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Public finances in EMU - 2010

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The main contributors were Lucio Pench, Sven Langedijk, Joaquim Ayuso Casals, Salvador Barrios, Gerrit Bethuyne, Mateo Capo Servera, Kamil Dybczak, Roland Eisenberg, Carsten Eppendorfer, Raffaele Fagnoli, Jonas Fischer, Christine Frayne, Anna Iara, Geir Johansen, Isabelle Justo, Bettina Kromen, Veli Laine, Baudoin Lamine, Karolina Leib, Janis Malzubris, Mary McCarthy, Laurent Moulin, Balazs Parkanyi, Lucia Piana, Allard Postma, Rafal Raciborski, Alessandro Turrini, Jan in 't Veld, Peter Weiss and Florian Woehlbier.

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Comments on the report would be gratefully received and should be sent, by mail or e-mail to the editors:

Lucio Pench

European Commission
Directorate-General for Economic and Financial Affairs
Directorate for the macro economy of the euro area and the EU
Office BU-1 00-191
B-1049 Brussels
e-mail: lucio.pench@ec.europa.eu

or

Sven Langedijk

European Commission
Directorate-General for Economic and Financial Affairs
Directorate for the macro economy of the euro area and the EU
Office BU-1 00-188
B-1049 Brussels
e-mail: sven.langedijk@ec.europa.eu

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EDITORIAL

This year's report is issued at a time when public finances in EMU are at the centre of attention in the midst of severe market turbulence. The external financial support necessitated by the fiscal situation in Greece and the unprecedentedly high sovereign risk premia in other countries have underlined once again the importance of prudent budgetary policies.

The crisis that started in 2008 has drastically reversed the favourable economic and financial conditions that prevailed until 2007 and cancelled twenty years of efforts to reduce the burden of public debt. A significant part of the budgetary deterioration in the downturn will not be re-absorbed by the recovery under way. High and rising public debt raise questions on governments' solvency and a credible commitment to a sustainable path for public finances is instrumental to durable output and employment growth. The increasing budgetary costs of ageing populations emphasises the need for addressing the budgetary challenges head on. In this context, the *2010 Report on Public Finances in EMU* presents lessons from successful and unsuccessful fiscal consolidations based on historical experiences and simulations. Past experiences, including financial crisis episodes, can provide guidance to policy-makers in developing a strategy for debt reduction, although there is no one-size-fits-all solution and starting conditions play an important role in defining the right strategy.

The report also analyses the link between macroeconomic imbalances and fiscal risks. The crisis has shown that the divergent growth patterns in EMU and growing macroeconomic imbalances should have been seen as contingent budgetary risks. In particular, the countries that suffered the greatest deterioration in their public finances between 2007 and 2009 had typically experienced increasing external imbalances and booming credit and domestic demand in the run-up to the crisis, while the countries that suffered the smallest deterioration generally had displayed stable or falling macro-financial risks. Credit market and asset price evolutions have played a key role in this context by feeding persistently buoyant tax revenues and hence allowing excessive public expenditure growth during the booms, followed by large tax revenue shortfalls.

The topics of the two analytical parts of the report – on consolidation strategies and the link between imbalances and fiscal policy – are key elements for future fiscal surveillance. The Commission Communication of 12 May 2010, entitled '*Reinforcing economic policy coordination*' provides input for the debate on the revision of surveillance framework. It suggests reinforcing fiscal surveillance and recognises the need to expand economic surveillance and deepen the analysis beyond the budgetary dimension to address other macroeconomic imbalances.

In addition to the two analytical parts, the report - following its well-established structure – provides a detailed description and analysis of recent budgetary developments in the EU. It also assesses the budgetary outlook and examines the implementation of fiscal surveillance and developments in the common fiscal surveillance framework. The main issues are the implementation of the Stability and Growth Pact throughout the crisis, ways to improve the measure of the cyclically-adjusted budgetary balance and an assessment of the role that Member States' fiscal frameworks can play in promoting sound budgetary policies and consolidation.

Given the unprecedented challenging times for public finances, I trust that the analysis in this year's report will provide a useful contribution to the policy debate in the EU and thus to a successful reversal to sustainable fiscal trends.



Marco Buti
Director-General
Economic and Financial Affairs

SUMMARY

Sovereign risk premia in the EU under pressure...

The financial crisis has had a large impact on the public finances of the European economies. With output no longer shrinking since mid-2009 and a tentative recovery seemingly underway, the focus is turning to the legacy the recession has left for the public finances. Events in Spring 2010 have exposed the urgency of addressing the fiscal challenge in the euro area and the EU, as the high and rising public debts raised concerns on governments' solvency. The unravelling of the Greek crisis induced financial distress in other Member States as sovereign risk premia shot up to levels unprecedented in EMU in Member States with perceived high budgetary and macro-financial risks. Following the market tensions in sovereign debt markets and financial support to Greece and an agreement to set up a European Financial Stabilisation Mechanism, the Council on 9 May 2010 strongly committed to ensuring fiscal sustainability and enhanced economic growth in all Member States and agreed that plans for fiscal consolidation and structural reforms will be accelerated, where warranted.

...as the crisis has had a huge impact on the public finances ...

Starting from a position of relative strength in 2007, both government deficits and debt have deteriorated markedly, reaching levels unprecedented in recent times in the EU. While in 2007, general government deficits corresponded to less than 1% of GDP in EU27 in 2010 they are forecast to reach over 7%, before beginning to shrink from 2011. Debt has also deteriorated strongly. While in 2007 EU27 debt corresponded to 59% of GDP, in 2010 it is forecast to equal almost 80%.

...due to the effect of the automatic stabilisers and support measures taken.

This strong deterioration in the public finances is due to both the automatic effect of economic performance and the discretionary support measures introduced by EU governments. With real economic growth having fallen to -4.2% in 2009, there has been an automatic decrease in revenues and increase in spending as a share of GDP. The credit and asset price led boom that preceded the crisis in many Member States has increased the impact of the recession on the public finances as related previously substantial revenues have dried up. Discretionary support measures introduced to support both aggregate demand and the financial sector specifically have also added to the burden on the public finances. As monetary policy reached its lower bound with very low interest rates, fiscal policy interventions helped stabilise the economy. The European Economic Recovery Plan (EERP) was endorsed by the European Council in December 2008 and introduced a sizeable discretionary fiscal stimulus aiming to boost demand and stimulate confidence over 2009-10. The majority of stimulus measures in 2009 and 2010 are temporary and are planned to expire by 2011. These temporary measures have had positive effects on employment and economic activity during the crisis, by supporting private demand and maintaining fundamentally sound activities and jobs that could otherwise have been lost. However, once economic growth resumes on a durable basis, such measures if left in place would add up to an intolerable burden for the public finances; they could also hinder adjustment processes within and across sectors by subsidising existing firms and specific productions.

The debt increases are considerable, but not unprecedented, though starting from a higher level.

Between 2007 and 2011, debt is set to increase by 25 percentage points of GDP in EU27 and 22½ percentage points in the euro area, with gross debt reaching an average of almost 84% of GDP in EU27 and 88½% in the euro area. These increases in debt are not unprecedented; similar increases were experienced by a number of European countries following the oil crises of the 1970s and during the 1980s. However, as those increases were not (fully) reversed, the current increases are occurring from historically high starting levels as EU countries have experienced a number of large debt increase episodes, which have tended to start from higher levels of debt each time.

Debt is set to keep increasing... in part due to the cost of ageing.

Moreover, debt is on course to continue increasing beyond 2011. Even with a phasing out of the stimulus measures, a cyclical recovery in growth bringing with it a rebound in tax revenues to 2007 levels (which is a very favourable scenario for a number of countries), debt ratios should continue rising in most EU countries. Partial equilibrium debt projections show that on a no-policy-change scenario, average debt in the EU will rise well above 100% of GDP by 2015 and continue rising afterwards to exceed 130% of GDP by 2020. Sustained and very sizeable consolidation will be necessary in most Member States to start reversing the increase in government debt. This is all the more urgent as European societies and economies are facing another challenge to sustainability over the medium and long term: that of an ageing population. Reduced fertility and increased life expectancy are set to have a considerable impact on both the growth potential of Member States' economies and on public budgets. Expenditures on age related support such as pension provision, healthcare and long-term care will increase significantly over the coming 50 years or so, in the absence of reforms to these support systems. Based on current policies, for the EU27, age-related expenditure is set to increase by 4½ percentage points of GDP between 2010 and 2060. These costs will have to be met through reforms to both the services provided and the tax and spending systems, with attending efficiency implications.

There are large differences in the degree of risk that the Member States are facing from ageing and how this interacts with their underlying fiscal position. Member States with large deficits and large projected costs from ageing facing the biggest risks, and the most urgency in terms of addressing long-term sustainability issues.

High debt levels have significant negative effects on growth...

The high projected increases and levels of debt need to be addressed urgently to minimise their negative effects on economic growth. Economic theory presents three main channels through which government debt is likely to affect long-term growth: (i) a crowding-out effect on private investment, as national savings are reduced and interest rates increase; (ii) an increase in distortionary taxes which are needed to service the debt; (iii) an increase in the risk premia paid by governments which increase the burden that debt presents. In some cases, the risk premium on sovereign debt may feed through to corporate and household debt. Whether, and to what extent, these mechanisms operate in a given economy will depend on both the structure of the economy and the behaviour of economic agents.

Simulations with the European Commission's QUEST III estimate the effects of a 10 percentage point increase in government debt on output in the long run to be in a range of ½ to more than 2% of GDP, depending on the way the increasing interest expenditures are financed. The negative effect on growth

comes through the distortionary impact of taxation. How high the impact is depends, in part, on how risk premia are affected by the increase in debt. Assuming that risk premia are not affected would yield smaller distortionary effects than those outlined above, which are based on increases to sovereign risk premia due to rising debt. Much higher effects are simulated in the case of risk premia spreading to the whole economy, as seems to be occurring in the present circumstances.

The starting level of government debt also appears to have influence on the effect that an increase in debt has on sovereign interest rates. Although it is the increase in debt which triggers an interest rate effect, it appears that countries with higher starting levels of debt are more likely to experience a larger increase in the interest premium from an additional increase in their debt levels.

...and require large consolidations overall.

The legacy of the crisis on the public finances means that large consolidations are needed to return Member States' public finances to a sustainable position. However, just as the effect of the crisis has varied across different Member States so is the necessary consolidation different according to countries' particular circumstances. For some Member States, budgetary developments have been particularly dramatic. Ireland, Greece, Spain and the United Kingdom all posted deficits in excess of 10 percentage points of GDP in 2009. In terms of the debt increases too there is considerable variation. While Bulgaria and Sweden are forecast to show no or a small increase in debt as a share of GDP between 2007 and 2010, Ireland, Spain, Latvia and the United Kingdom are forecast increases of over 30 percentage points.

The Council agreed on principles for fiscal exit in October 2009.

Ministers agreed at the Informal Ecofin in Göteborg of 20 October 2009 on the need for a co-ordinated and comprehensive approach on exit strategies, encompassing measures to rebuild a stable and viable financial sector, ensure fiscal sustainability and to raise potential output. As to the fiscal exit strategy, it was agreed that substantial fiscal consolidation was required beyond the withdrawal of the stimulus measures of the European Economic Recovery Programme in order to halt and eventually reverse the increase in debt and restore sound fiscal positions. In particular, the Council agreed on a number of principles for the fiscal exit strategies, regarding the need for coordination, the size, the timing, the differentiation between countries and the accompanying policies. The principles for fiscal exit that the Council agreed on Autumn 2009 were a frontrunner for the G20 discussions and agreements in Spring 2010. In the EU, the exit strategy should be coordinated across countries in the framework of a consistent implementation of the Stability and Growth Pact (SGP). Provided that the Commission forecasts continue to indicate that the recovery is strengthening and becomes self-sustaining, fiscal consolidation in all EU Member States should start in 2011 at the latest. Specificities of country situations should be taken into account, and a number of countries need to consolidate before then. The Council agreed that in view of the challenges, the planned pace of the fiscal consolidation should be ambitious, and would have to go well beyond the benchmark of 0.5% of GDP per annum in structural terms in most Member States. Important flanking policies to the fiscal exit would need to include strengthened national budgetary frameworks for underpinning the credibility of consolidation strategies and measures to support long-term fiscal sustainability, as emphasised by the SGP. In addition, structural reform efforts should be

strengthened to enhance productivity and to support long-term investment. These elements were reflected in the stability and convergence programmes, which had to be transmitted by Member States to the Commission by the end of January 2010.

EU countries are bound to keep their deficits and debt in check...

EU Member States are required by the Treaty to ensure that their government deficits do not exceed 3% of GDP and that their debt levels should be declining to below 60%. The SGP sets out the procedures to be followed in the case of breach. In 2009, Greece, Latvia, Lithuania, Malta, Poland, Belgium, the Czech Republic, Germany, Italy, France, Spain, Ireland, the Netherlands, Austria, Portugal, Slovenia and Slovakia were placed in the Excessive Deficit Procedure (EDP) by the Council, while Hungary and the United Kingdom had their prior recommendations amended. In 2010, the Council gave notice to Greece to take measures to correct its excessive deficit by 2012. The requirements of Member States placed under the EDP were set so as to take the particular needs and circumstances of the different countries into account as allowed by the SGP rules. The deadlines set for the correction of the excessive deficits have been set depending on the size of consolidation that is required, taking wider issues of sustainability and budgetary risks into account.

... and to set out plans to meet medium term budgetary objectives.

The Stability and Convergence Programmes (SCPs) set out Member States' budgetary strategies to meet the requirements in the EDPs and their progress towards meeting Medium Term Budgetary Objectives (MTOs) over the coming years. The latest round of SCPs covers the years up to 2012, 2013 or 2014.

The budgetary strategies in the programmes acknowledge the need for considerable consolidation and most countries plan to start consolidation in 2010. Countries with lower budgetary and macro-financial risks have typically planned backloaded consolidations. As these countries with room for fiscal manoeuvre continue to provide support to the economy, the average EU deficit would continue to increase in 2010, reaching 7.2% of GDP on average. At EU level, fiscal consolidation is planned to start in 2011, with all Member States except Luxembourg showing improvements in their nominal budget balances according to their SCPs. The anticipated split between revenue and expenditure measures within the consolidations tends to reflect the initial revenue ratio; countries with relatively high revenue-to-GDP ratios are less likely to rely strongly on planned revenue increases. All Member States except Luxembourg, Malta, and the Netherlands show a projected reduction in the expenditure-to-GDP ratio over the programme period. For a number of countries, a decrease in the expenditure-to-GDP ratio is planned, despite a very significant increase in nominal expenditures.

Further progress towards the MTO is required to reverse the increases in debt.

Nevertheless, despite the fact that plans for consolidation have been set out in the SCPs, they are not sufficient to stem or reverse the increases in debt from the crisis. Assuming a structural balance as planned in the SCPs for the end-of-programme year, a cyclical recovery in growth bringing with it a rebound in tax revenues to 2007 levels (which is a very favourable scenario for a number of countries), a return to revenue rates at least as strong as seen in 2007 and gradual closing of the output gap would still result in debt continuing to rise to almost 90% of GDP by 2020 and remaining on a slight upward trend at that point. The significant consolidation set out in the SCPs

is therefore not sufficient to even stabilise the debt levels. Instead, it is important that countries continue to progress towards reaching their MTOs. As these MTOs have recently been revised to take into account governments' implicit liabilities from ageing populations and wider issues of long-term sustainability, they are now better able to serve as a guide for the public finances.

Short-term output cost of consolidations depends on the type of measures and circumstances.

Just as the support measures introduced under the EERP are seen as key to supporting the economy, a strong fiscal retrenchment could also affect demand and growth but in the opposite way. However, as long as the consolidation is managed effectively, the negative impact on growth should be markedly lower than the positive impact that the support measures had in the recession. The measures introduced to support demand were specifically designed to be temporary, which would aid their effectiveness. If consolidation is credibly perceived to be permanent, the fiscal multipliers are much lower, and in the long-term the output effect is positive for most types of measures. Also, if effective action is undertaken to restore financial sector functioning, liquidity constraints will be softened which may further reduce the adverse short-term economic impact of consolidation.

A growth enhancing reform agenda in line with EU 2020 helps consolidation...

The Commission Communication "*Europe 2020 – A strategy for smart, sustainable and inclusive growth*" sets out some key principles to raise growth potential as fiscal consolidation is implemented. In particular it stresses that the composition and quality of government expenditure matters: budgetary consolidation programmes should prioritise 'growth-enhancing items' such as education and skills, R&D and innovation and investment in networks. The revenue side of the budget also matters and particular attention should also be given to the quality of the revenue/tax system. Where taxes may have to rise, this should, where possible, be done in conjunction with making the tax systems more "growth-friendly". For example, raising taxes on labour, as has occurred in the past at great costs to jobs, should be avoided. Rather Member States should seek to shift the tax burden from labour to energy and environmental taxes as part of a "greening" of taxation systems. Fiscal consolidation and long-term financial sustainability will need to go hand in hand with important structural reforms, in particular of pension, health care, social protection and education systems. Public administration should use the situation as an opportunity to enhance efficiency and the quality of service. Public procurement policy must ensure the most efficient use of public funds and procurement markets must be kept open EU-wide.

... as confirmed by economic analysis.

Fiscal multipliers, and hence the impact on output, are highest for consolidations based on investment spending and lowest when done via general government transfers to households and government consumption. However, there can be significant differences in time profile. Regarding revenue-based consolidations, raising corporate profit taxes has little negative effect in the short term, but very high long-term costs, while labour taxes have a bigger adverse impact in the short term than in the long term. Consolidations based on indirect tax increases are most growth-friendly in the long run and have also smaller negative output effects than labour taxes in the short term. VAT increases do not harm competitiveness and hence may be appropriate for countries with negative external positions.

Past experience can help us manage our consolidation challenge.

Past experiences have also much to teach us in terms of how to ensure that fiscal consolidations are successful in reducing government debt. While past increases in the public debt-to-GDP ratio have often, although not always, triggered fiscal consolidations, these consolidation episodes have not necessarily led to significant reductions in debt levels. The success of fiscal consolidations in reducing the debt-to-GDP ratio depends not only on the improvement of the primary fiscal balances, but also on growth, inflation and interest rate developments. Ensuring that the financial crisis has been resolved and that credit constraints have been alleviated in addition to other growth enhancing reforms is likely to improve expected outcomes of consolidations by reducing the negative impact on output.

Expenditure based and gradual consolidations have been more successful in the past, but for high debt countries this may not hold.

Consolidations starting under unfavourable economic conditions are probably more likely to be successful, even though the conditions in which they are undertaken are more difficult. Expenditure-based consolidations have better track records of success than ones based on tax increases, while gradual consolidations tend to have higher success rates than "cold shower" ones. Some of these results are partly due to the introduction of accompanying structural changes, which are seen as important determinants of whether consolidations are successful or not. Econometric evidence shows that starting the consolidation after the crisis and implementing it in a gradual way is more likely to yield success. However, for high-debt countries there is evidence that a cold shower consolidation might be a better approach, due to the effect of interest rates (which may themselves be affected by the pace of debt reduction) on the debt burden.

The challenge is to implement the right policies effectively.

Although past experience can guide policy-makers in how to consolidate there is no one-size-fits-all solution. Experiences in previous episodes have shown that fiscal consolidations have often been pursued at the expense of public investment. This undermines growth which is crucial for debt reduction. The precise characteristics of each country will determine the policy that should be pursued. The level of growth, the level of debt, deficits, taxes and spending will all influence the type of consolidation to be introduced. But it is not just the type of consolidation that is chosen that is important, but also the context within which it will be implemented. Past experience with consolidation has shown that countries with strong national fiscal frameworks have been most successful in consolidating. Although all crises and the circumstances in every country are different, the policy responses in Sweden and Finland following their financial and economic crises in the early 1990s provide important examples of successful resolutions. Despite being strongly affected by their respective financial crises, both countries returned to growth rates similar to, or higher, than those they enjoyed before the crisis, following strong and decisive government action from the early days of the crisis, particularly with regard to addressing the weaknesses in the financial sector. It must be noted that also the exchange rate depreciations played an important role in the recovery and fiscal consolidation.

Significant external imbalances have emerged over the last 10 years...

Alongside the public finances, the crisis has also brought attention to the prevalence of external imbalances amongst the EU and euro area Member States. The last ten years or so have seen a build-up of substantial divergences in the external economic performance of the different countries. Recently acceded and peripheral euro area Member States saw thriving

domestic demand and credit booms, accompanied by increases in domestic prices. For the peripheral euro area countries this resulted in large increases in their nominal unit labour costs and an appreciation of their real exchange rate which harmed their competitiveness and their external position. Meanwhile, other countries experienced slow domestic demand growth and falls in their domestic prices vis-à-vis their EU and euro area competitors.

...due to both economic integration and booming domestic demand.

The differences in the external position developed over the last ten years and reached an all-time high in 2008, just before the start of the crisis. They can be attributed to a number of factors. A part of them reflects the normal functioning of the globalised and increasingly integrated EU economy with the resulting convergence in prices. Accession to the euro will also have given catching-up euro area economies better access to international capital markets, facilitating and creating larger trade deficits. Other factors that affected the build-up of divergences are more problematic in themselves. The increased capital flows financed unsustainable trends in consumption and unproductive investment, and they reflect increases in wages, consumption and credit growth that were not connected to the underlying economic fundamentals. Booming internal demand was central to the deterioration in external competitiveness in external deficit countries.

Budgetary and trade balances appear to be related – although exactly how is subject to much debate.

There is much debate about the link between current account and fiscal balances. Since the onset of the crisis, large current account deficits have gone hand-in-hand with large deterioration in fiscal balances. Tax buoyancy concealed the true state of public finances before the crisis. This was fuelled by capital inflows and credit booms boosting real estate. Current account deficits have thus signalled contingent budgetary risks. The countries that have shown the greatest deterioration in their public finances since the onset of the crisis displayed high and rising macro-financial risks in the years prior to its onset, while the countries with the smallest deterioration displayed falling macro-financial risks over the same period. The crisis revealed the real state of the fiscal situation.

Correcting and preventing future current account imbalances is a challenge for the medium term.

In terms of the current juncture the presence of external imbalances has potential consequences for the trajectory of the economy over the medium term. Although the evidence is limited, studies tend to suggest that post-boom periods which are accompanied by the correction of current account and competitiveness imbalances may be particularly costly from a growth and budgetary point of view. As a starting point, considering the impact that fiscal policy has on the external position would be prudent, with countries with large external deficits needing to be particularly mindful to implement policies that reduce their unit labour costs and improve their competitiveness.

The crisis should help us avoid a repetition in the future, including by strengthening fiscal frameworks...

The crisis can provide us with an opportunity to learn lessons that will help us avoid a recurrence of the crisis in the future. One area for improvement is that of budgetary surveillance and the institutions responsible for it. At a national level, improving domestic fiscal frameworks can help both in implementing consolidation and ensuring that the public finances are not as vulnerable to economic downturns in the future.

According to existing evidence, rule-based fiscal frameworks centred around an expenditure rule supplemented by a revenue and/or budget balance rule are particularly successful as concerns both budgetary discipline and

stabilisation. Similarly, non-partisan public institutions acting in the field of budgetary policy have proven useful for sound budgetary policies in several EU countries. Medium-term budgetary frameworks are further considered effective tools to foster medium term fiscal planning. As these fiscal arrangements are closely interconnected, any reform of national fiscal frameworks should carefully consider the interplay between these elements.

...and by taking a wider consideration of risks.

Improving the information available and used in budgetary surveillance might also help avoid some of the mistakes of the past. Measuring the underlying fiscal stance is important in gaining an understanding of the health of the public finances. This requires an estimation of both potential output and of the relationship between revenues and spending and the underlying economic fundamentals. Potential output estimation can be improved by including real time capacity utilisation data to the estimation of the output gap, while considering the effect of domestic demand (rather than just output) on government revenues to estimate a cyclically and absorption adjusted budget balance can also aid policy making. Complementing our understanding of tax elasticities by using data collected at a national level on the discretionary changes made to tax categories can further help overcome some of the difficulties in estimating underlying revenues. Improvements can also be made in terms of how we understand the links between fiscal and trade balances. This could enable monitoring of the emergence of macro-financial imbalances more widely as a way of obtaining a more holistic view of the vulnerabilities that exist in the Member States' economies.

On 12 May 2010, the Commission put forward proposals in this context.

The Commission Communication of 12 May 2010, entitled 'Reinforcing economic policy coordination' recognises the need to expand economic surveillance and deepen the analysis beyond the budgetary dimension to address other macroeconomic imbalances, including competitiveness developments and underlying structural challenges in order to prevent the occurrence of severe imbalances within the euro area. A scoreboard, reflecting both external as well as internal developments, would be defined and regularly monitored. It would appear particularly important to detect asset price booms and excessive credit growth at an early stage to avert costly corrections of fiscal and external imbalances at a later stage. This analysis would form the basis for the formulation of the recommendations for preventive or corrective measures in the Member State(s) concerned.

Part I

Current developments and prospects

SUMMARY

In 2007, the last year before the onset of the economic and financial crisis, the public finances in the EU and euro area were in their strongest position for decades. This result owed more than was appreciated at the time to favourable economic conditions. With the onset of the crisis in 2008, GDP growth fell dramatically and turned negative by the end of the year leading to a marked deterioration in the public finances. 2009 was a year of deep recession with growth shrinking by 4.2% on average in EU27, before beginning to gradually pick up during 2010. The overall effect on the public finances has been a sharp deterioration in the general government balances, which is forecast to equal close to 7 percentage points of GDP between 2007 and 2010, to reach a larger deficit of 7.5% of GDP in the EU27. From 2011, deficits are expected to start shrinking. Debt too has been affected. While in 2007 gross general government debt amounted to 59% of EU27 GDP, in 2010 it is forecast to come in at 79% and to increase further in the coming years.

The deterioration in the public finances is due to both the operation of the automatic stabilisers and the measures implemented by governments to support both aggregate demand and the financial sector. The response of the European governments, the European Economic Recovery Plan, allowed the automatic stabilisers to operate freely and introduced a sizeable discretionary fiscal stimulus. The fact that monetary policy had reached its zero lower bound, placed additional burdens on fiscal policy to provide support aggregate demand. The actual budgetary stimulus packages introduced varied across Member States, in part due to the fiscal space available. These developments are examined in Section I.1. While some countries were in a position to provide substantial support to their economies as they entered the recession with a strong fiscal position, others were and are in a more difficult situation because of less determined consolidation efforts in the past.

EU Member States are required by the Treaty to ensure that their government deficits do not exceed 3% of GDP and that their debt levels are declining to below 60%. Whether or not these limits are adhered to is determined according the provisions of the Stability and Growth Pact (SGP), which also sets out the procedures to be followed in the case of breach. In 2009, Greece, Latvia, Lithuania, Malta, Poland, Belgium, the Czech Republic,

Germany, Italy, France, Spain, Ireland, the Netherlands, Austria, Portugal, Slovenia and Slovakia were placed in the excessive deficit procedure (EDP) by the Council on recommendation of the Commission, while Hungary and the United Kingdom had their prior recommendations and deadlines amended. In February 2010, the Council gave notice to Greece to take measures to correct its excessive deficit by 2012. On 2 May 2010, following a request by the Greek authorities, the Eurogroup formally launched a financial assistance mechanism, conditional on the implementation of a programme of economic adjustment. The adjustment programme was negotiated between Greece and the Commission, in liaison with the ECB and the IMF. Section I.2 details how the SGP has been implemented since Spring 2008, providing information on a country-by-country basis.

The Stability and Convergence Programmes (SCPs) set out Member States' fiscal strategies to return to medium term budgetary objectives over the coming years. The latest round of SCPs is examined in Section I.3. The SCPs cover the years up to 2012, 2013 or 2014 and their submission was delayed to reflect the strategies to correct the excessive deficits identified. Overall for EU27, the SCPs anticipate a recovery supported by growing net exports contributing 0.6 percentage points to aggregate real GDP growth in 2010, and 0.3 pp. by 2013. The overall economic growth assumptions are more favourable than those made by the Commission services in Autumn 2009, by 0.3 percentage points in 2010, but rising to 0.7 percentage points by 2011. There is therefore some added downside risk to the budgetary outcomes and may require additional fiscal consolidation.

