.6	12.6	12.7	13.0
2. Current taxes on income and wealth	10.7	11.5	11.7	12.0	12.0	12.1
3. Social contributions	15.8	16.6	16.3	16.7	17.1	17.7
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	3.0	3.7	3.3	3.4	3.6	3.7
6. Total current resources	41.7	44.3	43.9	44.7	45.4	46.4
7. Government consumption expenditure	17.3	17.9	17.1	17.6	18.0	18.4
8. Of which compensation of employees	11.7	11.9	11.4	11.6	11.8	11.9
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	17.1	18.6	18.0	18.6	19.4	20.3
12. Interest payments	2.6	4.4	4.9	5.0	5.5	5.6
13. Subsidies	2.7	3.0	2.4	2.5	2.4	2.5
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	40.5	44.9	44.1	45.2	46.7	48.2
16. Gross savings	1.0	-0.6	-0.2	-0.5	-1.2	-1.8
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	41.7	44.3	43.9	44.7	45.4	46.4
19. Gross fixed capital formation	3.3	3.0	3.0	3.1	3.0	2.9
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	45.0	49.2	48.2	49.3	50.2	52.0
22. Tax burden	38.8	40.8	40.8	41.6	42.1	43.0
23. Net lending (+) or net borrowing (-)	-3.4	-4.9	-4.3	-4.6	-4.8	-5.6

(¹) Due to problems with availability of the data, Luxembourg data are not included; from 1991 including former East Germany.

(²) System is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5

Line 7 = line 9 + line 10

Line 15 = total of lines 9 to 14

Line 16 = line 6 - line 15

Line 18 = line 6 + line 17

Line 21 = line 15 + line 19 + line 20

Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions (2)									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
13.2	13.1	12.5	12.7	12.9	13.5	13.8	13.6	13.3	13.4	13.4	13.4
11.6	11.7	11.4	11.9	12.1	12.4	12.8	13.0	12.6	12.2	12.0	12.0
17.7	17.7	17.4	17.6	17.5	16.5	16.4	16.2	16.0	16.0	16.1	16.0
:	:	16.0	16.4	16.3	15.3	15.2	15.1	14.9	14.9	15.0	14.9
3.5	3.3	3.8	3.8	3.6	3.5	3.4	3.3	3.5	3.4	3.3	3.3
46.0	45.7	45.1	45.9	46.1	45.8	46.3	46.0	45.4	44.9	44.8	44.6
18.1	17.9	20.5	20.5	20.3	19.9	19.9	19.9	20.0	20.3	20.4	20.2
11.7	11.6	11.1	11.2	11.1	10.7	10.7	10.6	10.5	10.6	10.7	10.6
:	:	8.6	8.6	8.5	8.2	8.3	8.2	8.2	8.2	8.2	8.2
:	:	11.9	12.0	11.8	11.7	11.7	11.7	11.9	12.1	12.1	12.0
20.2	20.1	17.3	17.7	17.6	17.1	17.0	16.7	16.6	17.0	17.2	17.2
5.4	5.6	5.6	5.7	5.1	4.8	4.3	4.1	4.0	3.7	3.6	3.6
2.4	2.3	1.7	1.7	1.5	1.5	1.5	1.4	1.4	1.3	1.3	1.2
:	:	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.6
47.5	47.2	46.4	47.0	45.9	44.9	44.3	43.7	43.6	44.0	44.2	43.8
-1.5	-1.5	-1.4	-1.1	0.2	0.9	2.0	2.3	1.8	0.9	0.6	0.8
:	:	0.7	0.6	0.7	0.5	0.5	0.5	:	:	:	:
46.0	45.7	46.4	47.2	47.6	47.1	47.6	47.2	46.5	46.1	46.0	45.8
2.7	2.6	2.7	2.6	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.5
:	:	1.7	1.2	1.1	1.3	1.3	0.2	1.4	1.3	1.3	1.3
51.0	50.7	51.5	51.5	50.2	49.4	48.9	47.1	48.1	48.4	48.5	48.2
42.8	42.7	42.2	42.9	43.2	43.0	43.5	43.4	42.5	42.0	41.9	41.8
-5.1	-4.9	-5.1	-4.3	-2.6	-2.3	-1.4	0.1	-1.6	-2.3	-2.5	-2.4

Table A.1.17

Resources and expenditure of general government

(% of GDP)

EU-15 ⁽¹⁾	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Taxes on production and imports	12.9	13.3	13.3	13.4	13.3	13.4
2. Current taxes on income and wealth	11.8	12.7	12.7	12.7	12.6	12.5
3. Social contributions	14.0	14.6	14.5	14.8	15.2	15.7
4. Of which actual social contributions	:	:	:	:	:	:
5. Other current resources	3.5	4.0	3.5	3.5	3.7	3.7
6. Total current resources	42.1	44.6	43.9	44.3	44.8	45.3
7. Government consumption expenditure	18.6	18.9	18.0	18.6	19.0	19.2
8. Of which compensation of employees	12.3	12.3	11.8	12.0	12.2	12.1
9. Collective consumption	:	:	:	:	:	:
10. Social benefits in kind	:	:	:	:	:	:
11. Social transfers other than in kind	16.1	17.6	17.0	17.7	18.6	19.5
12. Interest payments	3.0	4.8	4.7	4.7	5.2	5.3
13. Subsidies	2.7	2.9	2.3	2.4	2.3	2.4
14. Other current expenditure	:	:	:	:	:	:
15. Total current expenditure	41.2	45.2	43.5	44.7	46.3	47.7
16. Gross savings	0.8	-0.6	0.4	-0.3	-1.6	-2.4
17. Capital transfers received	:	:	:	:	:	:
18. Total resources	42.1	44.6	43.9	44.3	44.8	45.3
19. Gross fixed capital formation	3.2	2.8	2.9	2.9	2.9	2.7
20. Other capital expenditure	:	:	:	:	:	:
21. Total expenditure	45.5	49.1	47.4	48.5	49.8	51.4
22. Tax burden	38.5	40.5	40.4	40.9	41.2	41.7
23. Net lending (+) or net borrowing (-)	- 3.4	- 4.5	- 3.5	- 4.1	- 5.0	- 6.0

(¹) Due to problems with availability of the data, Luxembourg data are not included; from 1991 including former East Germany.

(²) System is based on ESA 95 definitions which do not necessarily correspond with the former definitions: The totals are obtained in ESA 95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5

Line 7 = line 9 + line 10

Line 15 = total of lines 9 to 14

Line 16 = line 6 - line 15

Line 18 = line 6 + line 17

Line 21 = line 15 + line 19 + line 20

Line 23 = line 18 - line 21

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions (2)									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
13.6	13.5	12.8	12.9	13.2	13.7	14.0	13.8	13.5	13.6	13.6	13.6
12.3	12.4	12.5	12.9	13.2	13.7	14.0	14.2	14.0	13.3	13.2	13.2
15.7	15.7	15.7	15.8	15.5	14.6	14.5	14.3	14.2	14.2	14.4	14.4
:	:	14.4	14.7	14.4	13.6	13.4	13.3	13.2	13.2	13.4	13.3
3.5	3.4	3.9	3.9	3.6	3.5	3.4	3.3	3.5	3.3	3.3	3.2
45.0	45.0	44.8	45.6	45.5	45.4	45.8	45.6	45.2	44.4	44.4	44.4
18.9	18.6	20.7	20.7	20.3	19.9	20.0	20.0	20.2	20.6	20.8	20.7
11.6	11.4	11.1	11.1	10.8	10.4	10.4	10.2	10.2	10.3	10.5	10.4
:	:	8.6	8.5	8.3	8.1	8.1	8.0	8.1	8.1	8.2	8.2
:	:	12.1	12.2	12.0	11.9	11.9	12.0	12.2	12.5	12.6	12.5
19.4	19.3	17.2	17.4	17.1	16.6	16.4	16.1	16.1	16.4	16.6	16.6
5.2	5.3	5.4	5.5	4.9	4.6	4.1	3.8	3.7	3.4	3.3	3.3
2.3	2.2	1.7	1.6	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.1
:	:	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.9
47.1	46.8	46.4	46.7	45.4	44.3	43.6	43.0	43.0	43.5	43.8	43.5
-2.0	-1.7	-1.6	-1.2	0.1	1.2	2.2	2.6	2.1	1.0	0.7	0.9
:	:	0.6	0.5	0.7	0.5	0.5	0.5	0.4	0.5	0.6	0.5
45.0	45.0	46.1	46.8	46.8	46.6	47.0	46.7	46.2	45.5	45.5	45.4
2.6	2.5	2.6	2.5	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.4
:	:	1.6	1.1	1.0	1.1	1.2	-0.2	1.2	1.2	1.2	1.2
50.4	50.0	51.3	51.0	49.3	48.3	47.7	45.7	47.1	47.4	47.8	47.6
41.6	41.8	41.8	42.5	42.6	42.6	43.0	42.9	42.3	41.5	41.6	41.6
-5.4	-5.0	-5.2	-4.2	-2.5	-1.7	-0.8	0.9	-0.9	-1.9	-2.3	-2.2

Table A.2.1

Contributions to the change in the general government gross debt ratio

(% of GDP)

Belgium	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽¹⁾	8.6	8.9	5.4	6.2	6.9	7.2
2. Interest payments	5.9	10.3	10.4	10.0	10.6	10.6
3. Implicit interest rate ⁽²⁾	9.2	9.5	8.7	8.2	8.8	8.5
4. Nominal GDP growth rate (%)	8.8	6.4	6.0	4.8	5.0	3.0
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	8.6	8.9	5.4	6.2	6.9	7.2
6. Contribution of nominal GDP growth	- 5.6	- 6.9	- 7.3	- 5.8	- 6.1	- 3.7
7. Stock-flow adjustment ⁽³⁾	5.2	2.9	1.9	- 0.8	0.8	2.0
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	2.7	- 1.4	- 5.0	- 3.8	- 3.7	- 3.5
9. Snowball effect ⁽⁵⁾	0.3	3.4	3.2	4.2	4.6	6.9
10. Stock-flow adjustment ⁽³⁾	5.2	2.9	1.9	- 0.8	0.8	2.0
11. Change in gross debt ⁽⁶⁾	8.3	4.9	0.1	2.1	1.4	6.8
12. Level of gross debt (end of year)	78.3	121.8	127.7	129.8	131.2	138.0
Denmark						
1. Net borrowing ⁽¹⁾	3.2	2.0	1.0	2.4	2.2	2.8
2. Interest payments	3.7	9.3	7.3	7.3	6.7	7.3
3. Implicit interest rate ⁽²⁾	13.7	13.9	13.2	13.1	11.0	11.1
4. Nominal GDP growth rate (%)	8.0	8.7	4.7	3.9	3.5	1.4
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	3.2	2.0	1.0	2.4	2.2	2.8
6. Contribution of nominal GDP growth	- 2.2	- 5.8	- 2.6	- 2.2	- 2.1	- 0.9
7. Stock-flow adjustment ⁽³⁾	6.0	0.9	1.4	4.4	3.9	9.8
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	- 0.7	- 7.6	- 6.3	- 4.9	- 4.4	- 4.5
9. Snowball effect ⁽⁵⁾	1.6	3.5	4.7	5.1	4.5	6.4
10. Stock-flow adjustment ⁽³⁾	6.0	0.9	1.4	4.4	3.9	9.8
11. Change in gross debt ⁽⁶⁾	7.0	- 2.9	- 0.2	4.6	4.0	11.7
12. Level of gross debt (end of year)	36.4	69.8	57.7	62.3	66.4	78.0

⁽¹⁾ Line 1 = line 5, a minus sign means a surplus.

⁽²⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.

⁽³⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.

⁽⁴⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

⁽⁵⁾ Due to a change in definition there are no data for 1996.

⁽⁶⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4.8	3.9	3.8	2.0	0.8	0.5	-0.1	-0.4	0.0	0.3	0.2
9.9	8.8	8.9	8.0	7.6	7.0	6.8	6.6	6.1	5.6	5.0
7.8	7.0	6.8	6.4	6.3	6.1	6.2	6.2	5.7	5.5	5.0
5.4	3.7	2.4	4.9	3.7	4.6	5.0	2.8	2.5	3.0	4.0
4.8	3.9	3.8	2.0	0.8	0.5	-0.1	-0.4	0.0	0.3	0.2
-6.9	-4.6	-3.1	-6.1	-4.5	-5.3	-5.5	-2.9	-3.1	-3.1	-4.0
-0.6	-1.3	-4.6	-1.2	-1.6	0.1	0.3	2.3	-0.1	0.3	0.0
-5.1	-4.9	-5.0	-6.0	-6.8	-6.5	-6.9	-7.0	-6.1	-5.3	-4.8
3.0	4.2	5.7	1.9	3.1	1.7	1.3	3.7	3.0	2.5	1.0
-0.6	-1.3	-4.6	-1.2	-1.6	0.1	0.3	2.3	-0.1	0.3	0.0
-1.6	-3.1	-3.9	-5.4	-5.3	-4.7	-5.3	-1.1	-2.8	-2.5	-3.9
136.4	133.4	130.2	124.8	119.6	114.9	109.6	108.5	105.8	103.2	99.4
2.6	2.2	1.0	-0.4	-1.1	-3.2	-2.5	-3.0	-1.9	-1.6	-2.0
6.7	6.4	6.1	5.7	5.3	4.8	4.3	4.0	3.7	3.5	3.3
9.2	9.1	9.3	9.3	9.0	8.9	8.6	8.8	8.4	7.9	8.2
7.3	4.6	5.1	5.2	3.5	4.5	6.1	3.5	2.5	3.8	4.1
2.6	2.2	1.0	-0.4	-1.1	-3.2	-2.5	-3.0	-1.9	-1.6	-2.0
-5.3	-3.2	-3.3	-3.2	-2.1	-2.4	-3.0	-1.6	-1.2	-1.7	-1.7
-1.8	-3.2	-1.9	-0.4	-1.7	2.4	-0.1	2.6	2.9	0.8	0.9
-4.1	-4.2	-5.1	-6.1	-6.5	-8.0	-6.8	-7.0	-5.6	-5.1	-5.3
1.4	3.2	2.8	2.5	3.3	2.3	1.3	2.4	2.6	1.8	1.7
-1.8	-3.2	-1.9	-0.4	-1.7	2.4	-0.1	2.6	2.9	0.8	0.9
-4.6	-4.2	-4.2	-3.9	-4.9	-3.3	-5.6	-2.0	-0.1	-2.5	-2.8
73.5	69.3	65.1	61.2	56.2	53.0	47.3	45.4	45.3	42.7	40.0

Table A.2.2

Contributions to the change in the general government gross debt ratio

(% of GDP)

Germany ⁽¹⁾	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽²⁾	1.9	2.1	2.0	3.2	2.8	3.5
2. Interest payments	2.8	2.8	2.5	2.6	3.2	3.2
3. Implicit interest rate ⁽³⁾	7.2	7.1	6.8	7.1	8.5	7.7
4. Nominal GDP growth rate (%)	3.3	5.3	9.1	8.8	7.4	2.5
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽²⁾	1.9	2.1	2.0	3.2	2.8	3.5
6. Contribution of nominal GDP growth	- 1.4	- 2.2	- 3.5	- 3.6	- 2.8	- 1.1
7. Stock-flow adjustment ⁽⁴⁾	0.5	0.4	3.0	1.1	2.7	1.5
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁵⁾	- 1.0	- 0.7	- 0.6	0.6	- 0.4	0.2
9. Snowball effect ⁽⁶⁾	:	:	:	- 0.9	0.4	2.2
10. Stock-flow adjustment ⁽⁴⁾	0.5	0.4	3.0	1.1	2.7	1.5
11. Change in gross debt ⁽⁷⁾	1.0	0.5	1.7	0.9	2.7	4.0
12. Level of gross debt (end of year)	42.6	43.1	43.5	40.4	43.2	47.2
Greece						
1. Net borrowing ⁽²⁾	2.6	11.6	15.9	11.4	12.6	13.6
2. Interest payments	2.0	4.9	10.0	9.3	11.5	12.6
3. Implicit interest rate ⁽³⁾	9.4	12.9	16.6	14.3	16.2	16.2
4. Nominal GDP growth rate (%)	20.1	22.0	20.7	23.5	15.6	12.6
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽²⁾	2.6	11.6	15.9	11.4	12.6	13.6
6. Contribution of nominal GDP growth	- 4.3	- 8.4	- 12.5	- 15.3	- 11.1	- 9.8
7. Stock-flow adjustment ⁽⁴⁾	1.4	4.6	4.3	5.8	4.1	18.6
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁵⁾	0.7	6.7	5.9	2.1	1.1	1.0
9. Snowball effect ⁽⁶⁾	- 2.3	- 3.5	- 2.5	- 6.0	0.4	2.8
10. Stock-flow adjustment ⁽⁴⁾	1.4	4.6	4.3	5.8	4.1	18.6
11. Change in gross debt ⁽⁷⁾	- 0.2	8.7	8.6	2.2	6.4	12.7
12. Level of gross debt (end of year)	27.9	59.9	89.0	91.1	97.5	110.2

⁽¹⁾ From 1991 including former East Germany⁽²⁾ Line 1 = line 5, a minus sign means a surplus.⁽³⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.⁽⁴⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.⁽⁵⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.⁽⁶⁾ Due to a change in definition there are no data for 1996.⁽⁷⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.6	3.4	3.4	2.7	2.2	1.5	-1.1	2.8	3.6	3.4	2.9
3.3	3.7	3.7	3.6	3.6	3.5	3.4	3.3	3.2	3.2	3.3
7.4	7.8	6.6	6.2	6.1	5.9	5.6	5.6	5.5	5.4	5.3
4.9	3.8	1.8	2.1	3.1	2.6	2.6	2.0	1.8	1.7	2.8
2.6	3.4	3.4	2.7	2.2	1.5	-1.1	2.8	3.6	3.4	2.9
-2.2	-1.8	-1.0	-1.2	-1.8	-1.5	-1.6	-1.2	-1.0	-1.0	-1.7
1.9	6.1	0.4	-0.3	-0.5	0.3	1.7	-2.3	-1.2	-0.6	-0.9
-0.7	-0.4	-0.3	-0.9	-1.4	-2.0	-4.5	-0.5	0.4	0.2	-0.3
1.1	1.9	2.7	2.4	1.8	2.0	1.8	2.1	2.1	2.2	1.5
1.9	6.1	0.4	-0.3	-0.5	0.3	1.7	-2.3	-1.2	-0.6	-0.9
2.3	7.7	2.8	1.2	-0.1	0.3	-1.0	-0.7	1.3	1.8	0.3
49.5	57.1	59.8	61.0	60.9	61.2	60.2	59.5	60.9	62.7	63.0
9.9	10.5	7.4	4.0	2.5	1.8	1.9	1.5	1.2	1.1	1.1
13.9	12.8	10.5	8.2	7.8	7.2	7.0	6.3	5.5	5.2	4.9
14.3	13.2	10.7	8.2	7.8	7.3	7.2	6.4	5.6	5.3	5.3
13.4	12.1	9.9	10.7	8.8	6.7	7.8	7.7	7.8	7.5	7.6
9.9	10.5	7.4	4.0	2.5	1.8	1.9	1.5	1.2	1.1	1.1
-13.0	-11.7	-9.8	-10.7	-8.7	-6.7	-7.6	-7.5	-7.7	-7.3	-7.2
1.0	2.0	5.0	3.6	3.9	4.1	6.8	6.9	4.4	2.2	2.1
-4.0	-2.3	-3.1	-4.2	-5.3	-5.4	-5.1	-4.9	-4.3	-4.1	-3.9
0.9	1.1	0.7	-2.5	-0.9	0.6	-0.6	-1.2	-2.2	-2.1	-2.2
1.0	2.0	5.0	3.6	3.9	4.1	6.8	6.9	4.4	2.2	2.1
-2.3	0.8	2.6	-3.1	-2.4	-0.8	1.2	0.8	-2.1	-3.9	-4.0
107.9	108.7	111.3	108.2	105.8	105.1	106.2	107.0	104.9	101.0	97.0

Table A.2.3

Contributions to the change in the general government gross debt ratio

(% of GDP)

Spain	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽¹⁾	2.5	6.2	4.2	4.3	4.0	6.7
2. Interest payments	0.4	1.9	3.9	3.7	4.3	5.0
3. Implicit interest rate ⁽²⁾	3.4	5.8	10.4	9.4	10.4	11.2
4. Nominal GDP growth rate (%)	14.9	11.1	11.4	9.7	7.7	3.5
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	2.5	6.2	4.2	4.3	4.0	6.7
6. Contribution of nominal GDP growth	- 1.9	- 3.7	- 4.3	- 3.8	- 3.2	- 1.6
7. Stock-flow adjustment ⁽³⁾	1.3	2.7	1.9	0.2	1.6	6.4
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	1.8	4.3	0.3	0.6	- 0.3	1.7
9. Snowball effect ⁽⁵⁾	- 1.5	- 1.8	- 0.4	- 0.1	1.1	3.5
10. Stock-flow adjustment ⁽³⁾	1.3	2.7	1.9	0.2	1.6	6.4
11. Change in gross debt ⁽⁶⁾	1.8	5.2	1.8	0.7	2.4	11.6
12. Level of gross debt (end of year)	17.0	42.7	44.0	44.7	47.1	58.7
France						
1. Net borrowing ⁽¹⁾	0.0	2.8	1.5	2.0	3.9	5.6
2. Interest payments	1.4	2.8	2.9	2.9	3.2	3.3
3. Implicit interest rate ⁽²⁾	7.7	10.5	9.0	8.6	9.3	8.7
4. Nominal GDP growth rate (%)	12.9	7.0	5.6	4.0	3.5	1.4
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	0.0	2.8	1.5	2.0	3.9	5.6
6. Contribution of nominal GDP growth	- 2.4	- 1.9	- 1.8	- 1.3	- 1.2	- 0.5
7. Stock-flow adjustment ⁽³⁾	1.0	0.8	1.3	- 0.3	1.0	0.3
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	- 1.4	0.0	- 1.4	- 0.9	0.7	2.3
9. Snowball effect ⁽⁵⁾	- 1.0	1.0	1.1	1.6	2.0	2.8
10. Stock-flow adjustment ⁽³⁾	1.0	0.8	1.3	- 0.3	1.0	0.3
11. Change in gross debt ⁽⁶⁾	- 1.5	1.8	1.1	0.4	4.0	5.5
12. Level of gross debt (end of year)	20.4	31.8	36.3	36.7	40.6	46.1

⁽¹⁾ Line 1 = line 5, a minus sign means a surplus.

⁽²⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.

⁽³⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.

⁽⁴⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

⁽⁵⁾ Due to a change in definition there are no data for 1996.

⁽⁶⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
6.1	7.0	5.0	3.2	3.0	1.2	0.8	0.2	0.1	0.4	0.1
4.7	5.3	5.4	4.8	4.3	3.6	3.3	3.1	2.9	2.7	2.5
8.6	9.5	8.9	7.4	6.9	5.9	5.6	5.5	5.4	5.2	5.1
6.4	7.8	6.0	6.4	6.9	7.1	7.8	7.0	6.5	5.8	6.1
6.1	7.0	5.0	3.2	3.0	1.2	0.8	0.2	0.1	0.4	0.1
-3.5	-4.4	-3.6	-4.1	-4.3	-4.3	-4.6	-3.9	-3.5	-2.9	-3.0
-0.3	0.1	2.9	-0.6	-0.8	1.6	1.2	0.2	0.4	1.0	0.9
1.4	1.7	-0.4	-1.6	-1.3	-2.4	-2.5	-3.0	-2.8	-2.2	-2.4
1.2	0.9	1.7	0.6	0.0	-0.7	-1.3	-0.8	-0.6	-0.3	-0.5
-0.3	0.1	2.9	-0.6	-0.8	1.6	1.2	0.2	0.4	1.0	0.9
2.5	2.8	4.2	-1.5	-2.0	-1.4	-2.6	-3.6	-3.0	-1.5	-2.0
61.2	64.0	68.1	66.6	64.6	63.2	60.6	56.9	54.0	52.5	50.5
5.7	4.8	4.1	3.0	2.7	1.8	1.4	1.5	3.1	3.7	3.5
3.5	3.7	3.8	3.6	3.5	3.2	3.1	3.1	3.1	3.2	3.3
8.2	8.0	7.2	6.5	6.1	5.6	5.6	5.7	5.6	5.6	5.6
3.8	3.4	2.6	3.2	4.4	3.8	4.8	3.9	3.1	2.8	3.7
5.7	4.8	4.1	3.0	2.7	1.8	1.4	1.5	3.1	3.7	3.5
-1.6	-1.6	-1.4	-1.8	-2.5	-2.2	-2.7	-2.2	-1.6	-1.6	-2.2
-0.7	1.0	-0.2	0.9	0.1	-0.7	0.0	0.3	0.7	0.6	0.0
2.2	1.1	0.3	-0.6	-0.8	-1.5	-1.7	-1.6	0.0	0.5	0.2
1.9	2.1	2.5	1.8	1.0	1.1	0.5	1.0	1.5	1.6	1.1
-0.7	1.0	-0.2	0.9	0.1	-0.7	0.0	0.3	0.7	0.6	0.0
3.5	4.4	2.5	2.2	0.3	-1.1	-1.3	-0.4	2.1	2.7	1.3
49.6	54.0	57.1	59.3	59.5	58.5	57.2	56.8	59.0	61.7	63.0

Table A.2.4

Contributions to the change in the general government gross debt ratio

(% of GDP)

Ireland	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽¹⁾	11.6	10.2	2.2	2.3	2.4	2.3
2. Interest payments	6.0	9.4	7.4	7.2	6.7	6.3
3. Implicit interest rate ⁽²⁾	10.7	10.5	8.2	8.2	7.7	7.6
4. Nominal GDP growth rate (%)	18.3	8.5	7.3	3.8	6.3	8.0
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	11.6	10.2	2.2	2.3	2.4	2.3
6. Contribution of nominal GDP growth	- 10.3	- 7.6	- 6.6	- 3.3	- 5.5	- 6.7
7. Stock-flow adjustment ⁽³⁾	0.2	0.2	- 1.6	2.2	- 0.1	8.3
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	5.6	0.9	- 5.3	- 5.0	- 4.3	- 4.0
9. Snowball effect ⁽⁵⁾	- 4.3	1.8	0.8	3.9	1.3	- 0.4
10. Stock-flow adjustment ⁽³⁾	0.2	0.2	- 1.6	2.2	- 0.1	8.3
11. Change in gross debt ⁽⁶⁾	1.6	3.0	- 6.4	- 0.3	- 2.6	4.2
12. Level of gross debt (end of year)	72.3	105.3	97.5	97.3	94.7	98.8
Italy						
1. Net borrowing ⁽¹⁾	8.7	12.5	11.0	10.0	9.5	9.4
2. Interest payments	5.5	8.0	9.4	10.1	11.4	12.0
3. Implicit interest rate ⁽²⁾	11.3	11.9	10.9	11.3	11.9	11.5
4. Nominal GDP growth rate (%)	25.6	12.2	10.4	9.1	5.3	3.0
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	8.7	12.5	11.0	10.0	9.5	9.4
6. Contribution of nominal GDP growth	- 12.4	- 8.2	- 9.0	- 8.1	- 5.1	- 3.2
7. Stock-flow adjustment ⁽³⁾	1.0	2.3	- 0.2	1.4	2.8	4.2
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	3.2	4.5	1.6	- 0.1	- 1.9	- 2.6
9. Snowball effect ⁽⁵⁾	- 7.0	- 0.2	0.4	2.0	6.3	8.9
10. Stock-flow adjustment ⁽³⁾	1.0	2.3	- 0.2	1.4	2.8	4.2
11. Change in gross debt ⁽⁶⁾	- 2.8	6.7	1.9	3.3	7.1	10.5
12. Level of gross debt (end of year)	58.3	82.0	97.3	100.7	107.7	118.2

⁽¹⁾ Line 1 = line 5, a minus sign means a surplus.

⁽²⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.

⁽³⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.

⁽⁴⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

⁽⁵⁾ Due to a change in definition there are no data for 1996.

⁽⁶⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1.6	2.1	0.1	-1.4	-2.3	-2.0	-4.5	-1.2	0.0	0.6	0.9
5.6	5.0	4.6	3.8	3.5	2.5	2.1	1.5	1.3	1.5	1.5
6.4	6.4	6.1	6.0	6.2	5.2	4.8	4.3	4.1	4.7	4.9
7.6	13.3	10.3	15.5	15.6	15.7	14.6	11.2	12.0	6.8	8.2
1.6	2.1	0.1	-1.4	-2.3	-2.0	-4.5	-1.2	0.0	0.6	0.9
-6.6	-10.3	-7.7	-10.0	-8.8	-7.5	-6.3	-4.0	-3.2	-2.2	-2.6
-0.9	0.3	-0.9	2.2	0.9	3.9	0.8	2.6	0.5	1.5	1.6
-4.0	-2.9	-4.4	-5.3	-5.8	-4.5	-6.5	-2.7	-1.3	-0.9	-0.6
-1.0	-5.4	-3.2	-6.1	-5.3	-5.0	-4.2	-2.5	-1.9	-0.7	-1.1
-0.9	0.3	-0.9	2.2	0.9	3.9	0.8	2.6	0.5	1.5	1.6
-6.2	-8.4	-8.5	-9.2	-10.1	-5.6	-9.9	-2.6	-3.4	0.0	0.0
92.6	84.3	74.2	65.0	54.9	49.3	39.3	36.8	33.4	33.4	33.3
9.1	7.6	7.1	2.7	3.1	1.8	0.7	2.7	2.5	2.3	3.1
10.9	11.3	11.5	9.4	8.3	6.8	6.5	6.4	5.8	5.3	5.1
9.7	9.8	9.9	8.0	7.2	6.0	5.9	6.1	5.5	5.1	5.1
5.8	8.1	6.4	4.5	4.6	3.3	5.3	4.6	3.1	3.5	4.4
9.1	7.6	7.1	2.7	3.1	1.8	0.7	2.7	2.5	2.3	3.1
-6.4	-9.3	-7.5	-5.2	-5.2	-3.7	-5.8	-4.9	-3.3	-3.6	-4.5
3.1	1.0	-0.7	0.6	-1.8	0.5	0.8	1.1	-2.0	0.6	0.0
-1.8	-3.6	-4.4	-6.7	-5.2	-5.0	-5.8	-3.8	-3.4	-3.0	-2.0
4.4	2.0	4.1	4.2	3.1	3.1	0.7	1.6	2.5	1.7	0.6
3.1	1.0	-0.7	0.6	-1.8	0.5	0.8	1.1	-2.0	0.6	0.0
5.7	-0.6	-1.1	-1.9	-3.9	-1.4	-4.3	-1.1	-2.8	-0.6	-1.4
123.9	123.3	122.1	120.2	116.3	114.9	110.6	109.5	106.7	106.0	104.7

Table A.2.5

Contributions to the change in the general government gross debt ratio

(% of GDP)

Luxembourg	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽¹⁾	0.4	- 6.3	- 4.7	- 1.8	- 0.7	- 1.5
2. Interest payments	1.2	1.0	0.4	0.4	0.3	0.3
3. Implicit interest rate ⁽²⁾	13.2	10.2	8.8	9.0	9.2	8.0
4. Nominal GDP growth rate (%)	8.8	6.0	8.0	10.6	5.6	10.4
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	0.4	- 6.3	- 4.7	- 1.8	- 0.7	- 1.5
6. Contribution of nominal GDP growth	- 0.8	- 0.6	- 0.4	- 0.4	- 0.2	- 0.5
7. Stock-flow adjustment ⁽³⁾	0.1	6.4	4.2	1.6	1.9	2.9
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	- 0.7	- 7.2	- 5.1	- 2.1	- 1.1	- 1.9
9. Snowball effect ⁽⁵⁾	0.4	0.4	0.0	- 0.1	0.1	- 0.1
10. Stock-flow adjustment ⁽³⁾	0.1	6.4	4.2	1.6	1.9	2.9
11. Change in gross debt ⁽⁶⁾	- 0.3	- 0.5	- 0.9	- 0.5	0.9	1.0
12. Level of gross debt (end of year)	9.3	9.6	4.4	3.9	4.8	5.8
The Netherlands						
1. Net borrowing ⁽¹⁾	4.1	3.5	4.9	2.8	3.8	3.1
2. Interest payments	3.7	6.2	5.8	5.9	6.0	6.0
3. Implicit interest rate ⁽²⁾	9.4	10.0	8.0	8.2	8.3	8.0
4. Nominal GDP growth rate (%)	6.8	4.9	6.4	5.4	4.1	2.8
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	4.1	3.5	4.9	2.8	3.8	3.1
6. Contribution of nominal GDP growth	- 2.7	- 3.0	- 4.6	- 3.9	- 3.0	- 2.1
7. Stock-flow adjustment ⁽³⁾	1.3	4.0	- 0.6	0.9	0.1	0.1
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	0.4	- 2.6	- 0.8	- 3.1	- 2.3	- 2.9
9. Snowball effect ⁽⁵⁾	1.0	3.1	1.2	2.0	3.1	3.9
10. Stock-flow adjustment ⁽³⁾	1.3	4.0	- 0.6	0.9	0.1	0.1
11. Change in gross debt ⁽⁶⁾	2.8	4.6	- 0.3	- 0.2	0.9	1.1
12. Level of gross debt (end of year)	46.3	70.5	77.4	77.2	78.1	79.3

⁽¹⁾ Line 1 = line 5, a minus sign means a surplus.

⁽²⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.

⁽³⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.

⁽⁴⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

⁽⁵⁾ Due to a change in definition there are no data for 1996.

⁽⁶⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
-2.7	-1.8	-2.0	-3.2	-3.1	-3.5	-6.0	-6.3	-2.5	0.2	1.2
0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.2	0.2
6.2	5.4	6.6	6.1	6.5	5.3	5.0	5.1	6.6	4.1	4.5
7.5	3.8	5.4	11.2	9.8	11.0	12.9	3.6	1.2	3.2	4.8
-2.7	-1.8	-2.0	-3.2	-3.1	-3.5	-6.0	-6.3	-2.5	0.2	1.2
-0.4	-0.2	-0.3	-0.6	-0.5	-0.5	-0.6	-0.2	-0.1	-0.2	-0.2
2.7	2.3	2.8	3.8	3.8	3.7	6.2	6.4	2.7	-1.6	-1.7
-3.0	-2.1	-2.3	-3.6	-3.4	-3.8	-6.2	-6.5	-2.9	0.0	1.0
-0.1	0.1	0.1	-0.3	-0.2	-0.2	-0.4	0.1	0.3	0.0	0.0
2.7	2.3	2.8	3.8	3.8	3.7	6.2	6.4	2.7	-1.6	-1.7
-0.4	0.3	0.5	-0.1	0.2	-0.4	-0.5	-0.1	0.2	-1.6	-0.6
5.4	5.6	6.2	6.1	6.3	5.9	5.5	5.4	5.6	4.0	3.4
3.6	3.8	1.8	1.1	0.8	-0.7	-2.2	-0.1	1.2	1.6	2.4
5.7	5.7	5.6	5.2	4.9	4.5	3.9	3.5	3.2	3.0	2.9
7.6	8.0	7.5	7.3	7.4	7.1	6.7	6.7	6.4	6.0	5.8
5.0	5.0	4.2	5.9	6.1	5.6	7.6	6.6	3.5	3.5	3.3
3.6	3.8	1.8	1.1	0.8	-0.7	-2.2	-0.1	1.2	1.6	2.4
-3.7	-3.6	-3.1	-4.2	-4.0	-3.6	-4.5	-3.5	-1.8	-1.8	-1.7
-3.1	0.6	-0.7	-2.2	0.1	0.5	-0.7	0.7	0.4	0.0	-0.4
-2.0	-1.9	-3.8	-4.1	-4.1	-5.2	-6.1	-3.6	-2.1	-1.5	-0.5
2.0	2.1	2.4	1.0	0.8	0.9	-0.6	0.0	1.4	1.3	1.3
-3.1	0.6	-0.7	-2.2	0.1	0.5	-0.7	0.7	0.4	0.0	-0.4
-3.2	0.9	-2.0	-5.3	-3.2	-3.7	-7.3	-2.9	-0.2	-0.2	0.4
76.1	77.0	75.2	69.9	66.8	63.1	55.8	52.8	52.7	52.5	52.8

Table A.2.6

Contributions to the change in the general government gross debt ratio

(% of GDP)

Austria	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽¹⁾	1.7	2.4	2.4	3.0	2.0	4.2
2. Interest payments	2.4	3.5	4.0	4.2	4.2	4.3
3. Implicit interest rate ⁽²⁾	7.5	7.7	7.4	7.8	7.7	7.7
4. Nominal GDP growth rate (%)	7.5	5.5	8.2	7.2	6.0	3.4
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	1.7	2.4	2.4	3.0	2.0	4.2
6. Contribution of nominal GDP growth	-2.4	-2.5	-4.4	-3.9	-3.3	-1.9
7. Stock-flow adjustment ⁽³⁾	2.2	2.0	1.2	1.0	1.1	2.2
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	-0.8	-1.1	-1.6	-1.2	-2.2	-0.1
9. Snowball effect ⁽⁵⁾	0.0	1.0	-0.4	0.3	0.9	2.4
10. Stock-flow adjustment ⁽³⁾	2.2	2.0	1.2	1.0	1.1	2.2
11. Change in gross debt ⁽⁶⁾	1.5	2.0	-0.8	0.2	-0.2	4.6
12. Level of gross debt (end of year)	36.4	49.4	57.5	57.7	57.5	62.1
Portugal						
1. Net borrowing ⁽¹⁾	8.4	10.1	4.9	5.8	2.9	5.9
2. Interest payments	2.6	7.4	7.8	7.6	7.0	6.0
3. Implicit interest rate ⁽²⁾	8.3	15.5	14.7	13.5	11.7	10.5
4. Nominal GDP growth rate (%)	26.5	25.2	17.6	14.9	12.7	5.2
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	8.4	10.1	4.9	5.8	2.9	5.9
6. Contribution of nominal GDP growth	-8.3	-12.1	-9.4	-8.4	-7.5	-3.0
7. Stock-flow adjustment ⁽³⁾	-3.8	10.1	6.5	5.1	-1.6	-2.4
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	5.8	2.7	-2.9	-1.8	-4.1	-0.1
9. Snowball effect ⁽⁵⁾	-5.7	-4.6	-1.6	-0.8	-0.6	3.0
10. Stock-flow adjustment ⁽³⁾	-3.8	10.1	6.5	5.1	-1.6	-2.4
11. Change in gross debt ⁽⁶⁾	-3.6	8.0	2.0	1.8	-7.1	3.3
12. Level of gross debt (end of year)	34.9	66.6	63.1	64.9	57.8	61.1

⁽¹⁾ Line 1 = line 5, a minus sign means a surplus.

⁽²⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.

⁽³⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.

⁽⁴⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

⁽⁵⁾ Due to a change in definition there are no data for 1996.

⁽⁶⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4.9	5.0	4.0	2.0	2.5	2.4	1.6	-0.1	0.8	1.3	0.6
4.0	4.3	4.4	4.0	3.9	3.7	3.8	3.7	3.6	3.7	3.6
6.8	7.0	6.6	6.0	6.3	6.1	5.9	5.7	5.5	5.6	5.4
5.4	4.2	3.3	2.5	4.5	3.4	5.0	2.3	2.4	2.3	3.5
4.9	5.0	4.0	2.0	2.5	2.4	1.6	-0.1	0.8	1.3	0.6
-3.2	-2.6	-2.2	-1.7	-2.8	-2.1	-3.2	-1.5	-1.5	-1.5	-2.3
1.0	1.4	-1.8	-4.7	-0.8	3.5	1.0	2.1	1.0	1.1	0.0
0.9	0.7	-0.4	-2.0	-1.4	-1.3	-2.2	-3.8	-2.9	-2.4	-3.0
0.8	1.8	2.2	2.3	1.1	1.6	0.6	2.2	2.1	2.2	1.3
1.0	1.4	-1.8	-4.7	-0.8	3.5	1.0	2.1	1.0	1.1	0.0
2.7	3.8	-0.1	-4.4	-1.1	3.8	-0.6	0.5	0.3	0.9	-1.7
64.7	68.6	69.1	64.7	63.7	67.5	66.8	67.3	67.6	68.5	66.8
5.9	5.6	4.8	3.6	3.2	2.9	2.9	4.3	2.7	3.6	3.3
6.1	6.2	5.4	4.2	3.5	3.2	3.3	3.2	3.0	3.1	3.0
10.7	10.7	8.9	7.3	6.4	6.3	6.4	6.3	5.8	5.6	5.4
8.3	7.9	6.7	7.9	8.6	7.0	7.0	6.4	5.1	3.9	4.5
5.9	5.6	4.8	3.6	3.2	2.9	2.9	4.3	2.7	3.6	3.3
-4.7	-4.5	-4.0	-4.6	-4.7	-3.6	-3.5	-3.2	-2.8	-2.2	-2.6
-0.3	1.1	-2.1	-2.8	-2.7	0.1	-0.4	1.2	2.6	0.0	0.0
-0.2	-0.6	-0.6	-0.7	-0.3	-0.4	-0.4	1.1	-0.4	0.4	0.2
1.4	1.6	1.4	-0.4	-1.2	-0.4	-0.3	0.0	0.3	0.9	0.5
-0.3	1.1	-2.1	-2.8	-2.7	0.1	-0.4	1.2	2.6	0.0	0.0
0.9	2.2	-1.4	-3.8	-4.1	-0.7	-1.0	2.3	2.6	1.4	0.7
62.0	64.1	62.9	59.1	55.0	54.3	53.3	55.6	58.1	59.5	60.2

Table A.2.7

Contributions to the change in the general government gross debt ratio

(% of GDP)

Finland	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽¹⁾	- 3.3	- 2.9	- 5.3	1.5	5.7	7.9
2. Interest payments	1.0	1.8	1.4	1.9	2.6	4.5
3. Implicit interest rate ⁽²⁾	10.3	12.7	10.3	12.8	11.1	11.3
4. Nominal GDP growth rate (%)	15.4	8.8	5.5	- 4.5	- 2.5	1.2
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	- 3.3	- 2.9	- 5.3	1.5	5.7	7.9
6. Contribution of nominal GDP growth	- 1.5	- 1.3	- 0.8	0.7	0.6	- 0.5
7. Stock-flow adjustment ⁽³⁾	5.0	4.8	5.7	6.2	11.7	8.8
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	- 4.3	- 4.7	- 6.7	- 0.4	3.1	3.3
9. Snowball effect ⁽⁵⁾	- 0.5	0.6	0.7	2.6	3.2	4.1
10. Stock-flow adjustment ⁽³⁾	5.0	4.8	5.7	6.2	11.7	8.8
11. Change in gross debt ⁽⁶⁾	0.1	0.7	- 0.4	8.4	18.2	16.3
12. Level of gross debt (end of year)	11.6	16.4	14.5	22.9	41.1	57.3
Sweden						
1. Net borrowing ⁽¹⁾	3.9	3.7	- 4.0	1.1	7.5	11.5
2. Interest payments	4.0	8.1	4.8	5.0	5.3	5.8
3. Implicit interest rate ⁽²⁾	12.7	14.1	12.1	12.5	10.2	9.3
4. Nominal GDP growth rate (%)	13.6	8.9	10.0	6.1	- 0.8	4.1
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	3.9	3.7	- 4.0	1.1	7.5	11.5
6. Contribution of nominal GDP growth	- 4.3	- 5.1	- 4.0	- 2.4	0.4	- 2.5
7. Stock-flow adjustment ⁽³⁾	5.0	0.8	6.3	10.3	5.9	- 2.9
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	- 0.1	- 4.4	- 8.9	- 3.9	2.3	5.7
9. Snowball effect ⁽⁵⁾	- 0.3	3.0	0.8	2.5	5.7	3.3
10. Stock-flow adjustment ⁽³⁾	5.0	0.8	6.3	10.3	5.9	- 2.9
11. Change in gross debt ⁽⁶⁾	4.6	- 0.6	- 1.7	9.3	13.9	10.0
12. Level of gross debt (end of year)	40.0	61.9	42.0	51.3	65.1	75.1

⁽¹⁾ Line 1 = line 5, a minus sign means a surplus.

⁽²⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.

⁽³⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.

⁽⁴⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

⁽⁵⁾ Due to a change in definition there are no data for 1996.

⁽⁶⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
6.1	5.0	3.0	1.3	-1.5	-2.0	-6.9	-5.2	-4.7	-3.3	-3.0
5.0	5.2	4.3	4.3	3.6	3.1	2.9	2.7	2.3	2.2	2.1
9.3	9.6	7.8	8.1	7.2	6.6	6.6	6.4	5.3	5.2	5.1
6.0	8.4	3.6	8.5	8.7	3.1	8.6	4.3	2.9	3.1	4.4
6.1	5.0	3.0	1.3	-1.5	-2.0	-6.9	-5.2	-4.7	-3.3	-3.0
-3.2	-4.5	-2.0	-4.5	-4.3	-1.4	-3.7	-1.8	-1.2	-1.3	-1.8
-1.4	-2.4	-1.0	0.2	0.4	1.9	8.1	6.2	4.9	4.1	3.9
1.1	-0.2	-1.3	-2.9	-5.1	-5.1	-9.8	-7.9	-7.0	-5.4	-5.0
1.8	0.6	2.3	-0.2	-0.7	1.7	-0.9	0.9	1.0	0.9	0.3
-1.4	-2.4	-1.0	0.2	0.4	1.9	8.1	6.2	4.9	4.1	3.9
1.5	-1.7	0.0	-3.0	-5.4	-1.6	-2.5	-0.8	-1.1	-0.4	-0.9
58.8	57.1	57.0	54.0	48.6	47.0	44.5	43.8	42.7	42.3	41.4
9.6	7.3	2.9	1.7	-2.3	-1.3	-3.5	-4.6	-1.1	-0.8	-1.2
6.4	6.6	6.6	6.3	5.5	4.8	4.1	3.2	3.2	2.7	2.7
9.5	9.6	9.1	8.9	8.1	7.4	6.8	6.2	6.0	5.4	5.5
6.6	7.6	2.6	4.0	4.4	5.3	5.7	3.2	3.2	3.6	4.9
9.6	7.3	2.9	1.7	-2.3	-1.3	-3.5	-4.6	-1.1	-0.8	-1.2
-4.4	-5.2	-1.8	-2.8	-3.0	-3.4	-3.4	-1.6	-1.7	-1.8	-2.4
-2.6	-3.2	-1.3	-1.9	2.8	-0.6	-3.1	7.8	0.8	1.1	2.2
3.3	0.7	-3.6	-4.6	-7.7	-6.1	-7.5	-7.7	-4.2	-3.5	-3.9
1.9	1.4	4.7	3.5	2.5	1.4	0.7	1.6	1.5	0.9	0.3
-2.6	-3.2	-1.3	-1.9	2.8	-0.6	-3.1	7.8	0.8	1.1	2.2
2.6	-1.1	-0.2	-3.0	-2.5	-5.4	-9.9	1.6	-1.9	-1.5	-1.4
77.7	76.6	73.5	70.5	68.0	62.7	52.8	54.4	52.4	50.9	49.5

Table A.2.8

Contributions to the change in the general government gross debt ratio*(% of GDP)*

United Kingdom	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽¹⁾	3.4	2.9	0.9	2.3	6.1	7.7
2. Interest payments	4.7	5.0	3.1	2.7	2.7	2.8
3. Implicit interest rate ⁽²⁾	10.1	9.8	9.0	8.2	8.0	7.3
4. Nominal GDP growth rate (%)	16.9	9.5	8.4	5.2	4.2	5.2
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽¹⁾	3.4	2.9	0.9	2.3	6.1	7.7
6. Contribution of nominal GDP growth	- 7.9	- 4.8	- 2.9	- 1.7	- 1.4	- 2.0
7. Stock-flow adjustment ⁽³⁾	4.0	0.1	- 0.7	- 0.4	1.3	0.9
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁴⁾	- 1.3	- 2.1	- 2.2	- 0.4	3.4	4.9
9. Snowball effect ⁽⁵⁾	- 3.2	0.2	0.2	1.0	1.3	0.8
10. Stock-flow adjustment ⁽³⁾	4.0	0.1	- 0.7	- 0.4	1.3	0.9
11. Change in gross debt ⁽⁶⁾	- 0.6	- 1.9	- 2.7	- 0.1	6.0	6.7
12. Level of gross debt (end of year)	54.9	54.4	35.1	35.0	41.0	47.6

⁽¹⁾ Line 1 = line 5, a minus sign means a surplus.

⁽²⁾ Actual interest payments as a percentage of gross debt at the end of $t - 1$.

⁽³⁾ Line 7 = line 10; due to a change in definition there are no data for 1996.

⁽⁴⁾ Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

⁽⁵⁾ Due to a change in definition there are no data for 1996.

⁽⁶⁾ Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
6.7	5.4	4.4	2.2	-0.2	-1.1	-4.0	-0.8	1.3	2.5	2.5
3.2	3.4	3.7	3.7	3.6	2.9	2.8	2.4	2.1	2.0	2.1
7.0	7.3	7.5	7.5	7.5	6.4	6.5	6.0	5.6	5.5	5.6
6.1	5.6	6.0	6.4	6.0	5.0	5.3	4.5	5.1	5.0	4.7
6.7	5.4	4.4	2.2	-0.2	-1.1	-4.0	-0.8	1.3	2.5	2.5
-2.7	-2.6	-2.9	-3.2	-2.9	-2.3	-2.3	-1.8	-1.9	-1.8	-1.8
-2.0	-0.6	-1.0	-0.6	0.0	0.9	3.2	-0.6	0.2	0.0	0.0
3.5	2.0	0.7	-1.5	-3.8	-4.1	-6.7	-3.2	-0.8	0.4	0.4
0.4	0.8	0.8	0.5	0.7	0.7	0.5	0.6	0.2	0.2	0.3
-2.0	-0.6	-1.0	-0.6	0.0	0.9	3.2	-0.6	0.2	0.0	0.0
1.9	2.2	0.5	-1.5	-3.1	-2.5	-3.0	-3.2	-0.5	0.6	0.7
49.6	51.8	52.3	50.8	47.7	45.2	42.1	38.9	38.4	39.0	39.8

Table A.2.9

Contributions to the change in the general government gross debt ratio

(% of GDP)

Euro area ⁽¹⁾	Former definitions					
	1980	1985	1990	1991	1992	1993
1. Net borrowing ⁽²⁾	3.4	4.9	4.3	4.7	4.8	5.6
2. Interest payments	2.6	4.4	4.9	5.1	5.5	5.6
3. Implicit interest rate ⁽³⁾	0.0	0.0	0.0	0.0	0.0	0.0
4. Nominal GDP growth rate (%)	10.1	6.8	9.1	6.9	5.4	1.1
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽²⁾	3.4	4.9	4.3	4.7	4.8	5.6
6. Contribution of nominal GDP growth	-3.1	-3.1	-4.7	-3.8	-3.0	-0.6
7. Stock-flow adjustment ⁽⁴⁾	0.6	1.3	1.8	0.7	1.5	0.2
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁵⁾	0.8	0.5	-0.5	-0.4	-0.7	0.0
9. Snowball effect ⁽⁶⁾	-0.5	1.4	0.1	1.3	2.6	5.0
10. Stock-flow adjustment ⁽⁴⁾	0.6	1.3	1.8	0.7	1.5	0.2
11. Change in gross debt ⁽⁷⁾	0.9	3.2	1.4	1.7	3.4	5.2
12. Level of gross debt (end of year)	35.2	52.9	59.2	60.9	62.5	67.7
EU-15 ⁽⁸⁾						
1. Net borrowing ⁽²⁾	3.4	4.5	3.5	4.2	5.0	6.0
2. Interest payments	3.0	4.8	4.7	4.8	5.2	5.3
3. Implicit interest rate ⁽³⁾	9.2	10.0	9.4	9.4	9.8	9.0
4. Nominal GDP growth rate (%)	12.3	7.4	7.8	6.8	4.2	0.4
Budgetary constraint based on the deficit						
5. Deficit (net borrowing) ⁽²⁾	3.4	4.5	3.5	4.2	5.0	6.0
6. Contribution of nominal GDP growth	-4.0	-3.5	-3.9	-3.5	-2.2	-0.2
7. Stock-flow adjustment ⁽⁴⁾	1.9	1.1	1.2	1.0	1.4	-0.3
Budgetary constraint based on the primary deficit						
8. Primary deficit ⁽⁵⁾	0.4	-0.3	-1.2	-0.6	-0.1	0.8
9. Snowball effect ⁽⁶⁾	-1.0	1.3	0.8	1.3	2.9	5.0
10. Stock-flow adjustment ⁽⁴⁾	1.9	1.1	1.2	1.0	1.4	-0.3
11. Change in gross debt ⁽⁷⁾	1.3	2.1	0.8	1.7	4.3	5.6
12. Level of gross debt (end of year)	38.5	53.9	55.0	56.7	59.7	65.4

(1) EU-15 excluding DK, S and UK; from 1991 including former East Germany.

Due to problems with availability of the data, Luxembourg data are not included.

(2) Line 1 = line 5, a minus sign means a surplus.

(3) Actual interest payments as a percentage of gross debt at the end of $t-1$.

(4) Line 7 = line 10; due to a change in definition there are no data for 1996.

(5) Net borrowing excluding interest payments, line 8 = line 1 - line 2. A minus sign means a primary surplus.

(6) Due to a change in definition there are no data for 1996.

(7) Line 11 = total of lines 5, 6 and 7 or 8, 9 and 10.

(8) Excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services.

(% of GDP)

Former definitions		ESA 95 definitions								
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
5.1	4.9	4.3	2.6	2.3	1.4	-0.1	1.6	2.3	2.5	2.4
5.4	5.6	5.7	5.1	4.8	4.3	4.1	4.0	3.7	3.6	3.6
0.0	0.0	8.1	6.9	6.6	6.0	5.9	5.8	5.5	5.4	5.3
4.4	4.7	4.3	2.2	4.1	4.6	4.9	4.0	3.3	3.1	4.0
5.1	4.9	4.3	2.6	2.3	1.4	-0.1	1.6	2.3	2.5	2.4
-2.8	-3.1	-3.0	-1.6	-3.0	-3.2	-3.4	-2.7	-2.2	-2.1	-2.7
0.0	1.3	1.1	-1.1	-1.0	0.9	1.0	0.1	-0.2	0.4	0.0
-0.3	-0.7	-1.4	-2.5	-2.5	-2.9	-4.1	-2.3	-1.4	-1.1	-1.2
2.6	2.5	2.7	3.5	1.8	1.0	0.7	1.2	1.6	1.5	0.9
0.0	1.3	1.1	-1.1	-1.0	0.9	1.0	0.1	-0.2	0.4	0.0
2.3	3.1	2.4	0.0	-1.7	-1.0	-2.4	-1.0	-0.2	0.8	-0.3
70.0	73.1	75.6	75.5	73.9	72.9	70.5	69.4	69.3	70.0	69.7
5.4	5.0	4.2	2.5	1.7	0.8	-0.9	0.9	1.9	2.3	2.2
5.2	5.3	5.5	4.9	4.6	4.1	3.8	3.7	3.4	3.3	3.3
8.4	8.3	8.2	7.2	6.8	6.2	6.1	5.9	5.6	5.4	5.4
4.8	4.0	5.0	5.3	4.7	5.2	6.6	3.4	3.4	1.9	3.9
5.4	5.0	4.2	2.5	1.7	0.8	-0.9	0.9	1.9	2.3	2.2
-3.0	-2.6	-3.4	-3.6	-3.2	-3.4	-4.2	-2.1	-2.0	-1.2	-2.4
-0.4	0.4	1.0	0.1	-0.6	1.1	1.9	-0.1	-0.1	-0.3	0.0
0.2	-0.3	-1.2	-2.5	-2.9	-3.3	-4.8	-2.7	-1.5	-1.0	-1.1
2.2	2.8	2.1	1.3	1.4	0.7	-0.3	1.5	1.4	2.2	0.9
-0.4	0.4	1.0	0.1	-0.6	1.1	1.9	-0.1	-0.1	-0.3	0.0
2.1	2.9	1.9	-1.0	-2.1	-1.5	-3.2	-1.3	-0.3	0.9	-0.2
67.4	70.3	72.1	71.1	69.0	67.5	64.3	63.0	62.7	63.6	63.4

Table A.3.1

Cyclical adjustment of general government receipts, expenditures and budget balances

Belgium	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	47.6	50.4	47.5	47.7	47.8	48.3
2. Cyclical component	0.5	- 1.2	1.1	0.9	0.5	- 1.0
3. Cyclically adjusted data	47.1	51.6	46.4	46.9	47.3	49.3
Total uses (% of GDP)						
4. Actual data	56.1	59.3	52.9	53.9	54.8	55.5
5. Cyclical component	- 0.1	0.3	- 0.3	- 0.2	- 0.1	0.2
6. Cyclically adjusted data	56.2	59.1	53.1	54.1	54.9	55.3
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	- 8.6	- 8.9	- 5.4	- 6.2	- 6.9	- 7.2
8. Cyclical component	0.6	- 1.5	1.4	1.1	0.6	- 1.2
9. Cyclically adjusted balance	- 9.2	- 7.4	- 6.8	- 7.3	- 7.6	- 5.9
— as % of potential GDP	- 9.3	- 7.3	- 6.9	- 7.4	- 7.6	- 5.8
10. GDP at 1995 market prices (annual % change)	4.4	1.7	3.1	1.8	1.5	- 1.0
11. Potential GDP at 1995 market prices (annual % change)	2.6	1.8	2.6	2.4	2.3	2.0
12. Gap between actual and potential GDP (% of potential GDP)	1.0	- 2.3	2.3	1.8	1.0	- 2.0
Denmark						
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	50.8	55.3	55.1	54.7	56.0	57.9
2. Cyclical component	- 0.1	0.7	- 0.2	- 0.5	- 1.1	- 2.2
3. Cyclically adjusted data	50.8	54.6	55.3	55.2	57.1	60.1
Total uses (% of GDP)						
4. Actual data	53.1	56.4	56.1	57.1	58.2	60.7
5. Cyclical component	0.0	- 0.3	0.1	0.2	0.5	1.0
6. Cyclically adjusted data	53.1	56.7	56.1	56.9	57.7	59.7
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	- 3.2	- 2.0	- 1.0	- 2.4	- 2.2	- 2.8
8. Cyclical component	- 0.1	1.0	- 0.3	- 0.7	- 1.6	- 3.2
9. Cyclically adjusted balance	- 3.1	- 2.9	- 0.7	- 1.7	- 0.6	0.4
— as % of potential GDP	- 3.1	- 3.0	- 0.7	- 1.7	- 0.6	0.4
10. GDP at 1995 market prices (annual % change)	- 0.6	3.6	1.0	1.1	0.6	0.0
11. Potential GDP at 1995 market prices (annual % change)	1.5	1.7	1.6	1.7	1.8	1.9
12. Gap between actual and potential GDP (% of potential GDP)	- 0.2	1.3	- 0.4	- 0.9	- 2.1	- 3.9

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
48.9	48.9	48.5	49.1	49.5	50.0	49.6	49.6	49.8	50.4	49.7	49.4
-0.4	-0.3	-0.3	-0.7	0.0	0.0	0.5	1.1	0.5	0.0	-0.3	-0.1
49.3	49.2	48.8	49.8	49.5	50.0	49.2	48.5	49.3	50.4	50.1	49.5
53.7	52.7	52.8	52.9	51.4	50.7	50.1	49.5	49.4	50.4	50.0	49.6
0.1	0.1	0.1	0.2	0.0	0.0	-0.1	-0.3	-0.1	0.0	0.1	0.0
53.6	52.7	52.8	52.7	51.4	50.7	50.3	49.7	49.7	50.4	49.9	49.5
-4.8	-3.9	-4.3	-3.8	-2.0	-0.8	-0.5	0.1	0.4	0.0	-0.3	-0.2
-0.5	-0.4	-0.4	-0.9	-0.1	0.0	0.6	1.3	0.6	0.0	-0.4	-0.1
-4.3	-3.5	-3.9	-2.9	-1.9	-0.7	-1.1	-1.2	-0.4	0.1	0.2	0.0
-4.3	-3.5	-3.9	-2.9	-1.9	-0.7	-1.1	-1.3	-0.4	0.1	0.2	0.0
3.2	2.4	2.4	1.2	3.6	2.0	3.2	3.7	0.8	0.7	1.2	2.3
2.0	2.3	2.3	2.0	2.2	2.0	2.2	2.5	1.9	1.8	1.8	1.8
-0.8	-0.7	-0.7	-1.5	-0.1	0.0	1.0	2.2	1.0	-0.1	-0.6	-0.2
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
58.1	57.0	58.0	58.8	58.3	58.7	59.5	57.2	58.0	57.3	56.3	56.2
-0.4	-0.1	-0.1	0.0	0.4	0.4	0.6	0.9	0.5	0.2	-0.2	-0.1
58.5	57.1	58.1	58.8	58.0	58.3	58.9	56.3	57.6	57.1	56.5	56.3
60.7	59.2	60.3	59.8	58.0	57.6	56.3	54.7	55.0	55.4	54.7	54.2
0.2	0.1	0.1	0.0	-0.2	-0.2	-0.3	-0.4	-0.2	-0.1	0.1	0.0
60.5	59.1	60.3	59.8	58.1	57.8	56.6	55.1	55.5	55.5	54.6	54.2
-2.6	-2.2	-2.3	-1.0	0.4	1.1	3.2	2.5	3.0	1.9	1.6	2.0
-0.6	-0.2	-0.2	0.0	0.5	0.6	0.8	1.3	0.7	0.3	-0.2	-0.1
-2.0	-2.1	-2.1	-1.0	-0.2	0.5	2.4	1.2	2.1	1.7	1.9	2.1
-2.0	-2.1	-2.1	-1.0	-0.2	0.5	2.4	1.2	2.1	1.7	1.9	2.1
5.5	2.8	2.8	2.5	3.0	2.5	2.6	2.9	1.4	1.6	1.5	2.2
2.1	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.2	2.2	2.1	2.1
-0.7	-0.2	-0.2	0.0	0.6	0.8	1.1	1.7	0.9	0.3	-0.3	-0.2

Table A.3.2

Cyclical adjustment of general government receipts, expenditures and budget balances

Germany ⁽¹⁾	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	44.3	44.9	42.1	43.5	44.9	45.3
2. Cyclical component	0.9	-0.8	0.7	1.8	1.7	0.2
3. Cyclically adjusted data	43.4	45.7	41.4	41.8	43.2	45.1
Total uses (% of GDP)						
4. Actual data	47.1	46.0	44.1	46.8	47.6	48.8
5. Cyclical component	-0.2	0.2	-0.2	-0.2	-0.2	0.0
6. Cyclically adjusted data	47.3	45.8	44.3	46.9	47.8	48.8
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-2.9	-1.1	-2.0	-3.3	-2.8	-3.5
8. Cyclical component	1.2	-1.0	0.9	2.1	1.8	0.3
9. Cyclically adjusted balance	-4.0	-0.1	-2.9	-5.4	-4.6	-3.7
— as % of potential GDP	-4.1	-0.1	-3.0	-5.6	-4.8	-3.7
10. GDP at 1995 market prices (annual % change)	1.3	2.2	5.7	5.1	2.2	-1.1
11. Potential GDP at 1995 market prices (annual % change)	2.0	2.3	2.8	2.7	2.5	2.3
12. Gap between actual and potential GDP (% of potential GDP)	2.3	-1.9	1.9	4.3	4.0	0.5
Greece						
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	26.3	30.3	32.5	33.3	34.1	35.4
2. Cyclical component	0.8	-0.4	-0.1	0.3	-0.1	-1.3
3. Cyclically adjusted data	25.5	30.7	32.5	33.0	34.2	36.7
Total uses (% of GDP)						
4. Actual data	29.0	41.9	48.4	44.7	46.8	49.0
5. Cyclical component	0.0	0.0	0.0	0.0	0.0	0.0
6. Cyclically adjusted data	29.0	41.9	48.4	44.7	46.8	49.0
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-2.6	-11.6	-15.9	-11.4	-12.6	-13.6
8. Cyclical component	0.8	-0.4	-0.1	0.3	-0.1	-1.3
9. Cyclically adjusted balance	-3.4	-11.2	-15.9	-11.7	-12.5	-12.3
— as % of potential GDP	-3.5	-11.1	-15.8	-11.8	-12.5	-11.9
10. GDP at 1995 market prices (annual % change)	0.7	2.5	0.0	3.1	0.7	-1.6
11. Potential GDP at 1995 market prices (annual % change)	2.2	0.8	1.6	2.1	1.8	1.7
12. Gap between actual and potential GDP (% of potential GDP)	3.1	-1.1	-0.1	0.9	-0.2	-3.5

(¹) From 1991 including former East Germany.