The budgetary strategies in the programmes for most EDP countries aim at correcting the excessive deficits by the deadlines recommended by the Council and for countries not in EDP at keeping the deficit below the 3% of GDP reference value or rapidly correcting any breaches. The pace and time profile of the fiscal consolidations vary considerably across Member States. Most countries plan to start consolidation in 2010. Countries with lower budgetary and macro-financial risks have typically planned backloaded consolidations. As these countries with room for fiscal manoeuvre which include Germany continue to provide support to the economy, the average EU

deficit would continue to increase in 2010, reaching 7.5% of GDP on average in the programmes. At EU level, fiscal consolidation is expected to start in 2011, with all Member States except Luxembourg showing improvements in their nominal budget balances according to their SCPs. The anticipated split between revenue and expenditure measures within the consolidations tends to reflect the initial revenue ratio; countries with relatively high revenue-to-GDP ratios rely less strongly on planned revenue increases. All Member States except Luxembourg, Malta, and the Netherlands show a projected reduction in the expenditure-to-GDP ratio over the programme period.

Section I.4 discusses the Commission and Council's 2009–2010 SCP assessments of the long-term sustainability (up to 2060) of the public finances and presents new estimates of the long-term sustainability indicator. The estimates are based on medium-term projections of the age-related expenditures provided by the Ageing Working Group of the Economic Policy Committee in the 2009 Ageing Report and on the public finance developments set out in the SCPs. Both quantitative indicators and qualitative information are used to arrive at an overall assessment of the budgetary challenge posed by ageing populations, in the light of the recent economic crisis. Compared with last year's projection exercise, the current one also incorporates projected developments of revenue coming from taxation of pensions and property income in the quantitative assessments.

There is a large variation in the degree of long-term risk that the Member States are facing and their cause. Due to the deterioration of initial budgetary positions, several Member States were moved to a higher risk category than they were in last year's exercise, while only few are assessed to have improved their long-term sustainability position. Countries that are best prepared to dealing with the long-term sustainability challenge are Bulgaria, Denmark, Estonia, and Sweden. They generally have a relatively strong budgetary position due to having run large surpluses prior to the crisis, and having reduced debt and/or accumulated assets. They have also implemented comprehensive pension reforms, in some cases including a shift towards private funded pension schemes. They therefore enjoy a low long-term

risk to fiscal sustainability. In these countries, the projected increase in age-related expenditure is amongst the lowest in EU at below 4 percentage points of GDP.

Belgium, the Czech Republic, France, Ireland, Greece, Spain, Cyprus, Latvia, Lithuania, Malta, Netherlands, Romania, Slovenia, Slovakia and United Kingdom are the countries facing the biggest challenges. (They are generally characterised by a very significant rise in age-related expenditure over the long-term, in some cases in excess of 10 percentage points of GDP.) For most of the Member States in this group it will be necessary to address both the long-term costs of ageing through reforms to pension systems and the weakness of their budgetary positions. To a lesser extent, the same mixed challenge applies to the countries presenting medium long-term risk. In particular, reforms to the pension and healthcare system which will not adversely affect the recovery as they typically take effect over the medium to long-term, should be implemented as a matter of urgency. This may include measures to raise potential growth and employment over the medium term. As not all pension and healthcare reforms are neutral with respect to the short-term, care should be taken to consider the effect of any changes undertaken on the recovery.

Finally, Section I.5 takes stock of Member States' efforts undertaken or planned to reform their domestic fiscal frameworks, based on information disclosed in the 2009-2010 round of the Stability and Convergence Programmes. Indeed, according to such information, changes to the domestic fiscal frameworks are being ahead or implemented in 21 EU countries. Changes of budgetary procedures are most prevalent (19 cases), followed by the introduction of new fiscal rules (13 countries). The introduction of, or changes in, medium-term budgetary frameworks is topical in the case of 10 Member States, while only three have announced the establishment of new independent fiscal institutions. While the number of planned or implemented actions of fiscal framework reform is thus significant, important shortcomings of national frameworks will still persist, not least as compliance with the most recent policy invitations contained in the Council Opinions on the Stability and Convergence Programmes is rather limited.

1. BUDGETARY DEVELOPMENTS IN THE EURO AREA AND THE EU MEMBER STATES

1.1. THE SLOW PATH TO RECOVERY

The economic outlook remains uncertain as the world has just started to recover from its worst crisis since the Second World War. The financial crisis and the legacy of the imbalances accumulated earlier in the world economy means that the adjustment process lead to an extensive period of weakness in economic activity. The Commission services' Spring 2010 European Economic Forecast projects real GDP growth for the EU at 1.0% in 2010, against the backdrop of a very steep recession in 2009 of the order of -4.2% of GDP.

The recession has been broad-based across countries, despite sizeable differences. Some EU Member States have been subject to a more pronounced and/or protracted recession, depending on their exposure to the financial crisis and the global manufacturing cycle on the one hand, and on domestic and external imbalances on the other, including a substantial housing-market correction or other country-specific factors. In the same vein, the subsequent upswing is also likely to occur at a differing pace across countries. In the large Member States, GDP is expected to grow by between 2.7% (Poland) and -0.4% (Spain) this year. However, in Greece the output change is more markedly in the negative, at -3.0%.

In the EU27 GDP shrunk for three consecutive quarters, from late 2008 to mid-2009, and has only very gradually been recovering thereafter. While the EU economy has returned to positive growth rates on a quarterly basis from the third quarter of 2009, these have been modest so far. For 2011 then GDP growth is expected to stand at 1.7%. The outlook remains very uncertain, with considerable downside risks.

The economic downturn is increasingly visible in the labour market. From the low of 6.7% in early 2008, the EU unemployment rate has risen rapidly, although reacting with some lags to GDP growth. In March 2009 it stood at 9.6%. Unemployment is likely to remain at broadly similar levels during this year, reaching an annual average of 9.8%, and also in 2011. Reducing unemployment will be a

major policy challenge for the EU economy, as the worsened outlook also impacts public finances.

1.2. SHORT-TERM DEVELOPMENTS AND PROSPECTS FOR THE BUDGETARY POSITION AND PUBLIC DEBT

In 2009, the budgetary positions in the euro area and the EU deteriorated for the second year in a row, recording a very significant deterioration in comparison to the previous year. The euro-area average headline deficit reached 6.3% of GDP, up from 0.6% in 2007 and 2.0% in 2008 (Table I.1.1). A similar budgetary deterioration took place in the EU as a whole, where the average budget deficit increased by another 4.5 percentage points reaching 6.8% of GDP in 2009 (Table I.1.2). In both the euro area and the EU, the deterioration in the headline budget deficit was matched by a smaller deterioration in the structural budget balance, i.e. the budget balance net of cyclical factors and one-off and other temporary measures (by 1.9% of GDP in the euro area and 2.1% in the EU). Taken at face value this result would seem to suggest that to a significant extent the deterioration in the headline deficit was due to cyclical factors, and that it was only partly of a structural nature. The estimates of the structural budget balance are likely to be affected by the earlier exceptional buoyancy of tax revenues which has gone into reverse along with the economic cycle. ⁽¹⁾

Within the euro area, in 2009 the deterioration in the (nominal) budget balance was particularly sizeable in Spain (where the deficit increased by seven percentage points, while in 2008 still a surplus had been posted), in Finland (where a large surplus was converted into a considerable deficit), and to a lesser extent also in Belgium, Ireland, France, Cyprus, the Netherlands, Portugal, Slovenia, and Slovakia. Greece is a peculiar case where statistical revisions have increased past and expected deficits several times for both 2008 and 2009, for the latter up to 13.6% of GDP. (See Box I.2.2 on Greece). Hence in the large majority of Member States of the euro area the deficit in 2009

⁽¹⁾ Tax revenues were much higher than projected in the SCPs in 2005-2007.

Table I.1.1: Budget balances in EU Member States (% of GDP)

	Budget balance					Structural balance					Structural primary balance				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
BE	-0.2	-1.2	-6.0	-5.0	-5.0	-1.3	-2.1	-3.9	-3.8	-4.0	2.5	1.7	-0.3	0.0	-0.2
DE	0.2	0.0	-3.3	-5.0	-4.7	-1.2	-1.1	-1.7	-3.6	-3.5	1.6	1.6	0.9	-1.0	-0.8
IE	0.1	-7.3	-14.3	-11.7	-12.1	-1.6	-7.0	-9.4	-9.3	-10.2	-0.6	-5.7	-7.3	-6.5	-6.7
EL	-5.1	-7.7	-13.6	-9.3	-9.9	-6.8	-8.7	-13.0	-8.5	-8.2	-2.7	-4.2	-8.0	-3.2	-2.4
ES	1.9	-4.1	-11.2	-9.8	-8.8	1.2	-4.1	-8.9	-7.8	-7.0	2.8	-2.5	-7.1	-5.7	-4.4
FR	-2.7	-3.3	-7.5	-8.0	-7.4	-3.8	-3.8	-6.2	-6.2	-6.2	-1.1	-0.9	-3.9	-3.6	-3.3
IT	-1.5	-2.7	-5.3	-5.3	-5.0	-3.2	-3.5	-4.0	-3.7	-3.6	1.8	1.6	0.7	0.9	1.2
LU	3.6	2.9	-0.7	-3.5	-3.9	1.1	2.0	1.2	-1.4	-1.9	1.3	2.3	1.7	-1.0	-1.3
NL	0.2	0.7	-5.3	-6.3	-5.1	-1.0	-0.5	-3.6	-4.9	-4.0	1.2	1.6	-1.4	-2.6	-1.7
AT	-0.4	-0.4	-3.4	-4.7	-4.6	-1.6	-1.7	-2.4	-3.6	-3.6	1.1	0.8	0.3	-0.8	-0.7
PT	-2.6	-2.8	-9.4	-8.5	-7.9	-3.1	-3.8	-8.1	-7.7	-7.0	-0.3	-0.8	-5.2	-4.6	-3.4
SI	0.0	-1.7	-5.5	-6.1	-5.2	-2.9	-4.8	-3.7	-4.4	-3.8	-1.6	-3.7	-2.3	-2.5	-1.8
FI	5.2	4.2	-2.2	-3.8	-2.9	2.6	2.1	0.4	-1.3	-1.0	4.1	3.5	1.6	-0.2	0.2
MT	-2.2	-4.5	-3.8	-4.3	-3.6	-3.1	-5.2	-3.8	-4.0	-3.4	0.2	-1.9	-0.5	-0.7	-0.2
CY	3.4	0.9	-6.1	-7.1	-7.7	2.5	-0.4	-5.8	-6.3	-7.1	5.5	2.4	-3.3	-3.6	-4.2
SK	-1.9	-2.3	-6.8	-6.0	-5.4	-3.7	-4.7	-6.6	-5.4	-4.7	-2.3	-3.5	-5.1	-3.9	-3.2
EA-16	-0.6	-2.0	-6.3	-6.6	-6.1	-1.9	-2.8	-4.7	-5.0	-4.8	1.0	0.2	-1.8	-2.1	-1.6
BG	0.1	1.8	-3.9	-2.8	-2.2	-1.5	0.0	-2.8	-1.1	-0.8	-0.5	0.9	-2.0	-0.3	0.1
CZ	-0.7	-2.7	-5.9	-5.7	-5.7	-2.9	-4.5	-5.4	-4.9	-4.9	-1.7	-3.4	-4.1	-3.2	-2.8
DK	4.8	3.4	-2.7	-5.5	-4.9	3.1	3.3	0.6	-2.7	-3.1	4.7	4.7	2.6	-0.6	-1.0
EE	2.6	-2.7	-1.7	-2.4	-2.4	-1.1	-4.3	-0.6	-2.1	-1.8	-0.9	-4.1	-0.2	-1.6	-1.4
LV	-0.3	-4.1	-9.0	-8.6	-9.9	-4.5	-6.4	-6.9	-6.7	-9.0	-4.2	-5.8	-5.3	-4.3	-6.1
LT	-1.0	-3.3	-8.9	-8.4	-8.5	-3.1	-5.6	-7.1	-6.8	-6.8	-2.4	-5.0	-6.1	-5.2	-4.9
HU	-5.0	-3.8	-4.0	-4.1	-4.0	-5.5	-4.7	-2.2	-2.3	-3.0	-1.4	-0.5	2.6	2.3	1.1
PL	-1.9	-3.7	-7.1	-7.3	-7.0	-2.8	-4.6	-7.2	-6.3	-5.7	-0.5	-2.3	-4.6	-3.5	-2.6
RO	-2.5	-5.4	-8.3	-8.0	-7.4	-4.7	-7.7	-8.3	-7.1	-6.4	-3.9	-7.0	-6.8	-5.2	-4.4
SE	3.8	2.5	-0.5	-2.1	-1.6	1.6	1.1	1.9	-0.2	-0.5	3.3	2.8	2.8	0.7	0.3
UK	-2.8	-4.9	-11.5	-12.0	-10.0	-3.9	-5.2	-9.5	-10.4	-8.7	-1.7	-2.9	-7.5	-7.6	-5.6
EU-27	-0.8	-2.3	-6.8	-7.2	-6.5	-2.1	-3.1	-5.2	-5.6	-5.2	0.6	-0.3	-2.5	-2.8	-2.2

Note: The structural budget balance is calculated on the basis of the commonly agreed production function method (see European Commission (2004)).

Source: Commission services' Spring 2010 European Economic Forecast. The figures for Greece are based on information available prior to the finalisation on 2 May 2010 of the agreement on the conditionality negotiated between the Greek authorities and the Commission, ECB, and IMF.

exceeded the 3% of GDP reference value of the Treaty. Not a single country reported a surplus.

An even stronger negative impact was felt outside the euro area in 2009, where relative to the previous year the budgetary position weakened in most Member States. Very large deteriorations of between 4.9 and 5.7 percentage points were recorded in Latvia, Lithuania, and Bulgaria. The deteriorations posted by Poland, the Czech Republic, and Romania were slightly lower, of the order of 3.48, 3.2, and 2.9 percentage points respectively. In all of these countries the deficit now exceeded or continued to exceed the 3% of GDP reference value of the Treaty. In Hungary the deficit remained at approximately 4% of GDP. As to the remaining Member States outside the euro area, Denmark and Sweden now both reported deficits instead of previously solid surpluses. In the United Kingdom the deficit increased dramatically by more than seven percentage points.

Looking ahead to 2010 and 2011, the budgetary positions are expected to first deteriorate slightly

further in the light of slow economic growth, before essentially reverting to the levels of 2009. The Commission services' Spring 2010 European Economic Forecast projects euro area (EU) real GDP to increase by only 0.9 (1.0)% in 2010, compared to a steep contraction of 4.1 (4.2)% in 2009, and to increase by no more than -1.5 (1.7)% in 2011. Against this growth outlook, the aggregate budget deficit of the sixteen Member States which have adopted the single currency is expected to reach 6.6% of GDP in 2010, another 0.3 percentage points higher than the year before. Based on the no-policy-change assumption an improvement to 6.1% of GDP is projected in 2011. Broadly the same profile is expected for the EU as a whole. The deficit is forecast to rise to 7.2% of GDP in 2010, from 6.8% in 2009, and to slightly decline again to 6.5% in 2011.

Outside the euro area, the development of budgetary positions is likely to be more diverse. In the Czech Republic, Poland, and Romania the headline deficits are expected to remain far above the reference value of the Treaty in both years,

Table I.1.2: Euro area - General government budget balance (% of GDP)

	2007	2008	2009	2010	2011
Total revenue (1)	45.4	44.9	44.4	44.2	44.1
Total expenditure (2)	46.0	46.8	50.7	50.8	50.2
Actual balance (3) = (1) - (2)	-0.6	-2.0	-6.3	-6.6	-6.1
Interest (4)	2.9	3.0	2.8	3.0	3.2
Primary balance (5) = (3) + (4)	2.4	1.0	-3.5	-3.6	-2.9
One-offs (6)	0.0	-0.1	-0.1	0.0	0.0
Cyclically adjusted balance (7)	-1.9	-2.9	-4.8	-5.1	-4.8
Cyclically adj. prim. balance = (7) + (4)	1.1	0.1	-1.9	-2.1	-1.7
Structural budget balance = (7) - (6)	-1.9	-2.8	-4.7	-5.0	-4.8
Change in actual balance:	0.7	-1.4	-4.3	-0.3	0.5
- Cycle	-0.4	-1.4	-2.5	1.7	1.4
- Interest	0.1	0.0	-0.1	0.1	0.2
- Cycl.adj.prim.balance	0.1	-0.9	-1.9	-0.3	0.2
- One-offs	0.0	-0.1	0.0	0.0	0.0
- Structural budget balance	0.9	1.0	0.2	-1.8	-2.1

Note: Differences between totals and sum of individual items are due to rounding.

Source: Commission services' Spring 2010 Economic Forecast.

albeit to varying degrees. For Latvia a further limited worsening is projected, while the Lithuanian deficit is forecast to stabilise around the current very high ratios. The deficit in Estonia is expected to stay below the 3% of GDP threshold over the forecast horizon. The deficit in Hungary is forecast to continue to remain at around 4% of GDP in both 2010 and 2011. Denmark and Bulgaria are expected to run deficits above or only slightly below the 3% threshold over the forecast horizon, while in Sweden the deficit is projected to stay well below the 3% of GDP reference value of the Treaty in both 2010 and 2011. Finally in the United Kingdom a further budgetary deterioration to 12.0% of GDP is forecast for 2010, prior to an improvement to 10.5% of GDP in 2011.

In structural terms, i.e. net of cyclical factors and one-off and other temporary measures, the projected deteriorations in both the euro area and the EU in 2010 are smaller than those of the headline deficits, but still significant given that many Member States continue to support their economies with discretionary measures under the EERP. In particular, the structural balance is estimated to deteriorate by another 0.3% of GDP in the euro area and by 0.4% in the EU as a whole. For 2011, minor improvements of the order of 0.2% of GDP in the euro area and of 0.4% in the EU as a whole are projected. However, when making these estimates one should bear in mind that measuring cyclically-adjusted balances is not straightforward, in particular during a crisis such as the current one.

While the group of euro-area countries that have already achieved their medium-term budgetary objective (MTO) had already shrunk in 2008, structural fiscal positions are forecast to remain weak over the projection horizon, with no euro area Member State expected to attain its MTO in both 2010 and 2011.

Outside the euro area, a similar picture emerges and only Bulgaria is forecast to attain its MTO in 2010 and 2011 respectively (after having missed out on it in 2009) However, it is clear that aiming again seriously to attain the MTOs will be a crucial element in any exit strategy from the current economic crisis.

Turning to government debt, rising debt-to-GDP ratios reflect the deteriorating public finances, ailing economies, and public interventions in the financial system (Table I.1.4). In the euro area, in 2009 the ratio rose by 9.3 percentage points to 78.7%. This can partly be explained by a very steep increase of the debt in Spain, albeit from relatively low levels. A further increase to 88.5% of GDP by 2011 is projected in the euro area as primary deficits are coupled with a weak contribution from economic growth and the additional effect of rising interest expenditure. In the EU as a whole, the debt-to-GDP ratio is projected to rise steeply from its level of 73.6% in

Table I.1.3: Composition of changes in the government debt ratio in EU Member States (% of GDP)

	Gross debt ratio					Change in debt ratio 2007-11	Change in the debt ratio in 2007-11 due to:		
	2007	2008	2009	2010	2011		Primary balance	Interest & growth contribution	Stock-flow adjustment
BE	84.2	89.8	96.7	99.0	100.9	16.7	2.2	8.5	6.0
DE	65.0	66.0	73.2	78.8	81.6	16.5	2.2	8.4	5.9
IE	25.0	43.9	64.0	77.3	87.3	62.3	35.5	14.6	12.2
EL	95.7	99.2	115.1	124.9	133.9	38.2	19.7	15.0	3.5
ES	36.2	39.7	53.2	64.9	72.5	36.3	25.7	7.2	3.4
FR	63.8	67.5	77.6	83.6	88.6	24.8	15.6	5.9	3.4
IT	103.5	106.1	115.8	118.2	118.9	15.5	-1.0	14.8	1.7
LU	6.7	13.7	14.5	19.0	23.6	16.9	3.4	0.5	13.1
NL	45.5	58.2	60.9	66.3	69.6	24.1	7.0	5.9	11.2
AT	59.5	62.6	66.5	70.2	72.9	13.4	2.2	6.2	5.0
PT	63.6	66.3	76.8	85.8	91.1	27.5	16.4	8.9	2.2
SI	23.4	22.6	35.9	41.6	45.4	22.0	12.2	4.3	5.5
FI	35.2	34.2	44.0	50.5	54.9	19.7	-0.3	3.4	16.5
MT	61.9	63.7	69.1	71.5	72.5	10.6	3.2	5.7	1.7
CY	58.3	48.4	56.2	62.3	67.6	9.3	9.1	4.0	-3.8
SK	29.3	27.7	35.7	40.8	44.0	14.7	14.8	1.0	-1.1
EA-16	66.0	69.4	78.7	84.7	88.5	22.5	9.0	8.7	4.9
BG	18.2	14.1	14.8	17.4	18.8	0.6	3.8	-0.4	-2.8
CZ	29.0	30.0	35.4	39.8	43.5	14.6	13.7	3.8	-3.0
DK	27.4	34.2	41.6	46.0	49.5	22.1	1.9	6.0	14.2
EE	3.8	4.6	7.2	9.6	12.4	8.6	7.9	1.6	-0.9
LV	9.0	19.5	36.1	48.5	57.3	48.3	24.0	14.0	10.3
LT	16.9	15.6	29.3	38.6	45.4	28.5	23.9	5.6	-1.0
HU	65.9	72.9	78.3	78.9	77.8	11.9	-1.6	10.2	3.3
PL	45.0	47.2	51.0	53.9	59.3	14.3	14.4	-0.5	0.3
RO	12.6	13.3	23.7	30.5	35.8	23.3	23.1	1.0	-0.8
SE	40.8	38.3	42.3	42.6	42.1	1.3	-2.6	0.7	3.2
UK	44.7	52.0	68.1	79.1	86.9	42.2	28.2	5.4	8.6
EU-27	58.8	61.6	73.6	79.6	83.8	25.0	11.5	9.7	3.8

Notes: Differences between the sum and the total of individual items are due to rounding.

Source: Commission services' Spring 2010 Economic Forecast.

2009 to 79.6% in 2010, and to rise further to 83.8% in 2011, not least because of a very significant increase in the debt ratio in the UK. Finally, risks of further debt increases stem from public intervention in the financial sector.

Aggregate figures tend to mask diverging developments at the country level. There are several Member States which before the current financial and economic crisis had low or very low debt levels, which however are now rising sharply. This group of countries includes Ireland, Spain, Latvia, Lithuania and the United Kingdom. Moreover, three euro area-countries are expected to surpass again the 100% of GDP public debt threshold by 2011. Notably, Italy already had a public debt-to-GDP ratio above 100% of GDP

before the crisis and given that debt has increased again and is expected to remain above this threshold in 2010 and beyond. In Belgium the debt ratio rose again in 2008 and subsequently, after having remained on a steady downward path for many years. It stood at 84.2% of GDP in 2007, but is forecast to exceed the 100% of GDP threshold by 2011. In Greece the debt ratio, from a trough of 95.7% in 2007, is also expected to increase over the forecast horizon, up to 133.9% of GDP in 2011 (as usual under the no-policy change assumption). As to the other Member States with debt ratios above the 60% of GDP threshold in 2009, namely Germany, France, Hungary, Malta, Austria, and Portugal, further increases of these ratios are projected in all of them but Hungary.

Table I.1.4: Euro Area – Government revenue and expenditures (% of GDP)

	2007	2008	2009	2010	2011
Total revenue	45.4	44.9	44.4	44.2	44.1
Taxes on imports and production (indirect)	13.5	13.0	12.8	12.7	12.7
Current taxes on income and wealth	12.4	12.2	11.3	11.3	11.4
Social contributions	15.1	15.3	15.7	15.7	15.5
of which actual social contributions	14.0	14.2	14.6	14.5	14.4
Other revenue	4.4	4.4	4.6	4.5	4.5
Total expenditure	46.0	46.8	50.7	50.8	50.2
Collective consumption	7.9	8.1	8.8	8.8	8.5
Social benefits in kind	12.1	12.4	13.3	13.4	13.4
Social transfers other than in kind	15.8	16.1	17.7	18.0	17.8
Interest	2.9	3.0	2.8	3.0	3.2
Subsidies	1.2	1.2	1.4	1.4	1.3
Gross fixed capital formation	2.6	2.5	2.8	2.7	2.5
Other expenditures	3.4	3.5	4.0	3.6	3.5

Notes: Differences between the sum and the total of individual items are due to rounding.

Source: Commission services.

1.3. GOVERNMENT REVENUE AND EXPENDITURE

In 2009, the observed deterioration in budgetary positions in the euro area was largely the result of a higher expenditure-to-GDP ratio which was mainly due to higher social benefits and transfers, and also to higher collective consumption. As compared to the change in the expenditure ratio, only to a much lesser extent this deterioration was due to a lower revenue-to-GDP ratio (Table I.1.5). That negative contribution of the revenue side stemmed from taxes on imports and production and even more so from taxes on income and wealth, the latter not least due to a rapid decline of corporate income taxes.

Section I.3 confirms this view on the composition of the deterioration in the budget balance. It shows that compared to the plans presented in the 2008 updates of the Stability and Convergence Programmes, significant nominal expenditure overruns came together with limited revenue shortfalls.

Much lower than expected nominal growth further exposes these developments in the expenditure-to-GDP ratios. A similar pattern can be observed for the EU as a whole (Table I.1.5).

According to the Commission services' Spring 2010 Economic Forecast, both the expenditure and revenue ratios in the euro area will remain approximately constant over the forecast horizon, 2010-2011. On the revenue side in particular composition effects are expected to be small.

The massive deterioration mainly on the expenditure side of the budget in 2009 also explains the worsening of structural balances over the forecast horizon in most Member States. Indeed this fiscal expansion can only partly be explained by the operation of automatic stabilisers. The rest is due to discretionary measures.

Overall Member States budgetary plans for 2010 and 2011 have been compiled against a background of great uncertainty and exhibit many risks, on both the revenue and expenditure sides. ⁽²⁾

⁽²⁾ See Part I.3 of this report.

Table I.1.5: Government revenue and expenditure (% of GDP)

	Revenue					Expenditure				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
DK	55.7	55.3	55.8	53.7	53.3	50.9	51.9	58.5	59.2	58.1
EE	37.4	37.1	43.6	43.4	41.7	34.8	39.9	45.4	45.8	44.1
IE	36.7	34.7	34.1	35.4	33.9	36.6	42.0	48.4	47.1	46.0
EL	39.7	39.1	36.9	39.0	38.5	44.7	46.8	50.5	48.4	48.4
ES	41.1	37.0	34.7	35.9	35.9	39.2	41.1	45.9	45.7	44.7
FR	49.6	49.5	48.1	48.2	48.6	52.3	52.8	55.6	56.1	55.9
LT	33.8	34.2	34.1	34.1	33.2	34.8	37.4	43.0	42.5	41.7
MT	40.3	40.3	40.5	41.7	41.9	42.4	44.8	44.3	46.0	45.5
NL	45.7	46.6	46.3	46.0	46.6	45.5	45.9	51.6	52.3	51.7
PL	40.3	39.6	37.4	38.7	39.3	42.2	43.3	44.5	46.0	46.2
RO	33.5	32.1	32.1	31.9	31.3	36.0	37.6	40.4	39.9	38.8
SK	32.5	32.5	34.0	34.3	33.9	34.4	34.8	40.8	40.3	39.3
HU	44.8	45.4	45.8	44.7	44.2	49.8	49.2	49.8	48.8	48.1
IT	46.4	46.2	46.6	46.0	45.5	47.9	48.9	51.9	51.3	50.5
SI	42.4	42.6	44.4	44.6	44.7	42.4	44.3	49.9	50.7	49.9
UK	41.4	42.4	40.2	40.6	41.3	46.3	47.3	48.3	49.3	50.3
BE	48.2	48.8	48.2	48.7	48.8	48.4	50.0	54.2	53.7	53.9
BG	41.5	39.1	36.9	36.8	36.8	41.5	37.3	40.7	39.7	39.1
CZ	41.8	40.2	40.3	41.4	41.7	42.5	42.9	46.2	47.0	47.4
DE	43.9	43.7	44.3	43.1	42.5	43.7	43.7	47.6	48.0	47.2
CY	45.5	43.5	40.3	41.2	41.3	42.2	42.6	46.4	48.3	49.0
LV	35.4	34.4	34.0	36.2	34.5	35.7	38.6	43.0	44.8	44.4
LU	39.8	40.1	41.6	39.7	39.0	36.2	37.2	42.4	43.2	42.9
AT	48.1	48.4	48.3	47.8	47.6	48.5	48.9	51.8	52.5	52.2
PT	43.2	43.2	41.6	42.5	43.0	45.7	46.1	51.0	51.0	50.9
FI	52.5	53.6	53.2	52.1	52.4	47.3	49.4	55.3	55.9	55.3
SE	56.3	55.5	55.7	53.9	53.2	52.5	53.1	56.3	55.9	54.8
EA-16	45.4	44.9	44.4	44.2	44.1	46.0	46.8	50.7	50.8	50.2
EU-27	44.9	44.6	43.9	43.8	43.8	45.7	46.9	50.7	51.0	50.3

Source: Commission services' Spring 2010 Economic Forecast.