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
45.9	45.6	46.1	46.9	46.6	46.6	47.3	47.0	45.5	45.0	45.4	45.5
0.3	0.2	0.2	-0.2	-0.4	-0.2	0.0	0.6	0.2	-0.3	-0.8	-0.5
45.5	45.4	45.9	47.1	47.0	46.8	47.3	46.4	45.3	45.3	46.2	46.0
48.4	49.0	49.6	50.3	49.4	48.8	48.8	45.9	48.3	48.6	48.9	48.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.1	0.0
48.5	49.0	49.6	50.3	49.3	48.8	48.8	48.4	48.3	48.6	48.8	48.4
-2.6	-3.4	-3.5	-3.4	-2.7	-2.2	-1.5	1.1	-2.8	-3.6	-3.4	-2.9
0.4	0.3	0.3	-0.3	-0.4	-0.2	0.0	0.7	0.2	-0.3	-0.8	-0.5
-2.9	-3.6	-3.7	-3.2	-2.3	-2.0	-1.5	-2.1	-3.0	-3.3	-2.6	-2.4
-3.0	-3.6	-3.7	-3.1	-2.3	-2.0	-1.5	-2.1	-3.0	-3.3	-2.6	-2.4
2.4	1.7	1.7	0.8	1.4	2.0	2.1	2.9	0.6	0.2	0.4	2.1
2.1	2.0	2.0	1.8	1.7	1.6	1.5	1.5	1.4	1.4	1.4	1.4
0.8	0.5	0.5	-0.5	-0.8	-0.5	0.0	1.4	0.5	-0.7	-1.7	-1.1
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
36.9	38.1	39.3	40.3	42.4	44.1	44.7	47.0	45.6	45.1	46.0	45.2
-1.3	-1.2	-1.3	-1.2	-0.9	-0.6	-0.3	0.0	0.4	0.6	0.7	0.9
38.2	39.3	40.5	41.5	43.3	44.7	45.0	47.0	45.2	44.5	45.3	44.3
46.8	48.5	49.4	47.7	46.4	46.6	46.5	48.9	47.0	46.3	47.1	46.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46.8	48.5	49.4	47.7	46.4	46.6	46.5	48.9	47.5	46.3	47.1	46.2
-9.9	-10.5	-10.2	-7.4	-4.0	-2.5	-1.8	-1.9	-1.5	-1.2	-1.1	-1.1
-1.3	-1.2	-1.3	-1.2	-0.9	-0.6	-0.3	0.0	0.4	0.6	0.7	0.9
-8.6	-9.2	-8.9	-6.3	-3.2	-1.9	-1.5	-1.9	-2.3	-1.8	-1.8	-1.9
-8.3	-8.9	-8.6	-6.1	-3.1	-1.8	-1.5	-1.9	-2.3	-1.8	-1.8	-2.0
2.0	2.1	2.1	2.4	3.6	3.4	3.6	4.2	4.1	4.0	3.6	3.8
1.9	2.0	2.0	2.2	2.7	2.6	2.8	3.5	3.2	3.4	3.3	3.3
-3.3	-3.3	-3.3	-3.1	-2.2	-1.5	-0.7	-0.1	0.9	1.4	1.7	2.3

Table A.3.3

Cyclical adjustment of general government receipts, expenditures and budget balances

Spain	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	29.6	34.2	38.4	39.2	40.9	40.9
2. Cyclical component	-0.2	-1.2	1.4	1.3	0.8	-0.6
3. Cyclically adjusted data	29.8	35.4	37.0	37.8	40.1	41.6
Total uses (% of GDP)						
4. Actual data	31.7	40.4	42.6	43.5	44.9	47.6
5. Cyclical component	0.0	0.1	-0.1	-0.1	-0.1	0.1
6. Cyclically adjusted data	31.6	40.3	42.7	43.6	44.9	47.6
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-2.5	-6.2	-4.2	-4.3	-4.0	-6.7
8. Cyclical component	-0.2	-1.3	1.6	1.5	0.8	-0.7
9. Cyclically adjusted balance	-2.4	-4.9	-5.7	-5.8	-4.8	-6.0
— as % of potential GDP	-2.3	-4.7	-6.0	-6.0	-4.9	-5.9
10. GDP at 1995 market prices (annual % change)	1.3	2.3	3.8	2.5	0.9	-1.0
11. Potential GDP at 1995 market prices (annual % change)	1.8	2.4	2.9	2.8	2.8	2.7
12. Gap between actual and potential GDP (% of potential GDP)	-0.6	-3.6	4.2	3.9	2.0	-1.7
France						
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	45.3	49.1	48.2	48.2	48.0	48.4
2. Cyclical component	0.1	-1.0	0.7	0.4	0.3	-0.4
3. Cyclically adjusted data	45.3	50.1	47.5	47.8	47.7	48.9
Total uses (% of GDP)						
4. Actual data	45.4	52.0	49.7	50.2	51.8	54.1
5. Cyclical component	0.0	0.3	-0.2	-0.1	-0.1	0.1
6. Cyclically adjusted data	45.4	51.7	49.9	50.3	51.9	54.0
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	0.0	-2.8	-1.5	-2.0	-3.9	-5.6
8. Cyclical component	0.1	-1.2	0.8	0.5	0.4	-0.5
9. Cyclically adjusted balance	-0.1	-1.6	-2.4	-2.5	-4.3	-5.1
— as % of potential GDP	-0.1	-1.6	-2.4	-2.6	-4.3	-5.0
10. GDP at 1995 market prices (annual % change)	1.6	1.5	2.6	1.0	1.5	-0.9
11. Potential GDP at 1995 market prices (annual % change)	2.7	2.0	2.3	1.9	1.7	1.4
12. Gap between actual and potential GDP (% of potential GDP)	0.2	-2.8	2.1	1.2	1.0	-1.3

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
39.8	38.0	38.4	38.8	38.6	38.3	39.0	39.0	39.2	39.6	39.3	39.5
-0.8	-0.8	-0.7	-0.9	-0.5	-0.1	0.3	0.7	0.6	0.3	-0.1	0.0
40.5	38.7	39.1	39.6	39.1	38.4	38.7	38.3	38.6	39.3	39.4	39.5
45.9	45.0	45.0	43.7	41.8	41.4	40.2	39.8	39.3	39.7	39.8	39.6
0.1	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0
45.8	45.0	45.0	43.6	41.8	41.4	40.3	39.9	39.4	39.7	39.8	39.6
-6.1	-7.0	-6.6	-5.0	-3.2	-3.0	-1.2	-0.8	-0.2	-0.1	-0.4	-0.1
-0.8	-0.8	-0.8	-1.0	-0.6	-0.1	0.3	0.8	0.6	0.3	-0.1	0.0
-5.3	-6.2	-5.9	-4.0	-2.6	-3.0	-1.5	-1.6	-0.8	-0.4	-0.4	-0.1
-5.2	-6.1	-5.7	-3.9	-2.6	-2.9	-1.5	-1.7	-0.8	-0.4	-0.4	-0.1
2.4	2.8	2.8	2.4	4.0	4.4	4.2	4.2	2.7	2.0	2.0	3.0
2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.1	3.0	3.0	2.9	2.9
-2.0	-2.1	-2.1	-2.5	-1.5	-0.2	0.9	2.0	1.7	0.7	-0.2	0.0
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
48.3	49.0	49.6	51.3	51.8	51.1	51.7	51.2	51.0	50.3	50.2	50.2
-0.3	-0.3	-0.3	-0.5	-0.4	0.0	0.3	0.7	0.5	0.1	-0.2	-0.2
48.6	49.3	49.9	51.8	52.3	51.1	51.4	50.5	50.5	50.2	50.4	50.4
54.0	53.8	55.1	55.4	54.9	53.7	53.5	52.6	52.5	53.5	54.0	53.7
0.1	0.1	0.1	0.1	0.1	0.0	-0.1	-0.2	-0.1	0.0	0.1	0.1
53.9	53.7	55.0	55.2	54.7	53.7	53.5	52.8	52.7	53.5	53.9	53.7
-5.7	-4.8	-5.5	-4.1	-3.0	-2.7	-1.8	-1.4	-1.5	-3.1	-3.7	-3.5
-0.3	-0.4	-0.4	-0.6	-0.6	0.0	0.4	0.9	0.6	0.1	-0.3	-0.3
-5.3	-4.4	-5.1	-3.5	-2.5	-2.7	-2.2	-2.3	-2.2	-3.3	-3.5	-3.3
-5.3	-4.4	-5.1	-3.4	-2.4	-2.7	-2.2	-2.3	-2.3	-3.4	-3.5	-3.3
2.1	1.7	1.7	1.1	1.9	3.4	3.2	3.8	2.1	1.2	1.1	2.3
1.6	1.9	1.9	1.6	1.8	2.0	2.2	2.6	2.5	2.3	2.1	2.3
-0.8	-1.0	-1.0	-1.4	-1.4	0.0	1.0	2.2	1.5	0.4	-0.7	-0.6

Table A.3.4

Cyclical adjustment of general government receipts, expenditures and budget balances

Ireland	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	34.6	38.8	35.9	36.7	37.0	37.0
2. Cyclical component	0.2	-0.7	0.9	0.2	-0.3	-1.0
3. Cyclically adjusted data	34.4	39.5	35.0	36.4	37.3	38.0
Total uses (% of GDP)						
4. Actual data	46.2	49.1	38.1	38.9	39.4	39.3
5. Cyclical component	-0.1	0.2	-0.3	-0.1	0.1	0.3
6. Cyclically adjusted data	46.3	48.9	38.4	39.0	39.3	39.0
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-11.6	-10.2	-2.2	-2.3	-2.4	-2.3
8. Cyclical component	0.3	-0.9	1.2	0.3	-0.4	-1.3
9. Cyclically adjusted balance	-11.9	-9.3	-3.4	-2.5	-2.0	-1.0
— as % of potential GDP	-12.0	-9.1	-3.5	-2.6	-2.0	-0.9
10. GDP at 1995 market prices (annual % change)	3.1	3.1	7.6	1.9	3.3	2.7
11. Potential GDP at 1995 market prices (annual % change)	3.9	2.7	4.3	4.9	5.4	5.4
12. Gap between actual and potential GDP (% of potential GDP)	0.8	-2.5	3.8	0.8	-1.2	-3.7
Italy						
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	34.4	39.0	42.8	43.8	44.5	47.7
2. Cyclical component	0.9	-0.6	0.6	0.4	-0.1	-0.9
3. Cyclically adjusted data	33.5	39.5	42.2	43.4	44.6	48.7
Total uses (% of GDP)						
4. Actual data	43.0	51.5	53.8	53.8	54.0	57.1
5. Cyclical component	-0.1	0.1	-0.1	0.0	0.0	0.1
6. Cyclically adjusted data	43.2	51.4	53.9	53.9	54.0	57.1
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-8.7	-12.5	-11.0	-10.0	-9.5	-9.4
8. Cyclical component	1.0	-0.6	0.7	0.4	-0.1	-1.0
9. Cyclically adjusted balance	-9.6	-11.9	-11.7	-10.4	-9.4	-8.4
— as % of potential GDP	-9.9	-11.7	-11.9	-10.5	-9.4	-8.2
10. GDP at 1995 market prices (annual % change)	3.5	3.0	2.0	1.4	0.8	-0.9
11. Potential GDP at 1995 market prices (annual % change)	3.0	2.4	2.4	2.1	1.9	1.2
12. Gap between actual and potential GDP (% of potential GDP)	3.0	-1.6	1.7	1.0	-0.1	-2.2

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
37.7	34.6	39.4	39.4	38.6	37.2	36.7	36.4	35.2	33.7	33.5	32.8
-1.2	-0.4	-0.4	-0.3	0.4	0.5	1.1	1.4	0.9	0.5	-0.3	-0.7
38.9	35.1	39.8	39.7	38.1	36.7	35.7	35.0	34.3	33.2	33.7	33.5
39.2	36.7	41.5	39.6	37.1	35.0	34.7	31.9	34.1	33.7	34.1	33.7
0.4	0.1	0.1	0.1	-0.1	-0.2	-0.3	-0.5	-0.3	-0.2	0.1	0.3
38.9	36.6	41.4	39.5	37.3	35.1	35.0	32.4	34.3	34.1	34.0	33.4
-1.6	-2.1	-2.1	-0.1	1.4	2.3	2.0	4.5	1.2	0.0	-0.6	-0.9
-1.6	-0.5	-0.6	-0.3	0.6	0.6	1.4	1.9	1.2	0.7	-0.4	-1.0
0.0	-1.5	-1.5	0.2	0.9	1.6	0.6	2.6	0.0	-0.9	-0.3	0.1
0.0	-1.5	-1.5	0.2	0.9	1.7	0.7	2.7	0.0	-0.9	-0.3	0.1
5.8	10.0	10.0	8.1	10.9	8.8	11.1	10.0	5.7	6.0	3.3	4.5
6.3	7.0	7.0	7.4	8.1	8.6	8.5	8.3	8.0	7.6	6.9	6.6
-4.2	-1.6	-1.6	-1.0	1.7	1.9	4.4	6.0	3.7	2.3	-1.1	-3.1
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
45.5	45.3	45.8	46.1	48.4	46.8	47.1	46.2	45.8	45.2	45.1	44.3
-0.5	0.1	0.1	0.0	0.1	0.1	0.1	0.5	0.4	-0.2	-0.5	-0.4
46.1	45.2	45.7	46.1	48.2	46.7	47.0	45.7	45.5	45.4	45.6	44.7
54.6	52.9	53.4	53.2	51.1	49.9	48.9	46.9	48.5	47.7	47.5	47.5
0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.1	0.0
54.6	52.9	53.4	53.2	51.1	49.9	48.9	48.1	48.5	47.7	47.4	47.4
-9.1	-7.6	-7.6	-7.1	-2.7	-3.1	-1.8	-0.7	-2.7	-2.5	-2.3	-3.1
-0.6	0.1	0.1	-0.1	0.2	0.1	0.1	0.6	0.4	-0.2	-0.5	-0.4
-8.5	-7.7	-7.7	-7.1	-2.9	-3.2	-1.9	-2.4	-3.1	-2.2	-1.8	-2.7
-8.4	-7.8	-7.7	-7.1	-2.9	-3.2	-1.9	-2.5	-3.1	-2.2	-1.8	-2.7
2.2	2.9	2.9	1.1	2.0	1.8	1.7	3.1	1.8	0.4	1.0	2.1
1.4	1.3	1.3	1.4	1.6	1.8	1.7	2.1	2.1	1.9	1.6	1.8
-1.3	0.2	0.2	-0.1	0.3	0.3	0.2	1.3	1.0	-0.5	-1.1	-0.9

Table A.3.5

Cyclical adjustment of general government receipts, expenditures and budget balances

Luxembourg	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	48.0	50.6	:	:	:	:
2. Cyclical component	:	:	:	:	:	:
3. Cyclically adjusted data	:	:	:	:	:	:
Total uses (% of GDP)						
4. Actual data	48.4	44.4	:	:	:	:
5. Cyclical component	:	:	:	:	:	:
6. Cyclically adjusted data	:	:	:	:	:	:
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	- 0.4	6.3	4.7	1.8	0.7	1.5
8. Cyclical component	:	:	:	:	:	:
9. Cyclically adjusted balance	:	:	:	:	:	:
— as % of potential GDP	:	:	:	:	:	:
10. GDP at 1995 market prices (annual % change)	0.8	2.9	5.2	8.6	1.8	4.2
11. Potential GDP at 1995 market prices (annual % change)	:	:	:	:	:	:
12. Gap between actual and potential GDP (% of potential GDP)	:	:	:	:	:	:
The Netherlands						
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	50.7	52.5	48.1	50.6	50.2	51.0
2. Cyclical component	0.1	- 0.4	0.9	0.8	0.4	- 0.4
3. Cyclically adjusted data	50.6	52.9	47.2	49.8	49.9	51.3
Total uses (% of GDP)						
4. Actual data	54.8	56.1	53.0	53.4	54.0	54.1
5. Cyclical component	- 0.1	0.3	- 0.7	- 0.6	- 0.3	0.2
6. Cyclically adjusted data	54.8	55.8	53.7	54.0	54.2	53.8
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	- 4.1	- 3.5	- 4.9	- 2.8	- 3.8	- 3.1
8. Cyclical component	0.2	- 0.6	1.6	1.4	0.6	- 0.6
9. Cyclically adjusted balance	- 4.3	- 2.9	- 6.5	- 4.2	- 4.4	- 2.5
— as % of potential GDP	- 4.3	- 2.9	- 6.7	- 4.2	- 4.4	- 2.5
10. GDP at 1995 market prices (annual % change)	1.2	3.1	4.1	2.5	1.7	0.9
11. Potential GDP at 1995 market prices (annual % change)	1.8	2.1	2.8	2.9	2.8	2.6
12. Gap between actual and potential GDP (% of potential GDP)	0.3	- 0.9	2.4	2.0	0.9	- 0.8

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	:	47.6	47.5	46.6	45.1	44.5	44.6	45.4	47.2	45.2	44.3
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
:	:	45.5	45.5	43.3	42.1	41.0	38.7	39.1	44.7	45.5	45.6
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
2.7	1.8	2.1	2.0	3.2	3.1	3.5	6.0	6.3	2.5	-0.2	-1.2
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
3.8	1.4	1.4	3.3	8.3	6.9	8.7	8.9	1.2	1.1	1.1	2.7
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
48.4	46.6	47.3	47.8	47.1	46.5	47.6	47.4	46.5	46.3	45.9	45.3
-0.4	-0.2	-0.2	-0.2	0.2	0.7	1.1	1.2	0.7	-0.1	-0.7	-0.7
48.8	46.9	47.5	48.0	46.9	45.8	46.5	46.2	45.9	46.4	46.6	46.1
52.1	50.5	51.4	49.6	48.2	47.2	46.9	45.3	46.4	47.5	47.5	47.7
0.2	0.2	0.2	0.1	-0.1	-0.5	-0.8	-0.9	-0.5	0.1	0.5	0.6
51.8	50.3	51.3	49.5	48.4	47.7	47.7	46.8	46.9	47.4	47.0	47.1
-3.6	-3.8	-4.2	-1.8	-1.1	-0.8	0.7	2.2	0.1	-1.2	-1.6	-2.4
-0.6	-0.4	-0.4	-0.3	0.3	1.2	1.9	2.1	1.2	-0.1	-1.1	-1.3
-3.0	-3.4	-3.8	-1.6	-1.4	-2.0	-1.2	-0.6	-1.0	-1.0	-0.4	-1.1
-3.0	-3.4	-3.7	-1.6	-1.4	-2.0	-1.2	-0.6	-1.0	-1.0	-0.4	-1.1
2.6	3.0	3.0	3.0	3.8	4.4	4.0	3.3	1.3	0.3	0.5	1.7
2.6	2.7	2.7	2.8	3.0	3.0	3.0	2.9	2.7	2.3	2.0	2.0
-0.9	-0.6	-0.6	-0.4	0.5	1.8	2.8	3.3	1.8	-0.2	-1.7	-2.0

Table A.3.6

Cyclical adjustment of general government receipts, expenditures and budget balances

Austria	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	45.6	47.8	47.1	47.7	49.2	49.9
2. Cyclical component	0.4	-0.5	0.5	0.6	0.6	0.0
3. Cyclically adjusted data	45.1	48.3	46.7	47.0	48.7	49.9
Total uses (% of GDP)						
4. Actual data	47.2	50.2	49.6	50.6	51.2	54.1
5. Cyclical component	0.0	0.0	0.0	0.0	0.0	0.0
6. Cyclically adjusted data	47.2	50.2	49.6	50.6	51.2	54.1
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-1.7	-2.4	-2.4	-3.0	-2.0	-4.2
8. Cyclical component	0.4	-0.5	0.5	0.6	0.6	0.0
9. Cyclically adjusted balance	-2.1	-1.9	-2.9	-3.6	-2.5	-4.2
— as % of potential GDP	-2.1	-1.9	-2.9	-3.7	-2.6	-4.2
10. GDP at 1995 market prices (annual % change)	2.2	2.4	4.7	3.3	2.3	0.4
11. Potential GDP at 1995 market prices (annual % change)	2.4	2.2	2.7	2.7	2.6	2.5
12. Gap between actual and potential GDP (% of potential GDP)	1.5	-1.6	1.7	2.4	2.1	0.0
Portugal						
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	27.8	32.7	33.9	35.2	38.1	36.8
2. Cyclical component	0.5	-1.8	1.2	1.3	0.8	-0.6
3. Cyclically adjusted data	27.3	34.4	32.7	33.9	37.3	37.4
Total uses (% of GDP)						
4. Actual data	36.2	42.8	38.8	41.0	41.0	42.7
5. Cyclical component	-0.1	0.2	-0.1	-0.1	-0.1	0.1
6. Cyclically adjusted data	36.2	42.6	38.9	41.2	41.1	42.6
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-8.4	-10.1	-4.9	-5.8	-2.9	-5.9
8. Cyclical component	0.6	-2.0	1.3	1.4	0.9	-0.7
9. Cyclically adjusted balance	-8.9	-8.1	-6.3	-7.2	-3.7	-5.2
— as % of potential GDP	-9.1	-7.6	-6.5	-7.6	-3.8	-5.1
10. GDP at 1995 market prices (annual % change)	4.6	2.8	4.0	4.4	1.1	-2.0
11. Potential GDP at 1995 market prices (annual % change)	3.4	2.3	3.5	4.2	3.2	2.8
12. Gap between actual and potential GDP (% of potential GDP)	2.3	-6.9	4.7	4.9	2.8	-2.1

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
48.6	49.2	52.0	52.8	52.1	51.7	51.8	50.7	52.2	51.5	51.0	50.7
0.0	-0.2	-0.2	-0.3	-0.5	0.0	0.2	0.6	0.3	0.1	-0.1	0.0
48.6	49.4	52.2	53.1	52.6	51.7	51.6	50.1	51.9	51.4	51.1	50.7
53.5	54.2	57.3	56.8	54.1	54.2	54.2	52.4	52.1	52.2	52.3	51.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53.5	54.2	57.3	56.8	54.1	54.2	54.2	52.8	52.1	52.2	52.3	51.3
-4.9	-5.0	-5.3	-4.0	-2.0	-2.5	-2.4	-1.6	0.1	-0.8	-1.3	-0.6
0.0	-0.2	-0.2	-0.3	-0.5	0.0	0.2	0.6	0.3	0.1	-0.1	0.0
-4.9	-4.8	-5.1	-3.7	-1.5	-2.5	-2.6	-2.7	-0.2	-0.8	-1.2	-0.6
-4.9	-4.8	-5.1	-3.7	-1.5	-2.5	-2.6	-2.7	-0.2	-0.8	-1.2	-0.6
2.6	1.6	1.6	2.0	1.6	3.9	2.7	3.5	0.7	1.0	1.2	2.0
2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6
0.2	-0.6	-0.6	-0.9	-1.5	0.1	0.7	2.2	1.0	0.2	-0.3	0.0
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
36.3	37.1	39.6	41.0	41.2	41.0	42.4	42.3	42.1	43.5	43.5	43.7
-1.2	-0.7	-0.7	-0.4	-0.1	0.3	0.5	0.7	0.4	-0.3	-0.8	-1.0
37.4	37.8	40.2	41.5	41.3	40.7	41.9	41.5	41.7	43.8	44.4	44.7
42.1	42.7	45.0	45.8	44.8	44.1	45.3	45.2	46.4	46.2	47.1	46.9
0.1	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.1	0.1
42.0	42.7	45.0	45.8	44.8	44.2	45.3	45.6	46.4	46.2	47.0	46.9
-5.9	-5.6	-5.5	-4.8	-3.6	-3.2	-2.9	-2.9	-4.3	-2.7	-3.6	-3.3
-1.3	-0.8	-0.7	-0.5	-0.1	0.3	0.6	0.8	0.4	-0.3	-0.9	-1.1
-4.6	-4.8	-4.7	-4.3	-3.5	-3.5	-3.4	-4.1	-4.7	-2.4	-2.6	-2.2
-4.4	-4.7	-4.6	-4.3	-3.5	-3.5	-3.5	-4.2	-4.8	-2.4	-2.6	-2.1
1.0	4.3	4.3	3.5	4.0	4.6	3.8	3.7	1.6	0.5	0.5	2.0
2.8	2.6	2.6	2.6	2.9	3.2	3.1	3.0	2.8	2.6	2.4	2.5
-3.8	-2.3	-2.3	-1.4	-0.3	1.0	1.7	2.4	1.3	-0.8	-2.6	-3.1

Table A.3.7

Cyclical adjustment of general government receipts, expenditures and budget balances

Finland	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	42.0	47.0	51.4	53.1	53.7	52.7
2. Cyclical component	0.5	-0.2	2.3	-1.4	-3.1	-3.6
3. Cyclically adjusted data	41.4	47.3	49.1	54.4	56.9	56.3
Total uses (% of GDP)						
4. Actual data	38.6	44.2	46.1	54.5	59.5	60.6
5. Cyclical component	-0.2	0.1	-0.8	0.5	1.1	1.4
6. Cyclically adjusted data	38.9	44.1	46.9	54.1	58.3	59.2
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	3.3	2.9	5.3	-1.5	-5.7	-7.9
8. Cyclical component	0.8	-0.3	3.1	-1.8	-4.3	-5.0
9. Cyclically adjusted balance	2.6	3.2	2.2	0.4	-1.5	-2.9
— as % of potential GDP	2.6	3.1	2.3	0.4	-1.4	-2.7
10. GDP at 1995 market prices (annual % change)	5.1	3.1	0.0	-6.3	-3.3	-1.2
11. Potential GDP at 1995 market prices (annual % change)	3.1	3.2	1.9	0.9	0.0	0.0
12. Gap between actual and potential GDP (% of potential GDP)	1.3	-0.5	4.8	-2.6	-5.9	-7.0
Sweden						
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	56.1	59.2	62.6	59.6	59.1	56.4
2. Cyclical component	0.1	0.1	1.2	-0.5	-2.2	-2.1
3. Cyclically adjusted data	56.0	59.1	61.4	60.0	61.3	58.5
Total uses (% of GDP)						
4. Actual data	60.0	63.0	58.5	60.7	66.6	67.9
5. Cyclical component	0.0	0.0	-0.3	0.1	0.6	0.6
6. Cyclically adjusted data	60.0	63.0	58.8	60.5	66.0	67.3
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-3.9	-3.7	4.0	-1.1	-7.5	-11.5
8. Cyclical component	0.2	0.1	1.5	-0.6	-2.9	-2.7
9. Cyclically adjusted balance	-4.1	-3.9	2.5	-0.5	-4.7	-8.8
— as % of potential GDP	-4.1	-3.9	2.6	-0.5	-4.5	-8.4
10. GDP at 1995 market prices (annual % change)	1.7	2.2	1.1	-1.1	-1.7	1.1
11. Potential GDP at 1995 market prices (annual % change)	2.1	1.9	2.3	1.8	1.4	1.1
12. Gap between actual and potential GDP (% of potential GDP)	0.2	0.2	2.1	-0.9	-4.0	-3.9

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
53.5	51.9	55.5	56.5	55.1	54.3	54.1	55.9	54.2	54.0	52.8	52.0
-2.4	-1.3	-1.3	-0.6	0.8	1.4	1.2	2.1	0.7	0.0	-0.3	-0.2
55.9	53.2	56.8	57.0	54.2	52.9	53.0	53.8	53.5	54.0	53.0	52.2
59.5	56.9	59.4	59.5	56.4	52.8	52.1	48.9	49.0	49.2	49.5	49.0
0.8	0.5	0.5	0.2	-0.3	-0.5	-0.4	-0.7	-0.3	0.0	0.1	0.1
58.7	56.4	58.9	59.3	56.7	53.3	52.5	49.7	49.3	49.2	49.4	48.9
-6.1	-5.0	-3.9	-3.0	-1.3	1.5	2.0	6.9	5.2	4.7	3.3	3.0
-3.2	-1.8	-1.8	-0.8	1.1	1.9	1.6	2.9	0.9	-0.1	-0.4	-0.3
-2.8	-3.3	-2.1	-2.3	-2.5	-0.3	0.5	4.1	4.2	4.8	3.7	3.3
-2.7	-3.2	-2.1	-2.2	-2.5	-0.3	0.5	4.2	4.3	4.8	3.6	3.3
4.0	4.1	4.1	3.9	6.4	4.9	3.4	5.5	0.7	1.6	2.2	2.9
1.3	2.1	2.1	2.4	3.5	3.7	3.9	3.5	3.5	3.1	2.8	2.8
-4.5	-2.5	-2.5	-1.1	1.7	2.8	2.3	4.3	1.4	-0.1	-0.6	-0.5
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
55.3	55.0	60.4	62.4	61.5	63.1	61.7	60.9	61.8	59.6	59.9	59.7
-1.0	-0.2	-0.2	-0.7	-0.6	-0.1	0.8	1.6	0.7	0.3	-0.3	-0.3
56.2	55.2	60.6	63.1	62.0	63.2	60.9	59.4	61.0	59.3	60.2	60.0
64.9	62.3	67.8	65.4	63.2	60.8	60.4	57.5	57.2	58.5	59.1	58.5
0.3	0.1	0.1	0.2	0.2	0.0	-0.2	-0.4	-0.2	-0.1	0.1	0.1
64.6	62.2	67.7	65.2	63.1	60.8	60.6	57.9	57.4	58.6	59.0	58.5
-9.6	-7.3	-7.4	-2.9	-1.7	2.3	1.3	3.5	4.6	1.1	0.8	1.2
-1.3	-0.3	-0.3	-0.8	-0.7	-0.1	1.0	2.0	0.9	0.4	-0.4	-0.3
-8.3	-7.0	-7.2	-2.1	-1.0	2.4	0.3	1.4	3.7	0.7	1.1	1.5
-8.2	-7.0	-7.1	-2.1	-1.0	2.4	0.3	1.5	3.7	0.7	1.1	1.5
4.2	4.0	4.0	1.3	2.4	3.6	4.6	4.4	1.1	1.9	1.4	2.7
2.0	2.5	2.5	2.1	2.3	2.8	2.8	2.9	2.8	2.6	2.5	2.6
-1.9	-0.4	-0.4	-1.2	-1.0	-0.2	1.5	3.0	1.3	0.6	-0.5	-0.5

Table A.3.8

Cyclical adjustment of general government receipts, expenditures and budget balances

United Kingdom	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	39.8	41.4	38.3	37.4	36.1	35.1
2. Cyclical component	-0.6	-0.4	0.5	-0.7	-1.3	-1.0
3. Cyclically adjusted data	40.3	41.8	37.8	38.1	37.3	36.1
Total uses (% of GDP)						
4. Actual data	43.2	44.3	39.2	39.7	42.2	42.8
5. Cyclical component	0.1	0.1	-0.1	0.1	0.3	0.2
6. Cyclically adjusted data	43.1	44.2	39.3	39.6	41.9	42.6
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-3.4	-2.9	-0.9	-2.3	-6.1	-7.7
8. Cyclical component	-0.7	-0.5	0.6	-0.8	-1.5	-1.2
9. Cyclically adjusted balance	-2.7	-2.4	-1.5	-1.5	-4.6	-6.5
— as % of potential GDP	-2.7	-2.4	-1.5	-1.4	-4.4	-6.4
10. GDP at 1995 market prices (annual % change)	-2.1	3.6	0.8	-1.4	0.2	2.5
11. Potential GDP at 1995 market prices (annual % change)	1.6	2.3	2.7	1.9	1.9	1.8
12. Gap between actual and potential GDP (% of potential GDP)	-1.5	-1.0	1.4	-1.9	-3.4	-2.8

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
35.6	36.7	38.9	38.6	38.9	40.1	40.3	40.9	41.0	39.4	39.5	39.7
- 0.2	0.0	0.0	0.1	0.4	0.4	0.2	0.3	0.1	- 0.2	- 0.4	- 0.4
35.8	36.6	38.8	38.5	38.5	39.7	40.0	40.5	40.9	39.6	39.8	40.1
42.3	42.1	44.6	43.0	41.1	39.8	39.1	36.9	40.2	40.6	41.9	42.2
0.0	0.0	0.0	0.0	- 0.1	- 0.1	0.0	- 0.1	0.0	0.0	0.1	0.1
42.3	42.1	44.6	43.1	41.2	39.9	39.1	39.3	40.2	40.6	41.8	42.1
- 6.7	- 5.4	- 5.8	- 4.4	- 2.2	0.2	1.1	4.0	0.8	- 1.3	- 2.5	- 2.5
- 0.2	0.0	0.0	0.1	0.5	0.5	0.3	0.4	0.1	- 0.3	- 0.4	- 0.5
- 6.5	- 5.4	- 5.8	- 4.5	- 2.6	- 0.3	0.9	1.2	0.7	- 1.0	- 2.0	- 2.0
- 6.5	- 5.4	- 5.8	- 4.5	- 2.7	- 0.3	0.9	1.2	0.7	- 1.0	- 2.0	- 2.0
4.7	2.9	2.9	2.6	3.4	2.9	2.4	3.1	2.1	1.8	2.2	2.6
2.2	2.4	2.4	2.5	2.7	2.9	2.9	2.8	2.8	2.5	2.6	2.6
- 0.5	0.1	0.1	0.2	1.0	1.0	0.5	0.8	0.2	- 0.5	- 0.9	- 0.9

Table A.3.9

Cyclical adjustment of general government receipts, expenditures and budget balances

Euro area ⁽¹⁾	Former definitions					
	1980	1985	1990	1991	1992	1993
Total resources (% of GDP)						
1. Actual data	41.7	44.3	43.9	44.7	45.4	46.4
2. Cyclical component	2.0	0.7	2.2	0.9	0.6	-0.5
3. Cyclically adjusted data	39.7	43.6	41.7	43.8	44.9	46.9
Total uses (% of GDP)						
4. Actual data	45.0	49.2	48.2	49.3	50.2	52.0
5. Cyclical component	-0.1	0.2	-0.2	-0.1	-0.1	0.1
6. Cyclically adjusted data	45.1	49.0	48.4	49.4	50.3	51.9
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-3.4	-4.9	-4.3	-4.6	-4.8	-5.6
8. Cyclical component	2.1	0.5	2.4	1.0	0.6	-0.6
9. Cyclically adjusted balance	-5.5	-5.4	-6.7	-5.6	-5.4	-5.1
— as % of potential GDP	-5.6	-5.3	-6.9	-5.7	-5.5	-5.0
10. GDP at 1995 market prices (annual % change)	2.0	2.2	3.7	2.7	1.5	-0.8
11. Potential GDP at 1995 market prices (annual % change)	2.6	2.0	2.8	2.5	2.3	1.9
12. Gap between actual and potential GDP (% of potential GDP)	1.3	-2.4	2.2	2.4	1.6	-1.2
EU-15 ⁽²⁾						
Total resources (% of GDP)						
1. Actual data	42.1	44.6	43.9	44.3	44.8	45.3
2. Cyclical component	1.5	0.5	1.9	0.6	0.2	-0.6
3. Cyclically adjusted data	40.6	44.1	42.1	43.8	44.6	46.0
Total uses (% of GDP)						
4. Actual data	45.5	49.1	47.4	48.5	49.8	51.4
5. Cyclical component	-0.1	0.2	-0.2	-0.1	0.0	0.1
6. Cyclically adjusted data	45.5	48.9	47.6	48.5	49.8	51.2
Net lending (+) or net borrowing (-) (% of GDP)						
7. Actual balance	-3.4	-4.5	-3.5	-4.1	-5.0	-6.0
8. Cyclical component	1.6	0.4	2.1	0.6	0.2	-0.8
9. Cyclically adjusted balance	-5.0	-4.8	-5.5	-4.8	-5.2	-5.3
— as % of potential GDP	-5.0	-4.8	-5.7	-4.8	-5.2	-5.2
10. GDP at 1995 market prices (annual % change)	1.4	2.5	3.2	2.0	1.3	-0.3
11. Potential GDP at 1995 market prices (annual % change)	2.4	2.0	2.7	2.4	2.2	1.9
12. Gap between actual and potential GDP (% of potential GDP)	0.8	-2.0	2.0	1.6	0.7	-1.5

⁽¹⁾ EU-15 excluding DK, SE and UK; from 1991 including former East Germany.

Due to problems with availability of the data, Luxembourg data are not included.

⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services.

Former definitions		ESA 95 definitions									
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
46.0	45.7	46.4	47.2	47.6	47.1	47.6	47.2	46.5	46.1	46.0	45.8
-0.3	-0.2	-0.2	-0.4	-0.3	0.0	0.2	0.7	0.4	-0.1	-0.5	-0.4
46.3	45.9	46.6	47.6	47.9	47.1	47.4	46.5	46.2	46.2	46.5	46.2
51.0	50.7	51.5	51.5	50.2	49.4	48.9	47.1	48.1	48.4	48.5	48.2
0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.1	0.0	0.1	0.1
51.0	50.6	51.5	51.5	50.2	49.4	49.0	48.3	48.3	48.4	48.4	48.1
-5.1	-4.9	-5.1	-4.3	-2.6	-2.3	-1.4	0.1	-1.6	-2.3	-2.5	-2.4
-0.4	-0.3	-0.3	-0.5	-0.3	0.0	0.3	0.8	0.5	-0.1	-0.6	-0.5
-4.7	-4.7	-4.9	-3.8	-2.3	-2.3	-1.6	-1.8	-2.1	-2.2	-1.9	-1.9
-4.7	-4.7	-4.8	-3.8	-2.3	-2.3	-1.7	-1.9	-2.1	-2.2	-1.9	-1.9
2.4	2.2	2.2	1.4	2.3	2.9	2.8	3.5	1.5	0.8	1.0	2.3
1.9	2.0	2.0	1.9	2.0	2.1	2.2	2.3	2.2	2.1	2.0	2.1
-0.8	-0.6	-0.6	-1.1	-0.8	0.0	0.6	1.7	1.0	-0.3	-1.2	-1.0
1994	1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
45.0	45.0	46.1	46.8	46.8	46.6	47.0	46.7	46.2	45.5	45.5	45.4
-0.3	-0.2	-0.2	-0.3	-0.2	0.1	0.2	0.6	0.3	-0.1	-0.5	-0.4
45.3	45.2	46.3	47.1	47.0	46.5	46.7	46.0	45.9	45.6	46.0	45.8
50.4	50.0	51.3	51.0	49.3	48.3	47.7	45.7	47.1	47.4	47.8	47.6
0.1	0.0	0.0	0.1	0.0	0.0	-0.1	-0.2	-0.1	0.0	0.1	0.1
50.4	50.0	51.2	50.9	49.3	48.3	47.8	47.1	47.2	47.4	47.7	47.5
-5.4	-5.0	-5.2	-4.2	-2.5	-1.7	-0.8	0.9	-0.9	-1.9	-2.3	-2.2
-0.4	-0.2	-0.2	-0.4	-0.2	0.1	0.3	0.8	0.4	-0.1	-0.5	-0.5
-5.0	-4.8	-5.0	-3.8	-2.3	-1.8	-1.1	-1.1	-1.4	-1.8	-1.8	-1.8
-5.0	-4.8	-5.0	-3.8	-2.3	-1.8	-1.1	-1.1	-1.4	-1.8	-1.7	-1.8
2.8	2.4	2.4	1.6	2.5	2.9	2.8	3.5	1.6	1.0	1.2	2.3
2.0	2.1	2.1	2.0	2.1	2.2	2.3	2.4	2.3	2.2	2.1	2.2
-0.8	-0.5	-0.5	-0.9	-0.5	0.1	0.6	1.7	0.9	-0.3	-1.1	-1.0

Table A.4.1

Current tax burden; total economy

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	45.7	49.2	46.6	46.8	46.9	47.5	48.4	48.5
DE ⁽¹⁾	41.7	41.4	39.2	40.8	41.5	42.0	42.5	42.5
EL	24.6	28.9	31.0	31.4	31.9	32.6	33.4	34.0
ES	26.1	30.6	35.4	35.7	37.5	36.5	36.1	35.0
FR	42.9	46.3	45.1	45.4	45.0	45.6	46.0	46.6
IE	31.2	34.9	33.6	34.0	34.4	34.5	35.5	32.9
IT	31.7	36.1	40.0	40.9	41.5	44.2	42.1	41.9
LU	39.2	42.1	:	:	:	:	:	:
NL	43.9	43.4	42.9	45.2	44.8	46.2	43.8	42.5
AT	42.7	44.8	42.6	43.2	44.4	45.3	44.0	44.7
PT	24.6	28.3	31.3	32.6	35.0	34.1	34.4	34.7
FI	38.3	42.3	45.8	46.6	46.5	44.9	47.2	45.5
Euro area ⁽²⁾	38.8	40.8	40.8	41.6	42.1	43.0	42.8	42.7
DK	44.7	48.0	47.6	47.5	48.0	49.5	50.7	50.1
SE	51.0	52.6	57.0	54.3	52.7	50.0	49.4	50.1
UK	33.5	35.4	33.3	33.1	32.2	31.3	31.9	32.9
EU-15 ⁽³⁾	38.5	40.5	40.4	40.9	41.2	41.7	41.6	41.8

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-1.7	0.4	0.5	0.2	0.2	0.6	0.9	0.0
DE ⁽¹⁾	0.4	0.3	-1.7	1.0	0.7	0.5	0.5	0.0
EL	-0.5	-0.1	2.8	0.4	0.6	0.7	0.8	0.6
ES	1.4	0.8	0.0	0.3	1.8	-1.0	-0.4	-1.1
FR	1.3	0.2	-0.1	0.3	-0.4	0.6	0.4	0.6
IE	2.8	-0.9	-0.3	0.5	0.4	0.1	1.0	-2.6
IT	1.7	0.0	0.8	0.8	0.7	2.7	-2.1	-0.2
LU	0.6	1.0	:	:	:	:	:	:
NL	0.1	-0.4	-0.3	2.4	-0.4	1.4	-2.5	-1.2
AT	0.6	0.9	-0.5	0.6	1.2	0.9	-1.2	0.7
PT	1.8	-0.6	0.6	1.3	2.4	-0.9	0.3	0.4
FI	0.3	1.7	1.9	0.8	-0.1	-1.6	2.3	-1.7
Euro area ⁽²⁾	0.7	0.2	-0.3	0.7	0.5	0.9	-0.2	-0.1
DK	0.9	1.3	-2.2	-0.1	0.5	1.6	1.2	-0.6
SE	-0.2	0.1	-0.1	-2.7	-1.5	-2.7	-0.6	0.7
UK	1.9	-0.5	-0.4	-0.3	-0.8	-1.0	0.6	1.1
EU-15 ⁽³⁾	0.7	0.1	-0.3	0.4	0.3	0.5	-0.1	0.2

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
46.8	47.0	47.5	48.0	47.6	47.5	47.6	48.1	47.7	47.3
42.3	43.1	43.1	43.1	43.8	43.9	42.1	41.5	42.0	42.1
34.4	34.8	36.0	38.1	39.3	40.6	38.9	38.3	38.0	37.5
34.0	34.4	34.8	35.0	35.6	36.1	36.0	36.6	36.4	36.3
45.2	46.4	46.5	46.4	47.0	46.5	46.2	45.5	45.2	45.2
35.1	35.0	34.2	33.4	33.0	33.1	31.7	30.4	30.3	29.7
42.3	42.9	44.4	43.2	43.5	43.0	42.7	41.9	41.4	41.2
42.5	42.6	41.7	40.4	40.3	40.6	41.0	42.7	42.2	41.0
41.5	41.7	41.5	41.1	42.4	42.2	40.7	40.3	40.4	39.7
44.9	45.9	46.7	46.4	46.3	45.5	47.4	46.2	47.3	47.7
33.8	34.5	34.8	34.9	36.1	36.7	36.1	37.0	36.9	37.0
46.3	47.4	46.7	46.4	46.8	47.8	45.7	45.6	44.6	44.0
42.2	42.9	43.2	43.0	43.5	43.4	42.5	42.0	41.9	41.8
50.2	50.7	50.7	51.0	52.3	50.2	50.6	50.1	49.8	49.8
49.6	52.4	52.4	54.1	53.4	53.0	54.7	52.4	53.1	53.0
36.5	36.1	36.6	37.8	37.9	38.6	38.4	37.1	37.4	37.6
41.8	42.5	42.6	42.6	43.0	42.9	42.3	41.5	41.6	41.6

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.3	0.4	0.6	-0.5	0.0	0.0	0.6	-0.4	-0.4
:	0.9	-0.1	0.0	0.7	0.1	-1.8	-0.7	0.5	0.1
:	0.4	1.2	2.1	1.2	1.3	-1.7	-0.6	-0.3	-0.5
:	0.3	0.4	0.2	0.7	0.5	-0.1	0.6	-0.3	-0.1
:	1.2	0.1	-0.1	0.6	-0.6	-0.2	-0.8	-0.2	0.0
:	-0.1	-0.8	-0.8	-0.3	0.1	-1.4	-1.4	-0.1	-0.6
:	0.6	1.5	-1.2	0.3	-0.6	-0.2	-0.8	-0.5	-0.2
:	0.1	-1.0	-1.3	-0.1	0.3	0.4	1.8	-0.5	-1.2
:	0.2	-0.2	-0.4	1.3	-0.2	-1.5	-0.5	0.1	-0.7
:	1.0	0.8	-0.2	-0.1	-0.9	2.0	-1.2	1.1	0.4
:	0.7	0.2	0.2	1.2	0.6	-0.6	0.9	-0.1	0.1
:	1.1	-0.7	-0.3	0.4	1.0	-2.1	-0.1	-0.9	-0.6
:	0.7	0.3	-0.2	0.5	-0.2	-0.8	-0.6	0.0	-0.1
:	0.6	-0.1	0.3	1.3	-2.1	0.4	-0.5	-0.3	0.0
:	2.8	0.1	1.6	-0.7	-0.4	1.7	-2.2	0.6	-0.1
:	-0.4	0.5	1.2	0.0	0.7	-0.1	-1.3	0.3	0.2
:	0.6	0.1	0.0	0.4	-0.1	-0.6	-0.8	0.1	-0.1

Table A.4.2

Social contributions received; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	14.9	17.1	16.9	17.5	17.8	18.1	17.5	17.4
DE ⁽¹⁾	16.6	17.1	16.5	17.5	17.8	18.4	18.9	19.1
EL	9.4	11.6	11.5	11.1	11.0	11.9	12.1	12.4
ES	12.7	12.7	12.9	13.2	14.0	14.3	14.0	13.1
FR	19.1	20.8	20.6	20.7	20.9	21.1	20.7	21.0
IE	4.4	5.1	5.0	5.2	5.3	5.3	5.2	4.7
IT	12.9	13.5	14.3	14.6	14.9	15.4	14.8	14.7
LU	13.4	12.4	:	:	:	:	:	:
NL	17.5	19.8	16.4	17.3	17.8	17.8	18.4	18.2
AT	14.4	14.6	15.5	15.6	16.2	16.8	17.2	17.3
PT	8.0	8.6	10.1	10.5	11.1	11.7	11.5	11.7
FI	10.9	11.4	12.9	13.6	14.6	15.0	15.8	14.7
Euro area ⁽²⁾	15.8	16.6	16.3	16.7	17.1	17.7	17.7	17.7
DK	1.6	2.5	2.3	2.3	2.4	2.5	2.8	2.6
SE	14.8	13.6	15.0	15.0	14.4	13.4	13.4	13.7
UK	6.0	6.8	6.2	6.2	6.1	6.1	6.2	6.2
EU-15 ⁽³⁾	14.0	14.6	14.5	14.8	15.2	15.7	15.7	15.7

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.0	0.5	0.2	0.6	0.3	0.3	-0.6	-0.2
DE ⁽¹⁾	0.3	0.1	-0.3	0.1	0.4	0.6	0.5	0.2
EL	0.4	0.2	0.3	-0.4	-0.1	1.0	0.2	0.3
ES	0.1	0.0	0.3	0.3	0.9	0.3	-0.4	-0.9
FR	0.9	0.2	0.1	0.1	0.2	0.2	-0.3	0.2
IE	0.4	-0.1	0.1	0.2	0.1	0.0	-0.2	-0.4
IT	0.1	0.0	0.3	0.2	0.3	0.5	-0.6	-0.1
LU	0.4	-0.2	:	:	:	:	:	:
NL	0.3	-0.2	-1.7	0.9	0.6	0.0	0.6	-0.2
AT	0.4	0.3	0.9	0.1	0.6	0.6	0.4	0.1
PT	0.3	-0.5	0.5	0.4	0.6	0.7	-0.3	0.2
FI	0.2	0.9	1.4	0.8	0.9	0.5	0.8	-1.1
Euro area ⁽²⁾	0.3	0.1	0.0	0.2	0.4	0.5	0.0	0.0
DK	0.2	0.0	0.1	0.0	0.1	0.1	0.3	-0.2
SE	0.4	-0.3	0.4	-0.1	-0.6	-0.9	0.0	0.3
UK	0.2	-0.1	-0.3	0.0	-0.1	0.1	0.1	0.0
EU-15 ⁽³⁾	0.2	0.0	0.1	0.1	0.4	0.4	0.0	0.1

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
16.8	16.7	16.5	16.6	16.4	16.1	16.4	16.6	16.5	16.4
18.8	19.4	19.7	19.3	19.0	18.7	18.5	18.4	18.6	18.5
12.6	12.9	13.3	13.6	13.6	14.0	13.9	14.0	14.0	13.9
13.0	13.2	13.1	13.0	13.1	13.3	13.6	13.5	13.5	13.5
20.5	20.7	20.3	18.1	18.3	18.2	18.2	18.3	18.4	18.3
6.8	6.3	5.9	5.6	5.6	5.6	5.8	5.7	5.6	5.6
14.8	15.0	15.3	12.8	12.7	12.7	12.6	12.7	12.8	12.8
12.5	12.1	11.5	11.2	11.1	11.1	12.1	12.7	12.7	12.4
17.2	16.6	16.6	16.4	17.1	17.1	15.3	15.0	15.6	15.3
17.4	17.5	17.4	17.2	17.2	16.9	16.9	16.8	16.9	16.8
11.0	10.9	11.2	11.2	11.4	11.8	11.9	12.2	12.2	12.0
14.8	14.2	13.4	13.0	13.1	12.2	12.5	12.3	12.1	12.0
17.4	17.6	17.5	16.5	16.4	16.2	16.0	16.0	16.1	16.0
2.6	2.6	2.6	2.6	3.2	3.3	3.2	2.7	2.6	2.6
13.7	14.7	14.5	14.5	13.2	14.9	15.5	15.6	15.4	15.2
7.5	7.4	7.4	7.5	7.3	7.6	7.6	7.5	7.9	8.1
15.7	15.8	15.5	14.6	14.5	14.3	14.2	14.2	14.4	14.4

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	-0.1	-0.2	0.1	-0.2	-0.2	0.2	0.3	-0.2	0.0
:	0.6	0.2	-0.4	-0.3	-0.3	-0.1	-0.1	0.1	-0.1
:	0.3	0.4	0.3	0.1	0.3	0.0	0.0	0.0	-0.1
:	0.2	-0.1	-0.1	0.1	0.2	0.3	0.0	0.0	0.0
:	0.2	-0.4	-2.2	0.2	-0.1	0.0	0.2	0.1	-0.1
:	-0.5	-0.4	-0.3	-0.1	0.0	0.2	-0.1	0.0	-0.1
:	0.3	0.3	-2.5	-0.1	-0.1	-0.1	0.1	0.1	0.0
:	-0.4	-0.6	-0.3	-0.1	0.0	1.0	0.6	0.0	-0.3
:	-0.6	0.0	-0.2	0.7	0.0	-1.8	-0.3	0.6	-0.3
:	0.0	-0.1	-0.2	0.0	-0.3	0.0	-0.1	0.1	-0.2
:	0.0	0.3	0.0	0.1	0.4	0.1	0.3	-0.1	-0.1
:	-0.6	-0.8	-0.4	0.2	-0.9	0.2	-0.2	-0.3	-0.1
:	0.2	-0.1	-1.1	-0.1	-0.2	-0.2	0.0	0.1	-0.1
:	0.0	0.0	0.0	0.6	0.0	-0.1	-0.5	0.0	0.0
:	1.0	-0.3	0.1	-1.3	1.7	0.6	0.1	-0.2	-0.2
:	-0.1	0.1	0.1	-0.3	0.3	0.1	-0.1	0.5	0.2
:	0.1	-0.3	-0.9	-0.2	-0.2	-0.1	-0.1	0.2	0.0

Table A.4.3

Current taxes on income and wealth (direct taxes); general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	18.0	19.1	16.7	16.3	16.2	16.2	17.4	17.8
DE ⁽¹⁾	12.5	12.3	10.9	11.3	11.6	11.2	10.8	11.1
EL	4.6	4.6	5.4	5.5	5.4	5.7	6.8	7.2
ES	6.7	8.2	11.6	11.6	12.0	11.5	11.0	11.0
FR	8.2	8.9	8.7	9.2	8.8	9.0	9.2	9.4
IE	11.5	13.1	13.1	13.7	14.1	14.9	15.2	13.5
IT	9.7	13.0	14.3	14.4	14.6	16.1	14.8	14.5
LU	15.7	17.6	:	:	:	:	:	:
NL	15.2	12.3	15.0	16.3	15.3	16.1	13.6	12.5
AT	12.5	14.0	11.6	12.2	12.7	12.8	11.3	11.9
PT	5.6	7.8	7.9	8.8	9.8	9.0	8.8	9.1
FI	14.2	16.5	17.7	17.6	16.9	15.2	16.8	16.7
Euro area ⁽²⁾	10.7	11.5	11.7	12.0	12.0	12.1	11.6	11.7
DK	25.1	27.8	28.3	28.5	29.0	30.1	30.6	30.3
SE	20.9	20.3	22.6	19.2	19.9	19.5	19.7	20.1
UK	13.4	14.5	13.8	12.8	12.1	11.4	11.8	12.6
EU-15 ⁽³⁾	11.8	12.7	12.7	12.7	12.6	12.5	12.3	12.4

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-0.8	0.0	0.2	-0.4	-0.1	0.0	1.2	0.5
DE ⁽¹⁾	0.1	0.4	-1.5	0.8	0.3	-0.3	-0.4	0.3
EL	0.6	-0.3	0.9	0.1	-0.1	0.3	1.1	0.5
ES	0.9	0.2	-0.1	0.0	0.4	-0.5	-0.5	0.0
FR	0.6	-0.1	0.0	0.4	-0.3	0.2	0.3	0.2
IE	1.3	-0.3	0.5	0.6	0.3	0.8	0.3	-1.7
IT	1.1	0.4	0.1	0.1	0.2	1.5	-1.2	-0.3
LU	-0.5	1.0	:	:	:	:	:	:
NL	0.1	-0.2	1.6	1.3	-0.9	0.8	-2.6	-1.1
AT	0.2	0.7	-1.0	0.6	0.5	0.1	-1.5	0.6
PT	-0.1	0.1	0.1	0.9	1.0	-0.9	-0.2	0.3
FI	0.1	0.6	1.2	-0.1	-0.8	-1.7	1.6	-0.1
Euro area ⁽²⁾	0.4	0.2	-0.3	0.4	0.0	0.1	-0.4	0.0
DK	1.0	1.1	-1.7	0.2	0.5	1.1	0.5	-0.3
SE	-0.9	-0.3	-1.7	-3.4	0.6	-0.4	0.2	0.4
UK	0.7	0.2	0.2	-1.0	-0.8	-0.7	0.4	0.8
EU-15 ⁽³⁾	0.4	0.2	-0.3	0.1	-0.1	-0.1	-0.3	0.2

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
16.7	16.6	17.1	17.6	17.1	17.3	17.6	17.6	17.3	16.9
11.1	11.5	11.2	11.5	12.0	12.5	11.1	10.8	11.0	11.2
7.4	7.1	7.8	9.5	9.9	10.8	9.6	9.4	9.3	9.0
10.1	10.3	10.5	10.2	10.2	10.5	10.5	10.9	10.6	10.6
8.5	8.9	9.5	11.7	12.2	12.2	12.5	11.6	11.4	11.3
13.6	14.1	14.0	13.8	13.7	13.6	13.0	11.8	11.5	11.2
14.8	15.4	16.2	14.5	15.2	14.7	15.1	14.2	13.7	13.6
17.5	17.9	17.4	16.4	15.6	15.4	15.5	16.5	16.2	15.7
12.4	12.9	12.4	12.2	12.2	12.1	11.9	12.0	11.3	11.1
12.0	13.1	13.5	13.6	13.4	13.3	15.1	14.1	15.1	15.3
8.9	9.5	9.6	9.3	9.8	10.4	9.8	9.7	9.6	9.5
17.4	19.0	18.5	18.9	18.9	21.4	19.5	19.4	18.7	18.4
11.4	11.9	12.1	12.4	12.8	13.0	12.6	12.2	12.0	12.0
30.4	30.6	30.3	29.9	30.8	29.6	29.9	29.7	29.5	29.6
19.5	20.9	20.9	21.7	21.2	21.2	22.2	19.3	19.7	19.8
14.9	14.7	15.0	16.2	16.1	16.6	16.7	15.5	15.4	15.5
12.5	12.9	13.2	13.7	14.0	14.2	14.0	13.3	13.2	13.2