Box 1.1.1: The EERP and the withdrawal of temporary measures in product and labour markets

In response to the economic crisis, the Commission launched in November 2008 the European Economic Recovery Plan (EERP), confirmed by the European Council in December 2008 ⁽¹⁾. A key objective of the EERP was to boost demand and stimulate confidence over 2009-10 through a co-ordinated discretionary fiscal impulse amounting to €200 billion out of which Member States should contribute with €170 billion (around 1.5% and 1.2% of GDP of the EU GDP in 2008 estimated at the time). The EERP foresees that the fiscal stimulus is based on common principles and accompanied by structural reform measures in the context of the Lisbon strategy. In particular, stimulus measures should be timely, temporary and targeted. Measures under the EERP combine revenue and expenditure instruments, such as public expenditure; guarantees and loan subsidies; well-designed financial incentives; lower taxes and social contributions. To maximise its impact, budgetary stimulus take account of the starting positions of each Member State. For Member States facing significant external and internal imbalances, budgetary policy should essentially aim at correcting such imbalances. The EERP also specified that all Member States should commit to reverse the budgetary deterioration and return swiftly to the medium term budgetary objectives.

There has been strong monitoring of the implementation, both ahead of the June 2009 European Council and the December 2009 European Council ⁽²⁾. To this end, the Commission has set up an "EERP data base" in order to systematically catalogue relevant support measures taken at national level under the EERP. On this basis it is estimated that, overall, in gross terms (that is, before taking account of fiscal consolidation measures being implemented in various countries at the same time) the fiscal stimulus measures, taken or planned, by Member States amount to a total of 2.9% of annual GDP for 2009 and 2010 (compared to 2008). This total of fiscal stimulus measures has been about evenly split across the two years with 1.5% of GDP in 2009 and 1.4% of GDP in 2010. On a country level a positive feature is that, in line with EERP principles, the size of stimulus packages differs across countries, reflecting their individual circumstances. In Member States with large macro-economic imbalances stimulus measures have often been financed by off-setting consolidation measures, while in some countries measures have focussed directly on fiscal consolidation, resulting in no overall stimulus.

The Commission monitoring of progress has also concluded that recovery plans have been implemented speedily and therefore have been timely. They have generally been well targeted to the policy areas identified in the EERP: measures that support businesses, labour markets, investment activities, and households' purchasing power (including vulnerable groups).

As regards temporariness, the majority of stimulus measures over 2009 and 2010 take together are *temporary* and are planned to expire by 2011. Most temporary measures have clear sunset clauses/end dates or fixed budget envelopes, including those implemented under the State Aid Temporary Framework. Generally, temporary measures seem to have had positive effects on employment and economic activity during the crisis – essentially, by maintaining fundamentally sound activities and jobs that could otherwise have been lost. However, once economic growth resumes on a durable basis, such measures if left in place could hinder adjustment processes within and across sectors since they provide a subsidy for existing structures.

⁽¹⁾ COM (2008) 800 final, 26/11/2008, 'A European Economic Recovery Plan'. Available at: http://ec.europa.eu/commission_barroso/president/pdf/Comm_20081126.pdf

⁽²⁾ Progress report on the implementation of the European Economic Recovery Plan- June 2009" and dito December 2009, available at http://ec.europa.eu/financial-crisis/documentation/index_en.htm

(Continued on the next page)

Box (continued)

Table 1: **Budgetary dimension of EERP crisis measures in 2009 and 2010, in % of GDP**

Fiscal policy												
Overall (gross terms)	Discretionary stimulus in 2009					Consolidation measures in 2009	Discretionary stimulus in 2010					Consolidation measures in 2010
	Out of which,						Out of which,					
	measures aimed at households	increased spending on labour market	measures aimed at businesses	increased investment expenditure			measures aimed at households	increased spending on labour market	measures aimed at businesses	increased investment expenditure		
in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	in % of GDP	
BE	1.1	0.5	0.2	0.2	0.2	0.0	1.1	0.3	0.5	0.1	0.1	-0.9
BG	0.3	0.0	0.0	0.0	0.2	-3.3	1.0	0.4	0.6	0.0	0.0	-3.3
CZ	2.3	0.1	1.1	0.7	0.4	0.0	1.2	0.0	0.5	0.6	0.1	-1.1
DK	0.7	0.0	0.3	0.1	0.3	0.0	1.5	0.0	1.0	0.0	0.5	0.0
DE	1.7	0.5	0.4	0.5	0.4	0.0	2.4	1.1	0.4	0.4	0.4	0.0
EE	0.0	0.0	0.0	0.0	0.0	-9.2	1.2	0.0	0.0	0.0	1.2	-10.7
IE	0.7	0.4	0.1	0.2	0.0	-5.4	1.0	0.6	0.2	0.2	0.0	-10.2
EL	0.6	0.5	0.1	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	-1.8
ES	2.4	0.5	0.1	0.8	0.9	-0.3	0.8	0.2	0.0	0.1	0.5	-0.9
FR	1.6	0.3	0.1	0.9	0.3	0.0	1.4	0.3	0.0	1.0	0.1	-0.1
IT	0.8	0.2	0.1	0.3	0.2	-0.9	0.8	0.1	0.2	0.3	0.1	-0.8
CY	2.7	0.9	0.1	0.3	1.4	0.0	2.4	0.7	0.1	0.6	1.1	0.0
LV	1.5	1.4	0.0	0.0	0.0	-4.5	0.1	-0.1	0.0	0.2	0.0	-11.7
LT	0.0	0.0	0.0	0.0	0.0	-7.6	0.0	0.0	-0.1	0.1	0.0	-12.5
LU	3.4	1.6	0.3	0.3	1.1	0.0	2.2	1.4	0.0	0.5	0.3	0.0
HU	0.5	0.0	0.5	0.0	0.0	-2.2	2.1	0.0	2.1	0.0	0.0	-5.5
MT	0.7	0.2	0.0	0.2	0.2	-1.7	1.1	0.6	0.0	0.2	0.3	-2.2
NL	0.9	0.2	0.1	0.3	0.2	-0.2	1.0	0.2	0.1	0.3	0.4	-0.1
AT	1.5	1.1	0.3	0.0	0.1	0.0	1.8	1.3	0.3	0.1	0.0	0.0
PL	1.6	0.8	0.0	0.2	0.5	-0.6	3.2	0.9	0.1	0.2	2.0	-0.5
PT	1.1	0.2	0.2	0.3	0.4	0.0	0.6	0.2	0.3	0.1	0.0	0.0
RO	0.2	0.0	0.1	0.1	0.0	-0.6	0.3	0.0	0.1	0.2	0.0	-2.7
SI	1.5	0.1	0.1	0.8	0.4	-1.0	1.8	0.1	0.3	1.0	0.4	-1.7
SK	0.4	0.2	0.1	0.0	0.1	-0.5	0.5	0.3	0.1	0.1	0.1	-1.1
FI	1.6	1.0	0.0	0.2	0.3	0.0	2.7	1.7	0.1	0.5	0.4	-0.4
SE	1.7	0.2	1.3	0.0	0.2	0.0	2.7	0.9	1.6	0.0	0.2	0.0
UK	1.9	1.3	0.1	0.3	0.2	-0.2	0.5	0.4	0.2	0.1	-0.1	-0.6
EU27	1.5	0.5	0.2	0.4	0.3	-0.4	1.4	0.5	0.3	0.4	0.3	-0.7

Notes. The numbers refer to the sum of the budgetary amounts of the expansionary stimulus measures, taken or planned to be taken over 2009/2010, compared to 2008, in response to the crisis and in line with the EERP. Fiscal consolidation measures being implemented in various countries at the same time are abstracted from.

Source: Commission services.

However, in 2010, more than half of the stimulus (0.9 % of GDP) consists of permanent measures with a durable impact on budget balances. In Luxembourg, Hungary, Poland, Finland and Sweden, the amounts are significantly larger than the EU average. The bulk of these permanent measures (equivalent to 0.6% of GDP) are aimed at supporting household purchasing power and a proper functioning of labour market, mainly via labour tax cuts. While these measures may appear to be compatible with long-term objectives, such as strengthening incentives to work, their permanent nature makes them less effective in terms of support to output than temporary measures. Moreover, alleged positive effects on output in the long-run should be seen in the context of the permanent deterioration in the budget balance which leads – ceteris paribus - to a sizeable increase in the debt-to-GDP ratio and ensuing long-term economic costs. ⁽¹⁾

⁽¹⁾ See also sections III.3 and III.5 of this report for model simulations of debt increases, stimulus and consolidation measures.

(Continued on the next page)

Box (continued)

Table 2: Temporary and permanent stimulus measures in EU Member States in 2009 and 2010 (% of GDP)

Member States	2009		2010	
	Temporary measures	Permanent measures	Temporary measures	Permanent measures
BE	0.4	0.7	0.1	1.0
BG	0.3	0.0	0.0	1.0
CZ	1.5	0.8	0.2	1.0
DK	0.5	0.3	0.9	1.0
DE	1.2	0.5	1.0	1.5
EE	0.0	0.0	1.2	0.0
IE	0.1	0.6	0.2	0.8
EL	0.6	0.0	0.0	0.0
ES	2.2	0.2	0.5	0.2
FR	1.3	0.2	0.4	1.0
IT	0.6	0.2	0.7	0.1
CY	1.8	0.5	1.6	0.4
LV	1.5	-0.1	0.0	0.1
LT	0.0	0.0	0.0	0.0
LU	0.7	2.7	0.3	1.9
HU	0.0	0.5	0.0	2.1
MT	0.3	0.4	0.4	0.7
NL	0.5	0.3	0.6	0.4
AT	0.2	1.2	0.3	1.5
PL	0.0	1.5	0.1	3.1
PT	0.8	0.3	0.3	0.3
RO	0.2	0.0	0.2	0.0
SI	0.4	1.1	0.6	1.2
SK	0.4	0.0	0.5	0.0
FI	0.5	1.3	0.6	2.3
SE	0.5	1.2	0.9	1.8
UK	1.7	0.2	0.3	0.4
EU27	1.1	0.4	0.6	0.9

Source: Commission services.

Box 1.1.2: Rethinking the automatic stabilisers

The automatic stabilisers are the features in a country's tax and spending system which affect the amount of support given to the economy over the economic cycle without any explicit action being taken. By increasing tax revenues more cyclically while reducing the share of national income spent by the government in benefits and on public services as the economy grows, the automatic stabilisers lead to lower government borrowing in booms and, through opposite effects when the economy is weak, lead to higher government borrowing in recessions. In this way there is an element of automatic stabilisation in the economy.

The degree of stabilisation provided will depend on the size of the stabilisers (other things being equal, the greater the size of the public sector the more stabilisation it provides), the elasticity of the stabilisers (that is the change in borrowing for a given change in output which will, amongst other aspects, be a function of the progressivity of the tax system or the conditionality of the benefit system) and the composition of the economy and growth. As some components of gross domestic product are more highly taxed than others, a boom fuelled by growth in more highly taxed components will lead to more automatic stabilisation than one caused by growth in less highly taxed components.

The current economic crisis has seen unprecedented levels of fiscal support for the European (and world) economies. Some of this was provided through discretionary measures which governments introduced in order to help support their economies, but the automatic stabilisation provided in 2009 was greater, overall, than the discretionary measures. In 2010, it is expected that the automatic stabilisers will continue to add impetus to the European economies despite a contraction in discretionary policy overall.

The automatic stabilisers have a number of advantages over discretionary policy measures in terms of the support they provide. Through their very nature they typically provide timely support as tax receipts are linked directly to the performance of the economy; they do not require the identification of underlying trends to be analysed by policy makers before any action is taken. The size of the stabilisation provided is linked to the magnitude of the recession or overheating of the economy and there is no need to take action to reverse the stabilisation provided once the economy returns to a more sustainable path.

A fundamental disadvantage, however, of the stabilisation provided by the automatic stabilisers is that it is determined by their structure. As they are an instrument fulfilling multiple aims, their ability to respond to the aim of stabilisation is likely to be hampered by their other facets which are of primary importance. In this way, for example income tax systems are typically set up in order to balance the need to government revenue with redistribution concerns and it right that this is so. Public spending is usually set in terms of the services it is deemed economically or politically desirable for the state to provide.

The use of extensive discretionary policy as the crisis hit indicates that the amount of automatic stabilisation provided was insufficient. Increasing the size of the automatic stabilisers would therefore have strong advantages for most countries. However, large stabilisers have costs too – as the size of the stabilisers is roughly determined by the size of a country's public sector, there is a tradeoffs between the stabilisation offered and the efficiency or growth potential an economy has. How then, to enhance stabilisation, without compromising growth?

A first answer lies in enhancing the elasticity of the stabilisers in exceptional economic circumstances, but not their mean value overall. Changing the micro-structure of the tax and benefit system can, at the margin, lead to enhancement of the stabilisers while also supporting growth. The ability to do this is does not appear widespread though – while some reforms are possible, a radical restructuring of the incentive structure of most countries' tax and benefit systems to attain current distributional objectives, while enhancing efficiency and stabilisation is somewhat utopian. Some modifications, however, are usually possible. Moving, for example from tax deductions to (uniform) refundable tax credits for socially valued activities and from the collection of corporate income tax on the basis of a company's previous year's actual income to payments

(Continued on the next page)

Box (continued)

based on the estimated income for the current year would steps in the right direction⁽¹⁾, as argued in Baunsgaard and Symansky (2009). On the expenditure side, in some countries the responsiveness of unemployment insurance to the cycle could be enhanced with the time for which such insurance is payable to vary with the prevailing labour market conditions. A further option which mimics an increase in elasticity could be a pre-stated commitment to adjust particular tax rates up or down in given economic circumstances, which would take some heat out of the economy when it is judged to be particularly strong⁽²⁾. Again, in this case, setting the exact criteria for when the adjustments should take place and ensuring that their operation is as free as possible from political manipulation is a difficult exercise to undertake. This approach of time-varying tax rates, could be used to tackle overheating beyond the classical economic cycle. Posen (2009) argues that cycles in the housing market could be dampened through taxes that vary in line with the price-level. In the light of the role that housing booms had in the overheating of many European economies, having a tool for dampening asset cycles through enhancements to the structure of asset taxes.

A difficulty with these enhancements is to preserve the automatic element of the stabilisation. By adding criteria that require assessment to determine the operation of the tax and benefit system, there is a risk that symmetry of response is compromised with policy being loosened more often or more quickly than it is tightened. In addition, any element of judgement or discretion could compromise the effectiveness of the change being effected, as the temporary nature of added support is key to its effectiveness. Moreover, as stressed in Kaufman (2000) if the lag between identifying macroeconomic conditions that merit adjustment and the adjustment of the tax system is significant, there is a risk that stabilisation could be compromised as the change in the fiscal stance becomes pro- rather than counter-cyclical.

⁽¹⁾ Baunsgaard T. and S. A. Symansky (2009) "Fiscal Stabilizers: How Can They Be Enhanced Without Increasing the Size of Government?", IMF Staff Position Note.

⁽²⁾ Kaufman (2000), "Fiscal Policy through Time-varying Tax rates If and How", IMP working paper no. 00/170, looks at time varying income and consumption tax from the point of view of welfare maximisation for individuals in the presence of credit constraints. He finds that from a theoretical point of view, time varying tax rates can be welfare enhancing under certain conditions and stresses the inherent difficulties in introducing such tax rates in practice.

Box 1.1.3: The impact of government interventions supporting financial institutions on public finances

Member state governments launched numerous programmes under the umbrella of the European Economic Recovery Plan to limit the damage inflicted on the economy by the financial crisis and the triggered economic recession and to boost future growth. Other measures aimed at restoring the functioning of financial markets and to rescue failing banks and financial institutions. While the former measures had strained public finances in all member states and drove the government deficit above the Maastricht threshold in numerous countries, the direct financial costs of the interventions in support of financial markets appear to be quite limited in comparison to the deterioration in the public accounts.

To provide a more complete picture of the actual and the potential impact on government deficit and debt due to government interventions relating to the financial crisis (and strictly excluding interventions addressing the economic downturn or supporting non-financial institutions), Eurostat had started to collect and publish information on these government measures as a part of the regular EDP notifications.⁽¹⁾ In general, three types of information is gathered, transactions with an actual impact on the EDP deficit or surplus, data on stocks of financial assets and liabilities (included in government debt) and activities which involve contingent liabilities (such as guarantees) and may therefore affect government liabilities in the future.

The supplementary tables of the April 2010 EDP notification, summing transactions from nineteen countries, show that while the direct costs affecting the budget deficit amounted to roughly 0.1% of GDP of EU27 in both 2008 and 2009, the impact on both the assets and liabilities of the general government sector was somewhat larger, it constituted around 2% of GDP in 2008 and around 3% in 2009. The effect of government interventions in support of the financial sector was reported to be even slightly lower in the euro area with the impact on the deficit being negligible in 2008 and below 0.1% of GDP in 2009. In the euro area, the assets and liabilities of the general government, linked to the support of the financial market, reached 2½% of GDP in 2009.

However, the large scale government interventions to shore up financial institutions did have a sizable impact on the stock of contingent liabilities.⁽²⁾ In the context of the financial crisis, contingent liabilities typically involved general government guarantees granted to non-general government units, government securities issued under liquidity schemes (but not recorded as government debt) and special purpose entities (SPEs) which were classified outside the general government but in which the government had a significant role. The supplementary tables of the April 2010 EDP notification show that in the EU27 the stock of contingent liabilities related to government interventions in support of the financial sector approached 7% of GDP and reached 10% of GDP in 2008 and 2009, respectively. Somewhat lower but still significant stocks of contingent liabilities were accumulated in the euro area, representing 5½% and 8½% of their GDP.

As regards to the impact on general government deficit the interventions (most importantly capital injections) in Ireland, United Kingdom and the Netherlands were the most significant. In Ireland, for instance, EUR 4 billion was provided to the Anglo-Irish Bank which amounted to 2.4% of GDP. The most significant financial sector rescue operations with a direct impact on government debt were carried out in the Netherlands, United Kingdom and Germany. However, as a percentage point of GDP, interventions in Luxembourg, Belgium, Latvia and Denmark were also important. In 2008, the Netherlands increased their stock of government liabilities by more than EUR 80 billion (in operations such as the acquisition of Fortis Bank), while the British government debt increased by more than GBP 60 billion through financing operations. At the same time, government liabilities in Germany related to the support of the financial sector

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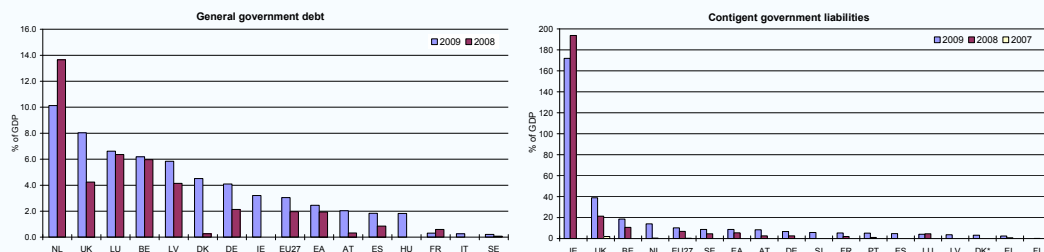
http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/excessive_deficit/supplementary_tables_financial_turmoil

⁽²⁾ Contingent liabilities are hypothetical obligations at the time of inception which only become actual liabilities if predefined conditions or events materialize, such as the bankruptcy of the beneficiary financial institution.

(Continued on the next page)

Box (continued)

Graph 1: **The impact of interventions in the financial sector on general government debt and contingent government liabilities (% GDP)**



* Does not include the unlimited state guarantee (for losses above a certain threshold) for the Danish special purpose entity Afviklingsselskabet Finansiell Stabilitet.
Source: Eurostat, April 2010 EDP notification.

amounted to more than EUR 50 billion. In 2009 however, while the Netherlands had reduced its outstanding stock of government liabilities by more than EUR 20 billion, Germany and the United Kingdom almost doubled their obligations. During 2008 and 2009, Belgium and Spain have also accumulated a significant stock of liabilities (in the context of financial market support operations) of around EUR 20 billion.

Not reported in the public accounts are the contingent liabilities of the government, nevertheless, they may constitute sizable expenditures in the future. These liabilities are typically guarantees, which were used extensively in Ireland, the United Kingdom and Germany, but also in the Netherlands, Belgium and Spain. Guarantees issued by the Irish government in 2008 amounted to EUR 350 billion, which was reduced in 2009 to around EUR 280 billion; while guarantees of the German government reached EUR 159 billion, up from EUR 66 billion in 2008. In addition to guarantees, France and the UK followed alternative approaches to reassure markets, which, however, have also increased radically their stock of contingent liabilities during the crisis years. In France, a special institution was set up, backed by the government, to revive specific segments of the markets. This approach contributed to the stock of contingent liabilities by roughly EUR 80 billion, on top of state guarantees of around EUR 20 billion. In the UK, state guarantees already summed to around EUR 150 billion, which was compounded by the issuance of special government bonds (used only under the Special Liquidity Scheme), in a value of EUR 230 billion.

2. IMPLEMENTING THE STABILITY AND GROWTH PACT

INTRODUCTION

The extraordinary recession and the associated strong deterioration of budgetary positions has put a strain on the EU fiscal framework. ⁽³⁾ This section reviews the implementation of the excessive deficit procedure since spring 2009. Section II.1 of this report explains the rationale of the implementation of the framework throughout the crisis.

In 2009, the number of Member States with a nominal budget deficit above 3% of GDP increased further to 22, from eleven in 2008 and only two in 2007 (see Table II.2). According to the Commission services' Spring 2010 Economic Forecast, in 2009 the government deficits would exceed the 3% of GDP reference value of the Treaty in nearly all Member States (the only exceptions being Luxembourg, Finland, Denmark, Sweden, and Estonia). Based on a no-policy change scenario, in 2010 the deficit would remain below 3% of GDP only in Bulgaria, Estonia, and Sweden.

Within a context where the near-totality of the EU has become subject to the excessive deficit procedure (EDP), the enforcement of the rules-based framework of the Treaty and Stability and Growth Pact (SGP) reflects the common interest of Member States to anchoring strategies for exit from short-term support and for ensuring the sustainability of public finances. The flexibility introduced by the 2005 reform of the SGP allows Member States in excessive deficit to implement corrective action in timeframes consistent with the

recovery of the economy, with rapid fiscal consolidation being called for only in cases of immediate fiscal and macro-financial risks. Furthermore, the reform established the possibility of revising the recommendations for the correction of the excessive deficit including an extension of the deadline in case of adverse economic developments with major unfavourable consequences for public finances. This possibility is meant to cater for budgetary outcomes falling short of targets on account of the deterioration of the underlying economic scenario but with full effective action as regards the required consolidation measures.

2.1. THE EXCESSIVE DEFICIT PROCEDURE

Proceeding in chronological order, in July 2009, following opinions of the Commission and on the basis of recommendations from the Commission, the Council decided that an excessive deficit existed in Latvia, Lithuania, Malta, Poland, and Romania and set deadlines for correction in accordance with Article 126(6-7) consistent with consolidation over the medium term. Also, the Council set a revised deadline of 2011 for Hungary in accordance with Article 126(7) in view of unexpected adverse macroeconomic events.

As public finances continued to deteriorate over the year, the authorities of Belgium, the Czech Republic, Germany, Italy, the Netherlands, Austria, Portugal, Slovenia, and Slovakia reported a planned breach of the 3% threshold for 2009.

The Commission adopted reports under Article 126(3) for all the above countries in October 2009. In December 2009, following opinions of the Commission and on the basis of recommendations from the Commission, the Council decided that an excessive deficit existed in the countries listed above and set deadlines for correction in accordance with Article 126(6-7). Furthermore, the Council considered that due to unexpected macroeconomic events the deadlines issued to France, Spain, Ireland and the United Kingdom in April 2009 could no longer be considered realistic and adopted new recommendations under Article 126(7) for these Member States, extending the deadline for correction by one year in each case. Regarding Greece, the Council decided in

⁽³⁾ Article 126 of the Treaty (this section refers the Article numbering in the Lisbon Treaty) lays down an excessive deficit procedure (EDP) where the reference values for deficits and debt are 3% and 60% of GDP respectively. This procedure is further specified in Council Regulation (EC) No. 1467/97 'on speeding up and clarifying the implementation of the excessive deficit procedure'. The obligation for Member States to achieve and maintain their MTO is laid out and specified in Council Regulation (EC) No. 1466/97 'on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies'. These two regulations are part of the Stability and Growth Pact, representing its 'dissuasive' and 'preventive' arm, respectively. Relevant legal texts and guidelines can be found at: http://ec.europa.eu/economy_finance/sgp/legal_texts/index_en.htm
Enforcement mechanisms of the EU budgetary surveillance framework are described in Box I.2.1 in this section of the report.

accordance with Article 126(8) that the Greek authorities had not taken effective action in response to the recommendations issued under Article 126(7) in April 2009.

In February 2010 the Council gave notice to Greece, in accordance with Article 126(9), to take measures for deficit reduction judged necessary in order to remedy the situation of an excessive deficit by 2012. At the same time, the Council extended the deadlines for Lithuania, Malta, and Romania by one year in each case due to unexpected adverse macroeconomic events. In the cases of Latvia and Poland the Commission considered that effective action had been taken in compliance with the July 2009 Council recommendations. Developments in the budget balance were judged to be on course for correction by 2012, making a revision of the deadlines issued previously by the Council unnecessary.

In the context of the April 2010 notification, Bulgaria and Cyprus reported a breach of the 3% of GDP reference value for 2009. At the same time, Denmark, Finland and Luxembourg notified a planned breach for 2010. On 12 May 2010 the Commission adopted reports under Article 126(3)

for all five Member States. On 15 June 2010, after the cut-off day of this report, the Commission will adopt opinions under Article 126(5) on the existence of an excessive deficit for these countries and subsequently decide on recommendations to the Council to adopt a Council decision on the existence of an excessive deficit under Article 126(6) and a Council recommendation to correct it under Article 126(7). The Council is scheduled to discuss these recommendations on 13 July 2010.

As to Greece, consolidation plans were stepped up during March, April, and May 2010, in parallel to efforts of making the financial support mechanism operational. (See Box I.2.2) Here fiscal consolidation was ever more combined with more fundamental structural and institutional reforms, to the point of the excessive deficit procedure being superseded by the macroeconomic adjustment programme agreed as a condition for activating the financial support mechanism.

In the following paragraphs, details on the surveillance mechanisms in the Member States subject to an excessive deficit procedure both inside and outside the euro area are discussed in the English alphabetical order of Member States.

Box 1.2.1: The excessive deficit procedure

Article 126 TFEU (ex Article 104 TEC) states that Member States shall avoid excessive government deficits. In particular Member States shall comply with budgetary discipline by respecting two criteria specified in the Protocol on the excessive deficit procedure annexed to the Treaty: a deficit ratio and a debt ratio not exceeding reference values of respectively 3% and 60% of GDP. ⁽¹⁾ Article 126 also sets out the detailed procedure to be followed to identify and correct situations of excessive deficit, including the related voting modalities. The Regulation 1467/97 of the Stability and Growth Pact (SGP), as amended by Council Regulation 1056/05, clarifies the procedure.