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	-0.1	0.4	0.6	-0.5	0.2	0.3	0.0	-0.3	-0.4
:	0.4	-0.3	0.3	0.5	0.5	-1.4	-0.3	0.3	0.2
:	-0.3	0.7	1.7	0.4	0.9	-1.3	-0.1	-0.2	-0.3
:	0.1	0.2	-0.3	0.1	0.3	0.0	0.5	-0.3	0.0
:	0.5	0.6	2.2	0.5	0.1	0.2	-0.9	-0.2	0.0
:	0.5	0.0	-0.3	-0.1	-0.1	-0.6	-1.3	-0.3	-0.3
:	0.6	0.8	-1.6	0.7	-0.4	0.4	-0.9	-0.6	-0.1
:	0.4	-0.5	-1.0	-0.8	-0.2	0.1	1.0	-0.2	-0.6
:	0.5	-0.5	-0.3	0.0	-0.1	-0.1	0.1	-0.7	-0.2
:	1.1	0.4	0.1	-0.3	-0.1	1.9	-1.1	1.0	0.2
:	0.6	0.1	-0.3	0.5	0.6	-0.6	-0.1	-0.2	-0.1
:	1.6	-0.5	0.4	0.0	2.5	-1.9	-0.1	-0.7	-0.3
:	0.5	0.2	0.3	0.4	0.2	-0.3	-0.5	-0.2	0.0
:	0.2	-0.3	-0.4	0.9	-1.2	0.3	-0.2	-0.2	0.1
:	1.3	0.1	0.8	-0.6	0.1	1.0	-2.9	0.4	0.1
:	-0.2	0.3	1.2	0.0	0.4	0.1	-1.2	-0.1	0.1
:	0.5	0.3	0.4	0.3	0.3	-0.2	-0.7	-0.2	0.0

Table A.4.4

Taxes linked to imports and production (indirect taxes); general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	12.2	12.0	12.2	12.1	12.1	12.3	12.6	12.2
DE ⁽¹⁾	12.9	12.3	12.1	12.2	12.4	12.7	13.1	12.7
EL	10.5	12.5	13.9	14.6	15.3	14.7	14.3	14.2
ES	6.3	9.1	10.3	10.3	10.9	10.1	10.6	10.3
FR	14.9	15.6	14.9	14.5	14.3	14.3	14.7	14.9
IE	15.3	16.8	15.6	15.2	15.2	14.4	15.3	14.6
IT	9.3	9.5	11.3	11.8	11.8	12.7	12.4	12.4
LU	12.5	14.9	14.9	14.7	15.3	15.9	16.1	16.2
NL	11.7	11.7	11.9	11.9	12.3	12.4	12.4	12.3
AT	15.8	16.3	15.7	15.5	15.6	15.7	15.7	15.5
PT	12.2	13.7	13.0	12.9	13.7	12.9	13.4	13.6
FI	13.1	14.1	14.9	15.0	14.7	14.5	14.2	13.5
Euro area ⁽²⁾	12.2	12.5	12.6	12.6	12.7	13.0	13.2	13.1
DK	18.0	17.8	17.0	16.7	16.6	16.9	17.3	17.2
SE	13.1	16.0	16.5	17.2	15.8	14.6	13.9	13.4
UK	15.8	16.0	15.6	16.0	15.6	15.3	15.4	15.7
EU-15 ⁽³⁾	12.9	13.3	13.3	13.4	13.3	13.4	13.6	13.5

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-0.4	-0.2	0.1	-0.1	0.0	0.2	0.3	-0.4
DE ⁽¹⁾	-0.1	-0.3	-0.1	0.3	0.2	0.3	0.4	-0.4
EL	-1.5	0.1	1.7	0.7	0.8	-0.6	-0.4	-0.1
ES	0.2	0.6	-0.2	0.0	0.5	-0.7	0.5	-0.3
FR	0.1	0.1	-0.1	-0.4	-0.2	0.1	0.4	0.2
IE	1.1	-0.6	-0.9	-0.3	0.0	-0.8	0.9	-0.7
IT	0.6	-0.4	0.2	0.6	-0.1	0.9	-0.3	0.0
LU	0.8	0.2	0.1	-0.2	0.6	0.5	0.3	0.0
NL	-0.4	0.0	-0.1	0.0	0.3	0.2	0.0	-0.1
AT	0.0	-0.2	-0.3	-0.2	0.1	0.1	-0.1	-0.2
PT	1.9	0.2	0.0	-0.1	0.8	-0.7	0.5	0.2
FI	-0.1	0.1	-0.3	0.1	-0.3	-0.2	-0.3	-0.7
Euro area ⁽²⁾	0.1	-0.1	0.0	0.1	0.1	0.2	0.2	-0.2
DK	-0.4	0.3	-0.7	-0.3	-0.1	0.3	0.4	-0.1
SE	0.2	0.6	1.0	0.6	-1.3	-1.2	-0.7	-0.5
UK	0.8	-0.3	-0.1	0.4	-0.3	-0.3	0.1	0.3
EU-15 ⁽³⁾	0.2	-0.1	0.0	0.1	-0.1	0.1	0.2	-0.1

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
12.2	12.7	12.9	12.9	13.2	13.1	12.6	13.0	13.0	13.0
11.4	11.4	11.4	11.6	12.2	12.0	11.9	11.8	12.0	12.0
13.6	14.0	14.3	14.4	15.1	15.2	14.8	14.4	14.3	14.1
10.2	10.2	10.5	11.1	11.7	11.7	11.4	11.7	11.8	11.9
15.4	16.1	16.0	16.0	15.9	15.5	15.0	15.1	15.0	15.2
13.5	13.7	13.5	13.1	13.1	13.2	12.1	12.2	12.4	12.3
12.1	11.8	12.4	15.3	15.1	15.0	14.5	14.6	14.5	14.5
12.5	12.6	12.7	12.8	13.5	14.1	13.4	13.5	13.3	12.9
10.7	11.2	11.4	11.6	12.2	12.1	12.6	12.7	12.6	12.5
14.3	14.5	14.9	14.9	15.0	14.6	14.7	15.0	14.6	14.9
13.6	14.0	13.8	14.3	14.8	14.5	14.4	15.1	15.2	15.5
13.4	13.5	14.2	14.0	14.2	13.6	13.2	13.5	13.5	13.2
12.5	12.7	12.9	13.5	13.8	13.6	13.3	13.4	13.4	13.4
16.9	17.3	17.5	18.2	18.1	17.2	17.3	17.5	17.5	17.4
15.7	16.1	16.3	17.2	18.4	16.3	16.4	17.1	17.5	17.5
13.1	13.2	13.5	13.4	13.8	13.8	13.6	13.7	13.6	13.5
12.8	12.9	13.2	13.7	14.0	13.8	13.5	13.6	13.6	13.6

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.5	0.2	0.0	0.3	-0.1	-0.5	0.3	0.1	-0.1
:	0.0	0.0	0.2	0.6	-0.2	-0.2	-0.1	0.2	0.0
:	0.4	0.3	0.1	0.7	0.1	-0.4	-0.4	-0.1	-0.2
:	0.0	0.3	0.6	0.6	0.0	-0.3	0.3	0.1	0.1
:	0.7	0.0	0.0	-0.1	-0.5	-0.5	0.1	-0.1	0.1
:	0.2	-0.2	-0.4	0.0	0.1	-1.1	0.1	0.2	-0.2
:	-0.3	0.6	2.9	-0.2	-0.1	-0.6	0.1	-0.1	-0.1
:	0.1	0.2	0.0	0.8	0.5	-0.7	0.1	-0.3	-0.4
:	0.4	0.3	0.1	0.6	-0.1	0.5	0.0	0.0	-0.2
:	0.3	0.4	0.0	0.1	-0.4	0.1	0.4	-0.5	0.4
:	0.4	-0.2	0.6	0.5	-0.4	-0.1	0.7	0.1	0.3
:	0.1	0.7	-0.2	0.2	-0.6	-0.4	0.3	0.0	-0.2
:	0.2	0.2	0.6	0.3	-0.2	-0.3	0.1	0.0	0.0
:	0.3	0.2	0.7	-0.1	-1.0	0.1	0.2	-0.1	-0.1
:	0.5	0.2	0.8	1.3	-2.1	0.1	0.7	0.4	0.0
:	0.0	0.3	-0.1	0.4	0.0	-0.3	0.1	-0.1	-0.1
:	0.2	0.2	0.5	0.3	-0.2	-0.3	0.1	0.0	0.0

Table A.4.5

Other current resources; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	2.6	2.3	1.8	1.9	1.8	1.8	1.5	1.5
DE ⁽¹⁾	2.3	3.1	2.6	2.6	3.1	3.0	3.0	2.7
EL	1.9	1.7	1.7	2.2	2.5	3.1	3.8	4.2
ES	3.9	4.2	3.7	4.1	4.0	5.0	4.2	3.6
FR	3.2	3.8	4.0	3.9	4.1	4.1	3.7	3.8
IE	3.3	3.9	2.3	2.5	2.5	2.4	2.1	1.8
IT	2.4	2.9	2.9	3.0	3.3	3.6	3.6	3.7
LU	6.3	5.7	:	:	:	:	:	:
NL	6.4	8.8	4.9	5.2	4.8	4.6	4.1	3.7
AT	2.8	2.9	4.4	4.4	4.8	4.6	4.4	4.5
PT	2.0	2.7	2.9	3.1	3.6	3.1	2.6	2.8
FI	3.8	5.1	5.9	6.8	7.6	8.0	6.7	6.9
Euro area ⁽²⁾	3.0	3.7	3.3	3.4	3.6	3.7	3.5	3.3
DK	6.1	7.1	7.5	7.2	8.0	8.4	7.5	6.8
SE	7.3	9.3	8.4	8.2	9.1	8.9	8.3	7.9
UK	4.5	4.1	2.7	2.5	2.3	2.2	2.2	2.2
EU-15 ⁽³⁾	3.5	4.0	3.5	3.5	3.7	3.7	3.5	3.4

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.5	-0.1	0.1	0.1	-0.1	0.0	-0.3	0.1
DE ⁽¹⁾	0.1	0.1	0.0	-0.1	0.5	-0.1	0.0	-0.3
EL	0.3	0.1	0.1	0.5	0.3	0.6	0.7	0.5
ES	0.6	0.4	0.3	0.4	-0.1	1.0	-0.8	-0.6
FR	0.3	0.2	0.4	-0.1	0.2	0.0	-0.4	0.1
IE	0.1	0.2	0.0	0.3	-0.1	-0.1	-0.3	-0.3
IT	-0.1	0.5	0.1	0.2	0.2	0.4	0.0	0.1
LU	0.8	0.5	:	:	:	:	:	:
NL	0.6	0.6	0.2	0.3	-0.4	-0.2	-0.6	-0.4
AT	0.4	0.1	1.5	-0.1	0.4	-0.2	-0.1	0.1
PT	-0.6	-0.6	0.2	0.2	0.5	-0.4	-0.5	0.2
FI	0.1	0.2	0.4	0.9	0.8	0.4	-1.3	0.3
Euro area ⁽²⁾	0.2	0.2	0.2	0.1	0.2	0.1	-0.2	-0.1
DK	1.0	-0.1	0.0	-0.3	0.8	0.4	-0.9	-0.6
SE	0.4	0.3	0.0	-0.2	0.8	-0.2	-0.6	-0.4
UK	0.3	0.2	-0.2	-0.2	-0.1	-0.1	0.0	0.0
EU-15 ⁽³⁾	0.3	0.2	0.1	0.0	0.2	0.1	-0.2	-0.1

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
3.1	3.2	3.0	3.0	2.8	2.9	3.0	3.0	2.8	2.8
3.5	3.4	3.2	3.1	3.0	2.8	3.1	3.0	2.9	2.8
2.9	2.9	3.4	2.9	2.9	3.2	3.6	3.6	3.6	3.4
4.1	4.2	4.0	3.7	3.7	3.4	3.6	3.4	3.4	3.5
3.6	3.9	3.8	3.6	3.5	3.5	3.7	3.5	3.5	3.5
2.8	2.9	2.7	2.5	2.2	2.1	2.5	2.5	2.4	2.3
3.1	3.2	3.2	3.2	3.3	3.0	3.2	3.1	3.0	3.0
5.7	5.4	5.4	5.2	4.8	4.6	4.9	4.9	4.5	4.4
6.0	5.8	5.5	5.0	4.7	4.8	5.2	5.2	4.9	4.6
5.7	5.2	3.8	3.6	3.6	3.5	4.5	4.1	4.1	4.0
4.1	4.3	4.0	4.0	4.0	3.6	3.7	3.9	3.9	3.9
7.3	6.8	6.2	6.0	5.4	6.2	6.4	6.3	6.1	6.0
3.8	3.8	3.6	3.5	3.4	3.3	3.5	3.4	3.3	3.3
6.8	7.1	6.7	6.6	6.0	5.8	6.1	5.7	5.4	5.3
8.2	7.8	6.9	6.9	6.1	5.9	5.0	5.0	7.1	7.1
2.9	3.0	2.7	2.7	2.7	2.5	2.7	2.3	2.1	2.2
3.9	3.9	3.6	3.5	3.4	3.3	3.5	3.3	3.3	3.2

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.1	-0.3	0.0	-0.1	0.1	0.1	0.0	-0.2	0.0
:	-0.1	-0.2	-0.1	-0.1	-0.2	0.3	-0.1	-0.1	-0.1
:	0.0	0.5	-0.6	0.0	0.3	0.4	0.0	-0.1	-0.2
:	0.1	-0.2	-0.2	-0.1	-0.3	0.2	-0.2	0.0	0.1
:	0.3	-0.2	-0.2	-0.1	0.0	0.1	-0.1	-0.1	0.0
:	0.1	-0.3	-0.2	-0.3	-0.1	0.4	0.0	-0.1	-0.1
:	0.1	0.0	0.0	0.1	-0.2	0.1	0.0	-0.1	-0.1
:	-0.2	-0.1	-0.2	-0.4	-0.2	0.4	-0.1	-0.3	-0.2
:	-0.2	-0.3	-0.4	-0.3	0.1	0.4	0.0	-0.3	-0.3
:	-0.5	-1.4	-0.3	0.0	-0.1	1.0	-0.3	0.0	-0.1
:	0.2	-0.3	0.0	-0.1	-0.3	0.1	0.2	-0.1	0.1
:	-0.4	-0.6	-0.3	-0.6	0.8	0.2	-0.1	-0.2	-0.1
:	0.0	-0.2	-0.1	-0.1	-0.1	0.2	-0.1	-0.1	-0.1
:	0.3	-0.5	0.0	-0.7	-0.2	0.3	-0.4	-0.3	-0.1
:	-0.4	-0.9	0.0	-0.8	-0.2	-0.9	0.0	2.1	0.0
:	0.1	-0.3	0.0	0.0	-0.2	0.2	-0.4	-0.2	0.1
:	0.0	-0.3	-0.1	-0.1	-0.1	0.2	-0.1	0.0	0.0

Table A.4.6

Total current resources; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	47.6	50.4	47.5	47.7	47.8	48.3	48.9	48.9
DE ⁽¹⁾	44.3	44.9	42.1	43.5	44.9	45.3	45.9	45.6
EL	26.3	30.3	32.5	33.3	34.1	35.4	36.9	38.1
ES	29.6	34.2	38.4	39.2	40.9	40.9	39.8	38.0
FR	45.3	49.1	48.2	48.2	48.0	48.4	48.3	49.0
IE	34.6	38.8	35.9	36.7	37.0	37.0	37.7	34.6
IT	34.4	39.0	42.8	43.8	44.5	47.7	45.5	45.3
LU	48.0	50.6	:	:	:	:	:	:
NL	50.7	52.5	48.1	50.6	50.2	51.0	48.4	46.6
AT	45.6	47.8	47.1	47.7	49.2	49.9	48.6	49.2
PT	27.8	32.7	33.9	35.2	38.1	36.8	36.3	37.1
FI	42.0	47.0	51.4	53.1	53.7	52.7	53.5	51.9
Euro area ⁽²⁾	41.7	44.3	43.9	44.7	45.4	46.4	46.0	45.7
DK	50.8	55.3	55.1	54.7	56.0	57.9	58.1	57.0
SE	56.1	59.2	62.6	59.6	59.1	56.4	55.3	55.0
UK	39.8	41.4	38.3	37.4	36.1	35.1	35.6	36.7
EU-15 ⁽³⁾	42.1	44.6	43.9	44.3	44.8	45.3	45.0	45.0

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-0.7	0.3	0.6	0.2	0.1	0.5	0.6	0.0
DE ⁽¹⁾	0.4	0.3	-1.9	1.2	1.3	0.4	0.6	-0.3
EL	-0.2	0.0	2.8	0.9	0.8	1.3	1.6	1.1
ES	1.7	1.2	0.3	0.7	1.7	0.1	-1.2	-1.8
FR	1.9	0.5	0.4	0.0	-0.2	0.5	-0.1	0.7
IE	2.9	-0.7	-0.3	0.8	0.4	-0.1	0.7	-3.0
IT	1.6	0.4	0.7	1.0	0.7	3.2	-2.2	-0.3
LU	1.5	1.6	:	:	:	:	:	:
NL	0.7	0.2	-0.1	2.5	-0.4	0.7	-2.5	-1.8
AT	1.0	1.0	1.0	0.5	1.6	0.7	-1.3	0.6
PT	1.5	-0.7	0.8	1.3	2.9	-1.4	-0.5	0.9
FI	0.4	1.9	2.7	1.7	0.7	-1.0	0.8	-1.6
Euro area ⁽²⁾	1.0	0.4	-0.2	0.7	0.8	1.0	-0.4	-0.2
DK	1.7	1.4	-2.2	-0.4	1.2	1.9	0.2	-1.2
SE	0.2	0.4	-0.3	-3.0	-0.5	-2.7	-1.2	-0.2
UK	1.9	0.0	-0.4	-0.8	-1.4	-1.0	0.6	1.0
EU-15 ⁽³⁾	1.0	0.4	-0.2	0.4	0.5	0.6	-0.3	0.0

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
48.8	49.3	49.4	50.0	49.5	49.4	49.5	50.1	49.5	49.1
44.8	45.7	45.5	45.5	46.2	46.0	44.6	44.1	44.5	44.5
36.5	36.9	38.8	40.3	41.5	43.2	41.9	41.4	41.1	40.4
37.4	37.8	38.0	38.0	38.6	38.9	39.0	39.5	39.3	39.4
47.9	49.6	49.6	49.3	49.9	49.4	49.3	48.5	48.2	48.2
36.7	37.0	36.1	35.0	34.5	34.6	33.5	32.1	31.9	31.3
44.8	45.5	47.2	45.9	46.3	45.5	45.3	44.6	44.0	43.8
48.2	48.1	47.0	45.6	45.0	45.2	45.9	47.6	46.7	45.4
46.3	46.5	45.9	45.2	46.2	46.1	45.1	44.9	44.4	43.5
49.4	50.3	49.5	49.2	49.1	48.2	51.1	50.0	50.6	50.9
37.6	38.7	38.6	39.0	40.0	40.3	39.8	40.9	40.7	40.9
52.8	53.6	52.3	51.8	51.6	53.4	51.6	51.5	50.4	49.7
45.1	45.9	46.1	45.8	46.3	46.0	45.4	44.9	44.8	44.6
56.8	57.7	57.1	57.4	58.1	55.8	56.5	55.6	55.0	54.9
57.1	59.5	58.6	60.3	58.9	58.3	59.1	56.9	59.7	59.6
38.4	38.2	38.6	39.8	39.9	40.4	40.5	39.0	39.0	39.3
44.8	45.6	45.5	45.4	45.8	45.6	45.2	44.4	44.4	44.4

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.5	0.2	0.6	-0.6	0.0	0.1	0.6	-0.6	-0.4
:	0.9	-0.2	0.0	0.7	-0.2	-1.4	-0.6	0.4	0.0
:	0.5	1.8	1.5	1.2	1.7	-1.3	-0.4	-0.4	-0.7
:	0.5	0.2	0.0	0.6	0.3	0.1	0.5	-0.2	0.1
:	1.7	-0.1	-0.2	0.6	-0.6	-0.1	-0.8	-0.3	0.0
:	0.2	-0.9	-1.1	-0.5	0.1	-1.1	-1.3	-0.2	-0.6
:	0.7	1.7	-1.3	0.4	-0.8	-0.2	-0.7	-0.6	-0.2
:	-0.1	-1.1	-1.4	-0.5	0.1	0.8	1.7	-0.9	-1.4
:	0.2	-0.6	-0.8	1.0	-0.2	-1.0	-0.2	-0.4	-0.9
:	0.9	-0.7	-0.3	-0.1	-0.9	2.9	-1.1	0.6	0.3
:	1.2	-0.1	0.4	1.0	0.3	-0.5	1.1	-0.2	0.1
:	0.7	-1.2	-0.5	-0.2	1.8	-1.8	-0.1	-1.1	-0.7
:	0.9	0.2	-0.3	0.5	-0.3	-0.6	-0.5	-0.2	-0.2
:	0.9	-0.6	0.3	0.7	-2.3	0.7	-0.9	-0.6	-0.1
:	2.4	-0.9	1.7	-1.4	-0.5	0.8	-2.2	2.8	-0.1
:	-0.2	0.4	1.2	0.1	0.5	0.1	-1.6	0.1	0.3
:	0.8	-0.1	-0.1	0.4	-0.3	-0.4	-0.8	0.0	-0.1

Table A.4.7

Interest payments

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	5.9	10.3	10.4	10.0	10.6	10.6	9.9	8.8
DE ⁽¹⁾	1.9	3.0	2.5	2.6	3.2	3.2	3.3	3.7
EL	2.0	4.9	10.0	9.3	11.5	12.6	13.9	12.8
ES	0.4	1.9	3.9	3.7	4.3	5.0	4.7	5.3
FR	1.4	2.8	2.9	2.9	3.2	3.3	3.5	3.7
IE	6.0	9.4	7.4	7.2	6.7	6.3	5.6	5.0
IT	5.5	8.0	9.4	10.1	11.4	12.0	10.9	11.3
LU	1.2	1.0	0.4	0.4	0.3	0.3	0.3	0.3
NL	3.7	6.2	5.8	5.9	6.0	6.0	5.7	5.7
AT	2.4	3.5	4.0	4.2	4.2	4.3	4.0	4.3
PT	2.6	7.4	7.8	7.6	7.0	6.0	6.1	6.2
FI	1.0	1.8	1.4	1.9	2.6	4.5	5.0	5.2
Euro area ⁽²⁾	2.6	4.4	4.9	5.0	5.5	5.6	5.4	5.6
DK	3.7	9.3	7.3	7.3	6.7	7.3	6.7	6.4
SE	4.0	8.1	4.8	5.0	5.3	5.8	6.4	6.6
UK	4.7	5.0	3.1	2.7	2.7	2.8	3.2	3.4
EU-15 ⁽³⁾	3.0	4.8	4.7	4.7	5.2	5.3	5.2	5.3

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.9	0.8	0.3	-0.4	0.6	0.0	-0.7	-1.1
DE ⁽¹⁾	0.2	0.0	-0.1	0.2	0.6	0.0	0.1	0.4
EL	0.2	0.6	2.5	-0.7	2.2	1.1	1.3	-1.2
ES	0.1	0.7	0.0	-0.2	0.5	0.8	-0.4	0.6
FR	0.1	0.2	0.2	0.0	0.3	0.1	0.2	0.2
IE	0.3	0.8	0.1	-0.2	-0.5	-0.4	-0.7	-0.6
IT	0.3	0.0	0.7	0.7	1.3	0.6	-1.1	0.4
LU	0.4	-0.5	:	-0.1	0.0	0.0	0.0	-0.1
NL	0.4	0.2	0.0	0.2	0.1	0.0	-0.3	0.0
AT	0.2	0.2	0.1	0.2	0.0	0.1	-0.3	0.3
PT	0.2	0.8	1.8	-0.2	-0.6	-0.9	0.0	0.1
FI	0.1	0.2	0.0	0.5	0.7	1.9	0.5	0.2
Euro area ⁽²⁾	0.3	0.2	0.2	0.2	0.6	0.1	-0.2	0.2
DK	0.4	0.3	0.1	0.0	-0.6	0.6	-0.6	-0.3
SE	1.0	0.8	-0.3	0.2	0.3	0.6	0.6	0.2
UK	0.3	0.1	-0.6	-0.4	0.0	0.1	0.3	0.3
EU-15 ⁽³⁾	0.3	0.2	0.1	0.1	0.5	0.1	-0.1	0.2

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
9.3	8.9	8.0	7.6	7.0	6.8	6.6	6.1	5.6	5.0
3.7	3.7	3.6	3.6	3.5	3.4	3.3	3.2	3.2	3.3
11.2	10.5	8.2	7.8	7.2	7.0	6.3	5.5	5.2	4.9
5.2	5.4	4.8	4.3	3.6	3.3	3.1	2.9	2.7	2.5
3.6	3.8	3.6	3.5	3.2	3.1	3.1	3.1	3.2	3.3
5.4	4.6	3.8	3.5	2.5	2.1	1.5	1.3	1.5	1.5
11.5	11.5	9.4	8.3	6.8	6.5	6.4	5.8	5.3	5.1
0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.2	0.2
5.9	5.6	5.2	4.9	4.5	3.9	3.5	3.2	3.0	2.9
4.4	4.4	4.0	3.9	3.7	3.8	3.7	3.6	3.7	3.6
6.3	5.4	4.2	3.5	3.2	3.3	3.2	3.0	3.1	3.0
4.0	4.3	4.3	3.6	3.1	2.9	2.7	2.3	2.2	2.1
5.6	5.7	5.1	4.8	4.3	4.1	4.0	3.7	3.6	3.6
6.4	6.1	5.7	5.3	4.8	4.3	4.0	3.7	3.5	3.3
6.6	6.6	6.3	5.5	4.8	4.1	3.2	3.2	2.7	2.7
3.7	3.7	3.7	3.6	2.9	2.8	2.4	2.1	2.0	2.1
5.4	5.5	4.9	4.6	4.1	3.8	3.7	3.4	3.3	3.3

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	-0.4	-0.9	-0.4	-0.6	-0.2	-0.2	-0.5	-0.5	-0.6
:	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0
:	-0.6	-2.3	-0.4	-0.6	-0.2	-0.7	-0.8	-0.3	-0.3
:	0.1	-0.6	-0.5	-0.7	-0.3	-0.2	-0.3	-0.2	-0.1
:	0.2	-0.2	-0.1	-0.3	-0.1	0.0	0.0	0.1	0.1
:	-0.8	-0.7	-0.4	-1.0	-0.4	-0.5	-0.2	0.2	0.0
:	0.0	-2.1	-1.1	-1.5	-0.3	-0.1	-0.6	-0.5	-0.2
:	0.0	0.0	0.0	-0.1	0.0	0.0	0.1	-0.1	-0.1
:	-0.3	-0.4	-0.3	-0.4	-0.6	-0.4	-0.2	-0.2	-0.1
:	0.0	-0.4	-0.1	-0.2	0.1	-0.1	-0.1	0.1	-0.1
:	-0.9	-1.2	-0.8	-0.2	0.0	-0.1	-0.1	0.1	-0.1
:	0.3	0.0	-0.7	-0.5	-0.2	-0.1	-0.5	-0.1	-0.1
:	0.1	-0.6	-0.4	-0.5	-0.2	-0.1	-0.2	-0.1	-0.1
:	-0.3	-0.4	-0.4	-0.6	-0.5	-0.3	-0.3	-0.3	-0.1
:	-0.1	-0.2	-0.8	-0.7	-0.7	-0.9	0.0	-0.4	-0.1
:	0.0	0.0	-0.1	-0.7	-0.1	-0.4	-0.4	-0.1	0.1
:	0.1	-0.5	-0.3	-0.6	-0.2	-0.2	-0.3	-0.1	0.0

Table A.4.8

Final consumption expenditure of general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	17.3	16.7	13.9	14.3	14.2	14.6	14.5	14.5
DE ⁽¹⁾	19.9	19.6	17.8	19.0	19.5	19.6	19.4	19.5
EL	13.5	16.1	15.1	14.2	13.7	14.3	13.8	15.3
ES	12.9	14.2	15.0	15.6	16.4	16.9	16.2	16.0
FR	17.7	19.1	17.7	17.9	18.5	19.4	19.2	19.0
IE	18.2	16.9	14.2	15.1	15.4	15.3	15.2	14.2
IT	15.0	16.6	17.4	17.4	17.5	17.5	17.0	15.9
LU	14.5	13.7	12.5	12.1	12.3	12.0	11.9	12.6
NL	16.8	15.2	14.0	13.9	14.1	14.3	13.9	13.8
AT	17.4	18.4	18.4	18.7	19.1	19.9	20.0	19.8
PT	13.3	14.0	15.0	16.7	16.8	17.4	17.1	17.3
FI	17.6	19.8	20.8	23.8	24.3	22.8	21.8	21.2
Euro area ⁽²⁾	17.3	17.9	17.1	17.6	18.0	18.4	18.1	17.9
DK	27.0	25.6	25.6	25.7	25.8	26.8	25.9	25.7
SE	28.5	27.1	26.4	26.4	27.1	26.3	25.3	24.0
UK	21.7	21.2	20.3	21.2	21.6	21.5	21.2	20.9
EU-15 ⁽³⁾	18.6	18.9	18.0	18.6	19.0	19.2	18.9	18.6

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.2	0.1	-0.3	0.4	-0.1	0.4	-0.1	0.0
DE ⁽¹⁾	0.5	0.0	-0.5	-0.6	0.6	0.1	-0.2	0.1
EL	0.0	0.7	0.1	-0.9	-0.5	0.6	-0.5	1.6
ES	0.6	0.3	0.4	0.6	0.9	0.4	-0.6	-0.2
FR	0.6	-0.1	0.0	0.3	0.5	0.9	-0.2	-0.1
IE	1.6	-0.1	0.4	0.9	0.3	-0.1	-0.1	-1.1
IT	0.1	0.1	0.7	0.0	0.1	0.0	-0.5	-1.0
LU	0.6	0.3	0.6	-0.4	0.2	-0.3	-0.2	0.7
NL	-0.2	-0.5	-0.3	-0.1	0.2	0.2	-0.4	-0.1
AT	0.0	0.3	0.6	0.3	0.4	0.8	0.1	-0.2
PT	0.7	0.2	0.5	1.6	0.1	0.6	-0.3	0.1
FI	0.2	0.9	1.4	3.0	0.6	-1.6	-0.9	-0.7
Euro area ⁽²⁾	0.4	0.0	0.1	0.0	0.4	0.3	-0.3	-0.2
DK	1.6	-0.6	-0.4	0.2	0.1	1.0	-0.8	-0.2
SE	0.6	-0.2	1.2	0.0	0.8	-0.8	-1.0	-1.2
UK	1.6	-0.8	0.5	0.9	0.5	-0.1	-0.3	-0.3
EU-15 ⁽³⁾	0.6	-0.1	0.1	0.2	0.4	0.2	-0.3	-0.2