The first four steps of the procedure, corresponding to the provisions of paragraph 3 to 6 of Article 126, concern the identification of situations of excessive deficit. The excessive deficit procedure is triggered if the deficit of a Member State exceeds 3% of GDP. In such a situation, the Commission adopts a report, in accordance with Article 126(3), reviewing in detail the economic and budgetary situation of the Member State considered. As foreseen in Article 126(4) and Regulation 1467/97, the Economic and Financial Committee formulates an opinion on this report within two weeks. The Commission takes this opinion into account and, if it considers that an excessive deficit does exist, addresses an opinion under Article 126(5) to the Council. On the basis of the Commission opinion, the Council decides on the existence of an excessive deficit under Article 126(6).

The subsequent steps of the procedure are dedicated to the correction of the excessive deficits. When it decides that an excessive deficit exists, the Council addresses a recommendation to the Member State concerned in accordance with Article 126(7). In this recommendation, the Council sets a deadline for the Member State to correct the excessive deficit and specifies a fiscal effort to be achieved to this end by the Member State concerned (of at least 0.5% of GDP as a benchmark). Regulation 1467(97) specifies that the deadline for the correction of the excessive deficit shall be set taking into account an overall assessment of the factors mentioned in the Article 126(3) TFEU. In case action by the Member State concerned leads to the correction of the excessive deficit, the Council shall decide, in accordance with Article 126(12), to abrogate its decisions under the excessive deficit procedure. In other words, the procedure is closed. In the event where the Council considers that effective action has not been taken, it may decide, as stated in Article 126(8) TFEU, to make public its recommendation according to 126(7). In case effective action has been taken but events outside the control of the government with large adverse consequences on the budget prevent the correction of the excessive deficit within the time limits set by the Council, the possibility exists to revise the deadline for the correction of the excessive deficit in a new 126(7) recommendation.

The steps described above apply to all EU countries. The further steps of the procedure depend on whether the Member State is a euro-area Member State or not. The excessive deficit procedure applies in full to euro-area Member States. For these countries, Article 126(9) stipulates that, provided the Council adopts a decision under article 126(8), it may decide to give notice to the Member State concerned to take the necessary measures to reduce the deficit. The recommendations under article 126(9) of the Treaty shall include a deadline for the correction of the excessive deficit and a fiscal effort to be achieved to this end by the Member State concerned (of at least 0.5% of GDP as a benchmark).

This step constitutes a move towards even closer surveillance, and is the ultimate step before the possible imposition of sanctions. If the Member State fails to comply with the recommendations, the Council may decide to impose sanctions no later than two months after notice has been given. In case of compliance with the recommendations formulated in the notice under article 126(9), the decisions taken under Articles 126(6) to 126(9) are abrogated with a Council decision in accordance with Article 126(12), and the procedure is

⁽¹⁾ Article 126(2) TFEU states that a deficit of more than 3% of GDP that is only exceptional and temporary may not be considered excessive in case the deficit remains close to the reference value. The same Article provides an exception for countries having a debt ratio above 60%, if this ratio diminishes sufficiently and approaches the value of 60% of GDP at a satisfactory pace.

(Continued on the next page)

Box (continued)

closed. In case effective action has been taken but events outside the control of the government with large adverse consequences on the budget prevent the correction of the excessive deficit within the time limits set by the Council, the possibility exists to revise the deadline for the correction of the excessive deficit in a new 126(9) notice. As mentioned above, non-euro-area Member States are not exempt from the obligation to avoid excessive deficits, but the later steps of the EDP do not apply to them. When a Member State outside the euro area in a situation of an excessive deficit fails to respect the recommendations addressed under Article 126(7), it cannot be made subject to the last two substantive steps of the excessive deficit procedure, namely notice foreseen in Article 126(9) and the imposition of sanctions foreseen in Article 126(11). Non-compliance with a recommendation under 126(7) may lead to a renewed recommendation according to Article 126(7), following a decision according to Article 126(8).

Box 1.2.2: The EU's response to the crisis in Greece: financial support conditional on implementing a programme of economic adjustment

On 2 May 2010, following a request by the Greek authorities, the Eurogroup formally launched a financial assistance mechanism, conditional on the implementation of a programme of economic adjustment negotiated with the Greek authorities, and on an assessment by the Commission and the ECB of the risks to financial stability in the euro area as a whole. The adjustment programme agreed ⁽¹⁾ was negotiated between Greece and the Commission, in liaison with the ECB and the IMF, whose involvement allows drawing on its long-standing expertise in financial assistance related matters. The programme built on the Council Recommendation and Decision of 16 February, which again had followed up on the Council Conclusions of 2 December 2009 according to which fiscal action taken by Greece had been inadequate.

The activation of the financial support mechanism was preceded by earlier discussions and agreements. On 11 February, the European Council signalled its readiness to take determined and co-ordinated action, if needed, to safeguard the stability of the euro area as a whole. On 25-26 March, the same specified (some of the) concrete modalities of assistance to Greece: pooled bilateral loans, joint intervention with the IMF, strong conditionality, non-concessional pricing. On 11 April, the Eurogroup set out concrete parameters for the assistance, notably the pricing formula and the euro area contribution for the first year.

The general background to the current situation are the economic downturn, and the realisation, following the Greek elections in October 2009, that the fiscal and public debt positions for 2008 and 2009 were far worse than reported by the previous government. These factors caused confidence to drop, financing costs to increase, and growth and employment to suffer. Thus the crisis exposed the weak fiscal position of Greece. The budget deficit of 5.1 percent of GDP in 2007, at the top of the cycle, shows that Greece entered the downturn with a large structural deficit. With weak revenue policies and tax administration, especially in the run-up to the 2009 elections and aggravated by the recession, revenues declined notably. Spending, meanwhile, increased significantly, especially on wages and entitlements, reflecting weak spending discipline and control, which also led to new arrears. The deficit jumped to an estimated 13.6 percent of GDP while the public debt rose to over 115 percent of GDP in 2009.

The financial system has also been adversely affected. With the deteriorating fiscal results came downgrades of government bonds by rating agencies, and investors started backing out of Greek bonds, driving up their yields. Furthermore, it is clear that the deep macroeconomic and structural problems combined with the inevitable strong fiscal adjustment over the medium term are likely to weigh on activity for some time. This combination of factors affects negatively the banking system. Impaired loans are rising while borrowing costs in the interbank and wholesale markets have increased. In addition, the external deficit is declining only gradually, despite the recession with the external interest bill on the foreign debt increasing to over 5 percent of GDP. Indeed over the last decade, in the aftermath of rapidly increasing labour costs in particular, Greece has lost competitiveness. Its restoration should also be a priority, in order to boost investment and exports and in view of the high and increasing unemployment.

The main objectives of the programme of economic adjustment are to correct fiscal, financial, and external imbalances and by doing so to restore confidence. Without regaining confidence in the sustainability of fiscal and economic developments, the cost of funding the economy is bound to stay high if not to increase further. Growth is unlikely to be buoyant as the initial corrective fiscal measures are implemented, but with a strong medium-term policy orientation, the economy should emerge from this experience in better shape than before. To achieve the programme objectives, all available fiscal, financial, and structural policies will be used, specifically in order to correct fiscal imbalances and place debt on a downward path, maintain banking sector stability, and restore competitiveness. This includes incomes and social security policies needed to buttress the fiscal adjustment effort and the restoration of competitiveness, and structural reforms that boost the economy's capacity to produce, save, and export hence are critical for the medium-term

⁽¹⁾ See Memorandum on Economic and Financial Policies and Memorandum of Understanding on Specific Economic Policy Conditionality (both 3 May 2010).

(Continued on the next page)

Box (continued)

recovery. It is also attempted to share the distribution of the adjustment burden as fairly as possible and to protect the most vulnerable in society.

Nonetheless, fiscal policy is the cornerstone of the programme. The Greek government has committed to put in place durable adjustment measures, on top of those already announced in March 2010, of 11 percent of GDP in cumulative terms through to 2013, with additional remedial measures in 2014 to reduce the deficit to well below 3 percent of GDP. This large adjustment is needed to put the debt-to-GDP ratio on a downward trajectory from 2013 onwards, which will be sustained after the programme period by keeping primary balances in a sizeable surplus (of at least 5 percent of GDP) up to 2020. To sustain fiscal consolidation over the medium term, the fiscal policy framework and fiscal institutions should also be strengthened. There is a recognised need to frontload the multiyear adjustment effort given Greece's very high and still growing, debt ratio and large fiscal deficit. A start has already been made leading to a significant reduction in the 2010 first quarter deficit. For the remainder of 2010 additional measures will be implemented beyond those stipulated in the Council Decision and Recommendation of 16 February 2010 and those announced in March 2010. The three biggest additional upfront measures are a cut in the public sector wage bill and in pension outlays, and further increases in the VAT and selected excises. For 2011 and beyond, further revenue and expenditure measures have been identified to secure fiscal targets. As a result, expenditures will be cut by the equivalent of around 7 percent of GDP until 2013, while revenues will be increased by the equivalent of around 4 percent of GDP through to 2013.

Besides these direct fiscal steps for the budget, a series of important structural fiscal reforms have been initiated, including reforms of pensions, healthcare, taxation, and tax administration. Specifically, *inter alia*, the normal retirement age is being set to 65 years and early retirement is restricted, double-entry accrual accounting is being implemented in hospitals, exemptions and deductions from income tax are being curbed while the fight against tax evasion is intensified, including stronger enforcement and auditing of high-wealth individuals and self-employed. To these reforms add far-reaching further improvements of public financial management and the fiscal framework, the debt management framework, and also of fiscal and other public sector reporting of information. Specifically, this includes the adoption of medium-term budgeting from 2011 onwards, and a further intensification of efforts to improve the collection and processing of general government data compiled according to the European System of National and Regional Accounts (ESA). Greece has committed to take appropriate measures to preserve the programme objectives, including a reduction of discretionary spending, should any downside risks materialise.

Notwithstanding the significant fiscal adjustment, a public financing gap of around €110 billion can be projected for the programme period, and expected to be covered through matching bilateral lending support from euro area Member States (€80 billion) and IMF support (€30 billion). Greece will draw on these resources in parallel, on the bilateral euro area support and the IMF financing in a given ratio in each disbursement. If fiscal consolidation proceeds faster than expected or if market conditions improve significantly during the programme period, Greece would refrain from drawing on the full support.

Progress in the implementation of the policies under this programme will be monitored through quarterly (and continuous) quantitative performance criteria and indicative targets, structural benchmarks, programme reviews, and consultation clauses. Quantitative targets up to December 2010 are performance criteria. Targets for 2011-2013 are indicative and for 2011 will be converted into performance criteria at the time of the second review before end-2010.

2.1.1. The surveillance mechanism in the euro area Member States

Austria

According to the April 2009 update of the stability programme and data notified by the Austrian authorities in April 2009, the general government deficit was planned to reach 3.5% of GDP in 2009, thus exceeding the 3% of GDP reference value of the Treaty, while general government gross debt would amount to 68.5% of GDP, above the 60% of GDP reference value. The planned figures in the notification for the deficit and debt in 2009 provided prima facie evidence on the existence of a planned excessive deficit in Austria in the sense of the Treaty and the Stability and Growth Pact.

In its October 2009 report under Article 126(3) the Commission considered the deficit to be exceptional, since it resulted from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. The deficit was not considered to be close, since the notified figure of 3.5% of GDP projection was based on the relatively optimistic assumption of GDP growth of -2.2% in 2009. On the basis of a significantly worse economic outlook (GDP growth of -4.0%) the Commission services' 2009 spring forecast projected the deficit to reach 4.2% in 2009. The excess over the 3% of GDP threshold was not considered temporary. The Commission services' spring 2009 forecast projected that, taking into account the measures adopted in the current year for the budget for 2010, the deficit would widen to 5.3% of GDP in 2010 on a no-policy change basis. Therefore the deficit criterion of the Treaty was not fulfilled. Additionally, the general government gross debt ratio was estimated in the April 2009 EDP notification to increase to 68.5% of GDP for 2009, above the 60% of GDP Treaty reference value (up from 62.5% of GDP in 2008). The Commission therefore concluded that the debt ratio was not sufficiently diminishing towards the reference value and that the debt criterion of the Treaty was not fulfilled either.

Also taking into account the debt ratio, the Council decided on 2 December 2009 in accordance with Article 126(6) that an excessive deficit existed in Austria. It was further noted that the Austrian economy was affected by a severe economic downturn in the sense of the Treaty and the

Stability and Growth Pact. Therefore special circumstances were deemed to exist in Austria, allowing a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that the Austrian budgetary position in 2009 resulted from discretionary measures amounting to 1½% of GDP, which were deemed an appropriate contribution to the EERP, and the free play of automatic stabilisers. This resulted in the Council issuing recommendations in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an average annual fiscal effort of ¾% of GDP over the period 2011-2013. Consolidation would start in 2011 in order to allow the Austrian authorities to implement the fiscal measures in 2010 as envisaged. After six months time (after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Belgium

According to the April 2009 update of the stability programme and data notified by the Belgian authorities in April 2009, the general government deficit in Belgium was planned to reach 3.4% of GDP in 2009, thus exceeding the 3% of GDP reference value of the Treaty. General government gross debt would be 93% of GDP, well above the 60% of GDP reference value. The planned figures for the 2009 deficit and gross debt provided prima facie evidence on the existence of an excessive deficit in Belgium in the sense of the Treaty and the Stability and Growth Pact.

The Commission concluded in its October 2009 report under Article 126(3) that the planned excess over the reference value was exceptional. In particular, it was deemed to result, among other things, from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. The Commission further considered that the deficit would not remain close to the 3% threshold in view of the more negative budgetary outlook in the Commission services' spring 2009 forecast (-4.5% of GDP in 2009). Furthermore, the September 2009 complement to the April 2009 update of the stability programme projected a deficit of 5.9% of GDP for 2009. The excess was not considered temporary. According to the Commission services' spring 2009 forecast, the general government deficit was expected to reach

6.1% in 2010, based on the no-policy change assumption. Therefore the deficit criterion of the Treaty was not fulfilled. Additionally, the general government gross debt ratio was estimated in the April 2009 EDP notification to increase to 93% of GDP for 2009, above the 60% of GDP Treaty reference value (up from 89.6% of GDP in 2008 and 84% in 2007). The Commission therefore concluded that the debt ratio was not sufficiently diminishing towards the reference value and that the debt criterion of the Treaty was not fulfilled either.

Also taking into account the debt ratio, the Council decided on 2 December 2009 in accordance with Article 126(6) that an excessive deficit existed in Belgium. It was further noted that Belgium was affected significantly by the global financial crisis. Special circumstances were therefore considered to exist in Belgium, permitting a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that the Belgian budgetary position in 2009 resulted from discretionary measures amounting to ½% of GDP, which were deemed an appropriate contribution to the EERP, and the free play of automatic stabilisers. This resulted in the Council issuing recommendations in accordance with Article 126(7), setting a deadline for correction by 2012 and requiring an average annual fiscal effort of ¾% of GDP over the period 2010-2012. After six months time (after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Cyprus

In the April 2010 notification the Cypriot authorities estimated the general government deficit to have reached 6.1% of GDP in 2009, thus exceeding the 3% of GDP threshold. The figure for the 2009 deficit provided prima facie evidence on the existence of an excessive deficit in Cyprus in the sense of the Treaty and the Stability and Growth Pact.

The Commission adopted a report under Article 126(3) on 12 May 2010. The Commission concluded that the excess over the reference value was exceptional, since it resulted from a severe economic downturn. Well over the 3%, the deficit was not considered close to the reference value. The excess over the 3% of GDP reference value

was not considered temporary, since the Commission services' Spring 2010 Economic Forecast indicated that the budgetary deficit would reach about 7% of GDP in 2010. The Commission therefore concluded that the deficit criterion in the Treaty was not fulfilled. Additionally, the general government gross debt ratio was estimated in the April 2010 EDP notification to increase to 62.0% of GDP for 2010, exceeding the 60% of GDP Treaty reference value. The Commission therefore concluded that the debt ratio was not sufficiently diminishing towards the reference value and that the debt criterion of the Treaty was not fulfilled either.

On 15 June 2010, after the cut-off date of this report, the Commission will adopt an opinion under Article 126(5) on the existence of an excessive deficit for Cyprus. The Commission will decide on the same day on recommendations to the Council to adopt a Council decision on the existence of an excessive deficit under Article 126(6) and a Council recommendation to correct it under Article 126(7). The Council will decide on possible further steps on 13 July.

Finland

In the April 2010 notification the Finnish authorities projected the general government deficit to reach 4.1% of GDP in 2010, thus exceeding the 3% of GDP reference value of the Treaty. The planned figure for 2010 provided prima facie evidence on the existence of an excessive deficit in Finland in the sense of the Treaty and the Stability and Growth Pact.

The Commission concluded in its report under Article 126(3) adopted on 12 May 2010 that the planned excess over the reference value was exceptional, resulting from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. The deficit was considered temporary, since the Commission services' Spring 2010 Economic Forecast indicated that the deficit will fall below the reference value in 2011. Well in excess of 3%, the deficit was not considered close to the reference value. The Commission therefore concluded that the deficit criterion in the Treaty was not fulfilled.

On 15 June 2010, after the cut-off date of this report, the Commission will adopt an opinion

under Article 126(5) on the existence of an excessive deficit for Finland. The Commission will decide on the same day on recommendations to the Council to adopt a Council decision on the existence of an excessive deficit under Article 126(6) and a Council recommendation to correct it under Article 126(7). The Council will decide on possible further steps on 13 July.

France

The December 2008 French stability programme update estimated the general government deficit in France to reach 2.9% of GDP in 2008, 3.9% in 2009, and 2.7% in 2010. On 6 February 2009, the French Minister of the Economy, Industry and Employment announced, in a letter addressed to the Commissioner for Economic and Monetary Affairs, an upward revision of the deficit estimates to 3.2% of GDP in 2008, 4.4% in 2009 and 3.1% in 2010. The debt ratio was estimated to be at 68.0% of GDP in 2008, rising to 73.9% in 2009. On the basis of this and following a recommendation by the Commission, under Article 126(6) the Council decided in April 2009 that an excessive deficit existed in France. Furthermore, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2012 and requiring a strengthening of the foreseen annual average fiscal effort to at least 1% of GDP. Consolidation would start in 2010, after the implementation of stimulus measures taken in line with the EERP.

In November 2009 the Commission assessed that effective action had been taken by the French authorities in response to the April 2009 recommendations, but that since then unexpected adverse economic events with major unfavourable consequences for government finances had occurred, justifying an extension of the correction deadline. It was recognised that France's budgetary position in 2009 resulted from discretionary measures amounting to 1.2 % of GDP, which were an appropriate contribution to the EERP, and the free play of automatic stabilisers. On a recommendation by the Commission, in December 2009 the Council issued a revised recommendation for France in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an average annual fiscal effort of above 1% of GDP for the period 2010-2013. After six months time (i.e. after 2 June 2010 and hence after

the cut-off date of this report), the Commission will assess whether effective action has been taken.

Germany

According to the data notified by the authorities in July 2009, the general government deficit in Germany was planned to reach 3.9% of GDP in 2009, thus exceeding the 3% of GDP reference value of the Treaty, while general government gross debt would amount to 73.9% of GDP, above the 60% of GDP reference value and on a rising trend. The planned figures for the deficit and debt in 2009 provided prima facie evidence on the existence of an excessive deficit in Germany in the sense of the Treaty and the Stability and Growth Pact.

The Commission concluded in its October 2009 report under Article 126(3) that the planned excess over the 3% threshold was exceptional, since it resulted from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. Well above the reference value, the deficit was not considered close. The planned excess over the 3% was not deemed temporary, since the Commission services' spring 2009 forecast projected the deficit would widen to 5.9% of GDP in 2010 on a no-policy change basis.

Also taking into account the debt ratio, the Council decided on 2 December 2009, in accordance with Article 126(6) that an excessive deficit existed in Germany. It was further noted that Germany faced a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. Therefore special circumstances were deemed to exist in Germany, allowing a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that the German budgetary position in 2009 resulted from discretionary measures amounting to 1½ % of GDP, which were deemed an appropriate contribution to the EERP, and the free play of automatic stabilisers. This resulted in the Council issuing recommendations in accordance with Article 126(7), setting a deadline for correction of 2013 and requiring an average annual fiscal effort of at least 0.5% of GDP over the period 2011-2013. Consolidation would start in 2011 in order to allow the German authorities to implement the fiscal measures in 2010 as envisaged. After six months time (after 2 June 2010 and hence after the

cut-off date of this report), the Commission will assess whether effective action has been taken.

Greece

According to data notified by the Greek authorities in October 2008, the general government deficit reached 3.5% of GDP in 2007, thus exceeding the 3% of GDP reference value of the Treaty. The 2007 deficit was revised upwards from 2.8% of GDP notified in April 2008. The 2007 general government gross debt ratio was estimated at 94.8% of GDP, above the 60% of GDP reference value. On the basis of this, the Commission adopted a report under Article 126(3) in February 2009 that considered that the both the deficit and the debt criteria in the Treaty were not fulfilled. Following a recommendation by the Commission, the Council decided in April 2009 that an excessive deficit existed in Greece under Article 126(6). Furthermore, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2010.

In December 2009 the Council decided, in accordance with Article 126(8), that Greece had not taken effective action in response to the April 2009 Council recommendations. In particular, the Council concluded that public finances had worsened much beyond what could have been expected as a result of the stronger-than-projected downturn and were to a large extent a result of budgetary policies implemented by the Greek government. Moreover, the fiscal consolidation measures implemented in 2009 were deemed insufficient to achieve the general government deficit target of 3.7% of GDP in 2009. Also, the large projected increase in the debt-to-GDP ratio exceeded the impact of the deterioration in the general government's net borrowing position, indicating insufficient efforts to control factors other than net borrowing, which contributed to the change in debt levels.

In February 2010 the Council gave notice to Greece, in accordance with Article 126(9), to take measures for the deficit reduction judged necessary in order to remedy the situation of excessive deficit. The Council set a revised deadline for consolidation by 2012, specifying a structural annual adjustment of 3½ percentage points of GDP for 2010 and 2011 and at least 2½ percentage points of GDP for 2012. Additionally, the Council

listed a set of urgent fiscal measures to be implemented by 15 May 2010, supporting measures to safeguard the 2010 budgetary targets, other measures to be adopted by 2010, and fiscal measures to be adopted by 2012. Furthermore, a number of recommendations were adopted to ensure monitoring of the targets. According to the preliminary assessment carried out by the Commission in March 2010, Greece was implementing, as requested, the fiscal measures meant to ensure the achievement of the planned deficit target for 2010. However, the abrupt change in the economic scenario meant that those measures could no longer be considered sufficient. At the same time, the depth of the contraction in the economy made the achievement of the initial deficit reduction path unfeasible. On recommendation by the Commission, on 10 May 2010 the Council adopted a new Decision under Article 126(9) and 136, with a view to reinforcing and deepening fiscal surveillance and giving notice to Greece to take measures for the deficit reduction judged necessary to remedy the situation of excessive deficit by 2014.

Ireland

In the addendum to the October 2008 stability programme update, submitted by the Irish authorities on 9 January 2009, the general government deficit in Ireland was estimated to have reached 6.3% of GDP in 2008, thus exceeding the 3% of GDP reference value of the Treaty. In its February 2009 Report under Article 126(3), the Commission considered that the deficit criterion in the Treaty was not fulfilled. Following a recommendation by the Commission, the Council decided in April 2009 under Article 126(6) that an excessive deficit existed in Ireland. Furthermore, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an annual average fiscal effort of at least 1.5% of GDP.

In November 2009 the Commission assessed that effective action had been taken by the Irish authorities in response to the April 2009 recommendations, but that since then unexpected adverse economic events with major unfavourable consequences for government finances had occurred, justifying an extension of the correction deadline. It was recognised that the Irish budgetary

situation resulted from the interplay of the severe recession and the free play of automatic stabilisers on the one hand and significant consolidation efforts on the other, which was considered to be an appropriate contribution to the EERP. On a recommendation by the Commission, in December 2009 the Council issued revised recommendations for Ireland in accordance with Article 126(7), setting a deadline for correction by 2014 and requiring an average annual fiscal effort of 2% of GDP for the period 2010-2014. After six months time (after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Italy

In April 2009, the Italian authorities notified a planned general government deficit of 3.7% of GDP in 2009, thus exceeding the 3% of GDP reference value of the Treaty, and a general government gross debt ratio of 110.5% of GDP, well above the 60% of GDP reference value and on a rising path. After this, the authorities revised the abovementioned figures upwards. According to the update of the Economic and Financial Planning Document (DPEF) adopted by the government on 22 September 2009, the general government deficit was planned to reach 5.3% of GDP in 2009, and general government gross debt would be 115.1% of GDP. The planned figures for the deficit and debt in 2009 provided prima facie evidence for the existence of an excessive deficit in Italy in the sense of the Treaty and the Stability and Growth Pact.

In its October 2009 report under Article 126(3) the Commission concluded that the planned excess over the 3% of GDP reference value was exceptional. In particular, it was deemed to result from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. Well in excess of 3%, the deficit was not considered to be close to the reference value. The planned excess over the 3% threshold was not considered temporary as the Commission services' spring 2009 forecast, based on the usual no-policy change scenario, projected the deficit to increase further in 2010. Therefore the deficit criterion in the Treaty was not fulfilled. Additionally, the general government gross debt ratio was planned in the April 2009 EDP notification to be 115.3% of GDP in 2009, well above the 60% of GDP Treaty

reference value. The Commission therefore concluded that the debt ratio was not sufficiently diminishing towards the reference value and that the debt criterion of the Treaty was not fulfilled either.

Also taking into account the debt ratio, the Council decided on 2 December 2009, in accordance with Article 126(6), that an excessive deficit existed in Italy. It was further noted that the global financial and economic crisis was having a strong adverse impact on the Italian economy. Special circumstances were therefore considered to exist in Italy, permitting a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that the Italian budgetary position in 2009 resulted from an appropriate contribution to the EERP and the free play of automatic stabilisers. This resulted in the Council issuing recommendations in accordance with Article 126(7) setting a deadline for correction by 2012 and requiring an average annual fiscal effort of 0.5% of GDP over the period 2010-2012. After six months time (after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Luxembourg

In the April 2010 notification the Luxembourgish authorities projected the general government deficit to reach 4.2% of GDP in 2010, thus exceeding the 3% of GDP reference value of the Treaty. The planned figure for 2010 provided prima facie evidence on the existence of an excessive deficit in Luxembourg in the sense of the Treaty and the Stability and Growth Pact.

The Commission adopted a report under Article 126(3) on 12 May 2010. The Commission concluded that the excess over the reference value was exceptional, since it resulted from a severe economic downturn. Well in excess of the 3% of GDP, the planned deficit is not close to the Treaty reference value, but according to the Commission services' Spring 2010 Economic Forecast the general government deficit would come out at 3.5% of GDP, which can still be considered as close. The excess over the 3% of GDP reference value was also considered temporary. According to the Commission services' Spring 2010 Economic Forecast, which was based on the no-policy change assumption for 2011, the general government

deficit would rise from 3.5% of GDP in 2010 to 3.9% of GDP in 2011. However, on 5 May 2010, after the cut-off date of the forecast the Prime Minister of Luxembourg announced consolidation measures that would amount, according to information provided to the Commission on 7 May, to 1.6% of GDP in 2011 and another 1.7% of GDP in 2012. The part of this consolidation package that can be taken into account for 2011 was estimated by the Commission at about 1.2% of GDP, which would reduce the 2011 deficit to around 2 $\frac{3}{4}$ %, thus below the 3% of GDP threshold. The Commission therefore concluded that the deficit criterion in the Treaty was fulfilled.

Malta

In the context of the April 2009 notification, the Maltese authorities reported a revised figure for the 2008 general government deficit of 4.7% of GDP, in excess of the 3% of GDP reference value of the Treaty. The general government gross debt ratio was estimated at 64.1% of GDP in 2008, above the 60% of GDP Treaty reference value. In its May 2009 report under Article 126(3), the Commission considered that both the deficit and the debt criteria in the Treaty were not fulfilled. Following a recommendation by the Commission, the Council decided in July 2009 that an excessive deficit existed in Malta under Article 126(6). Furthermore, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2010.

In January 2010 the Commission assessed that effective action had been taken by the Maltese authorities in response to the July 2009 recommendations, but that since then unexpected adverse economic events with major unfavourable consequences for government finances had occurred, justifying an extension of the correction deadline. Thus on a recommendation by the Commission, in February 2010 the Council issued revised recommendations to Malta in accordance with Article 126(7), setting a deadline for correction by 2011, requiring a fiscal effort of $\frac{3}{4}$ percentage points of GDP for 2011 in addition to achieving the deficit target set in the 2010 budget. After six months time (after 16 August 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Netherlands

According to data notified by the authorities in April 2009 the general government deficit in the Netherlands was planned to reach 3.3% of GDP in 2009, thus exceeding the 3% of GDP reference value of the Treaty. The planned figure for the 2009 deficit provided prima facie evidence of the existence of an excessive deficit in the Netherlands in the sense of the Treaty and the Stability and Growth Pact.

In its October 2009 126(3) report the Commission concluded that the planned excess over the 3% threshold was exceptional, as it resulted, among other things, from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. Based on the Dutch authorities' 2010 budget memorandum published on 15 September, which showed a deficit of 4.8% of GDP, it was expected that the actual outcome would not be close to the threshold. The deficit was not considered temporary, since the Commission services' spring 2009 forecast projected the general government balance to deteriorate from -3.4% of GDP in 2009 to -6.1% of GDP in 2010, based on the usual no-policy-change assumption. Therefore the deficit criterion in the Treaty was not fulfilled.

The Council decided on 2 December 2009 in accordance with Article 126(6) that an excessive deficit existed in the Netherlands. It was further noted that the global financial crisis affected the Dutch economy significantly. Therefore special circumstances were deemed to exist in the Netherlands, allowing a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that the Dutch budgetary position in 2009 resulted from discretionary measures amounting to 1% of GDP, which were an appropriate contribution to the EERP, and the free play of automatic stabilisers. On a recommendation by the Commission, the Council issued recommendations in accordance with Article 126(7) setting a deadline for correction by 2013 and requiring an average annual fiscal effort of $\frac{3}{4}$ % of GDP over the period 2011-2013. Consolidation would start in 2011 in order to allow the Dutch authorities to implement the fiscal measures in 2010 as envisaged. After six months time (after 2 June 2010 and hence after the cut-off

date of this report), the Commission will assess whether effective action has been taken.

Portugal

According to the April 2009 EDP notification from the Portuguese authorities, Portugal's general government deficit was planned to reach 3.9% of GDP in 2009, thus exceeding the 3% of GDP reference value, while general government gross debt would be 70.2% of GDP, above the 60% of GDP reference value and on a rising trend. Subsequent official budgetary estimates of the Portuguese authorities of May 2009, included in the Medium-Term Steering Report on Fiscal Policy (Relatório de Orientação da Política Orçamental – ROPO), projected a budget deficit of 5.9% of GDP in 2009, thus also exceeding the 3% of GDP reference value, while general government gross debt would be 74.6% of GDP, above the 60% of GDP reference value. The planned figures for the 2009 deficit provided prima facie evidence on the existence of an excessive deficit in Portugal in the sense of the Treaty and the Stability and Growth Pact.

The Commission considered in its October 2009 Report under Article 126(3) that the excess over the reference value was exceptional, since it resulted, among other things, from a severe economic downturn in 2009 in the sense of the Treaty and the Stability and Growth Pact. As the reported figure was well in excess of 3% of GDP, the deficit was not considered close to the reference value. The excess over the 3% was not considered temporary, since the Commission services' spring 2009 forecast projected the general government headline deficit to increase to 6.7% of GDP in 2010, based on the customary unchanged policy assumption. Therefore the deficit criterion in the Treaty was not fulfilled. Additionally, the general government gross debt ratio was planned in the April 2009 EDP notification to be 70.2% of GDP in 2009, later revised upwards by the ROPO to 74.6%, above the 60% of GDP Treaty reference value. The Commission therefore concluded that the debt ratio was not sufficiently diminishing towards the reference value and that the debt criterion in the Treaty was not fulfilled either.

Also taking into account the debt ratio, the Council decided on 2 December 2009, in accordance with

Article 126(6), that an excessive deficit existed in Portugal. It was further noted that the Portuguese economy faced a severe economic downturn in 2009 in the sense of the Treaty and the Stability and Growth Pact in the context of the global economic and financial crisis. Special circumstances were therefore considered to exist in Portugal, permitting a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that the Portuguese budgetary position in 2009 resulted from measures amounting to 1½% of GDP, which were an appropriate response to the EERP, and the free play of automatic stabilisers. On a recommendation by the Commission, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an average annual fiscal effort of 1¼% of GDP over the period 2010-2013. After six months time (i.e. after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Slovakia

In April 2009, Slovak authorities notified a planned deficit of 3.0% of GDP for 2009. However, according to the Commission services' spring 2009 forecast, the general government deficit in Slovakia was expected to reach 4.7% of GDP in 2009, thus exceeding the 3% of GDP reference value. In a letter to the Commission from 25 August 2009, the Slovak authorities confirmed the deterioration of the general government deficit to over 6% of GDP in 2009. According to the 2009 revised budget, the general government deficit would reach 6.3% of GDP in 2009. The projected figure for the 2009 deficit provided prima facie evidence for the risk of an excessive deficit in Slovakia in the sense of the Treaty and the Stability and Growth Pact.

In its October 2009 report under Article 126(3) the Commission concluded that the Slovak deficit was exceptional. In particular, it was deemed to result, among other things, from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. Well in excess of 3% of GDP, the projected deficit was not considered close to the Treaty reference value. The projected excess over the 3% of GDP reference value was not deemed temporary, since the Commission

services' 2009 spring forecast projected a widening of the general government deficit to 5.4% of GDP in 2010 based on the no-policy change assumption. Therefore the deficit criterion in the Treaty was not fulfilled.

The Council decided on 2 December 2009, in accordance with Article 126(6), that an excessive deficit existed in Slovakia. It was further noted that, being a very open economy, Slovakia was severely affected by the global crisis. Therefore special circumstances were deemed to exist in Slovakia, allowing a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that stimulus measures financed through reallocation within the budget amounting to 0.4 % of GDP in 2009 were an adequate response to the EERP, and that consequently the worsening of the fiscal position in 2009 resulted from the free play of automatic stabilisers. On a recommendation by the Commission, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an average annual fiscal effort of 1% of GDP over the period 2010-2013. After six months time (i.e. after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Slovenia

According to data notified by the authorities in April 2009, the general government deficit in Slovenia was planned to reach 3.7% of GDP in 2009, thus exceeding the 3% of GDP reference value. After this, the authorities revised upwards the abovementioned figure. In the subsequent April 2009 update of the stability programme, the 2009 general government deficit was set at 5.1% of GDP. In a letter of 21 August 2009, the authorities revised the planned deficit figure further upwards, to 5.5% of GDP. The planned figure for the 2009 deficit provided prima facie evidence for the existence of an excessive deficit in Slovenia in the sense of the Treaty and the Stability and Growth Pact.

In its October 2009 report under Article 126(3) the Commission considered the deficit to be exceptional, resulting among other things, from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. The

deficit was not considered close, as the reported figure was well in excess of the 3% of GDP. The planned excess over the 3% of GDP reference value was not deemed temporary, as the Commission services' spring 2009 forecast projected that the deficit would widen to 6.5% of GDP in 2010, based on the no-policy change assumption. Therefore the deficit criterion in the Treaty was not fulfilled

The Council decided on 2 December 2009, in accordance with Article 126(6), that an excessive deficit existed in Slovenia. It was further noted that, due to its very high degree of openness, the Slovene economy was severely hit by the global crisis. Therefore special circumstances were deemed to exist in Slovenia, allowing a correction of the excessive deficit in a medium-term framework. The Council further recognised that Slovenia's budgetary position in 2009 resulted from recovery measures which, together with tax relief benefiting companies decided before the onset of the crisis, amounted to around 2 % of GDP and were an adequate response to the EERP, and the free play of automatic stabilisers. On a recommendation by the Commission, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an average annual fiscal effort of ¾% of GDP over the period 2010-2013. After six months time (i.e. after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Spain

According to the January 2009 update of the stability programme, Spain's general government deficit reached 3.4% of GDP in 2008, thus exceeding the 3% of GDP reference value. The programme foresaw a further deterioration to 5.8% of GDP in 2009 before recovering to 4.8% in 2010. In its February 2009 report under Article 126(3), the Commission considered that the deficit criterion in the Treaty was not fulfilled. Following a recommendation by the Commission, the Council decided in April 2009 that an excessive deficit existed in Spain under Article 126(6) and issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2012 and requiring an annual average fiscal effort of at least 1¼ % of GDP.

In November 2009 the Commission assessed that effective action had been taken by the Spanish authorities in response to the April 2009 recommendations, but that since then unexpected adverse economic events with major unfavourable consequences for government finances had occurred, justifying an extension of the correction deadline. It was recognised that Spain's budgetary position in 2009 resulted from measures amounting to slightly above 2 % of GDP, which were an adequate response to the EERP, and the free play of automatic stabilisers. On a recommendation by the Commission, in December 2009 the Council issued revised recommendations for Spain in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an average annual fiscal effort of above 1.5% of GDP for the period 2010-2013. After six months time (i.e. after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

2.1.2. The surveillance mechanism in the non-euro area Member States

Bulgaria

In the April 2010 notification the Bulgarian authorities estimated the general government deficit to have reached 3.9% of GDP in 2009, thus exceeding the 3% of GDP threshold. The figure for the 2009 deficit provided prima facie evidence for the existence of an excessive deficit in Bulgaria in the sense of the Treaty and the Stability and Growth Pact.

The Commission concluded in its report under Article 126(3) adopted on 12 May 2010 that the planned excess over the reference value was exceptional, resulting from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. The deficit was considered temporary, since the Commission services' Spring 2010 Economic Forecast indicated that the general government deficit will fall below the reference value already in 2010, following the end of the worst part of the current severe economic downturn and as a result of the fiscal consolidation measures undertaken by the government. However, the deficit was not considered close to the reference value. The Commission therefore concluded that the deficit criterion in the Treaty was not fulfilled.

After the cut-off date of this report the Commission and the Council may take further steps in the excessive deficit procedure. The next step in the procedure would be the adoption of a Commission opinion under Article 126(5) on the existence of an excessive deficit in Bulgaria. This would be followed by a Council decision on the existence of an excessive deficit under Article 126(6) and a Council recommendation to correct it under Article 126(7), both based on a recommendation by the Commission.

Czech Republic

According to the data notified by the authorities in April 2009, the general government deficit in the Czech Republic was planned to reach 3.9% of GDP in 2009, thus exceeding the 3% of GDP reference value. In a letter of 21 August 2009 to the Commission, the authorities of the Czech Republic estimated that the 2009 government deficit could reach 5.5% of GDP, mainly reflecting a further deterioration of the economic outlook. The planned figure for the 2009 deficit provided prima facie evidence for the existence of an excessive deficit in the Czech Republic in the sense of the Treaty and the Stability and Growth Pact.

The Commission concluded in its October 2009 report that the excess over the reference value was exceptional, since it was due to a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. The deficit was not deemed close to the reference value, since the reported figures were well above 3% of GDP. The excess was not considered temporary, since the Commission services' 2009 spring forecast projected a widening of the general government deficit to 4.9% of GDP in 2010, based on the no-policy change assumption. Therefore the deficit criterion in the Treaty was not fulfilled.

The Council decided on 2 December 2009, in accordance with Article 126(6), that an excessive deficit existed in the Czech Republic. It was further noted that the global economic and financial crisis had caused a very severe recession in the Czech Republic. Therefore special circumstances were deemed to exist in the Czech Republic, allowing a correction of the excessive deficit in a medium-term timeframe. The Council further recognised that the Czech budgetary

position in 2009 resulted from the free play of automatic stabilisers and from measures which amount to 2.1 % of GDP, which were considered an adequate response to the downturn and broadly in line with the EERP principles. On a recommendation by the Commission, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2013 and requiring an average annual fiscal effort of 1% of GDP over the period 2010-2013. After six months time (i.e. after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Denmark

In the April 2010 notification the Danish authorities projected the general government deficit to reach 5.4% of GDP in 2010, thus exceeding the 3% of GDP reference value of the Treaty. The planned figure for 2010 provided prima facie evidence for the existence of an excessive deficit in Finland in the sense of the Treaty and the Stability and Growth Pact.

The Commission concluded in its report under Article 126(3) adopted on 12 May 2010 that the planned excess over the reference value was exceptional, resulting from a severe economic downturn in the sense of the Treaty and the Stability and Growth Pact. The deficit was not considered temporary, since the Commission services' Spring 2010 Economic Forecast projected that, taking into account the measures adopted in the current year for the 2010 budget, the deficit would be at 4.9% of GDP in 2011 on a no-policy change basis. Well in excess of 3%, the deficit was not considered close to the reference value. The Commission therefore concluded that the deficit criterion in the Treaty was not fulfilled.

On 15 June 2010, after the cut-off date of this report, the Commission will adopt an opinion under Article 126(5) on the existence of an excessive deficit for Denmark. The Commission will decide on the same day on recommendations to the Council to adopt a Council decision on the existence of an excessive deficit under Article 126(6) and a Council recommendation to correct it under Article 126(7). The Council will decide on possible further steps on 13 July.

Hungary

The spring 2004 fiscal notification of Hungary reported a general government deficit in 2003 of 5.9% of GDP, well above the reference value. The Commission prepared a report in accordance with Article 126(3) of the Treaty in May 2004. Following a recommendation by the Commission, the Council decided in July 2004 that an excessive deficit existed in Hungary. At the same time, the Council issued a recommendation under Article 126(7) recommending that the excessive deficit situation be corrected by 2008. In January 2005, following a recommendation by the Commission in accordance with Article 126(8), the Council considered that Hungary had not taken effective action in response to its recommendation. Since Hungary is a Member State with a derogation within the meaning of Article 139 of the Treaty⁽⁴⁾, the Council issued another recommendation based on Article 126(7) in March 2005, confirming the 2008 deadline for the correction of the excessive deficit. After a substantial deterioration of the budgetary outlook in Hungary, the Council decided in November 2005, acting pursuant to Article 126(8), that Hungary had for the second time failed to comply with the recommendations under Article 126(7). Accordingly, the Council addressed a new recommendation under Article 126(7) to Hungary in October 2006, postponing the deadline for the correction of the excessive deficit to 2009.

In June 2009 the Commission assessed that, given the results of the fiscal adjustment programme since 2006, and specifically, the considerably higher-than-recommended structural adjustment achieved against the background of a much worse macroeconomic environment, the Hungarian authorities could be considered to have taken effective action in response to the recommendations from October 2006. In view of the depth of the unexpected adverse economic events due to the global financial crisis, however, the target date of 2009 set in the Council recommendation of 2006 could no longer be regarded as realistic. On a recommendation by the

⁽⁴⁾ Member States with a derogation are to avoid excessive deficits but in the event of inadequate action established under Article 126(8) (ex 126(8)), further recommendations can be addressed only on the basis of Article 126(7) (ex 126(7)) as Articles 126(9) (ex 126(9)) and Article 126(11) (ex 126(11)) do not apply to them.

Commission, in July 2009 the Council therefore issued revised recommendations under Article 126(7), setting a deadline for correction by 2011 at the latest, specifying deficit targets for 2009 and 2010 and requiring a cumulative fiscal effort of 0.5% of GDP for the years 2010-2011. In January 2010, the Commission assessed that Hungary had taken effective action. The procedure was therefore held in abeyance.

Latvia

According to the convergence programme update submitted by the Latvian authorities on 14 January 2009, the general government deficit in Latvia was estimated to have reached 3.5% of GDP in 2008 and was expected to deteriorate further to 5.3% in 2009. The Commission concluded, based on these figures, in its February 2009 report under Article 126(3) that the deficit criterion in the Treaty was not fulfilled. Following negotiations in the context of the multilateral Balance of Payments assistance, the Council decided in July 2009 that an excessive deficit existed in Latvia under Article 126(6). Furthermore, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2012 and requiring an annual average fiscal effort of at least 2¾% of GDP over the period 2010-2012. In January 2010 the Commission assessed that Latvia had taken action representing adequate progress towards the correction of the excessive deficit within the time limits set by the Council. The procedure was therefore held in abeyance.

Lithuania

In the April 2009 notification the Lithuanian authorities estimated the general government deficit to have reached 3.2% of GDP in 2008, thus exceeding the 3% of GDP threshold. In its May 2009 Report under Article 126(3), the Commission considered that the deficit criterion in the Treaty was not fulfilled. Following a recommendation by the Commission, the Council decided in July 2009 that an excessive deficit existed in Lithuania under Article 126(6). Furthermore, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2011 and requiring an annual average fiscal effort of at least 1½% of GDP over the period 2009-2011.

In January 2010 the Commission assessed that effective action had been taken by the Lithuanian authorities in response to the July 2009 recommendations, but that since then unexpected adverse economic events with major unfavourable consequences for government finances had occurred, justifying an extension of the correction deadline. On a recommendation by the Commission, in February 2010 the Council issued revised recommendations for Lithuania in accordance with Article 126(7), setting a deadline for correction by 2012, requiring a fiscal effort of 2¼% percentage points of GDP over the period 2010-2012. After six months time (i.e. after 16 August 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

Poland

According to the April 2009 EDP notification submitted by the Polish authorities, the general government deficit reached 3.9% of GDP in 2008, thus exceeding the 3% of GDP reference value. In its May 2009 Report under Article 126(3), the Commission considered that the deficit criterion in the Treaty was not fulfilled. Following a recommendation by the Commission, the Council decided in July 2009 that an excessive deficit existed in Poland under Article 126(6). Furthermore, the Council issued recommendations in accordance with Article 126(7), setting a deadline for correction by 2012 and requiring an annual average fiscal effort of at least 1¼% of GDP starting in 2010. In January 2010 the Commission assessed that Poland had taken action representing adequate progress towards the correction of the excessive deficit within the time limits set by the Council. The procedure was therefore held in abeyance.

Romania

In the April 2009 notification the Romanian authorities reported a deficit of 5.4% of GDP for 2008, breaching the 3% of GDP reference value. In its May 2009 report under Article 126(3), the Commission considered that the deficit criterion in the Treaty was not fulfilled. Following a recommendation by the Commission, the Council decided in July 2009 that an excessive deficit existed in Romania under Article 126(6) and issued recommendations in accordance with

Article 126(7), setting a deadline for correction by 2011 and requiring an annual average fiscal effort of at least 1½% of GDP starting in 2010.

In January 2010 the Commission assessed that effective action had been taken by the Romanian authorities in response to the July 2009 recommendations, but that since then unexpected adverse economic events with major unfavourable consequences for government finances had occurred, justifying an extension of the correction deadline. On a recommendation by the Commission, in February 2010, the Council therefore issued revised recommendations for Romania in accordance with Article 126(7), setting a deadline for correction by 2012, requiring a fiscal effort of 1¾% of GDP over the period 2010-2012. After six months time (i.e. after 16 August 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

United Kingdom

According to the data notified by the UK authorities in March 2008, the general government deficit in the financial year 2008/09 was expected to reach 3.2% of GDP (3.3% according to the Commission services' spring 2008 forecast) and further deficit-increasing measures were announced by the government in May 2008. In its June 2008 Report under Article 126(3), the Commission considered that the deficit criterion in the Treaty was not fulfilled.

In July 2008 the Council decided, based on a recommendation by the Commission that an excessive deficit existed in the United Kingdom, according to Article 126(6). The consideration of relevant factors did not suggest the presence of special circumstances warranting a departure from the standard deadline for correcting the deficit. Accordingly, the Council decided pursuant to Article 126(7) that the headline deficit should be brought below the 3% of GDP reference value by the financial year 2009/10, corresponding to a structural improvement of at least 0.5 % of GDP in 2009/10.

In April 2009, the Commission assessed that the UK authorities had not taken effective action in accordance with Article 126(8) in response to the July 2008 Council recommendations. On a recommendation by the Commission, the Council issued new recommendations in accordance with Article 126(7)⁽⁵⁾. In the light of the progressively acute deterioration in economic conditions and prospects the Council decided that special circumstances existed in the case of the UK, allowing correction over the medium term. Therefore, the Council set a new deadline for the correction of the excessive deficit by the financial year 2013/14, raising the foreseen average annual fiscal effort to clearly beyond 1% of GDP, to begin after the expiry of the stimulus measures planned for 2009.

In November 2009 the Commission assessed that effective action had been taken by the UK authorities in response to the April 2009 recommendations, but that since then unexpected adverse economic events with major unfavourable consequences for government finances had occurred, justifying an extension of the correction deadline. It was recognised that the United Kingdom's budgetary situation resulted from the implementation of measures amounting to around 1½% of GDP, which were considered an appropriate response to the European Economic Recovery Plan, and the free play of automatic stabilisers. On a recommendation by the Commission, in December 2009 the Council issued revised recommendations for the United Kingdom in accordance with Article 126(7), setting a deadline for correction by the financial year 2014/15 and requiring an average annual fiscal effort of 1¾% of GDP between 2010/11 and 2014/15. After six months time (i.e. after 2 June 2010 and hence after the cut-off date of this report), the Commission will assess whether effective action has been taken.

⁽⁵⁾ Pursuant to point 5 of the Protocol on certain provisions relating to the United Kingdom of Great Britain and Northern Ireland, the obligation in Article 126(1) of the Treaty to avoid excessive general government deficits does not apply to the United Kingdom unless it moves to the third stage of economic and monetary union. While in the second stage of economic and monetary union, the United Kingdom is required to endeavour to avoid excessive deficits, pursuant to Article 116(4) of the Treaty.

Table 1.2.1: Overview EDP steps – Euro area Member States

Steps in EDP procedure	Article of the Treaty	Country															
		AT	BE	CY	FR	DE	EL	FI	IE	IT	LU	MT	NL	PT	SK	SI	ES
Starting phase																	
Commission adopts EDP-report = start of the procedure	126.3 (ex 104.3)	7.10.2009	7.10.2009	12.5.2010	18.2.2009	18.2.2009	12.5.2010	18.2.2009	12.5.2010	7.10.2009	13.5.2009	7.10.2009	7.10.2009	7.10.2009	7.10.2009	7.10.2009	18.2.2009
Economic and Financial Committee adopts opinion	126.4 (ex 104.4)	27.10.2009	27.10.2009	27.5.2010	27.2.2009	27.2.2009	27.5.2010	27.2.2009	27.5.2010	27.10.2009	29.5.2009	27.10.2009	27.10.2009	27.10.2009	27.10.2009	27.10.2009	27.2.2009
Commission adopts:																	
opinion on existence of excessive deficit	126.5 (ex 104.5)	11.11.2009	11.11.2009	15.6.2010	24.3.2009	11.11.2009	15.6.2010	24.3.2009	15.6.2010	11.11.2009	17.6.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	24.3.2009
recommendation for Council decision on existence of excessive deficit	126.6 (ex 104.6)	11.11.2009	11.11.2009	15.6.2010	24.3.2009	11.11.2009	15.6.2010	24.3.2009	15.6.2010	11.11.2009	17.6.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	24.3.2009
recommendation for Council recommendation to end this situation	126.7 (ex 104.7)	11.11.2009	11.11.2009	15.6.2010	24.3.2009	11.11.2009	15.6.2010	24.3.2009	15.6.2010	11.11.2009	17.6.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	24.3.2009
Council adopts:																	
decision on existence of excessive deficit	126.6 (ex 104.6)	2.12.2009	2.12.2009	13.7.2010	27.4.2009	2.12.2009	13.7.2010	27.4.2009	13.7.2010	2.12.2009	7.7.2009	2.12.2009	2.12.2009	2.12.2009	2.12.2009	2.12.2009	27.4.2009
recommendation to end this situation	126.7 (ex 104.7)	2.12.2009	2.12.2009	13.7.2010	27.4.2009	2.12.2009	13.7.2010	27.4.2009	13.7.2010	2.12.2009	7.7.2009	2.12.2009	2.12.2009	2.12.2009	2.12.2009	2.12.2009	27.4.2009
deadline for taking effective action																	
deadline for correction of excessive deficit																	
Follow-up of the article 104.7 Council recommendation																	
Commission adopts communication on action taken		2.6.2010	2.6.2010	2.6.2010	27.10.2009	2.6.2010	27.10.2009	2.6.2010	27.10.2009	2.6.2010	2.6.2010	2.6.2010	2.6.2010	2.6.2010	2.6.2010	2.6.2010	27.10.2009
Council adopts conclusions thereon																	
Commission adopts recommendation for NEW Council recommendation to end situation of excessive deficit	126.7 (ex 104.7)	2012	2012	2012	2012	2012	2012	2012	2012	2012	2010	2010	2010	2010	2010	2010	2012
Council adopts recommendation for NEW Council recommendation to end situation of excessive deficit	126.7 (ex 104.7)	2012	2012	2012	2012	2012	2012	2012	2012	2012	2010	2010	2010	2010	2010	2010	2012
deadline for taking effective action																	
revised deadline for correction of excessive deficit																	
Commission adopts recommendations for Council decision establishing inadequate action	126.8 (ex 104.8)																
Council adopts decision establishing inadequate action	126.8 (ex 104.8)																
Commission adopts Council recommendation for decision to give notice	126.9 (ex 104.9)																
Council decision to give notice	126.9 (ex 104.9)																
deadline for taking effective action																	
new deadline for correction of the excessive deficit																	
Commission adopts recommendation for NEW Council decision to give notice	126.9 (ex 104.9)																
Council decision to give notice	126.9 (ex 104.9)																
deadline for effective action																	
new deadline for correction of the excessive deficit																	

* a sequence of deadlines for specific measures are contained in the Council decision, starting on 30 June 2010

Source: Commission services.

Table I.2.2: Overview EDP steps – Non-euro area Member States

Steps in EDP procedure	Article of the Treaty	Country									
		BG	CZ	DK	HU	LV	LT	PL	RO	UK	
<p>Starting phase</p> <p>Commission adopts EDP-report = start of the procedure</p> <p>Economic and Financial Committee adopts opinion</p> <p>Commission adopts:</p> <p>opinion on existence of excessive deficit</p> <p>recommendation for Council decision on existence of excessive deficit</p> <p>recommendation for Council recommendation to end this situation</p> <p>Council adopts:</p> <p>decision on existence of excessive deficit</p> <p>recommendation to end this situation</p> <p>deadline for taking effective action</p> <p>deadline for correction of excessive deficit</p> <p>Follow-up of the article 104.7 Council recommendation</p> <p>Commission adopts communication on action taken</p> <p>Council adopts conclusions thereon</p> <p>Commission adopts recommendations for Council decision establishing inadequate action</p> <p>Council adopts decision establishing inadequate action</p> <p>Commission adopts recommendation for NEW Council recommendation to end excessive deficit situation</p> <p>Council adopts NEW recommendation to end excessive deficit situation</p> <p>deadline for taking effective action</p> <p>new deadline for correction of the excessive deficit</p> <p>Follow-up of the NEW article 104.7 Council recommendation</p> <p>Commission adopts communication on action taken</p> <p>Council adopts conclusions thereon</p> <p>Commission adopts recommendations for Council decision establishing inadequate action</p> <p>Council adopts decision establishing inadequate action</p> <p>Commission adopts recommendation for NEW Council recommendation to end excessive deficit situation</p> <p>Council adopts NEW recommendation to end excessive deficit situation</p> <p>deadline for taking effective action</p> <p>new deadline for correction of the excessive deficit</p> <p>Follow-up of the NEW article 104.7 Council recommendation</p> <p>Commission adopts communication on action taken</p> <p>Council adopts conclusions thereon</p> <p>Commission adopts recommendations for Council decision establishing inadequate action</p> <p>Council adopts decision establishing inadequate action</p> <p>Commission adopts recommendation for NEW Council recommendation to end excessive deficit situation</p> <p>Council adopts NEW recommendation to end excessive deficit situation</p> <p>deadline for taking effective action</p> <p>new deadline for correction of the excessive deficit</p> <p>Follow-up of the NEW article 104.7 Council recommendation</p> <p>Commission adopts communication on action taken</p> <p>Council adopts conclusions thereon</p>	<p>126.3 (ex 104.3)</p> <p>126.4 (ex 104.4)</p> <p>126.5 (ex 104.5)</p> <p>126.6 (ex 104.6)</p> <p>126.7 (ex 104.7)</p> <p>126.8 (ex 104.8)</p> <p>126.8 (ex 104.8)</p> <p>126.7 (ex 104.7)</p> <p>126.7 (ex 104.7)</p> <p>126.8 (ex 104.8)</p> <p>126.8 (ex 104.8)</p> <p>126.7 (ex 104.7)</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>7.10.2009</p> <p>27.10.2009</p> <p>11.11.2009</p> <p>11.11.2009</p> <p>11.11.2009</p> <p>2.12.2009</p> <p>2.12.2009</p> <p>2.6.2010</p> <p>2013</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> <p>7.7.2009</p> <p>7.1.2010</p> <p>2011</p> <p>27.1.2010</p> <p>16.2.2010</p>	<p>12.5.2010</p> <p>27.5.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>15.6.2010</p> <p>13.7.2010</p> <p>13.7.2010</p> <p>22.12.2004</p> <p>18.1.2005</p> <p>16.2.2005</p> <p>8.3.2005</p> <p>8.7.2005</p> <p>2008</p> <p>13.7.2005</p> <p>20.10.2005</p> <p>8.11.2005</p> <p>26.9.2006</p> <p>10.10.2006</p> <p>10.4.2007</p> <p>2009</p> <p>13.6.2007</p> <p>10.7.2007</p> <p>24.6.2009</p> 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Source: Commission services.