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
21.4	21.7	21.2	21.1	21.2	21.2	21.7	22.1	22.5	22.54
19.8	20.0	19.5	19.2	19.1	19.1	19.0	19.1	19.1	18.85
15.3	14.5	15.1	15.3	15.4	15.7	15.3	15.8	15.5	15.22
18.1	18.0	17.5	17.5	17.4	17.6	17.5	17.6	17.8	17.7
23.9	24.2	24.2	23.4	23.3	23.2	23.2	23.9	24.0	23.91
16.5	15.8	15.2	14.5	13.9	13.8	14.8	15.2	15.4	15.37
17.9	18.1	18.2	17.9	18.0	18.3	18.8	18.8	18.9	18.65
18.5	18.9	17.9	16.8	16.7	15.7	16.8	18.3	19.2	19.6
24.0	23.1	22.9	22.7	22.9	22.7	23.2	24.3	24.2	24.35
20.4	20.3	19.7	19.5	19.8	19.2	19.1	18.7	19.3	19.18
18.6	18.9	19.0	18.9	19.7	20.5	20.8	21.3	21.3	21.03
22.7	23.1	22.3	21.6	21.6	20.7	20.8	21.6	21.9	21.8
20.5	20.5	20.3	19.9	19.9	19.9	20.0	20.3	20.4	20.2
25.8	25.9	25.5	26.0	25.8	25.3	25.9	26.1	26.1	26.0
27.3	27.9	27.3	27.5	27.5	26.8	27.2	28.0	28.3	28.1
19.6	19.3	18.4	18.0	18.5	18.7	19.3	20.0	20.7	20.7
20.7	20.7	20.3	19.9	20.0	20.0	20.2	20.6	20.8	20.7

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.3	-0.5	-0.1	0.1	0.0	0.5	0.5	0.4	0.0
:	0.1	-0.5	-0.3	0.0	-0.1	-0.1	0.1	-0.1	-0.2
:	-0.8	0.6	0.2	0.1	0.3	-0.4	0.5	-0.3	-0.3
:	-0.1	-0.4	-0.1	0.0	0.2	-0.1	0.1	0.2	-0.1
:	0.3	0.0	-0.8	-0.1	-0.1	0.0	0.6	0.1	-0.1
:	-0.7	-0.6	-0.7	-0.5	-0.1	1.0	0.4	0.3	-0.1
:	0.2	0.1	-0.3	0.1	0.3	0.5	-0.1	0.1	-0.2
:	0.5	-1.0	-1.2	-0.1	-1.0	1.1	1.5	1.0	0.4
:	-0.9	-0.2	-0.2	0.2	-0.2	0.5	1.1	-0.1	0.1
:	-0.1	-0.6	-0.1	0.2	-0.6	-0.1	-0.4	0.7	-0.1
:	0.3	0.1	-0.1	0.7	0.8	0.3	0.5	0.0	-0.2
:	0.4	-0.9	-0.7	0.1	-0.9	0.1	0.8	0.3	0.0
:	0.0	-0.3	-0.4	0.0	0.0	0.1	0.3	0.1	-0.1
:	0.1	-0.4	0.5	-0.2	-0.6	0.6	0.3	0.0	-0.1
:	0.6	-0.6	0.2	0.0	-0.7	0.4	0.8	0.3	-0.1
:	-0.4	-0.9	-0.4	0.4	0.3	0.6	0.8	0.7	0.1
:	0.0	-0.4	-0.4	0.1	0.0	0.2	0.4	0.2	-0.1

Table A.4.9

Compensation of employees; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	13.4	13.0	11.2	11.5	11.6	12.0	12.0	12.1
DE ⁽¹⁾	10.8	10.4	9.5	10.1	10.4	10.6	10.3	10.2
EL	9.4	11.4	12.5	11.5	10.9	10.9	10.6	11.3
ES	9.4	10.2	10.7	11.1	11.8	11.8	11.3	11.2
FR	13.4	14.4	13.0	13.1	13.4	14.0	14.0	14.1
IE	11.8	11.5	9.9	10.5	10.7	10.8	10.5	9.6
IT	11.1	11.8	12.7	12.6	12.5	12.4	11.9	11.3
LU	10.2	9.8	:	:	:	:	:	:
NL	12.4	10.6	9.3	9.2	9.4	9.6	9.3	9.3
AT	11.6	12.4	11.7	11.8	12.0	12.5	12.4	12.4
PT	10.2	10.2	11.8	12.8	13.8	14.2	13.7	13.7
FI	12.1	13.9	14.4	16.8	17.3	16.2	15.3	14.8
Euro area ⁽²⁾	11.7	11.9	11.4	11.6	11.8	11.9	11.7	11.6
DK	18.0	17.4	17.7	17.7	17.8	18.1	17.5	17.3
SE	20.2	18.3	18.1	18.3	18.8	18.0	17.0	16.1
UK	12.8	12.2	11.5	11.7	11.8	10.7	9.1	8.4
EU-15 ⁽³⁾	12.3	12.3	11.8	12.0	12.2	12.1	11.6	11.4

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.3	0.0	-0.1	0.3	0.1	0.4	0.0	0.1
DE ⁽¹⁾	0.2	-0.1	-0.3	-0.2	0.3	0.2	-0.3	-0.1
EL	0.1	0.6	0.4	-1.0	-0.5	0.0	-0.3	0.7
ES	0.5	0.2	0.4	0.4	0.7	0.0	-0.5	-0.1
FR	0.3	0.0	-0.1	0.1	0.3	0.6	0.0	0.1
IE	1.0	-0.2	0.1	0.6	0.2	0.1	-0.4	-0.8
IT	0.5	-0.2	0.8	0.0	-0.1	-0.2	-0.4	-0.7
LU	0.4	0.1	:	:	:	:	:	:
NL	-0.2	-0.4	-0.2	-0.1	0.2	0.2	-0.3	-0.1
AT	0.0	0.1	-0.4	0.2	0.2	0.4	0.0	-0.1
PT	0.6	0.0	0.4	1.0	1.0	0.4	-0.5	0.1
FI	-0.1	0.6	0.8	2.4	0.5	-1.1	-0.9	-0.5
Euro area ⁽²⁾	0.3	0.0	0.1	0.0	0.2	0.1	-0.3	-0.1
DK	0.8	-0.6	-0.3	0.0	0.0	0.3	-0.6	-0.2
SE	0.4	-0.4	0.9	0.2	0.5	-0.9	-0.9	-0.9
UK	1.0	-0.5	0.1	0.2	0.1	-1.1	-1.6	-0.7
EU-15 ⁽³⁾	0.4	-0.1	0.1	0.1	0.2	-0.1	-0.5	-0.2

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
11.9	11.9	11.7	11.6	11.6	11.4	11.6	12.0	12.0	12.0
9.0	8.9	8.7	8.5	8.4	8.2	8.0	7.9	7.9	7.8
11.3	10.7	11.6	11.6	11.7	11.7	11.6	12.2	12.1	11.9
11.3	11.3	10.9	10.7	10.6	10.5	10.4	10.2	10.3	10.3
13.7	13.9	13.8	13.7	13.7	13.5	13.5	13.7	13.8	13.6
10.2	9.7	9.2	8.5	8.0	7.8	8.2	8.3	8.6	8.5
11.2	11.5	11.6	10.7	10.7	10.6	10.7	10.7	10.8	10.7
9.7	9.7	9.3	8.8	8.3	7.8	8.1	8.8	9.2	9.3
10.8	10.4	10.2	10.1	10.2	10.0	10.1	10.4	10.6	10.6
12.6	12.4	11.5	11.3	11.4	11.0	10.1	9.9	10.0	9.9
13.6	13.7	13.8	14.0	14.4	15.0	15.2	15.4	15.0	14.5
15.2	15.5	14.5	13.8	13.8	13.2	13.2	13.4	13.6	13.6
11.1	11.2	11.1	10.7	10.7	10.6	10.5	10.6	10.7	10.6
17.3	17.3	17.1	17.5	17.4	17.0	17.2	17.5	17.5	17.6
16.7	17.2	16.8	16.2	15.8	15.7	16.0	16.3	16.0	15.9
8.3	7.9	7.5	7.2	7.2	7.2	7.4	7.6	8.0	8.0
11.1	11.1	10.8	10.4	10.4	10.2	10.2	10.3	10.5	10.4

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.0	-0.2	-0.1	0.0	-0.2	0.2	0.4	0.0	-0.1
:	-0.1	-0.2	-0.3	-0.1	-0.2	-0.2	-0.1	0.0	-0.1
:	-0.6	0.9	0.0	0.1	0.0	-0.1	0.5	-0.1	-0.2
:	0.0	-0.4	-0.2	-0.1	-0.1	-0.1	-0.1	0.1	0.0
:	0.2	-0.1	-0.1	0.0	-0.2	0.0	0.2	0.0	-0.2
:	-0.5	-0.5	-0.7	-0.5	-0.2	0.3	0.2	0.3	-0.1
:	0.3	0.1	-0.9	0.0	-0.1	0.1	0.0	0.1	-0.2
:	0.0	-0.4	-0.5	-0.5	-0.5	0.3	0.7	0.4	0.1
:	-0.4	-0.2	-0.1	0.1	-0.2	0.1	0.3	0.2	0.1
:	-0.3	-0.9	-0.2	0.0	-0.3	-1.0	-0.1	0.1	-0.1
:	0.1	0.1	0.2	0.5	0.6	0.2	0.2	-0.4	-0.5
:	0.2	-0.9	-0.7	-0.1	-0.6	0.0	0.2	0.2	0.0
:	0.1	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.1	-0.1
:	0.0	-0.2	0.4	-0.1	-0.4	0.3	0.2	0.1	0.1
:	0.5	-0.4	-0.6	-0.4	-0.1	0.3	0.3	-0.3	-0.1
:	-0.5	-0.4	-0.3	0.0	0.0	0.2	0.2	0.4	0.0
:	0.0	-0.3	-0.3	-0.1	-0.2	0.0	0.1	0.1	-0.1

Table A.4.10

Total current uses; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	51.3	56.2	51.1	52.2	52.9	53.4	51.9	50.9
DE ⁽¹⁾	41.9	42.4	40.8	42.3	43.4	44.8	44.9	45.6
EL	26.4	37.7	41.9	39.7	41.1	43.3	44.0	45.1
ES	27.7	33.9	36.8	38.0	40.2	42.6	41.3	40.3
FR	41.7	48.6	45.7	46.7	48.4	50.7	50.4	50.4
IE	39.5	45.1	36.7	37.9	38.2	38.0	37.1	34.8
IT	39.0	45.9	48.5	49.5	51.6	53.1	51.0	49.1
LU	40.8	39.5	:	:	:	:	:	:
NL	49.4	51.7	49.7	50.3	51.1	51.3	49.4	47.7
AT	41.3	44.7	44.9	45.9	46.5	49.1	48.6	49.6
PT	31.3	38.7	35.3	37.7	37.3	38.8	39.1	39.5
FI	34.6	40.5	42.2	50.5	55.8	57.7	56.4	54.1
Euro area ⁽²⁾	40.5	44.9	44.1	45.2	46.7	48.2	47.5	47.2
DK	50.0	54.4	54.9	55.7	56.3	58.9	58.8	57.4
SE	55.4	59.3	56.3	58.1	62.4	63.1	61.7	59.4
UK	40.3	42.0	35.8	36.9	39.3	40.0	39.8	39.7
EU-15 ⁽³⁾	41.2	45.2	43.5	44.7	46.3	47.7	47.1	46.8

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.8	0.1	-0.1	1.0	0.7	0.6	-1.5	-1.0
DE ⁽¹⁾	0.6	-0.4	0.4	1.4	1.1	1.4	0.1	0.7
EL	0.6	3.1	2.1	-2.2	1.4	2.2	0.7	1.1
ES	1.8	1.8	0.9	1.2	2.2	2.4	-1.3	-0.9
FR	0.9	0.5	0.3	1.0	1.7	2.3	-0.3	0.1
IE	3.2	0.6	0.4	1.2	0.4	-0.2	-0.9	-2.3
IT	1.0	0.1	1.3	1.0	2.1	1.5	-2.2	-1.9
LU	1.4	-0.6	:	:	:	:	:	:
NL	0.8	-1.2	0.4	0.7	0.8	0.2	-1.9	-1.7
AT	0.2	0.9	0.7	0.9	0.7	2.6	-0.6	1.0
PT	3.8	-0.9	3.2	2.4	-0.4	1.5	0.3	0.4
FI	-0.3	1.8	3.0	8.2	5.3	1.9	-1.3	-2.3
Euro area ⁽²⁾	0.9	0.3	0.7	1.2	1.5	1.5	-0.7	-0.3
DK	3.5	-0.9	-0.5	0.8	0.6	2.6	-0.1	-1.4
SE	1.8	1.3	1.2	1.9	4.2	0.7	-1.4	-2.3
UK	2.2	-0.7	-0.1	1.1	2.4	0.7	-0.2	-0.1
EU-15 ⁽³⁾	1.1	0.1	0.6	1.2	1.7	1.4	-0.6	-0.3

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
50.7	50.8	48.9	48.3	47.4	46.8	47.3	47.9	47.8	47.2
44.9	46.2	45.6	45.0	45.0	44.6	44.4	44.9	45.2	44.7
43.3	42.2	40.2	40.2	39.8	40.5	39.2	38.7	38.0	37.3
39.2	39.1	37.6	36.8	35.8	35.6	35.1	35.3	35.3	35.1
49.1	49.9	49.6	48.3	47.8	47.0	47.1	48.1	48.6	48.5
36.7	35.1	32.8	30.7	28.0	26.6	28.0	28.2	28.9	28.5
48.6	49.2	47.4	45.8	44.6	44.1	44.4	44.1	43.8	43.4
40.2	40.3	38.6	37.0	36.3	34.3	36.1	39.3	41.1	41.8
47.4	45.9	44.7	43.4	42.8	41.5	41.4	42.6	42.5	42.5
49.8	49.4	47.7	47.4	47.5	46.5	47.5	47.7	48.3	47.9
39.6	39.6	38.2	37.7	38.7	39.6	40.0	41.0	41.4	41.3
53.6	53.0	50.5	47.4	46.8	44.0	43.7	44.1	44.6	44.3
46.4	47.0	45.9	44.9	44.3	43.7	43.6	44.0	44.2	43.8
57.3	56.8	54.9	54.6	53.2	51.6	52.0	52.2	51.8	51.4
60.2	59.0	56.9	55.8	54.3	52.1	51.6	52.7	55.7	55.1
41.3	40.6	39.2	38.0	37.3	37.6	38.2	38.6	39.2	39.3
46.4	46.7	45.4	44.3	43.6	43.0	43.0	43.5	43.8	43.5

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.1	-1.8	-0.6	-0.9	-0.6	0.6	0.6	-0.1	-0.6
:	1.3	-0.6	-0.6	0.0	-0.4	-0.2	0.5	0.3	-0.4
:	-1.1	-1.9	0.0	-0.4	0.8	-1.4	-0.5	-0.7	-0.7
:	-0.2	-1.5	-0.7	-1.1	-0.1	-0.5	0.2	0.0	-0.2
:	0.8	-0.3	-1.3	-0.5	-0.7	0.0	1.1	0.5	-0.1
:	-1.6	-2.3	-2.1	-2.7	-1.4	1.4	0.2	0.7	-0.4
:	0.6	-1.9	-1.5	-1.2	-0.5	0.3	-0.3	-0.3	-0.4
:	0.1	-1.7	-1.6	-0.7	-2.0	1.8	3.2	1.8	0.7
:	-1.5	-1.2	-1.3	-0.6	-1.3	-0.1	1.1	-0.1	0.0
:	-0.4	-1.7	-0.3	0.1	-1.0	0.9	0.2	0.6	-0.4
:	0.0	-1.4	-0.5	1.0	0.9	0.4	1.0	0.4	-0.1
:	-0.5	-2.5	-3.1	-0.6	-2.9	-0.3	0.5	0.5	-0.3
:	0.6	-1.1	-1.0	-0.6	-0.6	-0.1	0.4	0.1	-0.4
:	-0.5	-1.9	-0.4	-1.4	-1.6	0.4	0.3	-0.4	-0.4
:	-1.2	-2.1	-1.1	-1.5	-2.1	-0.6	1.1	3.0	-0.6
:	-0.7	-1.4	-1.2	-0.6	0.2	0.6	0.4	0.6	0.2
:	0.3	-1.4	-1.1	-0.7	-0.6	0.0	0.4	0.3	-0.3

Table A.4.11

Gross saving; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	-3.7	-5.8	-3.6	-4.5	-5.0	-5.1	-3.0	-2.0
DE ⁽¹⁾	2.4	2.5	1.3	1.2	1.4	0.5	1.0	0.0
EL	-0.1	-7.4	-9.4	-6.4	-7.0	-7.9	-7.1	-7.1
ES	0.6	0.3	1.7	1.2	0.7	-1.7	-1.5	-2.3
FR	3.7	0.5	2.4	1.4	-0.4	-2.2	-2.1	-1.4
IE	-4.9	-6.3	-0.8	-1.2	-1.2	-1.0	0.6	-0.2
IT	-4.6	-6.9	-5.7	-5.7	-7.1	-5.4	-5.4	-3.9
LU	7.2	11.2	:	:	:	:	:	:
NL	1.3	0.9	-1.6	0.3	-0.9	-0.3	-1.0	-1.1
AT	4.2	3.1	2.2	1.8	2.7	0.8	0.0	-0.4
PT	-3.5	-6.0	-1.4	-2.5	0.8	-2.0	-2.8	-2.3
FI	7.4	6.5	9.2	2.6	-2.1	-5.0	-2.9	-2.2
Euro area ⁽²⁾	1.0	-0.6	-0.2	-0.5	-1.2	-1.8	-1.5	-1.5
DK	0.7	0.9	0.2	-1.0	-0.4	-1.0	-0.7	-0.5
SE	0.7	-0.1	6.3	1.4	-3.3	-6.6	-6.4	-4.3
UK	-0.5	-0.5	2.4	0.5	-3.2	-4.9	-4.2	-3.0
EU-15 ⁽³⁾	0.8	-0.6	0.4	-0.3	-1.6	-2.4	-2.0	-1.7

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-1.5	0.2	0.7	-0.8	-0.6	-0.1	2.1	1.0
DE ⁽¹⁾	-0.2	0.6	-2.2	-0.2	0.2	-0.9	0.4	-1.0
EL	-0.8	-3.1	0.7	3.0	-0.6	-1.0	0.9	0.0
ES	-0.5	1.0	-0.6	-0.5	-0.5	-2.4	0.2	-0.8
FR	0.9	-0.1	0.1	-1.0	-1.9	-1.8	0.2	0.6
IE	-0.3	-1.3	-0.7	-0.4	0.0	0.2	1.7	-0.8
IT	0.6	0.2	-0.7	0.1	-1.4	1.7	-0.1	1.6
LU	0.1	2.2	:	:	:	:	:	:
NL	-0.2	1.4	-0.6	1.8	-1.2	0.6	-0.6	-0.1
AT	0.8	0.1	0.3	-0.4	0.9	-1.9	-0.8	-0.4
PT	-2.4	0.2	-2.4	-1.1	3.3	-2.8	-0.7	0.5
FI	0.6	0.1	-0.3	-6.6	-4.7	-2.9	2.1	0.7
Euro area ⁽²⁾	0.1	0.3	-0.9	-0.4	-0.7	-0.6	0.3	0.1
DK	-1.8	2.2	-1.7	-1.2	0.6	-0.6	0.3	0.3
SE	-1.9	-1.0	-1.5	-4.9	-4.7	-3.4	0.2	2.1
UK	-0.3	0.6	-0.3	-1.9	-3.8	-1.7	0.8	1.1
EU-15 ⁽³⁾	-0.1	0.4	-0.8	-0.8	-1.2	-0.8	0.3	0.3

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
-2.0	-1.5	0.5	1.7	2.1	2.7	2.2	2.2	1.8	1.9
-0.1	-0.5	-0.1	0.5	1.2	1.4	0.2	-0.8	-0.7	-0.2
-6.8	-5.3	-1.5	0.1	1.7	2.6	2.7	2.7	3.0	3.0
-1.8	-1.3	0.4	1.2	2.9	3.2	3.9	4.2	3.9	4.3
-1.1	-0.3	-0.1	1.1	2.1	2.3	2.2	0.4	-0.4	-0.3
0.0	1.8	3.3	4.3	6.5	7.9	5.5	3.9	3.0	2.8
-3.8	-3.7	-0.2	0.1	1.7	1.4	1.0	0.5	0.2	0.4
8.0	7.8	8.4	8.6	8.7	10.9	9.9	8.3	5.6	3.6
-1.1	0.6	1.3	1.8	3.4	4.6	3.7	2.3	2.0	1.0
-0.4	0.9	1.8	1.8	1.6	1.7	3.7	2.4	2.3	3.0
-2.1	-0.9	0.4	1.2	1.3	0.7	-0.2	0.0	-0.7	-0.4
-0.7	0.6	1.8	4.4	4.8	9.4	7.9	7.3	5.8	5.4
-1.4	-1.1	0.2	0.9	2.0	2.3	1.8	0.9	0.6	0.8
-0.5	0.9	2.2	2.8	4.9	4.2	4.5	3.3	3.2	3.5
-3.1	0.5	1.8	4.5	4.6	6.2	7.5	4.2	4.0	4.5
-2.9	-2.3	-0.6	1.8	2.6	2.9	2.4	0.4	-0.2	0.0
-1.6	-1.2	0.1	1.2	2.2	2.6	2.1	1.0	0.7	0.9

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.4	2.0	1.2	0.4	0.6	-0.5	0.0	-0.5	0.2
:	-0.4	0.4	0.6	0.7	0.2	-1.2	-1.0	0.2	0.4
:	1.6	3.8	1.5	1.6	0.9	0.1	0.0	0.3	0.0
:	0.6	1.7	0.8	1.7	0.4	0.6	0.3	-0.3	0.4
:	0.8	0.2	1.1	1.1	0.2	-0.1	-1.8	-0.8	0.1
:	1.8	1.5	1.0	2.2	1.5	-2.5	-1.6	-0.9	-0.3
:	0.1	3.5	0.3	1.6	-0.3	-0.5	-0.5	-0.3	0.2
:	-0.2	0.6	0.2	0.1	2.2	-1.0	-1.6	-2.7	-2.0
:	1.7	0.7	0.5	1.6	1.1	-0.9	-1.4	-0.3	-1.0
:	1.3	1.0	-0.1	-0.2	0.1	2.0	-1.3	0.0	0.6
:	1.2	1.3	0.8	0.1	-0.6	-0.9	0.2	-0.6	0.3
:	1.3	1.3	2.6	0.4	4.6	-1.5	-0.6	-1.5	-0.4
:	0.3	1.2	0.7	1.1	0.3	-0.5	-0.9	-0.3	0.2
:	1.4	1.3	0.7	2.1	-0.7	0.3	-1.2	-0.2	0.3
:	3.6	1.3	2.7	0.1	1.6	1.3	-3.3	-0.2	0.5
:	0.5	1.8	2.4	0.8	0.3	-0.5	-2.0	-0.6	0.2
:	0.4	1.3	1.1	1.0	0.3	-0.4	-1.2	-0.3	0.2

Table A.4.12

Gross fixed capital formation; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	4.4	2.5	1.3	1.4	1.4	1.6	1.6	1.4
DE ⁽¹⁾	3.5	2.3	2.2	2.6	2.8	2.7	2.6	2.3
EL	2.1	3.7	2.8	3.1	3.5	3.3	3.1	3.3
ES	1.8	3.6	4.9	4.8	4.0	4.1	3.9	3.7
FR	3.3	3.2	3.5	3.5	3.5	3.2	3.1	3.2
IE	5.4	3.7	2.0	2.1	2.0	2.2	2.3	2.4
IT	3.2	3.7	3.3	3.2	3.0	2.6	2.3	2.2
LU	6.5	4.0	4.4	4.5	5.1	5.0	4.2	4.5
NL	3.2	2.3	2.0	2.1	2.0	2.0	2.0	1.9
AT	4.3	3.6	3.2	3.2	3.2	3.2	3.3	2.8
PT	4.2	3.2	3.2	3.3	3.7	3.9	3.5	3.6
FI	3.8	3.7	3.7	3.8	3.5	2.8	2.9	2.7
Euro area ⁽²⁾	3.3	3.0	3.0	3.1	3.0	2.9	2.7	2.6
DK	3.3	2.1	1.6	1.5	1.9	1.8	1.8	1.8
SE	4.1	3.0	2.3	2.2	2.6	1.0	2.8	2.7
UK	2.5	2.1	2.3	2.1	2.0	1.8	1.8	1.7
EU-15 ⁽³⁾	3.2	2.8	2.9	2.9	2.9	2.7	2.6	2.5

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.2	-0.3	-0.1	0.1	0.1	0.1	0.1	-0.2
DE ⁽¹⁾	0.1	-0.1	-0.1	0.0	0.2	-0.1	-0.1	-0.2
EL	-0.5	0.2	-0.2	0.3	0.4	-0.2	-0.2	0.2
ES	0.1	0.7	0.6	-0.1	-0.8	0.1	-0.2	-0.3
FR	0.1	0.2	0.2	-0.1	0.0	-0.3	-0.1	0.1
IEIE	0.6	0.0	0.3	0.1	-0.1	0.2	0.2	0.0
IT	0.5	0.1	-0.1	0.0	-0.2	-0.4	-0.3	-0.1
LU	0.9	-0.3	:	0.1	0.6	-0.1	-0.8	0.3
NL	0.3	-0.2	0.0	0.1	0.0	-0.1	0.0	-0.1
AT	-0.2	-0.1	-0.1	0.1	0.0	0.0	0.1	-0.5
PT	0.5	-0.3	0.0	0.1	0.4	0.3	-0.4	0.2
FI	-0.1	0.1	0.6	0.1	-0.3	-0.7	0.1	-0.2
Euro area ⁽²⁾	0.2	0.1	0.1	0.0	-0.1	-0.2	-0.1	-0.1
DK	-0.3	0.2	-0.1	-0.1	0.4	-0.1	-0.1	0.0
SE	-0.1	-0.2	0.0	-0.1	0.5	-1.6	1.8	-0.1
UK	-0.2	-0.1	0.5	-0.2	0.0	-0.2	-0.1	0.0
EU-15 ⁽³⁾	0.1	0.0	0.1	-0.1	0.0	-0.2	-0.1	-0.1

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1.8	1.6	1.6	1.6	1.8	1.8	1.5	1.7	1.5	1.5
2.3	2.1	1.9	1.9	1.9	1.8	1.7	1.6	1.6	1.6
3.2	3.2	3.4	3.6	3.5	4.1	3.9	3.8	4.0	3.9
3.7	3.1	3.1	3.3	3.4	3.1	3.2	3.3	3.4	3.4
3.3	3.2	3.0	2.9	3.0	3.2	3.1	3.1	3.0	3.0
2.3	2.4	2.5	2.7	3.2	3.7	4.6	4.4	3.9	3.9
2.1	2.2	2.2	2.4	2.4	2.4	2.5	1.8	2.1	2.6
4.6	4.7	4.2	4.5	4.5	4.0	4.2	4.6	5.1	5.4
3.0	3.1	2.9	2.9	3.0	3.2	3.4	3.5	3.6	3.5
3.1	2.8	2.0	1.9	1.7	1.5	1.2	1.2	1.1	1.1
3.7	4.2	4.4	4.0	4.2	3.9	4.1	3.6	3.7	3.6
2.7	2.9	3.1	2.9	2.8	2.6	2.7	2.8	2.7	2.7
2.7	2.6	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.5
1.8	2.0	1.9	1.7	1.7	1.7	1.9	1.7	1.7	1.7
4.0	3.5	3.1	3.2	3.2	2.9	3.0	3.3	3.3	3.3
2.0	1.5	1.2	1.2	1.1	1.1	1.2	1.3	1.7	1.9
2.6	2.5	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.4

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	-0.1	-0.1	0.0	0.2	0.0	-0.3	0.2	-0.2	0.0
:	-0.2	-0.2	-0.1	0.1	-0.1	-0.1	-0.1	0.0	-0.1
:	0.0	0.2	0.2	-0.1	0.6	-0.1	-0.1	0.2	-0.1
:	-0.6	0.0	0.3	0.0	-0.2	0.0	0.1	0.1	0.1
:	-0.1	-0.3	-0.1	0.1	0.2	-0.1	-0.1	0.0	0.0
:	0.1	0.1	0.2	0.5	0.6	0.9	-0.2	-0.5	0.0
:	0.1	0.0	0.2	0.0	0.0	0.1	-0.6	0.2	0.5
:	0.1	-0.5	0.3	0.0	-0.5	0.2	0.4	0.5	0.3
:	0.2	-0.2	0.0	0.1	0.2	0.2	0.1	0.1	-0.1
:	-0.2	-0.9	-0.1	-0.1	-0.2	-0.3	0.0	0.0	0.0
:	0.4	0.2	-0.4	0.2	-0.3	0.3	-0.5	0.0	0.0
:	0.1	0.3	-0.3	-0.1	-0.2	0.1	0.2	-0.1	-0.1
:	-0.1	-0.2	0.0	0.1	0.0	0.0	-0.2	0.1	0.1
:	0.2	-0.1	-0.2	0.0	0.0	0.2	-0.2	0.0	0.0
:	-0.4	-0.4	0.1	0.0	-0.3	0.2	0.2	0.0	0.0
:	-0.5	-0.3	0.1	-0.1	0.0	0.1	0.1	0.4	0.1
:	-0.2	-0.2	0.0	0.0	0.0	0.0	-0.1	0.1	0.1