3. STABILITY AND CONVERGENCE PROGRAMMES SET OUT THE CONSOLIDATION PLANS OVER THE MEDIUM TERM

This section provides an overview of the 2009-2010 updates of Stability and Convergence Programmes (SCP) submitted by Member States by March 2010. It first discusses the macroeconomic scenarios and assumption on sectoral balances presented in the updates, against the background of the sharp economic downturn in 2009. It then examines the time-profile and composition of planned consolidations. Finally, it shows the medium-term objectives (MTOs) that Member States presented for the first time according to the new agreement including implicit liabilities. At the end of this section, table I.3.3 provides an overview of the key projections and budgetary plans in the Stability and Convergence Programmes.

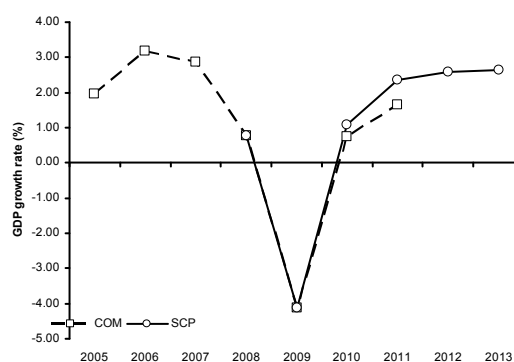
A discussion of the medium-term projections for the government debt in a scenario that incorporates consolidations plans of the SCPs is presented in Section III.2.

3.1. MACROECONOMIC SCENARIOS

At the aggregate level, economic growth assumptions in the programmes turn out to be more favourable than indicated by the Commission services' Autumn 2009 Forecast. Graph I.3.1 illustrates real GDP growth as projected in the Commission services' Autumn 2009 Forecast and that in the programmes for the EU27. In 2010, growth according to the programmes is projected to be 0.3 pp. higher than projected by the Commission services, whereas for 2011 the difference increases to 0.7 pp. (a similar picture arises for the euro area, with differences of 0.3 pp. in 2010 and 0.6 pp. in 2011). SCPs also generally assume higher potential growth, as illustrated in Graph I.3.2. Overall, recalculated potential growth in the programmes is around 0.3 pp. higher than in the 2009 autumn forecast for the EU27 (0.2 pp. for the euro area).

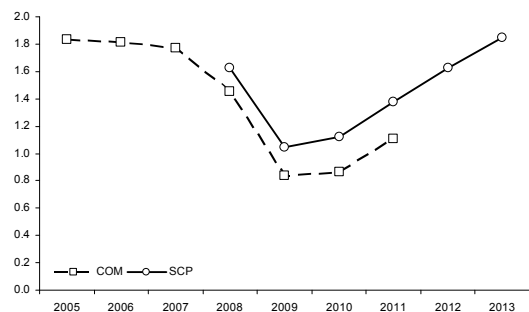
All this also appears to suggest that the downturn and the anticipated recovery in 2010 is considered of a slightly more cyclical nature in the programmes than in the Autumn 2009 Forecast, implying that the programmes have a more favourable growth outlook. Moreover, the difference is more significant in the outer years of the programmes: whereas according to the autumn 2009 forecast growth for the EU27 is projected to exceed potential by $\frac{1}{2}$ pp. in 2011, according to the programmes this would be 1 pp. (compared to an already higher potential in the programmes than in the Autumn Forecast), where it remains throughout the programme period. In terms of output gap closure, the programmes foresee a change in the output gap by almost 1 pp. in 2011, falling gradually to slightly above $\frac{3}{4}$ pp. in 2013 (for the EU27 aggregate). On the other hand, the Commission services' Autumn 2009 Forecast foresees a reduction of the output gap by only $\frac{1}{2}$ pp. in 2011. The difference suggests that programmes on average count to a greater extent on cyclical conditions to contribute to deficit reduction than what was implied by the autumn forecast.

Graph I.3.1: GDP growth assumptions (EU27)



Source: Commission services.

Graph I.3.2: Potential GDP growth (EU27)



Source: Commission services.

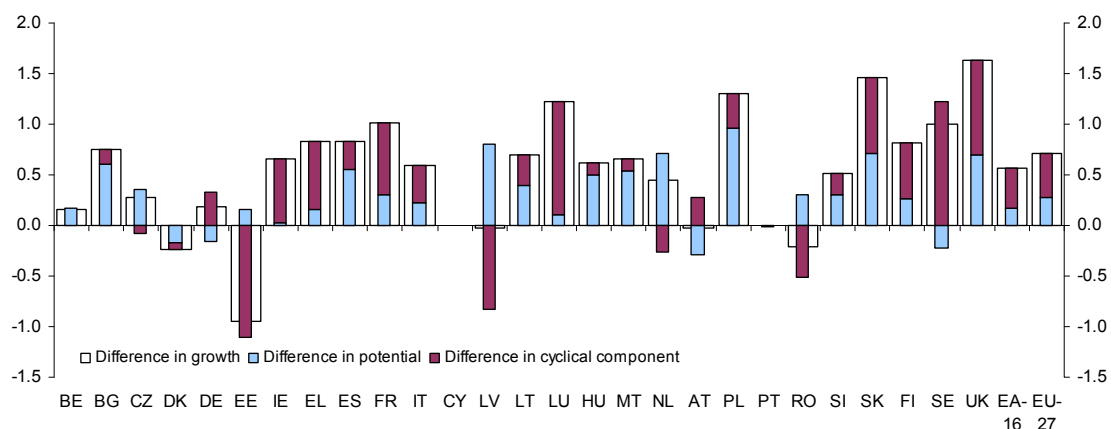
At country level, differences in the growth scenario are illustrated in Graph I.3.3, which also decomposes the difference in GDP growth between the programme scenarios and the 2009 autumn forecast into a difference in potential growth and a cyclical component (i.e. the difference in the growth above/below potential). The figure shows that the aggregate picture of higher growth in the programmes, based on both higher potential growth and higher cyclical contributions is broadly shared across Member States (although to varying degrees and with some notable exceptions). Overall, growth assumptions in the programmes often appear favourable and in a number of cases even markedly favourable, implying also that budgetary outcomes could be significantly worse than projected in the programmes.

Looking at the sectoral balances⁽⁶⁾ implied by Member States planned consolidation against the background of external assumption of the programmes' projections, the aggregate picture shows that towards 2008 there was a slight deterioration in the EU's net-lending position (see Graph I.3.4).

However, on the aggregate programmes project a slow recovery of the net-lending position throughout the programme period, on the back of growing net exports. These generally moderate changes hide widely different developments at sectoral level, with government deficits increasing rapidly towards 2010 (a 7.2% of GDP deficit for the EU27), mirrored by the build-up of a 7.7% of GDP surplus for non-government sectors (reflecting inter alia a rapid slowdown of household and corporate investment and reduced household consumption). At the aggregate level, programme scenarios imply a recovery which is to a limited extent supported by growing net exports

⁽⁶⁾ The analysis of sectoral balances on the basis of programme information is hampered by some inconsistencies in the reported data, as well as missing compulsory and optional data in the programmes. In particular, programmes from some countries did not report on the net-lending of the total economy and/or the net-lending of the private sector. In the absence of information on the latter variables, consistency between the net-lending of the total economy and the net-lending by government could not be verified. The analysis of sectoral balances in the programmes is limited to those countries reporting net-lending of the total economy and assuming that 'inconsistencies' are due to differences in the reporting of net-lending by 'non-government' sectors.

Graph I.3.3: Difference in growth assumptions (SCP-COM) in 2011 and its breakdown

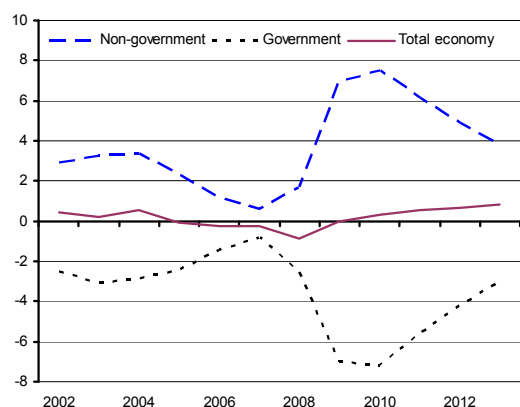


Source: Commission services.

(contributing to aggregate real GDP growth for the EU by 0.6 pp. in 2010, gradually slowing down to 0.3 pp. by 2013) and a fall in the net-lending position of non-government sectors towards pre-crisis levels.

At a country level (and therefore taking also into account intra-EU net-lending positions), the changes during the downturn and the recovery (as projected in the programmes) is illustrated in Graph I.3.5 ⁽⁷⁾ and Graph I.3.6. They show that during the downturn the net-lending position of several countries improved dramatically (in particular for a number of countries with large imbalances), often as a result of falling imports due to lower domestic demand. On the other hand, in the programme period up until 2013, in the programme period up until 2013, the counterparts of the projected reduction in government deficits are: (i) in some cases further improvement in the external balance, which, to be consistent with the projected growth rates, should be accompanied by gains in competitiveness and/or expansion of the export markets; (ii) more significantly, a generalised fall in the net financial position of the private sector, which would imply the end of the deleveraging process triggered by the crisis.

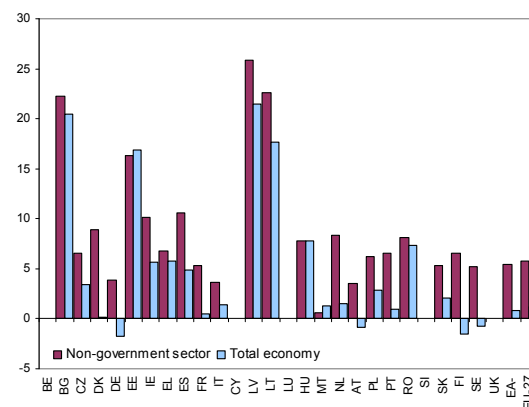
Graph I.3.4: Net lending position according to programme scenario (EU27)



Source: Commission services.

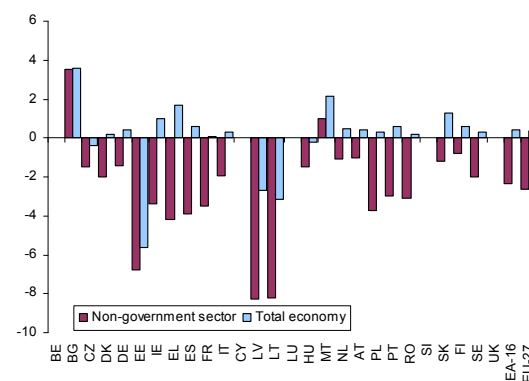
⁽⁷⁾ Note that although Graph I.3.5 seems to suggest that the net-lending position as percent of GDP at country level improved in nearly all Member States (with the exception of Germany, Austria, Finland and Sweden), this needs to be viewed against the background of (in some cases sharply) falling GDP, causing an often significant denominator effect.

Graph I.3.5: Change in net lending by sector (pp. of GDP, 2010 compared to 2008)



Source: Commission services.

Graph I.3.6: Change in net lending by sector (pp. of GDP, 2013 compared to 2010)



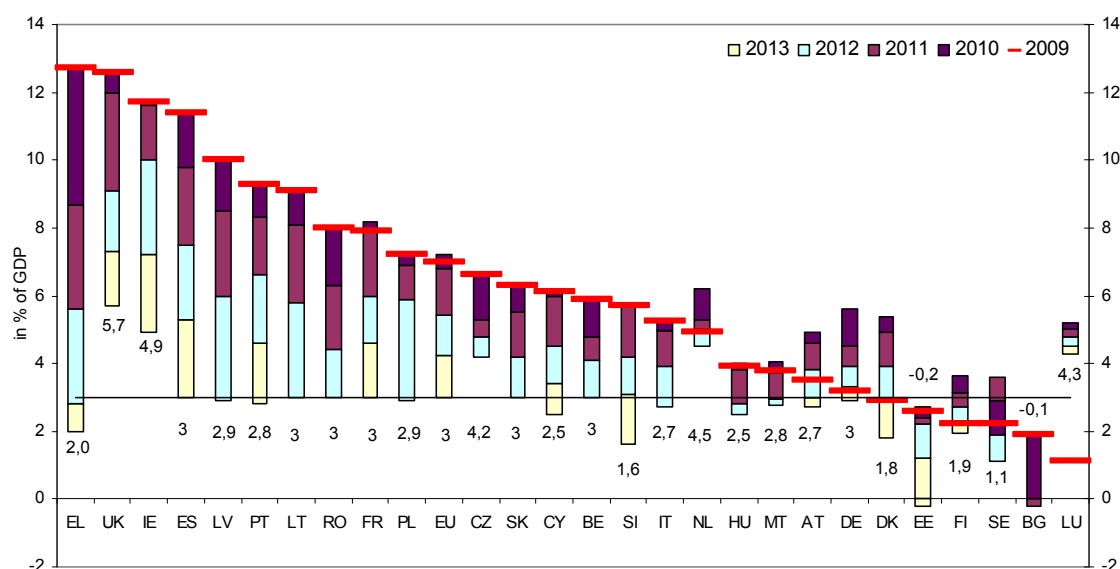
Source: Commission services.

3.2. TIME PROFILE OF CONSOLIDATION

Graph I.3.7 summarises the size and distribution over time of changes in the nominal budget balance presented in the SCPs for the 2010-2012 period, or 2010-2013 if the submitted programmes have a time horizon going beyond 2012. ⁽⁸⁾ For most countries, the strategy in the programmes is aimed at correcting their excessive deficit, as shown by many deficit targets in 2012/2013 being

⁽⁸⁾ Some programmes present, notably for the outer years, projections based on current policies/legislation which cannot be necessarily considered as representative of the budgetary strategy of the government.

Graph I.3.7: Planned changes in government deficits over 2010-2012/13 in the SCPs (in % of GDP)



Note: The planned annual changes in the nominal budget balances are depicted as bars. The dashes show the estimated nominal deficits in 2009, while the figures are the nominal deficits (surpluses in the case of the negative figures for Estonia and Bulgaria) that the programmes target in 2012 or 2013: they correspond to the lower end of the bars. In countries where the deficit is planned continue increasing in 2010, the higher end of the bar corresponds to the 2010 deficit (2011 in the case of Luxembourg), from which consolidation starts.

Source: Commission services.

at or just below the horizontal line marking the 3% of GDP threshold. Some countries have however a deadline for the correction of their excessive deficit that goes beyond 2013 (Ireland the United Kingdom), while others (the Czech Republic and the Netherlands) should correct the deficit by 2013 but presented programmes with a horizon limited to 2012.⁽⁹⁾

The general government deficits in 2009 varied significantly across Member States: the estimate of an average EU deficit at 7% of GDP in 2009 (6.3% in the euro area) results from estimated deficit figures in the programmes ranging from 12.7% of GDP in Greece, to 1.1% of GDP in Luxembourg.⁽¹⁰⁾ Graph I.3.7 shows that the planned pace of consolidation differs across Member States, with countries that posted a deficit above the EU average in 2009 typically planning

to start improving their budget balances, also in nominal terms, already in 2010. However, at EU level the deficit would continue to increase in 2010, reaching an average of 7.2% of GDP (6.7% in the euro area). Fiscal consolidation is planned to start at EU level in 2011, when, according to the SCPs, the nominal budget balances would improve in all Member States but Luxembourg.⁽¹¹⁾ A comparison of the fiscal adjustment planned over 2010-2011 with the adjustment planned in the outer years of the programmes shows that intentions concerning the degree of frontloading of the consolidation tend to vary across countries, only in part in relation to the initial size of the deficit.

In addition to deficit levels, debt levels are a main criterion for differentiation across countries. Account should also be taken of long-term fiscal sustainability aspects, the strength of national fiscal frameworks, as well as factors relating to the financial situation in the Member States, including any imbalances between domestic savings and

⁽⁹⁾ The programmes submitted by Ireland and the United Kingdom cover the period up to the recommended deadline for the correction of their excessive deficits (2014 and 2014/15, respectively). The Irish programme targets a deficit at 2.9% of GDP in 2014, while the UK's programme projects a deficit clearly above 3% of GDP in 2014/15 (4.7% of GDP).

⁽¹⁰⁾ For several countries, the 2009 deficit outcome notified in April 2010 (See figures presented in Section I.1) differed significantly from the estimate presented in the SCP.

⁽¹¹⁾ Luxembourg appears as an outlier in the graph as, at no-policy change, the deficit is projected to rise also in 2011; it would gradually decrease afterwards, but remain above the 2009 level by the end of the programme horizon.

investments, contingent liabilities to the financial sector and financial market indicators. The Commission services have developed synthetic budgetary and macro-financial risks indicators that take these factors into account to underpin the objective implementation of broader fiscal surveillance and framing judgement.⁽¹²⁾

Graph I.3.8 plots countries in 4 quadrants according to the two indicators. The size of the dots shows the degree of frontloading of the consolidation in 2010-2011 with respect to 2012-2013. Countries which plan a fiscal expansion in 2010 not completely offset by a consolidation in 2011 are represented by squares. For Member States which submitted a programme with a horizon limited to 2012, a decline in the general government balance in 2013 equivalent to the one planned in 2012 is assumed.⁽¹³⁾ Even for countries that are recommended to correct their excessive deficit in 2012, the assumption of a protracted fiscal effort going beyond the benchmark of 0.5% of GDP per annum in structural terms is consistent with the fiscal exit strategy agreed by the Council.

With the NE quadrant grouping the countries combining high fiscal and macro-financial vulnerabilities, the graph should present all squares

⁽¹²⁾ See section IV.3 for the presentation of the composite risk indicators. The budgetary risk indicator aims to get a better grasp of actual sovereign financing needs and reflects: the level of government debt, the share of debt falling due over a 24-month horizon, the implicit interest rate on sovereign debt and government contingent liabilities in the financial sector, and the gap to the primary balance that would lead to debt converging to 60% GDP by 2020. The macro-financial risks indicator aims to cover risks which, if they materialized, would put pressure on the fiscal financing needs. It includes: external debt falling due over a 24-month horizon, the current account balance, credit to the private sector, competitiveness, the share of construction in GDP, the level of GDP per capita (which is used as a proxy of potential growth and catching up, i.e. low GDP level is considered as a risk-reducing factor). The indicators are selected from a much larger group of potential indicators. To the extent possible, overlap was avoided as many indicators reflect similar risks.

All scores are relative to the EU average, implying that even low risk scores based on the 2010 data still imply a relatively high risk in historical perspective, especially as regards fiscal risks.

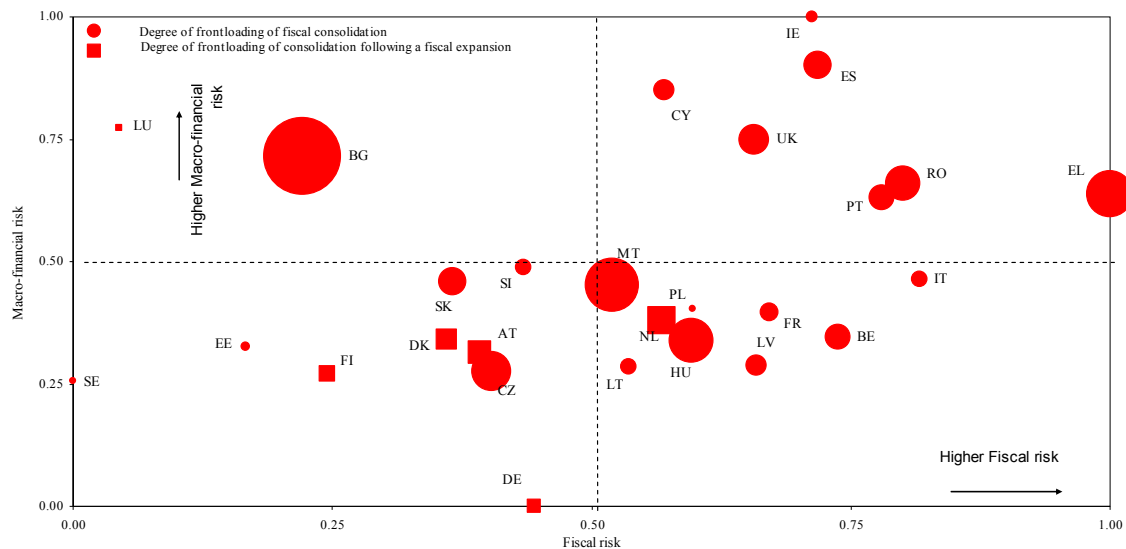
⁽¹³⁾ The assumption of a reduction in the deficit in 2013 equivalent to the one planned in 2012 if the programme has a horizon limited to 2012 has been applied also the Czech Republic and to the Netherlands. However, in their programmes these countries restate the commitment to correct their excessive deficit in line with the 2013 deadline set by the Council.

as well as smaller dots in the SW quadrant and the size of the dots should gradually increase with their distance from the (0.0) point. A partial correspondence with this ideal picture exists, in particular for countries with lower vulnerabilities.

The distribution of countries in the other quadrants is less straightforward. The two countries that plan the more frontloaded adjustment are Bulgaria and Greece.⁽¹⁴⁾ They are characterised by a similar degree of macro-economic risk, but present the lowest and the highest fiscal risk indicator, respectively. While Greece has to correct its excessive deficit by 2012, Bulgaria plans to consolidate towards the MTO already in 2010. Outside the euro area, the need to correct external imbalances tends to accelerate the adjustment. The nominal adjustment is particularly frontloaded in Member States receiving Balance-of-Payments assistance (Hungary, Romania and Latvia). In the case of Latvia, this is not reflected in Graph I.3.8, as a significant adjustment was implemented already in 2009. Furthermore, for Latvia and in general for Member States where pre-crisis trend in expenditure and revenue growth were particularly high, e.g. Ireland, the presented characterisation of frontloading only partially reflects the policy effectively pursued, as sizeable measures are being implemented just to stem a further deterioration in the deficit against the collapse in revenue brought about by the crisis and the need to correct the revealed unsustainable expenditure trends.

⁽¹⁴⁾ In the graph, Malta also shows a particularly high degree of frontloading. However, this reflects the target to correct the excessive deficit by the 2011 deadline, with all the necessary nominal adjustment planned to be implemented in that year. In the following year, the Maltese's Stability programme projects a decline in the nominal deficit by only 0.1 of a percent of GDP, to 2.8% of GDP.

Graph I.3.8: Degree of frontloading of the adjustment and indicators of fiscal and macro-financial vulnerabilities



Notes: The size of the round/square represents the average annual change in the fiscal balance planned in the first two years of the SCPs (2010-2011) with respect to the following two years (2012-2013). In countries where data for 2013 were not available a change in government balance equivalent to the one planned in 2012 has been assumed. Given the wide scale of the ratio between the average fiscal balance changes in the two periods among member states (i.e. MT 2,63 vs SE 0,05), the size of the markers reflects the country ranking in terms of distribution of the adjustment in the two different period considered, but does not respect the exact proportions. The squares represent countries where an expansionary fiscal stance is maintained on average in 2010-2011. The smaller the size of the square the bigger is the average amount of the fiscal expansion in 2010-11 compared to the pace of fiscal consolidation in the following years.

Source: Commission services.

3.3. COMPOSITION OF CONSOLIDATION ⁽¹⁵⁾

Economic literature finds that fiscal consolidation based on expenditure cuts is more effective and has a more long-lasting impact than consolidation by tax increases. Tax-based consolidation, especially by broadening tax bases and simplifying tax systems, can also prove efficient when starting tax-to-GDP ratios are relatively low and implementation is gradual. The sheer size of the consolidation requirements in many EU Member States makes it virtually impossible to achieve it by a sustainable reduction of expenditures only. The appropriate mix between expenditures and

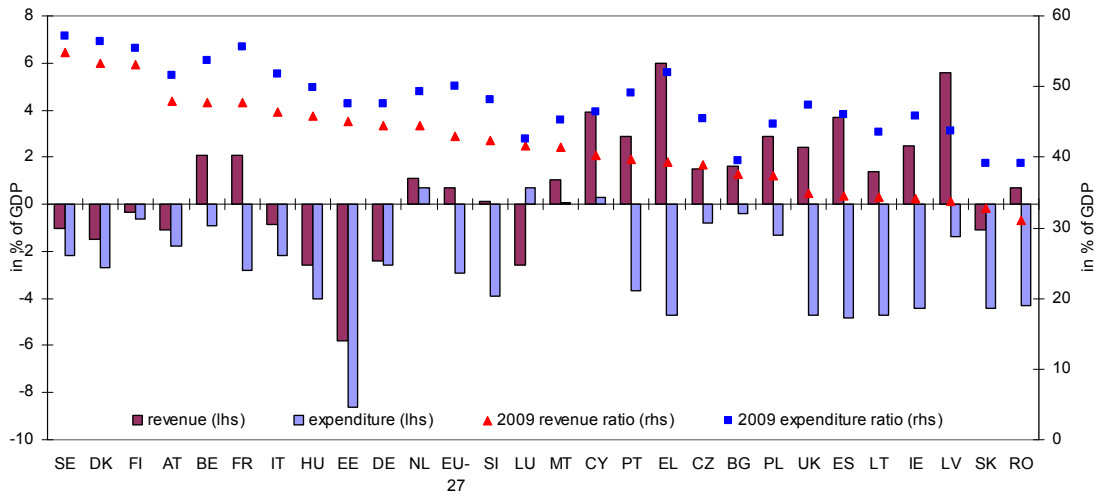
revenues depends on the characteristics of the country concerned.

The planned distribution between revenue and expenditure based consolidation tends to reflect the initial revenue ratio. This is illustrated in Graph I.3.9, which plots for each country the planned changes in the expenditure ratios with the countries' order (from left to right) corresponding to the current level of the revenue ratio. Countries with relatively high revenue ratios tend to rely on expenditure based consolidation: among those revenue ratios above 45% of GDP, only France and Belgium plan a further increase, while the others plan revenue reduction. Greece, Poland, Latvia, Ireland and Spain plan the largest increases in the revenue ratio, while Estonia plans the largest reduction.

The negative relationship between level and changes in revenue is confirmed in Graph I.3.10, which plots the current revenue and expenditure ratios against the planned rates of change in revenue and expenditure, respectively. It also shows that countries with the highest deficits

⁽¹⁵⁾ Graphs in this section reflect revenue and expenditure projections in the programmes. However, the expenditure and revenue projections that some programmes present for the years beyond 2010 are based on unchanged policy/legislation scenarios or technical assumptions, thus do not allow grasping the planned distribution of consolidation between revenue and expenditure. As data for revenue and expenditure beyond 201/11 in the UK's Convergence Programme are not based on a harmonised ESA95 basis, the figures presented for the UK in the graphs have been extrapolated from public sector projections.

Graph I.3.10: Planned changes in revenue and expenditure over 2010-2012/13 in the SCPs (% of GDP)



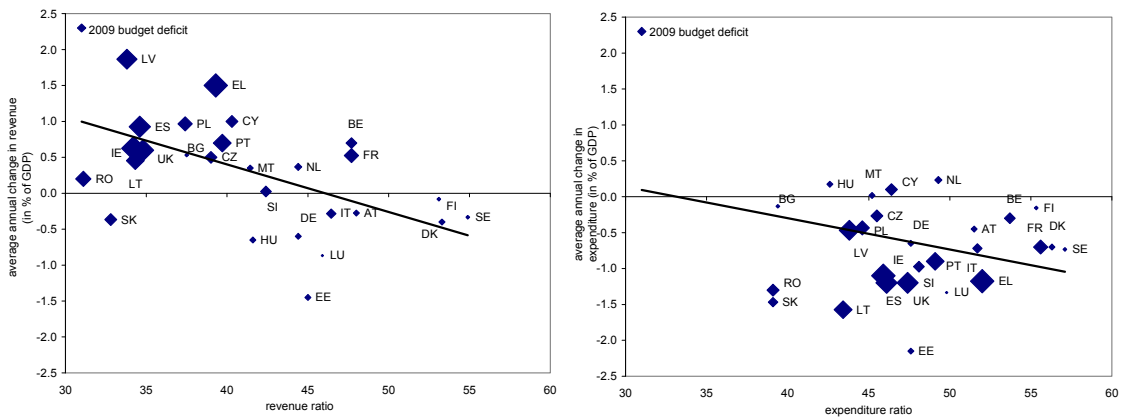
Source: Commission services.

(larger squares) tend to have relatively low revenue and expenditure ratios. There are several explanations for this link between revenue ratios and the size of deficits. The size of government tends to increase with GDP/capita. Most of the Member States with low revenue ratios are catching up economies that had the strongest credit- and housing-driven booms. As a result, they suffered most from (i) a large reduction in output and domestic demand (ii) a reversal of revenue windfalls related to housing and credit. As a result of the reduction in GDP, the expenditure ratio strongly increased as expenditure levels need to

adjust to lower levels of potential output than previously estimated.

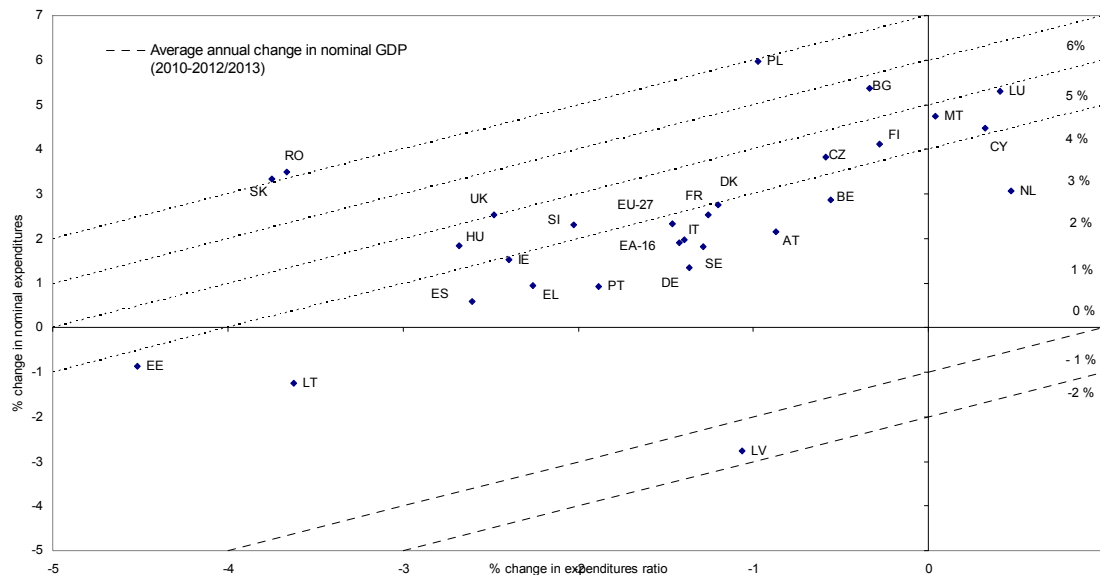
A planned change in the expenditure ratio can be consistent with different rates of growth of nominal expenditure, depending on the assumption on nominal GDP growth. Graph I.3.11 shows the average change in the nominal expenditure growth planned by governments over 2010-2012 (2013 for programmes with a horizon going beyond 2012) and the nominal GDP growth rates that make these changes consistent with the percentage change in the expenditure ratios presented in the programmes. All Member States except

Graph I.3.9: Average annual change in the revenue and expenditure ratios planned over the 2010-2012/2013 period versus the estimated revenue and expenditure ratios in 2009



Source: Commission services.

Graph I.3.11: Average annual planned change in nominal expenditure over the 2010-2012/2013 period versus average annual planned change in the expenditure ratios over the same period



Source: Commission services.

Luxembourg, Malta, and the Netherlands project a reduction in the expenditure-to-GDP ratio over the period considered. However, only Lithuania, Estonia and Latvia plan to cut expenditure in nominal terms. In particular, with a nominal GDP in 2012 expected to remain below the 2009 level, in the case of Latvia a contraction in expenditure in nominal terms is necessary to reduce the expenditure ratio. By contrast, a number of countries plans to achieve a reduction in expenditure consistent with positive changes in nominal expenditure, which in some cases are significant.

3.4. MEDIUM TERM OBJECTIVES IN THE 2008-09 AND 2009-10 ROUNDS OF SCPs

In the 2009-10 stability and convergence programmes, MTOs were presented for the first time according to the new agreement including implicit liabilities, according to the revised criteria as set out in the Code of Conduct. Section II.4 discusses the background to the new MTOs in detail.

Table I.3.1 shows the MTOs presented in the 2009-10 SCPs and Table I.3.2 presents the

assessment of compliance in the respective Council opinion.

Table I.3.1: MTOs 2009-10 and 2008-09 round of SCPs

	MTO 2009-10 round of SCPs	MTO 2008-09 round of SCPs
BE	0.5	0.5
BG	0.5	1.5
CZ	-1.0	-1.0
DK	0.0	0.75 to 1.75
DE	-0.5	-0.5 to 0.0
EE	0.0	0.0
IE	-0.5	BP*
EL	0.0	0.0
ES	0.0	0.0
FR	0.0	0.0
IT	0.0	0.0
CY	0.0	0.0
LV	-1.0	-1.0
LT	0.5	-1.0
LU	0.5	-0.8
HU	-1.5	-0.5
MT	0.0	0.0
NL	-0.5	-1.0 to -0.5
AT	0.0	0.0
PL	-1.0	-1.0
PT	-0.5	-0.5
RO	-0.7	-0.9
SI	-1.0	-1.0
SK	0.0	-0.8
FI	0.5	2.0
SE	1.0	1.0
UK	:	:

Source: Commission services

Table I.3.2: Assessment of the MTOs in the 2009-2010 updates of the stability and convergence programmes

Country	MTO	Assessment
BE	0.5	Reflects the objectives of the Pact
BG	0.5	More than adequately reflects the objectives of the Pact
CZ	-1.0	Reflects the objectives of the Pact
DK	0.0	More than adequately reflects the objectives of the Pact
DE	-1/2	Reflects the objectives of the Pact
EE	0.0	More than adequately reflects the objectives of the Pact
IE	-0.5	Reflects the objectives of the Pact
EL	0.0	Is not projected to be attained within the programme horizon
ES	0.0	More than adequately reflects the objectives of the Pact
FR	0.0	More than adequately reflects the objectives of the Pact
IT	0.0	Reflects the objectives of the Pact
CY	0.0	Reflects the objectives of the Pact
LV	-1.0	Reflects the objectives of the Pact
LT	0.5	More than adequately reflects the objectives of the Pact
LU	0.5	Does not appear to take sufficiently into account implicit liabilities
HU	-1.5	Reflects the objectives of the Pact
MT	0.0	Reflects the objectives of the Pact
NL	-0.5	Adequately reflects the objectives of the Pact
AT	0.0	More than adequately reflects the objectives of the Pact
PL	-1.0	More than adequately reflects the objectives of the Pact
PT	-0.5	More than adequately reflects the objectives of the Pact
RO	-0.7	Reflects the objectives of the Pact
SI	-1.0	Does not appear to take sufficiently into account implicit liabilities
SK	0.0	More than adequately reflects the objectives of the Pact
FI	0.5	Appears to reflect the objectives of the Pact
SE	1.0	More than adequately reflects the objectives of the Pact
UK	no MTO	n.a.

Source: Commission services

Table I.3.3: Budgetary developments according to the 2009-2010 Stability and Convergence Programme updates

	Real GDP growth				Government balance				Structural balance				Government gross debt			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
BE	-3.1	1.1	1.7	2.2	-5.9	-4.8	-4.1	-3.0	-3.8	-3.4	-2.9	-2.2	98	101	101	101
DE	-5.0	1.4	2	2	-3.2	-5½	-4½	-3½	-1.8	-4.4	-3.9	-3.0	72½	76½	79½	81
IE	-7.5	-1.3	3.3	4.5	-11.7	-11.6	-10	-7.2	-9.3	-9.2	-8.2	-6.3	65	78	83	84
EL	-1.2	-0.3	1.5	1.9	-12.7	-8.7	-5.6	-2.8	-11.4	-7.7	-4.4	-1.9	113	120	121	118
ES	-3.6	-0.3	1.8	2.9	-11.4	-9.8	-7.5	-5.3	-9.9	-7.9	-6.1	-4.6	55	66	72	74
FR	-2.25	1.4	2.5	2.5	-7.9	-8.2	-6	-4.6	-6.5	-6.8	-4.9	-4.0	77	83	86	87
IT	-4.8	1.1	2.0	2.0	-5.3	-5.0	-3.9	-2.7	-3.8	-3.3	-2.7	-1.9	115	117	117	115
CY	-1.7	0.5	1.5	3	-6.1	-6.0	-4.5	-3.4	-5.6	-5.2	-3.6	-2.9	56	61	63	63
LU	-3.9	2.5	3	2.7	-1.1	-3.9	-5	-4.6	0.9	-2.2	-3.6	-3.4	15	18	24	29
MT	-2	1.1	2.3	2.9	-3.8	-3.9	-2.9	-2.8	-3.2	-3.5	-2.8	-3.3	67	69	68	67
NL	-4	1.5	2	2	-4.9	-6.1	-5	-4.5	-3.8	-4.8	-3.9	-3.5	62	67	70	73
AT	-3.4	1.5	1.5	1.9	-3.5	-4.7	-4.0	-3.3	-2.7	-3.9	-3.3	-2.7	67	70	73	74
PT	-2.7	0.7	0.9	1.3	-9.3	-8.3	-6.6	-4.7	-8.3	-7.5	-5.9	-4.1	77	86	89	91
SI	-7.3	0.9	2.5	3.7	-5.7	-5.7	-4.2	-3.1	-4.2	-4.0	-2.8	-2.4	34	40	42	43
SK	-5.7	1.9	4.1	5.4	-6.3	-5.5	-4.2	-3	-6.0	-4.7	-3.3	-2.7	37	41	43	42
FI	-7.6	0.7	2.4	3.5	-2.2	-3.6	-3.0	-2.3	0.3	-0.9	-1.0	-1.2	42	48	52	54
EA-16 (2)	-4.0	1.0	2.0	2.3	-6.3	-6.7	-5.3	-3.9	-4.8	-5.3	-4.2	-3.2	79	84	87	87
BG	-4.9	0.3	3.8	4.8	-1.9	0.0	0.1	0.1	-0.7	1.9	1.7	1.0	15	15	15	14
CZ	-4.0	1.3	2.6	3.8	-6.6	-5.3	-4.8	-4.2	-6.1	-4.1	-3.7	-3.5	35	39	41	42
DK	-4.3	1.3	1.6	2	-2.9	-5.3	-4.1	-3.1	1.4	-1.1	-1.0	-0.9	39	42	46	48
EE	-14.5	-0.1	3.3	3.7	-2.6	-2.2	-2	-1.0	-1.1	-1.5	-0.9	-0.1	8	10	13	14
LV	-18	-4.0	2.0	3.8	-10	-8.5	-6	-2.9	-7.6	-5.5	-3.9	-1.8	35	55	59	57
LT	-15.0	1.6	3.2	1.2	-9.1	-8.1	-5.8	-3.0	-7.2	-6.8	-4.8	-2.3	30	37	40	41
HU	-6.7	-0.3	3.7	3.8	-3.9	-3.8	-2.8	-2.5	-1.6	-1.5	-1.5	-2.5	78	79	77	74
PL	1.7	3	4.5	4.2	-7.2	-6.9	-5.9	-2.9	-7.0	-6.2	-5.3	-2.3	51	53	56	56
RO	-7	1.3	2.4	3.7	-8	-6.3	-4.4	-3	-7.5	-5.2	-3.2	-2.1	23	28	29	30
SE	-5.2	0.6	3.1	3.8	-2.2	-3.4	-2.1	-1.1	0.6	-0.8	-0.7	-0.9	43	46	46	45
UK (1)	-4½	1 to 1½	3¼ to 3¾	3¼ to 3¾	-12.6	-12	-9.1	-7.3	-10.7	-10.0	-7.7	-6.6	72.9	82.1	88.0	90.9
EU-27 (2)	-4.1	1.1	2.4	2.6	-7.0	-7.2	-5.6	-4.2	-5.4	-5.7	-4.5	-3.5	74	80	82	83

(1) Convergence programme and autumn forecast: financial years ending in following March.

(2) In case of missing programmes: weighted average of the figures for those countries that have submitted a programme.

Source: Commission services.

Table I.3.4: Overview of the Council opinions on the SCPs – summary assessments and policy invitations

BE	<p>Summary Assessment:</p> <p>The overall conclusion is that, following the expansion in 2009 in line with the EERP, the budgetary stance turns restrictive in 2010 and 2011 and more significantly so in 2012. At face value, this should lead to a correction of the excessive deficit by 2012, in line with the recommendation of 2 December 2009 under Article 126(7) of the TFEU. The government gross debt-to-GDP ratio, which rose in 2008 as a result of the measures to stabilise the financial system, will continue its upward movement up to 2011 and start declining again in 2012. This would bring the debt back on a downward path. However, the budgetary path is subject to some downside risks.</p> <p>In 2010, potentially optimistic tax estimates may lead to a somewhat higher deficit and may call for additional measures to be taken in the context of the foreseen budget control exercises. As from 2011, the main risk relates to the fact that the measures underpinning the target for 2011 are only partly specified and there are no measures specified for 2012. In addition, the slightly favourable macroeconomic assumptions combined with an average annual fiscal effort that is somewhat below the ¾% of GDP recommended by the Council, pose further downward risks to the targets.</p> <p>The Belgian government however committed in the programme to take the necessary exceptional measures if economic growth is insufficient to achieve the 3% of GDP deficit target in 2012, which may indeed be needed. The adjustment could also benefit from a stronger focus on expenditure restraint. Finally, while the programme announces a number of improvements to the fiscal framework, more needs to be done to support the consolidation effort, in particular as regards the introduction of enforceable, multi-annual expenditure ceilings.</p> <p>Policy Invitations:</p> <p>Ensure that the 2010 deficit target of the programme is met; specify the measures underlying the budgetary targets from 2011 onwards in order to achieve the recommended average annual fiscal effort of ¾% of GDP in line with the Article 126(7) Recommendation; and stand ready to strengthen the fiscal effort in case risks related to the fact that the programme scenario is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise; Seize, as prescribed in the EDP recommendation any opportunity beyond the fiscal efforts, including from better economic conditions, to accelerate the reduction of the gross debt ratio towards the 60% of GDP reference value.</p> <p>Ensure high primary surpluses over the medium term and undertake structural reforms in order to improve the long-term sustainability of public finances.</p> <p>Improve the quality of public finances by adopting a more stringent budgetary framework, encompassing the creation of enforceable, multi-annual expenditure ceilings.</p>
BG	<p>Summary Assessment:</p> <p>The overall conclusion is that the programme's aim to maintain a sound budgetary position, reflected in planned general government balanced budgets, is considered adequate at the current economic juncture and in view of the need to contain the economy's external imbalances. The undertaken consolidation measures and the strong political commitment to fiscal discipline are expected to partially compensate the risks stemming from the slightly favourable assumptions on growth and revenue collection. In the short- to medium-term the programme foresees ambitious structural reforms that aim to strengthen the sustainability of public finances and at the same time to underpin the economic recovery. Subject to the downside risks from the still high uncertainty in the external environment, the budgetary stance would imply that the medium term objective of ½% of GDP, although more than adequately reflecting the objectives of the Pact, would be</p> <p>At the same time keeping tight fiscal policy and restricting wage development in line with productivity growth is warranted from the need to enhance competitiveness and correct the external imbalances. In the long-run, improving the quality and sustainability of public finances requires vigorous implementation of the planned and long-delayed structural reforms and strengthening the administrative capacity.</p> <p>Policy Invitations:</p> <p>Strengthen the efficiency of public spending by vigorously implementing the planned structural reforms in the area of public administration, healthcare, education, and pensions in order to boost productivity and ensure sustainable convergence within the European Union</p>
CZ	<p>Summary Assessment:</p> <p>The overall conclusion is that the budgetary strategy of the Czech Republic for 2010 is appropriate and in line with the Council Recommendation under Article 126(7) TFEU. The fiscal strategy for the following years lacks ambition and fiscal targets are subject to risks both on the revenue and expenditure side. In particular, the expenditure targets are not backed up by specific measures from 2011 on and the favourable macro-economic assumptions put some doubt on the revenue projections for 2012. Moreover, while the target date for bringing the government deficit below 3% of GDP (2013) is in line with the Council Recommendation it is not possible to fully assess the budgetary strategy as the</p> <p>Therefore, more information on the broad strategy underpinning the correction of the excessive deficit, including in particular 2013, would be welcome. With respect to the fiscal framework, there are noticeable weaknesses in several areas, in particular in budgetary procedures, enforcement of the medium-term budgetary framework. Furthermore, the long-term budgetary impact of ageing is clearly above the EU average which remains a concern for long-term sustainability of public finances and points to the need for reforms in the areas of pensions and healthcare.</p>

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Table (continued)

	<p>Policy Invitations: Implement the 2010 budget rigorously and avoid expenditure slippages; in line with the Council Recommendation under Article 126(7), target, in the context of the 2011 and 2012 budgets, a larger budgetary adjustment than the one planned in the programme and specify in more detail the measures that are necessary to correct the excessive deficit by 2013 at the Implement the necessary reforms in order to improve the long-term sustainability of public finances. Take action to improve budgetary procedures and to enforce and monitor more rigorously the medium-term budgetary targets; in particular, avoid upward revisions of expenditure ceilings beyond the revisions permitted by the budgetary rules.</p>
DK	<p>Summary Assessment: The overall conclusion is that that the severe economic crisis has substantially affected public finances. The programme's projections, based on current policies, indicate that the general government deficit will exceed the 3%-of-GDP reference value from 2010 to 2012. Whereas the projected consolidation path foresees that the MTO of a structurally balanced budget would be reached by the end of the programme period in 2015, the structural balance, as recalculated by the Commission services' using the commonly agreed method, is projected to be slightly negative. Taking also account of the downside risks attached to these projections, it would be desirable that the government specifies the consolidation measures to be taken.</p> <p>Policy Invitations: Reinforce efforts ensuring that the planned breach of the 3%-of-GDP reference value would remain contained as well as to swiftly correct the projected excess of the deficit over the reference value; and to specify the measures to underpin fiscal consolidation for the MTO to be reached by 2015 as planned.</p>
DE	<p>Summary Assessment: The overall conclusion is that in the wake of the financial and economic crisis, Germany's public finances have deteriorated substantially on the back of automatic stabilisers and a wide ranging response in line with the EERP to counter the crisis. The envisaged expenditure-based consolidation from 2011 onwards would lead to a correction of the excessive deficit by 2013. However, taking into account the risks, the budgetary strategy from 2011 on may not be consistent with the Council Recommendation under Article 126(7) of 2 December 2009. This is linked to the lack of specific measures underpinning the proposed retrenchment path after 2010, uncertainty as to the implementation of further tax cuts envisaged in the new government's coalition agreement and their reconciliation with the necessary consolidation, risks related to the strength of the economic recovery and the possible need of further financial market stabilisation measures.</p> <p>Policy Invitations: Specify the measures necessary to underpin the envisaged consolidation, implement the budgetary strategy for 2011-2013 as outlined in the programme to correct the excessive deficit by 2013. Seize, as prescribed in the EDP recommendation, any opportunity beyond the fiscal efforts, including from better economic conditions, to accelerate the reduction of the gross debt ratio back towards the 60% of GDP reference value. Ensure full implementation of the new constitutional budgetary rule at all levels of government, and reverse the deviation from the pension adjustment formula in 2008 as envisaged.</p>
EE	<p>Summary Assessment: The overall conclusion is that Estonia implemented a decisive consolidation of public finances in 2009 against a significant deterioration of the economic situation, contributing to the ongoing adjustment in the economy and aimed at supporting a smooth participation in ERM II, while striving to avoid an excessive deficit situation. The economy is currently emerging from a severe recession, while average growth is projected to remain considerably lower over the medium term than in the upswing and peak years of the recent cycle. The consolidation implemented in 2009 already constitutes a major adjustment of public finances to the expected lower growth in the medium term. However, achieving stricter expenditure control and improving the medium-term budgetary framework remain work-in-progress. The programme targets a gradual decline in the general government headline deficit from 2010, reaching a surplus position in line with the MTO by the end of the programme period, although these budgetary outcomes are subject to downside risks in the short and medium term.</p> <p>Policy Invitations: Ensure that the general government deficit remains below 3 % of GDP and take the necessary measures to underpin the targeted return to the MTO in the medium term. Strengthen the medium-term budgetary framework, particularly by improving expenditure planning, and further strengthen the system of monitoring the strategic targets and reporting on them.</p>
IE	<p>Summary Assessment: The overall conclusion is that Ireland responded swiftly and with determination to counter the widening of the government deficit. In spite of this, and due to the severe recession, the general government deficit widened further in 2009 but is planned in the programme to stabilise in 2010, at 11.6% of GDP. From 2011 onwards, the programme envisages a reduction of the deficit to below the 3% of GDP reference value by 2014, the deadline for the correction of the excessive deficit set by the Council. Debt would peak at around 84% of GDP in 2012 and then decline mildly. The budgetary outcomes could be worse than targeted throughout the programme period, mainly due to</p>

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Table (continued)

	<p>(i) the fact that the consolidation efforts planned after 2010 are not underpinned by broad measures and are stated to be subject to review in the context of future budgets;</p> <p>(ii) the programme's favourable macroeconomic outlook after 2010; and</p> <p>(iii) the risk of expenditure overruns in 2010 and also beyond, to the extent that the still to be spelled out strategy should rely on expenditure restraint. This, together with the likely need for further support measures for the financial sector, implies that also the debt ratio could turn out higher than planned in the programme. While the significant size of the savings package for 2010 is broadly in line with the Council recommendation issued on 2 December 2009, it will be important to address the above-mentioned risks, by spelling out the measures underlying the consolidation strategy and adopting additional consolidation measures if growth turns out weaker than projected in the programme or if the risk of expenditure slippages materialises.</p> <p>Building on the significant efforts already made, implementing a credible fiscal consolidation strategy, which should be facilitated by a stronger budgetary framework, should foster a return to sustainable economic growth. To help achieve this, there is also a need to regain competitiveness through measures enhancing productivity growth and adequate wage policies, and to support the re- and up-skilling of the newly-unemployed to prevent them from turning into long-term unemployed. With a view to improving the long-term sustainability of public finances, further reforms to the pension system will be important in addition to the fiscal consolidation efforts. These reforms could usefully build on the March 2010 National Pensions Framework.</p> <p>Policy Invitations:</p> <p>Rigorously implement the budget for 2010 and back up the envisaged consolidation packages for the following years with concrete measures within a broad-based consolidation strategy in order to achieve the recommended average fiscal effort of 2% of GDP in line with the Article 126(7) Recommendation, while standing ready to adopt further consolidation measures in case risks related to the fact that the macroeconomic scenario of the programme is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise;</p> <p>Seize, as prescribed in the EDP recommendation, any opportunities beyond the fiscal efforts, including from better economic conditions, to accelerate the reduction of the gross debt ratio towards the 60% of GDP reference value;</p> <p>In view of the significant projected increase in age-related expenditure, and also of the further increase in debt expected over the programme period, improve the long-term sustainability of public finances by implementing further pension reform measures;</p> <p>To limit risks to the adjustment, strengthen the enforceable nature of its medium-term budgetary framework, as well as closely monitor adherence to the budgetary targets throughout the year;</p>
<p>EL</p>	<p>Summary Assessment:</p> <p>The overall conclusion is that the programme displays an appropriate degree of ambition given the sheer size of the consolidation need and is frontloaded. The fiscal consolidation in 2010 focuses more on public revenue enhancement and to a lesser extent, on public spending retrenchment, while the composition of the fiscal adjustment is planned to be more balanced between revenues and expenditures in the outer years. The programme presents a package of concrete fiscal consolidation measures for 2010, providing also the estimated quantification of each one of the measures included, as well as the timeframe of their adoption and implementation. Some of these measures have already been submitted to Parliament and are to be implemented shortly. However, the plans for 2011, 2012 and 2013 are much less detailed. The programme provides a wide range of budgetary measures and structural reforms in order to address the structural imbalances of the Greek economy and to reverse the upward trend of public debt. Potential delays in rigorously implementing these measures remain a source of risk.</p> <p>Moreover, the budgetary strategy is also subject to significant downside risks, with the growth assumptions underlying the central macroeconomic scenario of the programme being favourable.</p> <p>In particular, general government expenditure by function and information on debt developments and the components of stock-flow adjustment (differences between cash and accruals, net accumulation of financial assets, valuation effects and other), liquid financial assets and net financial debts are not provided.</p> <p>Consolidation relies also, on the results from the improvement of the tax collection mechanism, widening of the tax base and increase of tax compliance. The proceeds from the fight against tax evasion constitute a large component of the overall consolidation effort in 2010 and are subject to large risks. Given the several risks bearing on budgetary implementation, ensuring the fiscal consolidation path by implementing promptly and rigorously the measures presented in the stability programme and standing ready to adopt sufficient additional measures, appears necessary. In addition, the structural nature of the factors underlying competitiveness losses and the widening external imbalances urgently requires the prompt implementation of bold structural reforms, including the ones presented in the programme. In the long term, the level of debt which remains among the highest in the EU, coupled with the projected increase in age-related spending, affects negatively the long-term sustainability of public finances.</p> <p>Policy Invitations:</p> <p>The Council is also addressing to the Hellenic Republic a recommendation under Article 121(4) and a notice to take action under Article 126(9) on 16 February 2010.</p>

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Table (continued)