Table A.4.13

Total uses; general government*(Percentage of GDP)*

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	56.1	59.3	52.9	53.9	54.8	55.5	53.7	52.7
DE ⁽¹⁾	47.1	46.0	44.1	46.8	47.6	48.8	48.4	49.0
EL	29.0	41.9	48.4	44.7	46.8	49.0	46.8	48.5
ES	31.7	40.4	42.6	43.5	44.9	47.6	45.9	45.0
FR	45.4	52.0	49.7	50.2	51.8	54.1	54.0	53.8
IE	46.2	49.1	38.1	38.9	39.4	39.3	39.2	36.7
IT	43.0	51.5	53.8	53.8	54.0	57.1	54.6	52.9
LU	48.4	44.4	:	:	:	:	:	:
NL	54.8	56.1	53.0	53.4	54.0	54.1	52.1	50.5
AT	47.2	50.2	49.6	50.6	51.2	54.1	53.5	54.2
PT	36.2	42.8	38.8	41.0	41.0	42.7	42.1	42.7
FI	38.6	44.2	46.1	54.5	59.5	60.6	59.5	56.9
Euro area ⁽²⁾	45.0	49.2	48.2	49.3	50.2	52.0	51.0	50.7
DK	53.1	56.4	56.1	57.1	58.2	60.7	60.7	59.2
SE	60.0	63.0	58.5	60.7	66.6	67.9	64.9	62.3
UK	43.2	44.3	39.2	39.7	42.2	42.8	42.3	42.1
EU-15 ⁽³⁾	45.5	49.1	47.4	48.5	49.8	51.4	50.4	50.0

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	0.9	-0.2	-0.1	1.0	0.9	0.7	-1.8	-0.9
DE ⁽¹⁾	0.7	-0.5	0.3	2.5	0.9	1.1	-0.3	0.5
EL	0.0	3.2	4.5	-3.7	2.1	2.2	-2.2	1.7
ES	2.2	2.6	1.0	0.9	1.4	2.8	-1.8	-0.9
FR	1.1	0.6	0.7	0.5	1.7	2.3	-0.1	-0.2
IE	4.0	0.6	0.2	0.8	0.5	-0.1	0.0	-2.5
IT	1.2	1.3	1.9	0.0	0.2	3.1	-2.5	-1.7
LU	2.5	-1.5	:	:	:	:	:	:
NL	1.9	-1.6	0.2	0.4	0.6	0.1	-2.0	-1.6
AT	0.3	0.9	0.7	1.1	0.6	2.9	-0.6	0.8
PT	4.3	-0.8	3.4	2.2	-0.1	1.7	-0.5	0.6
FI	-0.3	1.7	3.6	8.5	4.9	1.1	-1.0	-2.6
Euro area ⁽²⁾	1.1	0.5	0.9	1.1	0.9	1.8	-1.0	-0.4
DK	3.2	-0.7	-0.8	1.0	1.1	2.5	0.0	-1.5
SE	1.0	1.2	0.9	2.1	6.0	1.3	-3.1	-2.6
UK	2.1	-1.1	1.5	0.6	2.4	0.7	-0.5	-0.3
EU-15 ⁽³⁾	1.2	0.2	1.0	1.1	1.3	1.6	-1.0	-0.4

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
52.8	52.9	51.4	50.7	50.1	49.5	49.4	50.4	50.0	49.6
49.6	50.3	49.4	48.8	48.8	45.9	48.3	48.6	48.9	48.4
49.4	47.7	46.4	46.6	46.5	48.9	47.0	46.3	47.1	46.2
45.0	43.7	41.8	41.4	40.2	39.8	39.3	39.7	39.8	39.6
55.1	55.4	54.9	53.7	53.5	52.6	52.5	53.5	54.0	53.7
41.5	39.6	37.1	35.0	34.7	31.9	34.1	33.7	34.1	33.7
53.4	53.2	51.1	49.9	48.9	46.9	48.5	47.7	47.5	47.5
45.5	45.5	43.3	42.1	41.0	38.7	39.1	44.7	45.5	45.6
51.4	49.6	48.2	47.2	46.9	45.3	46.4	47.5	47.5	47.7
57.3	56.8	54.1	54.2	54.2	52.4	52.1	52.2	52.3	51.3
45.0	45.8	44.8	44.1	45.3	45.2	46.4	46.2	47.1	46.9
59.4	59.5	56.4	52.8	52.1	48.9	49.0	49.2	49.5	49.0
51.5	51.5	50.2	49.4	48.9	47.1	48.1	48.4	48.5	48.2
60.3	59.8	58.0	57.6	56.3	54.7	55.0	55.4	54.7	54.2
67.8	65.4	63.2	60.8	60.4	57.5	57.2	58.5	59.1	58.5
44.6	43.0	41.1	39.8	39.1	36.9	40.2	40.6	41.9	42.2
51.3	51.0	49.3	48.3	47.7	45.7	47.1	47.4	47.8	47.6

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.1	-1.5	-0.7	-0.6	-0.7	-0.1	1.0	-0.4	-0.4
:	0.7	-0.9	-0.6	0.0	-2.9	2.5	0.3	0.3	-0.4
:	-1.7	-1.3	0.2	-0.1	2.4	-1.9	-0.7	0.8	-0.9
:	-1.3	-1.9	-0.4	-1.1	-0.4	-0.5	0.3	0.1	-0.2
:	0.3	-0.5	-1.1	-0.3	-0.9	-0.1	1.0	0.5	-0.2
:	-1.9	-2.4	-2.2	-0.3	-2.8	2.1	-0.3	0.3	-0.4
:	-0.2	-2.1	-1.1	-1.0	-2.0	1.6	-0.8	-0.2	0.0
:	0.0	-2.2	-1.3	-1.0	-2.4	0.5	5.6	0.8	0.1
:	-1.8	-1.4	-1.0	-0.3	-1.7	1.1	1.1	0.0	0.2
:	-0.5	-2.7	0.1	-0.1	-1.8	-0.3	0.2	0.1	-1.0
:	0.8	-1.0	-0.7	1.1	-0.1	1.2	-0.2	0.9	-0.1
:	0.1	-3.1	-3.6	-0.7	-3.1	0.1	0.2	0.3	-0.5
:	0.0	-1.3	-0.9	-0.4	-1.8	1.0	0.2	0.2	-0.3
:	-0.5	-1.8	-0.4	-1.3	-1.6	0.3	0.4	-0.8	-0.4
:	-2.4	-2.2	-2.4	-0.5	-2.9	-0.3	1.3	0.6	-0.5
:	-1.6	-2.0	-1.3	-0.7	-2.2	3.3	0.4	1.3	0.3
:	-0.3	-1.7	-1.0	-0.5	-2.0	1.4	0.3	0.4	-0.2

Table A.4.14

Net lending (+) or net borrowing (-); general governments

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	-8.6	-8.9	-5.4	-6.2	-6.9	-7.2	-4.8	-3.9
DE ⁽¹⁾	-2.9	-1.1	-2.0	-3.2	-2.8	-3.5	-2.6	-3.4
EL	-2.6	-11.6	-15.9	-11.4	-12.6	-13.6	-9.9	-10.5
ES	-2.5	-6.2	-4.2	-4.3	-4.0	-6.7	-6.1	-7.0
FR	0.0	-2.8	-1.5	-2.0	-3.9	-5.6	-5.7	-4.8
IE	-11.6	-10.2	-2.2	-2.3	-2.4	-2.3	-1.6	-2.1
IT	-8.7	-12.5	-11.0	-10.0	-9.5	-9.4	-9.1	-7.6
LU	-0.4	6.3	4.7	1.8	0.7	1.5	2.7	1.8
NL	-4.1	-3.5	-4.9	-2.8	-3.8	-3.1	-3.6	-3.8
AT	-1.7	-2.4	-2.4	-3.0	-2.0	-4.2	-4.9	-5.0
PT	-8.4	-10.1	-4.9	-5.8	-2.9	-5.9	-5.9	-5.6
FI	3.3	2.9	5.3	-1.5	-5.7	-7.9	-6.1	-5.0
Euro area ⁽²⁾	-3.4	-4.9	-4.3	-4.6	-4.8	-5.6	-5.1	-4.9
DK	-3.2	-2.0	-1.0	-2.4	-2.2	-2.8	-2.6	-2.2
SE	-3.9	-3.7	4.0	-1.1	-7.5	-11.5	-9.6	-7.3
UK	-3.4	-2.9	-0.9	-2.3	-6.1	-7.7	-6.7	-5.4
EU-15 ⁽³⁾	-3.4	-4.5	-3.5	-4.1	-5.0	-6.0	-5.4	-5.0

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-1.7	0.5	0.7	-0.8	-0.7	-0.2	2.4	0.9
DE ⁽¹⁾	-0.3	0.8	-2.1	-1.3	0.5	-0.7	0.9	-0.8
EL	-0.2	-3.3	-1.7	4.5	-1.2	-1.0	3.7	-0.6
ES	-0.9	-0.9	-0.6	-0.2	0.3	-2.7	0.6	-0.9
FR	0.8	-0.1	-0.3	-0.5	-1.8	-1.8	0.0	0.9
IE	-1.2	-1.3	-0.5	-0.1	-0.1	0.1	0.7	-0.5
IT	-0.2	-0.9	-1.2	1.0	0.5	0.1	0.3	1.5
LU	-1.1	3.0	:	-2.9	-1.0	0.8	1.1	-0.9
NL	-1.2	1.8	-0.4	2.2	-1.0	0.7	-0.5	-0.2
AT	0.7	0.1	0.3	-0.6	1.0	-2.2	-0.7	-0.1
PT	-2.8	0.1	-2.6	-0.9	3.0	-3.1	0.1	0.3
FI	0.7	0.2	-0.9	-6.8	-4.3	-2.1	1.8	1.0
Euro area ⁽²⁾	-0.3	0.0	-1.1	-0.4	-0.2	-0.8	0.6	0.2
DK	-1.5	2.0	-1.3	-1.4	0.2	-0.6	0.2	0.4
SE	-1.1	-0.9	-1.1	-5.1	-6.5	-3.9	1.9	2.3
UK	-0.1	1.1	-1.9	-1.4	-3.8	-1.7	1.1	1.3
EU-15 ⁽³⁾	-0.3	0.2	-1.3	-0.7	-0.9	-1.0	0.7	0.4

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
-4.3	-3.8	-2.0	-0.8	-0.5	0.1	0.4	0.0	-0.3	-0.2
-3.5	-3.4	-2.7	-2.2	-1.5	1.1	-2.8	-3.6	-3.4	-2.9
-10.2	-7.4	-4.0	-2.5	-1.8	-1.9	-1.5	-1.2	-1.1	-1.1
-6.6	-5.0	-3.2	-3.0	-1.2	-0.8	-0.2	-0.1	-0.4	-0.1
-5.5	-4.1	-3.0	-2.7	-1.8	-1.4	-1.5	-3.1	-3.7	-3.5
-2.1	-0.1	1.4	2.3	2.0	4.5	1.2	0.0	-0.6	-0.9
-7.6	-7.1	-2.7	-3.1	-1.8	-0.7	-2.7	-2.5	-2.3	-3.1
2.1	2.0	3.2	3.1	3.5	6.0	6.3	2.5	-0.2	-1.2
-4.2	-1.8	-1.1	-0.8	0.7	2.2	0.1	-1.2	-1.6	-2.4
-5.3	-4.0	-2.0	-2.5	-2.4	-1.6	0.1	-0.8	-1.3	-0.6
-5.5	-4.8	-3.6	-3.2	-2.9	-2.9	-4.3	-2.7	-3.6	-3.3
-3.9	-3.0	-1.3	1.5	2.0	6.9	5.2	4.7	3.3	3.0
-5.1	-4.3	-2.6	-2.3	-1.4	0.1	-1.6	-2.3	-2.5	-2.4
-2.3	-1.0	0.4	1.1	3.2	2.5	3.0	1.9	1.6	2.0
-7.4	-2.9	-1.7	2.3	1.3	3.5	4.6	1.1	0.8	1.2
-5.8	-4.4	-2.2	0.2	1.1	4.0	0.8	-1.3	-2.5	-2.5
-5.2	-4.2	-2.5	-1.7	-0.8	0.9	-0.9	-1.9	-2.3	-2.2

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.5	1.9	1.2	0.3	0.6	0.3	-0.4	-0.3	0.1
:	0.0	0.7	0.5	0.7	2.6	-3.9	-0.8	0.2	0.5
:	2.7	3.4	1.6	0.7	-0.1	0.5	0.2	0.1	0.1
:	1.7	1.8	0.2	1.9	0.4	0.6	0.1	-0.4	0.4
:	1.4	1.0	0.4	0.9	0.4	-0.1	-1.6	-0.6	0.2
:	1.9	1.6	0.8	-0.2	2.4	-3.3	-1.2	-0.6	-0.3
:	0.5	4.4	-0.4	1.3	1.1	-2.0	0.2	0.1	-0.8
:	-0.2	1.3	-0.2	0.4	2.5	0.3	-3.8	-2.7	-1.0
:	2.3	0.7	0.4	1.4	1.5	-2.0	-1.3	-0.4	-0.8
:	1.3	2.0	-0.5	0.1	0.8	1.8	-0.9	-0.6	0.8
:	0.7	1.2	0.4	0.3	0.0	-1.4	1.6	-0.9	0.3
:	0.9	1.7	2.8	0.5	4.9	-1.8	-0.4	-1.5	-0.3
:	0.8	1.7	0.3	1.0	1.4	-1.7	-0.7	-0.2	0.1
:	1.3	1.4	0.8	2.1	-0.7	0.5	-1.1	-0.3	0.3
:	4.5	1.2	4.0	-0.9	2.1	1.1	-3.5	-0.3	0.4
:	1.3	2.2	2.4	0.9	2.8	-3.2	-2.1	-1.2	0.0
:	1.0	1.7	0.8	0.9	1.7	-1.8	-1.0	-0.4	0.1

Table A.4.15

Net lending (+) or net borrowing (–) excluding interest; general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	-2.7	1.4	5.0	3.8	3.7	3.5	5.1	4.9
DE ⁽¹⁾	-0.9	1.8	0.6	-0.6	0.4	-0.2	0.7	0.4
EL	-0.7	-6.7	-5.9	-2.1	-1.1	-1.0	4.0	2.3
ES	-1.8	-4.3	-0.3	-0.6	0.3	-1.7	-1.4	-1.7
FR	1.4	0.0	1.4	0.9	-0.7	-2.3	-2.2	-1.1
IE	-5.6	-0.9	5.3	5.0	4.3	4.0	4.0	2.9
IT	-3.2	-4.5	-1.6	0.1	1.9	2.6	1.8	3.6
LU	0.7	7.2	5.1	2.1	1.1	1.9	3.0	2.1
NL	-0.4	2.6	0.8	3.1	2.3	2.9	2.0	1.9
AT	0.8	1.1	1.6	1.2	2.2	0.1	-0.9	-0.7
PT	-5.8	-2.7	2.9	1.8	4.1	0.1	0.2	0.6
FI	4.3	4.7	6.7	0.4	-3.1	-3.3	-1.1	0.2
Euro area ⁽²⁾	-0.8	-0.5	0.5	0.3	0.7	0.0	0.3	0.7
DK	0.7	7.6	6.3	4.9	4.4	4.5	4.1	4.2
SE	0.1	4.4	8.9	3.9	-2.3	-5.7	-3.3	-0.7
UK	1.3	2.1	2.2	0.4	-3.4	-4.9	-3.5	-2.0
EU-15 ⁽³⁾	-0.4	0.3	1.2	0.6	0.1	-0.8	-0.2	0.3

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-0.7	1.3	1.0	-1.2	-0.1	-0.2	1.6	-0.2
DE ⁽¹⁾	-0.1	0.8	-2.2	-1.1	1.0	-0.7	1.0	-0.4
EL	0.0	-2.7	0.9	3.8	1.0	0.1	5.0	-1.8
ES	-0.8	-1.0	-0.7	-0.3	0.9	-2.0	0.3	-0.3
FR	0.9	0.1	-0.1	-0.5	-1.5	-1.6	0.2	1.0
IE	-0.8	-0.5	-0.4	-0.3	-0.7	-0.3	0.1	-1.2
IT	0.1	-0.9	-0.6	1.7	1.9	0.7	-0.8	1.8
LU	-0.6	2.5	:	-3.0	-1.1	0.8	1.1	-0.9
NL	-0.8	2.0	-0.4	2.3	-0.9	0.6	-0.9	-0.2
AT	0.8	0.3	0.4	-0.4	1.1	-2.2	-1.0	0.2
PT	-2.6	0.9	-0.8	-1.1	2.3	-4.0	0.1	0.4
FI	0.8	0.3	-0.9	-6.3	-3.6	-0.2	2.3	1.2
Euro area ⁽²⁾	0.0	0.1	-0.9	-0.2	0.4	-0.8	0.4	0.3
DK	-1.1	2.3	-1.3	-1.4	-0.4	0.0	-0.4	0.1
SE	-0.1	-0.1	-1.5	-5.0	-6.2	-3.4	2.4	2.6
UK	0.2	1.2	-2.5	-1.8	-3.8	-1.5	1.4	1.5
EU-15 ⁽³⁾	0.0	0.3	-1.2	-0.6	-0.4	-0.9	0.5	0.6

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4.9	5.0	6.0	6.8	6.5	6.9	7.0	6.1	5.3	4.8
0.2	0.3	0.9	1.4	2.0	4.5	0.5	-0.4	-0.2	0.3
1.0	3.1	4.2	5.3	5.4	5.1	4.9	4.3	4.1	3.9
-1.4	0.4	1.6	1.3	2.4	2.5	3.0	2.8	2.2	2.4
-1.9	-0.3	0.6	0.8	1.5	1.7	1.6	0.0	-0.5	-0.2
3.3	4.4	5.3	5.8	4.5	6.5	2.7	1.3	0.9	0.6
3.9	4.4	6.7	5.2	5.0	5.8	3.8	3.4	3.0	2.0
2.5	2.3	3.6	3.4	3.8	6.2	6.5	2.9	0.0	-1.0
1.7	3.8	4.1	4.1	5.2	6.1	3.6	2.1	1.5	0.5
-0.9	0.4	2.0	1.4	1.3	2.2	3.8	2.9	2.4	3.0
0.8	0.6	0.7	0.3	0.4	0.4	-1.1	0.4	-0.4	-0.2
0.1	1.3	2.9	5.1	5.1	9.8	7.9	7.0	5.4	5.0
0.5	1.4	2.5	2.5	2.9	4.1	2.3	1.4	1.1	1.2
4.2	5.1	6.1	6.5	8.0	6.8	7.0	5.6	5.1	5.3
-0.8	3.6	4.6	7.7	6.1	7.5	7.7	4.2	3.5	3.9
-2.1	-0.7	1.5	3.8	4.1	6.7	3.2	0.8	-0.4	-0.4
0.2	1.2	2.5	2.9	3.3	4.8	2.7	1.5	1.0	1.1

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	0.1	1.0	0.8	-0.3	0.4	0.1	-0.9	-0.8	-0.5
:	0.1	0.7	0.5	0.6	2.5	-4.0	-0.9	0.2	0.5
:	2.1	1.1	1.1	0.1	-0.3	-0.2	-0.6	-0.2	-0.2
:	1.8	1.2	-0.3	1.1	0.2	0.5	-0.2	-0.6	0.2
:	1.6	0.8	0.3	0.7	0.3	-0.1	-1.6	-0.5	0.3
:	1.2	0.8	0.5	-1.3	2.0	-3.8	-1.4	-0.4	-0.3
:	0.5	2.3	-1.5	-0.2	0.8	-2.1	-0.4	-0.4	-1.0
:	-0.2	1.3	-0.2	0.4	2.5	0.3	-3.7	-2.9	-1.0
:	2.0	0.3	0.0	1.1	0.9	-2.5	-1.5	-0.6	-0.9
:	1.3	1.6	-0.6	-0.1	0.8	1.7	-1.0	-0.5	0.6
:	-0.2	0.1	-0.4	0.1	0.0	-1.5	1.5	-0.8	0.2
:	1.2	1.7	2.2	0.0	4.7	-1.9	-0.9	-1.6	-0.4
:	0.9	1.1	0.0	0.4	1.2	-1.8	-0.9	-0.3	0.0
:	1.0	0.9	0.4	1.5	-1.2	0.2	-1.4	-0.5	0.2
:	4.4	1.0	3.2	-1.6	1.4	0.3	-3.5	-0.7	0.3
:	1.4	2.2	2.3	0.3	2.7	-3.5	-2.4	-1.3	0.0
:	1.1	1.2	0.5	0.4	1.5	-2.0	-1.3	-0.5	0.0

Table A.4.16

General government consolidated gross debt

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	78.6	122.3	129.2	130.9	132.5	138.2	135.9	134.0
DE ⁽¹⁾	31.2	40.7	42.3	40.4	42.9	47.0	49.3	57.0
EL	25.0	53.6	79.6	82.2	87.8	110.1	107.9	108.7
ES	17.0	42.7	44.0	44.7	47.1	58.8	61.1	63.9
FR	19.8	30.8	35.1	35.8	39.6	45.3	48.4	54.6
IE	75.2	109.6	101.5	102.9	100.2	96.3	90.5	82.7
IT	58.2	81.9	97.2	100.6	107.7	118.1	123.8	123.2
LU	9.4	9.7	4.4	3.8	4.8	5.7	5.4	5.6
NL	46.0	70.1	77.0	76.9	77.8	79.0	76.4	77.2
AT	36.2	49.2	57.2	57.5	57.2	61.8	64.7	69.2
PT	32.3	61.6	58.3	60.8	54.5	59.1	62.1	64.3
FI	11.5	16.2	14.3	22.6	40.6	56.0	58.0	57.1
Euro area ⁽²⁾	34.7	52.1	58.3	58.8	62.1	67.3	69.6	73.2
DK	36.5	70.0	57.8	62.5	66.3	78.0	73.5	69.3
SE	40.3	62.4	42.3	51.3	65.2	71.2	73.8	73.6
UK	53.3	52.8	34.0	34.4	39.2	45.4	48.5	51.8
EU-15 ⁽³⁾	37.9	53.0	54.1	55.0	59.1	64.7	66.9	70.3

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	8.3	4.9	0.1	1.7	1.6	5.7	-2.3	-1.9
DE ⁽¹⁾	2.0	0.6	1.6	1.0	2.6	4.0	2.3	7.7
EL	-0.2	7.7	7.6	2.6	5.6	22.3	-2.2	0.8
ES	1.8	5.2	1.8	0.7	2.4	11.6	2.4	2.8
FR	-1.4	1.8	1.0	0.6	3.8	5.7	3.1	6.2
IE	1.7	3.1	-6.7	1.4	-2.7	-3.9	-5.8	-7.9
IT	-2.8	6.7	1.9	3.3	7.1	10.5	5.7	-0.6
LU	-0.3	-0.5	-0.9	-0.6	0.9	0.9	-0.3	0.3
NL	2.7	4.6	-0.3	-0.1	0.9	1.2	-2.7	0.9
AT	1.5	2.0	-0.8	0.2	-0.3	4.7	2.9	4.5
PT	-3.3	7.4	1.9	2.5	-6.3	4.7	3.0	2.2
FI	0.1	0.7	-0.4	8.4	18.0	15.4	2.0	-0.9
Euro area ⁽²⁾	0.9	3.1	1.4	1.8	3.3	5.3	2.3	3.6
DK	7.0	-2.9	-0.2	4.7	3.8	11.7	-4.6	-4.2
SE	4.7	-0.6	-1.7	9.0	13.9	6.0	2.6	-0.2
UK	-0.5	-1.8	-2.6	0.3	4.9	6.2	3.2	3.3
EU-15 ⁽³⁾	1.3	2.1	0.8	1.9	4.1	5.6	2.2	3.4

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
134.0	130.2	124.8	119.6	114.9	109.6	108.5	105.8	103.2	99.4
57.0	59.8	61.0	60.9	61.2	60.2	59.5	60.9	62.7	63.0
108.7	111.3	108.2	105.8	105.1	106.2	107.0	104.9	101.0	97.0
63.9	68.1	66.6	64.6	63.2	60.6	56.9	54.0	52.5	50.5
54.6	57.1	59.3	59.5	58.5	57.2	56.8	59.0	61.7	63.0
82.7	74.2	65.0	54.9	49.3	39.3	36.8	33.4	33.4	33.3
123.2	122.1	120.2	116.3	114.9	110.6	109.5	106.7	106.0	104.7
5.6	6.2	6.1	6.3	5.9	5.5	5.4	5.6	4.0	3.4
77.2	75.2	69.9	66.8	63.1	55.8	52.8	52.7	52.5	52.8
69.2	69.1	64.7	63.7	67.5	66.8	67.3	67.6	68.5	66.8
64.3	62.9	59.1	55.0	54.3	53.3	55.6	58.1	59.5	60.2
57.1	57.0	54.0	48.6	47.0	44.5	43.8	42.7	42.3	41.4
73.2	75.6	75.5	73.9	72.9	70.5	69.4	69.3	70.0	69.7
69.3	65.1	61.2	56.2	53.0	47.3	45.4	45.3	42.7	40.0
73.6	73.5	70.5	68.0	62.7	52.8	54.4	52.4	50.9	49.5
51.8	52.3	50.8	47.7	45.2	42.1	38.9	38.4	39.0	39.8
70.3	72.1	71.1	69.0	67.5	64.3	63.0	62.7	63.6	63.4

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	-3.9	-5.4	-5.3	-4.7	-5.3	-1.1	-2.8	-2.5	-3.9
:	2.8	1.2	-0.1	0.3	-1.0	-0.7	1.3	1.8	0.3
:	2.6	-3.1	-2.4	-0.8	1.2	0.8	-2.1	-3.9	-4.0
:	4.2	-1.5	-2.0	-1.4	-2.6	-3.6	-3.0	-1.5	-2.0
:	2.5	2.2	0.3	-1.1	-1.3	-0.3	2.1	2.7	1.3
:	-8.5	-9.2	-10.1	-5.6	-9.9	-2.6	-3.4	0.0	0.0
:	-1.1	-1.9	-3.9	-1.4	-4.3	-1.1	-2.9	-0.6	-1.4
:	0.5	-0.1	0.2	-0.4	-0.5	-0.1	0.2	-1.6	-0.6
:	-2.0	-5.3	-3.2	-3.7	-7.3	-2.9	-0.2	-0.2	0.4
:	-0.1	-4.4	-1.1	3.8	-0.6	0.5	0.3	0.9	-1.8
:	-1.4	-3.8	-4.1	-0.7	-1.0	2.3	2.6	1.4	0.7
:	0.0	-3.0	-5.4	-1.6	-2.5	-0.8	-1.1	-0.4	-0.9
:	2.4	0.0	-1.7	-1.0	-2.5	-1.0	-0.2	0.7	-0.3
:	-4.2	-3.9	-4.9	-3.3	-5.6	-2.0	-0.1	-2.5	-2.8
:	-0.2	-3.0	-2.5	-5.4	-9.9	1.6	-1.9	-1.5	-1.4
:	0.5	-1.5	-3.1	-2.5	-3.0	-3.2	-0.5	0.6	0.7
:	1.9	-1.0	-2.1	-1.5	-3.2	-1.3	-0.3	0.9	-0.2

Table A.4.17

Cyclically-adjusted total resources of general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	47.1	51.6	46.4	46.9	47.3	49.3	49.3	49.2
DE ⁽¹⁾	43.4	45.7	41.4	41.8	43.2	45.1	45.5	45.4
EL	25.5	30.7	32.5	33.0	34.2	36.7	38.2	39.3
ES	29.8	35.4	37.0	37.8	40.1	41.6	40.5	38.7
FR	45.3	50.1	47.5	47.8	47.7	48.9	48.6	49.3
IE	34.4	39.5	35.0	36.4	37.3	38.0	38.9	35.1
IT	33.5	39.5	42.2	43.4	44.6	48.7	46.1	45.2
LU	:	:	:	:	:	:	:	:
NL	50.6	52.9	47.2	49.8	49.9	51.3	48.8	46.9
AT	45.1	48.3	46.7	47.0	48.7	49.9	48.6	49.4
PT	27.3	34.4	32.7	33.9	37.3	37.4	37.4	37.8
FI	41.4	47.3	49.1	54.4	56.9	56.3	55.9	53.2
Euro area ⁽²⁾	39.7	43.6	41.7	43.8	44.9	46.9	46.3	45.9
DK	50.9	54.6	55.6	55.3	57.0	59.7	58.1	56.8
SE	56.0	59.1	61.4	60.0	61.3	58.5	56.2	55.2
UK	40.3	41.8	37.8	38.1	37.3	36.1	35.8	36.6
EU-15 ⁽³⁾	40.6	44.1	42.1	43.8	44.6	46.0	45.3	45.2

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-1.6	0.4	0.3	0.5	0.5	2.0	0.0	-0.1
DE ⁽¹⁾	0.7	0.3	-3.0	0.2	1.4	1.9	0.5	-0.2
EL	0.2	-0.5	3.3	0.5	1.2	2.4	1.5	1.1
ES	1.9	1.3	0.0	0.8	2.3	1.4	-1.0	-1.8
FR	2.2	0.7	0.3	0.3	-0.1	1.2	-0.3	0.8
IE	3.0	-0.9	-1.1	1.5	0.9	0.7	0.9	-3.8
IT	1.5	0.2	0.8	1.3	1.2	4.1	-2.6	-0.9
LU	:	:	:	:	:	:	:	:
NL	0.9	-0.2	-0.6	2.6	0.1	1.5	-2.5	-1.9
AT	1.0	1.0	0.5	0.3	1.6	1.3	-1.4	0.8
PT	1.2	-0.9	0.7	1.2	3.4	0.1	0.1	0.4
FI	-0.5	1.9	3.4	5.3	2.4	-0.5	-0.5	-2.7
Euro area ⁽²⁾	1.2	0.4	-0.4	0.7	1.0	2.0	-0.6	-0.3
DK	2.6	0.6	-2.0	-0.3	1.7	2.8	-1.6	-1.4
SE	0.4	0.2	0.5	-1.3	1.3	-2.8	-2.3	-1.0
UK	3.2	-0.6	0.3	0.4	-0.8	-1.3	-0.3	0.9
EU-15 ⁽³⁾	1.5	0.2	-0.3	0.6	0.8	1.4	-0.6	-0.1

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
48.8	49.8	49.5	50.0	49.2	48.5	49.3	50.4	50.1	49.5
45.9	47.1	47.0	46.8	47.3	46.4	45.3	45.3	46.2	46.0
40.5	41.5	43.3	44.7	45.0	47.0	45.2	44.5	45.3	44.3
39.1	39.6	39.1	38.4	38.7	38.3	38.6	39.3	39.4	39.5
49.9	51.8	52.3	51.1	51.4	50.5	50.5	50.2	50.4	50.4
39.8	39.7	38.1	36.7	35.7	35.0	34.3	33.2	33.7	33.5
45.7	46.1	48.2	46.7	47.0	45.7	45.5	45.4	45.6	44.7
:	:	:	:	:	:	:	:	:	:
47.5	48.0	46.9	45.8	46.5	46.2	45.9	46.4	46.6	46.1
52.2	53.1	52.6	51.7	51.6	50.1	51.9	51.4	51.1	50.7
40.2	41.5	41.3	40.7	41.9	41.5	41.7	43.8	44.4	44.7
56.8	57.0	54.2	52.9	53.0	53.8	53.5	54.0	53.0	52.2
46.6	47.6	47.9	47.1	47.4	46.5	46.2	46.2	46.5	46.2
57.8	58.6	57.9	58.3	59.0	56.5	57.7	57.2	56.5	56.3
60.6	63.1	62.0	63.2	60.9	59.4	61.0	59.3	60.2	60.0
38.8	38.5	38.5	39.7	40.0	40.5	40.9	39.6	39.8	40.1
46.3	47.1	47.0	46.5	46.7	46.0	45.9	45.6	46.0	45.8

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	1.0	-0.3	0.5	-0.9	-0.7	0.8	1.2	-0.4	-0.6
:	1.2	-0.1	-0.2	0.5	-0.9	-1.1	0.0	0.9	-0.2
:	0.9	1.8	1.5	0.3	2.0	-1.8	-0.7	0.8	-1.1
:	0.5	-0.5	-0.7	0.3	-0.4	0.3	0.7	0.1	0.1
:	1.9	0.5	-1.2	0.3	-0.9	0.0	-0.3	0.2	0.0
:	-0.2	-1.5	-1.4	-1.1	-0.7	-0.6	-1.2	0.6	-0.2
:	0.4	2.1	-1.5	0.3	-1.3	-0.2	0.0	0.2	-0.9
:	:	:	:	:	:	:	:	:	:
:	0.5	-1.0	-1.2	0.8	-0.3	-0.3	0.5	0.2	-0.5
:	0.9	-0.5	-0.9	-0.1	-1.5	1.8	-0.5	-0.4	-0.3
:	1.2	-0.1	-0.7	1.2	-0.3	0.2	2.1	0.6	0.3
:	0.3	-2.8	-1.3	0.0	0.8	-0.3	0.5	-1.0	-0.8
:	1.0	0.2	-0.8	0.3	-0.8	-0.4	0.0	0.3	-0.3
:	0.7	-0.7	0.4	0.6	-2.5	1.2	-0.5	-0.8	-0.2
:	2.5	-1.1	1.1	-2.3	-1.5	1.7	-1.8	0.9	-0.2
:	-0.3	0.0	1.1	0.4	0.5	0.4	-1.3	0.2	0.3
:	0.9	-0.1	-0.5	0.2	-0.7	-0.2	-0.3	0.4	-0.2

Table A.4.18

Cyclically-adjusted total uses of general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	56.2	59.1	53.1	54.1	54.9	55.3	53.6	52.7
DE ⁽¹⁾	47.3	45.8	44.3	46.9	47.8	48.8	48.5	49.0
EL	29.0	41.9	48.4	44.7	46.8	49.0	46.8	48.5
ES	31.6	40.3	42.7	43.6	44.9	47.6	45.8	45.0
FR	45.4	51.7	49.9	50.3	51.9	54.0	53.9	53.7
IE	46.3	48.9	38.4	39.0	39.3	39.0	38.9	36.6
IT	43.2	51.4	53.9	53.9	54.0	57.1	54.6	52.9
LU	:	:	:	:	:	:	:	:
NL	54.8	55.8	53.7	54.0	54.2	53.8	51.8	50.3
AT	47.2	50.2	49.6	50.6	51.2	54.1	53.5	54.2
PT	36.2	42.6	38.9	41.2	41.1	42.6	42.0	42.7
FI	38.9	44.1	46.9	54.1	58.3	59.2	58.7	56.4
Euro area ⁽²⁾	45.1	49.0	48.4	49.4	50.3	51.9	51.0	50.6
DK	53.1	56.7	55.9	56.9	57.7	59.9	60.7	59.2
SE	60.0	63.0	58.8	60.5	66.0	67.3	64.6	62.2
UK	43.1	44.2	39.3	39.6	41.9	42.6	42.3	42.1
EU-15 ⁽³⁾	45.5	48.9	47.6	48.5	49.8	51.2	50.4	50.0

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	1.2	-0.2	-0.1	1.0	0.8	0.4	-1.7	-0.9
DE ⁽¹⁾	0.6	-0.5	0.6	2.7	0.9	1.0	-0.3	0.5
EL	0.0	3.2	4.5	-3.7	2.1	2.2	-2.2	1.7
ES	2.2	2.6	1.0	0.9	1.3	2.7	-1.8	-0.9
FR	1.0	0.5	0.7	0.4	1.6	2.1	-0.1	-0.2
IE	4.0	0.6	0.4	0.6	0.3	-0.4	-0.1	-2.3
IT	1.2	1.3	1.9	0.0	0.1	3.1	-2.5	-1.7
LU	:	:	:	:	:	:	:	:
NL	1.7	-1.4	0.6	0.3	0.3	-0.4	-2.0	-1.5
AT	0.3	0.9	0.7	1.1	0.6	2.9	-0.6	0.8
PT	4.3	-0.8	3.4	2.2	-0.1	1.6	-0.6	0.7
FI	0.0	1.7	3.3	7.1	4.3	0.9	-0.5	-2.3
Euro area ⁽²⁾	1.0	0.5	1.0	1.1	0.9	1.6	-1.0	-0.4
DK	2.7	-0.3	-0.9	0.9	0.9	2.1	0.8	-1.4
SE	0.9	1.3	0.7	1.7	5.5	1.3	-2.7	-2.3
UK	1.8	-1.0	1.4	0.3	2.3	0.7	-0.3	-0.2
EU-15 ⁽³⁾	1.1	0.3	1.1	1.0	1.3	1.5	-0.9	-0.4

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
52.8	52.7	51.4	50.7	50.3	49.7	49.7	50.4	49.9	49.5
49.6	50.3	49.3	48.8	48.8	48.4	48.3	48.6	48.8	48.4
49.4	47.7	46.4	46.6	46.5	48.9	47.5	46.3	47.1	46.2
45.0	43.6	41.8	41.4	40.3	39.9	39.4	39.7	39.8	39.6
55.0	55.2	54.7	53.7	53.5	52.8	52.7	53.5	53.9	53.7
41.4	39.5	37.3	35.1	35.0	32.4	34.3	34.1	34.0	33.4
53.4	53.2	51.1	49.9	48.9	48.1	48.5	47.7	47.4	47.4
:	:	:	:	:	:	:	:	:	:
51.3	49.5	48.4	47.7	47.7	46.8	46.9	47.4	47.0	47.1
57.3	56.8	54.1	54.2	54.2	52.8	52.1	52.2	52.3	51.3
45.0	45.8	44.8	44.2	45.3	45.6	46.4	46.2	47.0	46.9
58.9	59.3	56.7	53.3	52.5	49.7	49.3	49.2	49.4	48.9
51.5	51.5	50.2	49.4	49.0	48.3	48.3	48.4	48.4	48.1
60.4	59.9	58.2	57.8	56.5	55.1	55.4	55.4	54.6	54.2
67.7	65.2	63.1	60.8	60.6	57.9	57.4	58.6	59.0	58.5
44.6	43.1	41.2	39.9	39.1	39.3	40.2	40.6	41.8	42.1
51.2	50.9	49.3	48.3	47.8	47.1	47.2	47.4	47.7	47.5

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	-0.1	-1.3	-0.7	-0.5	-0.5	0.0	0.7	-0.5	-0.4
:	0.7	-1.0	-0.5	0.0	-0.4	-0.1	0.2	0.2	-0.4
:	-1.7	-1.3	0.2	-0.1	2.4	-1.4	-1.2	0.8	-0.9
:	-1.3	-1.9	-0.4	-1.1	-0.3	-0.5	0.3	0.1	-0.2
:	0.2	-0.5	-1.0	-0.2	-0.8	-0.1	0.8	0.4	-0.3
:	-1.9	-2.2	-2.2	-0.1	-2.7	2.0	-0.3	-0.1	-0.6
:	-0.2	-2.1	-1.2	-1.0	-0.8	0.4	-0.9	-0.3	0.0
:	:	:	:	:	:	:	:	:	:
:	-1.7	-1.2	-0.7	0.0	-0.9	0.1	0.5	-0.4	0.1
:	-0.5	-2.7	0.1	-0.1	-1.4	-0.7	0.2	0.1	-1.0
:	0.8	-1.0	-0.6	1.2	0.3	0.8	-0.2	0.8	-0.1
:	0.4	-2.6	-3.4	-0.8	-2.8	-0.4	-0.1	0.2	-0.5
:	0.0	-1.3	-0.8	-0.4	-0.7	-0.1	0.1	0.1	-0.3
:	-0.5	-1.7	-0.4	-1.2	-1.5	0.4	0.0	-0.9	-0.4
:	-2.6	-2.1	-2.3	-0.2	-2.7	-0.5	1.2	0.4	-0.5
:	-1.6	-1.9	-1.3	-0.8	0.2	0.9	0.4	1.2	0.3
:	-0.3	-1.7	-1.0	-0.5	-0.7	0.1	0.2	0.4	-0.2

Table A.4.19

Cyclically-adjusted net lending (+) or net borrowing (-) of general government

(Percentage of GDP)

	Former definitions							
	1980	1985	1990	1991	1992	1993	1994	1995
BE	-9.2	-7.4	-6.8	-7.3	-7.6	-5.9	-4.3	-3.5
DE ⁽¹⁾	-4.0	-0.1	-2.9	-5.1	-4.6	-3.7	-2.9	-3.6
EL	-3.4	-11.2	-15.9	-11.7	-12.5	-12.3	-8.6	-9.2
ES	-2.4	-4.9	-5.7	-5.8	-4.8	-6.0	-5.3	-6.2
FR	-0.1	-1.6	-2.4	-2.5	-4.3	-5.1	-5.3	-4.4
IE	-11.9	-9.3	-3.4	-2.5	-2.0	-1.0	0.0	-1.5
IT	-9.6	-11.9	-11.7	-10.4	-9.4	-8.4	-8.5	-7.7
LU	:	:	:	:	:	:	:	:
NL	-4.3	-2.9	-6.5	-4.2	-4.4	-2.5	-3.0	-3.4
AT	-2.1	-1.9	-2.9	-3.6	-2.5	-4.2	-4.9	-4.8
PT	-8.9	-8.1	-6.3	-7.2	-3.7	-5.2	-4.6	-4.8
FI	2.6	3.2	2.2	0.4	-1.5	-2.9	-2.8	-3.3
Euro area ⁽²⁾	-5.5	-5.4	-6.7	-5.6	-5.4	-5.1	-4.7	-4.7
DK	-3.0	-3.0	-0.4	-1.6	-0.8	-0.2	-2.6	-2.5
SE	-4.1	-3.9	2.5	-0.5	-4.7	-8.8	-8.3	-7.0
UK	-2.7	-2.4	-1.5	-1.5	-4.6	-6.5	-6.5	-5.4
EU-15 ⁽³⁾	-5.0	-4.8	-5.5	-4.8	-5.2	-5.3	-5.0	-4.8

(Change in percentage points of GDP)

	1980	1985	1990	1991	1992	1993	1994	1995
BE	-2.8	0.6	0.4	-0.5	-0.3	1.6	1.6	0.8
DE ⁽¹⁾	0.0	0.8	-3.5	-2.5	0.6	0.9	0.8	-0.7
EL	0.2	-3.8	-1.2	4.2	-0.9	0.2	3.7	-0.6
ES	-0.8	-0.9	-0.9	-0.1	1.0	-1.2	0.7	-0.9
FR	1.2	0.1	-0.5	-0.2	-1.7	-0.8	-0.2	0.9
IE	-0.9	-1.5	-1.6	0.9	0.6	1.0	1.0	-1.5
IT	-0.4	-1.1	-1.1	1.3	1.0	1.0	-0.1	0.8
LU	:	:	:	:	:	:	:	:
NL	-0.8	1.1	-1.2	2.3	-0.2	1.9	-0.5	-0.4
AT	0.7	0.1	-0.2	-0.7	1.1	-1.7	-0.7	0.1
PT	-3.1	-0.1	-2.8	-1.0	3.5	-1.5	0.7	-0.3
FI	-0.5	0.2	0.2	-1.8	-1.9	-1.4	0.1	-0.5
Euro area ⁽²⁾	0.0	-0.1	-1.4	-0.4	0.2	0.4	0.4	0.0
DK	-0.1	0.9	-1.0	-1.2	0.8	0.6	-2.4	0.1
SE	-0.8	-1.1	-0.3	-3.0	-4.2	-4.1	0.4	1.3
UK	1.4	0.4	-1.1	0.0	-3.1	-2.0	0.1	1.1
EU-15 ⁽³⁾	0.2	0.0	-1.3	-0.5	-0.4	-0.1	0.3	0.2

⁽¹⁾ From 1991 including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991 including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991 including former East Germany.

Source: Commission services

(Percentage of GDP)

ESA 95 definitions									
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
-3.9	-2.9	-1.9	-0.7	-1.1	-1.2	-0.4	0.1	0.2	0.0
-3.7	-3.2	-2.3	-2.0	-1.5	-2.1	-3.0	-3.3	-2.6	-2.4
-8.9	-6.3	-3.2	-1.9	-1.5	-1.9	-2.3	-1.8	-1.8	-1.9
-5.9	-4.0	-2.6	-3.0	-1.5	-1.6	-0.8	-0.4	-0.4	-0.1
-5.1	-3.5	-2.5	-2.7	-2.2	-2.3	-2.2	-3.3	-3.5	-3.3
-1.5	0.2	0.9	1.6	0.6	2.6	0.0	-0.9	-0.3	0.1
-7.7	-7.1	-2.9	-3.2	-1.9	-2.4	-3.1	-2.2	-1.8	-2.7
:	:	:	:	:	:	:	:	:	:
-3.8	-1.6	-1.4	-2.0	-1.2	-0.6	-1.0	-1.0	-0.4	-1.1
-5.1	-3.7	-1.5	-2.5	-2.6	-2.7	-0.2	-0.8	-1.2	-0.6
-4.7	-4.3	-3.5	-3.5	-3.4	-4.1	-4.7	-2.4	-2.6	-2.2
-2.1	-2.3	-2.5	-0.3	0.5	4.1	4.2	4.8	3.7	3.3
-4.9	-3.8	-2.3	-2.3	-1.6	-1.8	-2.1	-2.2	-1.9	-1.9
-2.6	-1.3	-0.3	0.6	2.4	1.4	2.3	1.8	1.9	2.1
-7.2	-2.1	-1.0	2.4	0.3	1.4	3.7	0.7	1.1	1.5
-5.8	-4.5	-2.6	-0.3	0.9	1.2	0.7	-1.0	-2.0	-2.0
-5.0	-3.8	-2.3	-1.8	-1.1	-1.1	-1.4	-1.8	-1.8	-1.8

(Change in percentage points of GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
:	1.0	1.0	1.2	-0.4	-0.2	0.8	0.5	0.1	-0.2
:	0.6	0.9	0.3	0.5	-0.6	-1.0	-0.3	0.7	0.2
:	2.7	3.1	1.3	0.3	-0.4	-0.4	0.5	0.0	-0.2
:	1.9	1.4	-0.3	1.4	-0.1	0.8	0.4	0.0	0.3
:	1.6	1.0	-0.2	0.5	-0.1	0.1	-1.1	-0.2	0.2
:	1.7	0.7	0.8	-1.0	2.0	-2.6	-0.9	0.6	0.4
:	0.7	4.2	-0.4	1.3	-0.6	-0.7	0.9	0.4	-0.9
:	:	:	:	:	:	:	:	:	:
:	2.2	0.1	-0.5	0.8	0.6	-0.4	0.0	0.6	-0.6
:	1.4	2.2	-1.0	-0.1	-0.1	2.5	-0.7	-0.4	0.7
:	0.4	0.9	0.0	0.1	-0.6	-0.7	2.3	-0.2	0.5
:	-0.1	-0.2	2.1	0.8	3.6	0.2	0.6	-1.1	-0.4
:	1.0	1.5	0.0	0.7	-0.2	-0.3	-0.1	0.3	0.0
:	1.2	1.0	0.9	1.9	-1.0	0.9	-0.5	0.1	0.2
:	5.1	1.1	3.4	-2.1	1.1	2.2	-3.0	0.5	0.4
:	1.3	1.9	2.4	1.1	0.3	-0.5	-1.7	-1.0	0.0
:	1.2	1.5	0.5	0.7	0.0	-0.2	-0.4	0.0	0.0

Table A.5.1

Gross domestic product at current market prices

(Billion EUR)

	1980	1985	1990	1991	1992	1993	1994
BE	87.7	109.5	155.3	163.5	174.3	184.5	198.4
DE ⁽¹⁾	594.0	839.2	1215.1	1432.7	1561.7	1670.8	1763.7
EL	35.0	53.6	66.2	73.1	77.0	79.8	84.4
ES	159.1	226.3	401.7	443.7	463.3	425.9	425.1
FR	491.1	702.2	957.6	987.2	1040.5	1089.4	1139.3
IE	15.2	27.3	37.2	38.6	41.4	42.5	46.1
IT	323.2	562.1	867.8	939.6	951.2	849.0	863.4
LU	3.8	5.2	8.7	9.7	10.4	11.8	13.0
NL	128.1	175.4	231.8	244.4	258.4	277.7	293.8
AT	57.2	88.6	127.3	136.6	147.0	158.5	168.1
PT	21.5	32.2	56.3	65.5	75.5	73.6	76.3
FI	37.8	72.0	107.7	99.8	83.9	73.6	84.4
Euro area ⁽²⁾	1949.9	2888.4	4224.0	4624.7	4874.1	4925.3	5142.9
DK	49.3	79.1	105.1	108.5	113.7	118.5	128.0
SE	92.7	137.0	187.6	200.1	197.2	169.4	179.8
UK	385.5	602.7	780.7	836.1	828.1	823.5	878.1
EU-15 ⁽³⁾	2477.4	3707.1	5297.3	5769.4	6013.0	6036.8	6328.9

⁽¹⁾ From 1991, including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991, including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991, including former East Germany.

Source: Commission services.

Table A.5.2

Gross domestic product at constant market prices

(Annual percentage change)

	1980	1985	1990	1991	1992	1993	1994
BE	4.4	1.7	3.1	1.8	1.5	- 1.0	3.2
DE ⁽¹⁾	1.3	2.2	5.7	5.1	2.2	- 1.1	2.4
EL	0.7	2.5	0.0	3.1	0.7	- 1.6	2.0
ES	1.3	2.3	3.8	2.5	0.9	- 1.0	2.4
FR	1.6	1.5	2.6	1.0	1.5	- 0.9	2.1
IE	3.1	3.1	7.6	1.9	3.3	2.7	5.8
IT	3.5	3.0	2.0	1.4	0.8	- 0.9	2.2
LU	0.8	2.9	5.2	8.6	1.8	4.2	3.8
NL	1.2	3.1	4.1	2.5	1.7	0.9	2.6
AT	2.2	2.4	4.7	3.3	2.3	0.4	2.6
PT	4.6	2.8	4.0	4.4	1.1	- 2.0	1.0
FI	5.1	3.1	0.0	- 6.3	- 3.3	- 1.2	4.0
Euro area ⁽²⁾	2.0	2.3	3.6	2.5	1.5	- 0.8	2.4
DK	- 0.6	3.6	1.0	1.1	0.6	0.0	5.5
SE	1.7	2.2	1.1	- 1.1	- 1.7	1.1	4.2
UK	- 2.1	3.6	0.8	- 1.4	0.2	2.5	4.7
EU-15 ⁽³⁾	1.3	2.5	3.0	1.8	1.2	- 0.3	2.8

⁽¹⁾ From 1991, including former East Germany.⁽²⁾ Excluding Luxembourg; from 1991, including former East Germany.⁽³⁾ EU-15 excluding Luxembourg; from 1991, including former East Germany.

Source: Commission services.

(Billion EUR)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
211.6	212.5	216.1	223.7	235.6	247.5	254.3	260.7	268.6	279.4
1880.2	1878.2	1863.5	1916.4	1978.6	2030.0	2071.2	2108.2	2143.0	2203.6
89.9	98.0	107.1	109.0	118.1	123.1	130.9	141.1	151.6	163.2
446.9	480.5	495.6	525.5	565.2	609.3	651.6	693.9	733.8	778.7
1188.1	1224.6	1241.1	1297.6	1355.1	1420.1	1475.6	1520.8	1562.7	1620.5
50.8	57.7	70.7	77.7	89.8	102.9	114.5	128.2	136.9	148.2
839.0	971.1	1030.0	1068.9	1108.0	1166.5	1220.1	1258.3	1302.1	1359.8
13.8	14.3	15.4	16.9	18.9	21.3	22.1	22.3	23.1	24.2
317.3	324.5	332.7	351.7	374.1	402.6	429.2	444.0	459.4	474.5
179.8	182.4	181.6	189.3	197.2	207.0	211.9	216.8	221.8	229.7
82.6	88.3	93.9	100.4	108.0	115.6	123.0	129.2	134.3	140.3
99.2	100.7	108.3	115.7	120.0	130.2	135.8	139.7	144.1	150.4
5385.5	5618.3	5740.6	5975.7	6249.6	6554.9	6818.1	7041.1	7258.3	7548.2
137.8	144.2	149.2	154.1	162.4	171.8	177.8	182.8	189.7	197.1
189.9	213.4	218.5	221.4	236.0	260.1	244.9	255.4	264.4	276.7
867.7	936.6	1171.5	1270.5	1370.0	1559.4	1597.0	1659.1	1598.2	1652.9
6580.9	6912.5	7279.8	7621.6	8018.0	8546.2	8837.8	9138.5	9310.6	9674.8

(Annual percentage change)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.4	1.2	3.6	2.0	3.2	3.7	0.8	0.7	1.2	2.3
1.7	0.8	1.4	2.0	2.1	2.9	0.6	0.2	0.4	2.1
2.1	2.4	3.6	3.4	3.6	4.2	4.1	4.0	3.6	3.8
2.8	2.4	4.0	4.4	4.2	4.2	2.7	2.0	2.0	3.0
1.7	1.1	1.9	3.4	3.2	3.8	2.1	1.2	1.1	2.3
10.0	8.1	10.9	8.8	11.1	10.0	5.7	6.0	3.3	4.5
2.9	1.1	2.0	1.8	1.7	3.1	1.8	0.4	1.0	2.1
1.4	3.3	8.3	6.9	8.7	8.9	1.2	1.1	1.1	2.7
3.0	3.0	3.8	4.4	4.0	3.3	1.3	0.3	0.5	1.7
1.6	2.0	1.6	3.9	2.7	3.5	0.7	1.0	1.2	2.0
4.3	3.5	4.0	4.6	3.8	3.7	1.6	0.5	0.5	2.0
4.1	3.9	6.4	4.9	3.4	5.5	0.7	1.6	2.2	2.9
2.3	1.4	2.3	2.9	2.8	3.5	1.5	0.9	1.0	2.3
2.8	2.5	3.0	2.5	2.6	2.9	1.4	1.6	1.5	2.2
4.0	1.3	2.4	3.6	4.6	4.4	1.1	1.9	1.4	2.7
2.9	2.6	3.4	2.9	2.4	3.1	2.1	1.8	2.2	2.6
2.4	1.6	2.5	2.9	2.8	3.4	1.6	1.1	1.3	2.4

Table A.5.3

Potential ⁽¹⁾ GDP at constant market prices*(Annual percentage change)*

	1980	1985	1990	1991	1992	1993	1994
BE	2.6	1.8	2.6	2.4	2.3	2.0	2.0
DE ⁽²⁾	2.0	2.3	2.8	2.7	2.5	2.3	2.1
EL	2.2	0.8	1.6	2.1	1.8	1.7	1.9
ES	1.8	2.4	2.9	2.8	2.8	2.7	2.7
FR	2.7	2.0	2.3	1.9	1.7	1.4	1.6
IE	3.9	2.7	4.3	4.9	5.4	5.4	6.3
IT	3.0	2.4	2.4	2.1	1.9	1.2	1.4
LU	:	:	:	:	:	:	:
NL	1.8	2.1	2.8	2.9	2.8	2.6	2.6
AT	2.4	2.2	2.7	2.7	2.6	2.5	2.4
PT	3.4	2.3	3.5	4.2	3.2	2.8	2.8
FI	3.1	3.2	1.9	0.9	0.0	0.0	1.3
Euro area ⁽³⁾	2.6	2.0	2.8	2.5	2.3	1.9	1.9
DK	1.4	2.0	1.4	1.4	1.4	1.5	2.0
SE	2.1	1.9	2.3	1.8	1.4	1.1	2.0
UK	1.6	2.3	2.7	1.9	1.9	1.8	2.2
EU-15 ⁽⁴⁾	2.4	2.0	2.7	2.4	2.2	1.9	2.0

⁽¹⁾ For Germany, Spain and Austria the trend GDP rather than potential GDP is taken.⁽²⁾ From 1991, including former East Germany.⁽³⁾ Excluding Luxembourg; from 1991, including former East Germany.⁽⁴⁾ EU-15 excluding Luxembourg; from 1991, including former East Germany.

Source: Commission services.

Table A.5.4

Gap between actual and potential ⁽¹⁾ GDP at constant market prices*(% of potential GDP)*

	1980	1985	1990	1991	1992	1993	1994
BE	1.0	-2.3	2.3	1.8	1.0	-2.0	-0.8
DE ⁽²⁾	2.3	-1.9	1.9	4.3	4.0	0.5	0.8
EL	3.1	-1.1	-0.1	0.9	-0.2	-3.5	-3.3
ES	-0.6	-3.6	4.2	3.9	2.0	-1.7	-2.0
FR	0.2	-2.8	2.1	1.2	1.0	-1.3	-0.8
IE	0.8	-2.5	3.8	0.8	-1.2	-3.7	-4.2
IT	3.0	-1.6	1.7	1.0	-0.1	-2.2	-1.3
LU	:	:	:	:	:	:	:
NL	0.3	-0.9	2.4	2.0	0.9	-0.8	-0.9
AT	1.5	-1.6	1.7	2.4	2.1	0.1	0.2
PT	2.3	-6.9	4.7	4.9	2.8	-2.1	-3.8
FI	1.3	-0.5	4.8	-2.6	-5.9	-7.0	-4.5
Euro area ⁽³⁾	1.3	-2.4	2.2	2.4	1.6	-1.2	-0.8
DK	-0.3	1.3	-0.9	-1.1	-1.8	-3.3	0.1
SE	0.2	0.2	2.1	-0.9	-4.0	-3.9	-1.9
UK	-1.5	-1.0	1.4	-1.9	-3.4	-2.8	-0.5
EU-15 ⁽⁴⁾	0.8	-2.0	2.0	1.6	0.7	-1.5	-0.8

⁽¹⁾ For Germany, Spain and Austria the trend GDP rather than potential GDP is taken.⁽²⁾ From 1991, including former East Germany.⁽³⁾ Excluding Luxembourg; from 1991, including former East Germany.⁽⁴⁾ EU-15 excluding Luxembourg; from 1991, including former East Germany.

Source: Commission services.

(Annual percentage change)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.3	2.0	2.2	2.0	2.2	2.5	1.9	1.8	1.8	1.8
2.0	1.8	1.7	1.6	1.5	1.5	1.4	1.4	1.4	1.4
2.0	2.2	2.7	2.6	2.8	3.5	3.2	3.4	3.3	3.3
2.8	2.9	3.0	3.0	3.1	3.1	3.0	3.0	2.9	2.9
1.9	1.6	1.8	2.0	2.2	2.6	2.5	2.3	2.1	2.3
7.0	7.4	8.1	8.6	8.5	8.3	8.0	7.6	6.9	6.6
1.3	1.4	1.6	1.8	1.7	2.1	2.1	1.9	1.6	1.8
:	:	:	:	:	:	:	:	:	:
2.7	2.8	3.0	3.0	3.0	2.9	2.7	2.3	2.0	2.0
2.4	2.3	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6
2.6	2.6	2.9	3.2	3.1	3.0	2.8	2.6	2.4	2.5
2.1	2.4	3.5	3.7	3.9	3.5	3.5	3.1	2.8	2.8
2.0	1.9	2.0	2.1	2.2	2.3	2.2	2.1	2.0	2.1
2.3	2.5	2.6	2.6	2.4	2.4	2.2	2.1	2.0	2.0
2.5	2.1	2.3	2.8	2.8	2.9	2.8	2.6	2.5	2.6
2.4	2.5	2.7	2.9	2.9	2.8	2.8	2.5	2.6	2.6
2.1	2.0	2.1	2.2	2.3	2.4	2.3	2.2	2.1	2.2

(% of potential GDP)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
-0.7	-1.5	-0.1	0.0	1.0	2.2	1.0	-0.1	-0.6	-0.2
0.5	-0.5	-0.8	-0.5	0.0	1.4	0.5	-0.7	-1.7	-1.1
-3.3	-3.1	-2.2	-1.5	-0.7	-0.1	0.9	1.4	1.7	2.3
-2.1	-2.5	-1.5	-0.2	0.9	2.0	1.7	0.7	-0.2	0.0
-1.0	-1.4	-1.4	0.0	1.0	2.2	1.5	0.4	-0.7	-0.6
-1.6	-1.0	1.7	1.9	4.4	6.0	3.7	2.3	-1.1	-3.1
0.2	-0.1	0.3	0.3	0.2	1.3	1.0	-0.5	-1.1	-0.9
:	:	:	:	:	:	:	:	:	:
-0.6	-0.4	0.5	1.8	2.8	3.3	1.8	-0.2	-1.7	-2.0
-0.6	-0.9	-1.5	0.1	0.7	2.2	1.0	0.2	-0.3	0.0
-2.3	-1.4	-0.3	1.0	1.7	2.4	1.3	-0.8	-2.6	-3.1
-2.5	-1.1	1.7	2.8	2.3	4.3	1.4	-0.1	-0.6	-0.5
-0.6	-1.1	-0.8	0.0	0.6	1.7	1.0	-0.3	-1.2	-1.0
0.4	0.4	0.8	0.7	1.0	1.4	0.6	0.2	-0.3	-0.2
-0.4	-1.2	-1.0	-0.2	1.5	3.0	1.3	0.6	-0.5	-0.5
0.1	0.2	1.0	1.0	0.5	0.8	0.2	-0.5	-0.9	-0.9
-0.5	-0.9	-0.5	0.1	0.6	1.7	0.9	-0.3	-1.1	-1.0

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