ES	<p>Summary Assessment:</p> <p>The overall conclusion is that the current crisis is severely impacting on the Spanish public finances, with a very high deficit estimated for 2009 and a rapidly-rising government debt ratio. The stability programme update aims at sizeable continued fiscal consolidation from 2010 on with a view to reducing the government deficit to 3% of GDP by 2013. Fiscal consolidation is essential, as mounting fiscal deficits and debt might damage sustained economic growth in the medium term. In addition, improving long-term fiscal sustainability should be a priority also in the light of the projected high rise in age-related public expenditure.</p> <p>Yet achieving the ambitious consolidation path may require additional efforts, notably in the light of the markedly favourable macroeconomic assumptions and the subsequent risk of a lower-than-assumed contribution of economic growth to fiscal consolidation, and the revenue performance in the outer years of the programme that might be difficult to attain. At the same time, the adjustment path is not fully backed up with concrete measures for the years beyond 2010. A functioning budgetary framework, including the regulation of the relations between the different levels of the general government sector, is an essential instrument to support the achievement of the ambitious consolidation plans against a setting of high fiscal decentralisation. In addition, further fostering the quality of public finances is important also with a view to underpinning a smooth adjustment of the economy in the light of the need to continue the adjustment of the existing macroeconomic imbalances, in particular the external imbalance, notably by lifting potential GDP, fostering employment creation and boosting productivity and competitiveness.</p> <p>Policy Invitations:</p> <p>Implement with rigour the ambitious fiscal plans envisaged in the programme so as to correct the excessive deficit by 2013, backing it up with concrete measures in the years beyond 2010, and stand ready to adopt further consolidation measures in case risks related to the fact that the macroeconomic scenario of the programme is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise;</p> <p>Seize, as prescribed in the EDP recommendation any further opportunity beyond the fiscal efforts, including from better economic conditions, to accelerate the reduction of the gross debt ratio towards the 60% of GDP reference value.</p> <p>In view of the projected increase in age-related expenditure and the rapid rise of the government debt ratio, improve the long-term sustainability of public finances also by implementing reforms to the old-age pension scheme as proposed by the Government;</p> <p>Ensure that the budgetary framework effectively supports the achievement of the outlined medium-term fiscal plans at all levels of the general government sector, and closely monitor adherence to the budgetary targets throughout the year; ensure that fiscal consolidation measures are also geared towards continuing the improvement of the quality of the public finances in the light of the need for further adjustment of existing macroeconomic imbalances;</p>
FR	<p>Summary Assessment:</p> <p>The overall conclusion is that after a significant deterioration of public finances in 2009 triggered by the economic downturn and measures taken in the context of the EERP, the general government deficit for 2010 is expected to further increase to 8.2% of GDP. Consolidation measures and the partial phasing out of measures in line with the EERP would be compensated by further deficit increasing measures with mostly short term costs, including public investment stemming from a public loan. The budget balance would improve thereafter. The debt ratio is also expected to increase substantially over the programme horizon. The adjustment path presented in the programme leads to a deficit of 3% of GDP in 2013 without a safety margin and is based on a markedly favourable macroeconomic scenario from 2011 to 2013 combined with an average annual structural adjustment that is somewhat below the adjustment recommended by the Council of above 1% of GDP.</p> <p>It foresees measures, mostly on the expenditure side, supporting the consolidation strategy, although they are not specified in the programme and will be identified in the forthcoming months. The budgetary projections are therefore subject to substantial downside risks and the fiscal consolidation may need to be strengthened accordingly to ensure a correction of the excessive deficit by 2013. Ensuring higher primary surpluses over the medium term would contribute to reducing risks to the sustainability of public finances. The programme indicates that a reform of the pension system will be presented in 2010.</p> <p>Policy Invitations:</p> <p>Use, throughout the programme period, windfalls related to an improvement of the macro-economic and fiscal outlook, as well as the implementation of all envisaged tax measures to accelerate the deficit reduction and the decline of the gross debt ratio back towards the 60% of GDP reference value; stand ready to adopt further consolidation measures, in case risks related to the fact that the macroeconomic scenario of the programme is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise, and further specify the measures necessary to ensure an average annual fiscal effort of above 1% of GDP over the period 2010 □ 2013 and to achieve a correction of the excessive deficit by 2013.</p> <p>Ensure that the budgetary framework is reinforced, in particular on the expenditure side, and effectively supports the achievement of the outlined medium-term fiscal plans at all sub-government levels, as planned by the French government;</p>

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Table (continued)

IT	<p>Summary Assessment: The overall conclusion is that the programme projects the deficit to narrow slightly, to 5% of GDP in 2010, from 5.3% in 2009, thanks to the expenditure-based adjustment adopted in summer 2008 and confirmed by the 2010 budget. Thereafter, the deficit ratio is planned to decline to below 3% by 2012, the deadline set by the Council for the correction of the excessive deficit. The strategy is based on (i) the further implementation of the expenditure-based adjustment for the period 2009-2011 adopted in summer 2008; and (ii) an additional consolidation effort amounting to 0.4 pp. of GDP in 2011 and further 0.8 pp. in 2012, which is however not underpinned by broad measures. The gross debt ratio is set to increase from just above 115% of GDP in 2009 to around 117% of GDP in 2010. Thereafter, it is projected to fall towards 114.6% of GDP in 2012, consistent with the planned budgetary targets and economic growth assumptions. However, the deficit and debt ratios could be higher than targeted.</p> <p>Overall, the programme's macroeconomic assumptions appear favourable. In addition, beyond the lack of broad measures underpinning the planned additional consolidation efforts, achieving the trend projections will be very challenging as they already envisage a very significant degree of expenditure restraint. In this context, the track record indicates that expenditure overruns cannot be ruled out. A major challenge for fiscal governance is the implementation of the budgetary process reform and of rules governing fiscal federalism in such a way to improve the accountability of local governments and ensure fiscal discipline. Besides fiscal consolidation, which is a condition to keep public finances on a sustainable path in view also of the very high debt ratio, a further key challenge for Italy's economic policy in the coming years will be to foster a swift and durable recovery in productivity growth so as to restore competitiveness and raise the country's low potential GDP growth.</p> <p>Policy Invitations: Rigorously implement the planned budgetary adjustment, in particular carry out the fiscal consolidation in 2010 as planned and back up the planned consolidation for 2011 and 2012 with concrete measures, standing ready to adopt the required consolidation measures in case the macroeconomic scenario underpinning the Article 126(7) Recommendation materialises; Seize, as prescribed in the EDP recommendation, any opportunity beyond the fiscal efforts, including from better economic conditions, to accelerate the reduction of the gross debt ratio towards the 60% of GDP reference value; Ensure that the implementation of the reform of the budgetary process improves the conditions for expenditure control and helps sustain the objective of sound public finances and that the rules governing fiscal federalism improve the accountability of local governments and foster efficiency</p>
CY	<p>Summary Assessment: The overall conclusion is that Cyprus' public finances deteriorated significantly as a result of the economic downturn and an expansionary fiscal stance due to the adoption of significant stimulus measures in line with the EERP. As a result, the budgetary balance turned to a deficit of 6.1% of GDP in 2009 from a surplus of 0.9% of GDP in 2008. The programme outlines a consolidation path starting in 2010 which aims to bring the general government balance below the 3% of GDP reference value by 2013. However, the adjustment is planned to be achieved mainly from the revenue side of the budget while the expenditure-to-GDP ratio remains at historically high levels. Moreover, against the background of a frail global economic recovery, the budgetary strategy is subject to significant downside risks, as the growth assumptions underlying the macroeconomic scenario of the programme are favourable.</p> <p>In the light of the high domestic and external imbalances, maintaining prudent policies and strengthening fiscal sustainability should be a priority. Therefore, controlling current expenditure through the implementation of an effective multi-annual budgetary framework would be an essential instrument to support the achievement of the consolidation plans and budgetary targets. In addition, fostering the quality of public finances is important also with a view to underpinning a smooth adjustment of the economy in the light of the imbalances it is faced with, notably by lifting potential GDP, enhancing competitiveness and further narrowing the external imbalance.</p> <p>Policy Invitations: Limit the 2010 deficit to at most 6% of GDP, if necessary by reinforcing the consolidation measures, notably in case macroeconomic developments proves less favourable than the programme scenario, and take timely action to define a more expenditure-driven consolidation strategy; seize opportunities beyond the announced fiscal effort to accelerate fiscal consolidation and the reduction of the gross debt ratio back below the reference value; Implement, as envisaged, an effective multi-annual budgetary framework in order to ensure the adherence to the budgetary targets and to firmly contain expenditure over the medium-term.</p>
LV	<p>Summary Assessment: The overall conclusion is that Latvia is undertaking a significant fiscal consolidation and economic adjustment in line with the Council recommendations, supported by the adoption of a 2010 budget based on high-quality measures, wide-ranging reforms in the public sector, an improved absorption of EU structural funds, targeted labour market policies, and action to strengthen the financial sector. Looking forward, risks pertain to the size of the remaining adjustment in the context of a sluggish economy, uncertainty on future revenue trends and on the measures which should back the consolidation, and the scope of the reforms which still need to be undertaken to underpin a sustainable recovery. Further improvements in the budget framework could facilitate the identification and implementation of the necessary measures, reducing the risk that the budgetary outcome is worse than planned.</p>

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Table (continued)

	<p>Policy Invitations: Fully implement the 2010 budget as adopted on 1 December 2009; prepare a menu of budgetary options producing savings or additional revenues allowing the adoption of a 2011 budget in accordance with the consolidation needs; adopt a 2012 budget also consistent with the targeted fiscal path, in line with the Council Recommendation under Article 104(7)</p> <p>Carry out the thorough and forward-looking analysis needed for a wide-ranging social benefits reform, with a view to implement such a reform in the course of 2011 together with further measures on the revenue side; improve fiscal governance and transparency, inter alia by adopting the draft fiscal discipline law, by strengthening the binding nature of the medium-term budgetary framework, and by putting in place effective sanction procedures for individuals' misuses of public funds; strengthen control, coordination and sanction mechanisms aiming at tackling the grey economy; foster economic growth by promoting the shift towards the tradeable sector and productivity improvements, including by ensuring that the available EU structural funds reach the real economy, and restructuring state-owned banks in a timely manner, within a medium-term strategy.</p>
LT	<p>Summary Assessment: The overall conclusion is that Lithuania implemented a decisive consolidation of public finances in 2009 against a significant deterioration of the economic situation, contributing to the ongoing adjustment in the economy and supporting smooth participation in ERM II and the correction of the excessive deficit. The economy is currently emerging from a severe recession, while average growth is projected to remain considerably lower over the medium term than in the peak years of the recent cycle. The consolidation implemented in 2009 already constitutes a major adjustment of public finances to the expected lower growth in the medium term. Stricter expenditure control and a strengthened medium-term budgetary framework would support the needed further consolidation.</p> <p>The programme targets a gradual decline in the general government headline deficit from 2010, aiming at the correction of the excessive deficit by 2012 as recommended by the Council, although these budgetary outcomes are subject to downside risks over the whole programme period.</p> <p>Policy Invitations: Consider additional corrective measures in 2010 if necessary to achieve the envisaged consolidation, in addition to implementing rigorously those planned in the budget; specify the necessary measures to underpin fully the required adjustment over the programme period recommended by the Council under Article 126(7), and stand ready to adopt further consolidation measures in case risks related to the fact that the macroeconomic scenario of the programme is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise; Implement planned social security system reforms, including pension reform, so as to reduce the high risks to long-term sustainability of public finances due to significant projected increases of pension expenditure during the coming decades; Strengthen fiscal governance and transparency, by enhancing the medium-term budgetary framework and improving reporting of budgetary data, ensuring comparability of the budgetary indicators on cash and accrual bases;</p>
LU	<p>Summary Assessment: The overall conclusion is that that in view of the downturn and the sound budgetary starting position of Luxembourg the temporary deterioration in the general government balance in 2009 and 2010 partly reflecting the adoption of stimulus measures is appropriate. However, from 2011 the fiscal stance as shown in the programme's "unchanged policy scenario" cannot be considered in line with the requirements of the Pact, as the government deficit would remain above 3% of GDP until 2014; there would thus be no consolidation effort to ensure that the deficit is brought below 3% of GDP and progress towards the MTO would not be adequate either. While the authorities indicate their intention to follow a more ambitious consolidation path with a view to bringing public finances back to balance in 2014 and to achieve the medium-term objective in the following years, this adjustment path cannot be properly assessed in the absence of any information including the underlying measures.</p> <p>More information on these measures would thus be welcome. Concerns remain about the long-term sustainability of public finance, which will have to bear a very heavy burden in the coming decades as the increase in age-related public expenditure is projected to be among the strongest in the whole EU.</p> <p>Policy Invitations: Start fiscal consolidation as from 2011 with a view to bringing the deficit below the 3% of GDP threshold and thereafter progressing towards the MTO and specify to this effect the measures that will be needed to achieve this consolidation; In view of the significant projected increase in age-related expenditure, improve the longterm sustainability of public finances by reforming the pension system and set a MTO that takes sufficiently into account the implicit liabilities related to ageing.</p>
HU	<p>Summary Assessment: The overall conclusion is that despite the sharp economic contraction in 2009 in the context of the financial crisis, the budget deficit was stabilised. Following the strongly restrictive fiscal stance in 2009 and the previous two years, the budgetary stance in Hungary turns broadly neutral in 2010 and 2011 and expansionary in 2012. According to the programme, this should lead to a correction of the excessive deficit by 2011 and attaining the MTO.</p>

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Table (continued)

	<p>The government gross debt-to-GDP ratio is expected to continue its upward movement up to 2010 and start declining again in 2011, bringing the debt back on a downward path. In particular, the compulsory information on the nominal effective exchange rate is missing as well as optional data including on general government expenditure by function and the breakdown of stock-flow adjustments. However, the budgetary path only foresees a small structural improvement in 2010, none in 2011, and a deterioration in 2012. Moreover, this path is subject to considerable downside risks, especially in the outer years. In 2010, the elimination of the property tax and the downward risks notably linked to the additional financing need of the public transport could be compensated to some extent by the freezing of budgetary reserves and contingency expenditure cuts of 0.2% of GDP.</p> <p>Regarding the outer years, risks are linked to the fact the macroeconomic scenario presented in the programme is slightly favourable and that the bulk of the measures underlying the budgetary path is unspecified and not adopted. Against this background, the correction of the excessive deficit in 2011 in line with the recommendation of 7 July 2009 under Article 104(7) of the TEC and the subsequent further consolidation is not ensured and it will be necessary to specify the savings measures and strengthen the consolidation efforts from 2011. The programme presents the main elements of the new fiscal framework; however, enhanced compliance needs to be ensured.</p> <p>Policy Invitations: Ensure that the 3.8% of GDP deficit target for 2010 is achieved through tight expenditure control as well as through a possible freezing of budgetary reserves and the implementation of contingency expenditure cuts if needed; specify the measures underlying the budgetary targets from 2011 onwards and stand ready to strengthen the fiscal effort in case risks related to the fact that the programme scenario is more favourable than the scenario underpinning the Article 104(7) TEC Recommendation materialise to ensure that the deficit is brought below 3% of GDP in 2011; and considerably strengthen the strategy for 2012 to ensure an adjustment towards the MTO in line with the requirements of Stability and Growth Pact;</p> <p>Improve the quality of public finances by preparing and adopting a 2011 budget in full compliance with the fiscal framework and by supporting expenditure moderation through a further reform of public administration and by addressing the situation of loss-making enterprises through structural reforms;</p>
<p>MT</p>	<p>Summary Assessment: The overall conclusion is that, according to the programme, the general government deficit ratio is targeted to broadly stabilise in 2010 (at 3.9% of GDP), followed by a return to just below the 3% of GDP reference value in 2011, the deadline for the correction of the excessive deficit set by the Council. In 2012, the final year covered by the programme, the deficit ratio is again planned to broadly stabilise instead of making progress towards Malta's medium-term objective of a balanced position in structural terms. Gross government debt would peak at almost 69% of GDP in 2010 and thereafter decline marginally. The deficit and debt ratios could be higher than planned throughout the programme period, mainly due to</p> <ul style="list-style-type: none"> (i) assumed tax buoyancy and, especially after 2010, a favourable macroeconomic scenario and (ii) possible expenditure overruns given recent slippages, the scale of the envisaged retrenchment and the lack of information on concrete measures underpinning the targeted cut in the spending ratio over the programme period. <p>While the deficit target for 2010 set in the budget has been confirmed, as recommended by the Council, it will be important to address these risks, by spelling out the concrete measures underlying the strategy and adopting additional consolidation measures if economic growth or revenue increases turn out lower than projected in the programme or if the risk of expenditure slippages materialises. Furthermore, the envisaged strategy for 2012 should be strengthened considerably to be in line with the requirements of the Stability and Growth Pact. In addition to achieving a sound budgetary position and improving long-term sustainability through further reforms to curb the projected rise in age-related expenditure, Malta faces the challenge of strengthening competitiveness to improve the economy's resilience to future external shocks. This will require implementing productivity-enhancing measures and promoting an efficient wage setting process that allows a close link between wage and productivity developments.</p> <p>Policy Invitations: Achieve the 2010 deficit target of 3.9% of GDP, if necessary by adopting additional consolidation measures; back up the strategy to bring the deficit below 3% of GDP in 2011 with concrete measures while standing ready to adopt further consolidation measures in case risks related to the fact that the macroeconomic scenario of the programme is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise; and considerably strengthen the strategy for 2012 to ensure an adjustment towards the MTO in line with the requirements of the Stability and Growth Pact;</p> <p>Seize, as prescribed in the EDP recommendation, any opportunity beyond the fiscal efforts, including from better economic conditions, to accelerate the reduction of the gross debt ratio towards the 60% of GDP reference value;</p> <p>In view of the significant projected increase in age-related expenditure, improve the long-term sustainability of public finances by implementing further reforms of the social security system;</p> <p>Strengthen the binding nature of the medium-term budgetary framework and improve the monitoring of budget execution throughout the year, and enhance the efficiency of public spending, especially in the area of health.</p>

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NL	<p>Summary Assessment: The overall conclusion is that the Netherlands is hit hard by the crisis, resulting in a sharp deterioration of the budget balance in 2009, which turned from a surplus of 0.7% of GDP in 2008 to a deficit of 4.9% of GDP, triggering the excessive deficit procedure. For 2010, a further deterioration is expected, most importantly due to various lagged effects, like increasing unemployment. The subsequent withdrawal of the fiscal stimulus and a consolidation package should improve the budget balance in 2011. For 2012, the improvement in the budget comes from cyclical conditions following the no-policy change scenario. The debt ratio, which breached the 60% Treaty reference value in 2009, is expected to increase substantially over the programme horizon. The adjustment path presented in the programme is subject to downside risks and would benefit from a strengthened consolidation beyond 2011. The main risks are related to the favourable macroeconomic assumptions combined with an annual fiscal effort that is a narrow ¼% of GDP, which was recommended by the Council.</p> <p>The programme includes a commitment to take additional policy measures in order to meet the 2013 deadline. However, as 2013 is not covered by the programme, it is not possible to fully assess the budgetary strategy. Therefore, more information on the broad strategy underpinning the correction of the excessive deficit, including in particular 2013, would be welcome. Ensuring higher primary surpluses over the medium term and implementing reform measures that curb the projected increase in age-related expenditure would contribute to reducing high risks to the sustainability of public finances. The recently proposed pension reform would be considered as an important first step, if adopted.</p> <p>Policy Invitations: In the context of the fundamental budget review, specify the measures supporting the consolidation from 2011 and especially in the following years, further strengthen the consolidation effort to secure the required average annual fiscal effort to bring the deficit below 3% of GDP by 2013, and throughout the programme period use windfalls related to an improvement of the macro-economic and fiscal outlook to accelerate the deficit reduction and the decline of the gross debt ratio. Further improve the long-term sustainability of public finances by implementing structural reforms that curb the projected increase in age-related expenditure;</p>
AT	<p>Summary Assessment: The overall conclusion is that in the wake of the financial and economic crisis the situation of Austria's public finances deteriorated significantly as a result of the operation of automatic stabilisers and a sizeable stimulus package adopted by the government. As the bulk of the measures aimed at combating the downturn are of permanent nature, there is a need to introduce consolidation measures as from 2011. The budgetary strategy set out in the programme for 2010 is consistent with the Council recommendation of 2 December 2009. However, the budgetary strategy for the years 2011-2013 may not be consistent with the recommendation.</p> <p>The programme does outline a consolidation path on the expenditure side starting in 2011, but it still needs to be underpinned by concrete measures. Many significant reforms to public expenditure have been undertaken in Austria in the recent past. However, there is still room for improvement in areas such as health care and education. Substantial efficiency gains in these areas could be obtained by reforming the fiscal relations between the various layers of government.</p> <p>Policy Invitations: Substantiate the measures deemed necessary to underpin the planned consolidation from 2011 onwards, in order to achieve the recommended average annual fiscal effort of ¼% of GDP and bring the general government deficit below the 3% of GDP reference value by 2013; Seize, as prescribed in the EDP recommendation, any opportunities beyond the fiscal effort, including from better economic conditions, to accelerate the reduction of the gross debt ratio back towards the 60% of GDP reference value; Further improve the budgetary framework to strengthen fiscal discipline at all levels of government through enhanced transparency and accountability notably by aligning legislative, administrative and financing responsibilities between the different levels of government and by strengthening enforcement mechanisms under the internal stability pact;</p>
PL	<p>Summary Assessment: The overall conclusion is that while Poland is planning to correct its excessive deficit by 2012 in line with the Council recommendation under the excessive deficit procedure, the fiscal adjustment is considerably backloaded, most of the deficit reduction being projected to take place in 2012, and deficit targets in the programme are subject to significant downside risks, both on the revenue and expenditure side. In view of the recovery projected by the authorities from 2010 and the large structural government deficit a more frontloaded fiscal consolidation strategy would be appropriate.</p> <p>Risks to fiscal targets reflect favourable real GDP growth assumptions, the lack of sizeable sufficiently concrete measures in support of fiscal targets from 2011 on, a history of current expenditure slippages compared to plans and impact of the electoral cycle. Intentions to strengthen the fiscal framework, in particular backed by expenditure rules, are welcome. With respect to the "temporary" expenditure rule a higher degree of ambition would be appropriate, notably in terms of the share of government finances covered by the rule.</p> <p>Policy Invitations: Implement the 2010 budget rigorously, under-executing primary current expenditure plans wherever possible and allocating windfall revenue to deficit reduction;</p>

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	<p>Strengthen the planned budgetary adjustment in 2011 in order to achieve the recommended average annual fiscal effort of 1¼ % of GDP in line with the Article 104 (7) Recommendation and stand ready to adopt further consolidation measures in 2011 and 2012 in case risks related to the fact that the programme scenario is more favourable than the scenario underpinning the recommendation under Article 104(7) TEC materialise;</p> <p>Proceed with strengthening the fiscal framework, including through introduction of an expenditure rule covering a larger share of the general government primary expenditure than the "temporary" rule presented in the Convergence Programme, with appropriate monitoring and enforcement mechanisms. This would require to reduce the share of statutory spending in total expenditures;</p>
PT	<p>Summary Assessment:</p> <p>The overall conclusion is that the current crisis impact on Portuguese public finances is severe. Yet the actual budgetary situation reflects also prior fiscal weaknesses, notably high – even if declining structural deficits before the crisis. The stability programme update aims at achieving a government deficit below 3% of GDP by 2013 through fiscal consolidation over the entire period, leading to a stabilisation of the debt ratio at around 90% of GDP in 2012-2013. The consolidation efforts are back loaded as they are concentrated in 2011 and beyond. Fiscal consolidation is essential as mounting fiscal deficits and debt are likely to damage medium-term economic growth which is already exposed to negative feedback effects from the large external debt on domestic income.</p> <p>Achieving the ambitious fiscal consolidation path may require efforts beyond those outlined in the programme. First, the outlined revenue performance and expenditure containment may be difficult to attain on the basis of the announced measures, already in 2010. Second, there is the risk that a lower-than-assumed GDP growth would dampen revenue growth and jeopardise the fall in the expenditure-to-GDP ratio over the coming years envisaged in the programme, endangering the planned fiscal consolidation path. In such a context, a functioning medium-term budgetary framework is an essential instrument to contain the risks to the budgetary targets, in particular to support the achievement of the envisaged quasi-freeze of primary expenditure. In addition, fostering the quality of public finances also in the context of a broader reform agenda is paramount to underpin a much needed lift in productivity and potential GDP growth, and to address other key challenges the Portuguese economy is faced with such as boosting competitiveness, narrowing the large external imbalance and supporting employment creation;</p> <p>Policy Invitations:</p> <p>Achieve the 2010 deficit target of 8.3% of GDP, if necessary by reinforcing the consolidation by adopting additional measures; back-up the strategy to bring the deficit below 3% by 2013 by the timely implementation of concrete measures; stand ready to adopt further consolidation measures in case the macroeconomic scenario proves more favourable than the scenario underpinning the Article 126(7) recommendation and/or any slippages emerge; seize any opportunity beyond fiscal efforts, including from better economic conditions, to accelerate the reduction of the gross debt ratio towards the 60% of GDP reference value;</p> <p>Implement an effective multi-annual budgetary framework in order to ensure the adherence to the budgetary targets across the government sector and to firmly contain expenditure over the medium-term;</p> <p>Enhance the quality of public finances, along the lines envisaged in the programme, notably by improving the efficiency and effectiveness of public spending in the various areas of government action; decisively address the situation of loss-making state-owned enterprises; and factor into the fiscal sustainability position the spending commitments and risks arising from public-private partnerships;</p> <p>Frame fiscal consolidation measures together with efforts to raise productivity and potential GDP growth in a sustained way, to boost competitiveness and to narrow the large external imbalances, which will also help improving the sustainability of public finances.</p>
RO	<p>Summary Assessment:</p> <p>The overall conclusion is that, taken at face value, the consolidation path projected in the convergence programme is appropriate and in line with the Council Recommendation under Article 126(7) TFEU. However, full implementation of the consolidation measures foreseen for 2010 is essential to reach the deficit target. In addition, the programme does not sufficiently specify the consolidation measures to be taken in 2011 and 2012. The Romanian Government has made the commitment to take contingency measures, if needed, to reach the deficit target set for 2010. Moreover, implementation of the fiscal governance reforms decided upon within the context of the EU balance of payments assistance programme to Romania should help in achieving the budgetary targets for 2011 and 2012. Finally, the adoption and implementation of the draft pension reform will be crucial in improving the long-term sustainability of public finances.</p> <p>Policy Invitations:</p> <p>Rigorously implement the fiscal consolidation measures for 2010 agreed as part of the balance-of-payments support programme and take further corrective action, if needed, to achieve the 2010 target for the general government deficit. The Romanian authorities are also invited to specify, in the context of the Medium-Term Budgetary Framework to be prepared by end May 2010, the fiscal consolidation measures necessary to achieve the programme budgetary targets in 2011 and 2012;</p> <p>Adopt and implement the draft pension law which would contribute to significantly improve the long-term sustainability of public finances;</p> <p>Improve the fiscal framework by adopting and implementing the fiscal responsibility law. In particular, take into account the analysis of the Fiscal Council in the design and conduct of fiscal policy;</p>

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SI	<p>Summary Assessment:</p> <p>The overall conclusion is that the programme plans the general government deficit ratio to stabilise at 5.7% of GDP in 2010 and to gradually decline thereafter, thanks to an expenditure-based and relatively back-loaded consolidation effort, to well below 3% of GDP in 2013, the deadline for the correction of the excessive deficit set by the Council. The gross debt ratio is planned to increase further, from 34.4% of GDP in 2009, until 2011 to then broadly stabilise at some 42% of GDP. The deficit and debt ratios could turn out higher than targeted throughout the programme period. This possibility increases over time and is related to:</p> <ul style="list-style-type: none"> (i) optimistic revenue projections in 2010 followed by favourable growth assumptions after 2011; (ii) possible expenditure overruns in view of the scale of the envisaged retrenchment coupled with the strong observed dynamics in recent years of especially the wage bill and social transfers, including pensions; and (iii) the fact that the expenditure-containment measures have not yet been fully specified and adopted, with some of them still subject to the outcome of negotiations with the social partners. Nonetheless, to help support the planned containment of expenditure growth, the government is adopting measures to strengthen expenditure control and the fiscal framework. In addition, the planned initiatives to enhance public sector efficiency and rationalise the provision of public services and of social protection should work towards the same purpose. In particular, data on net lending/borrowing vis-a-vis the rest of the world are not provided. <p>Even if the full and consistent implementation of the planned fiscal consolidation implies the return to a primary surplus by 2013, there remain high risks with regard to the long-term sustainability of public finances. Setting a more ambitious medium-term objective (MTO) and adopting and implementing the announced change in indexation formula and further pension reform aimed at curbing the substantial increase in age-related expenditure would allow addressing these risks. The latter could usefully build on the planned two-step pension reform. Besides returning to sound public finances, key challenges for the Slovenian economy are strengthening its resilience and regaining competitiveness so as to be able to benefit fully from the global economic recovery. This requires a better alignment of wage and productivity developments and the implementation of structural reforms.</p> <p>Policy Invitations:</p> <p>Rigorously implement the foreseen consolidation measures in 2010 and bring the deficit below the 3% of GDP reference value by 2013 as planned by fully specifying, adopting and implementing the indicated expenditure-containment measures in line with the average annual fiscal effort recommended by the Council Article 126(7), while standing ready to adopt further consolidation measures in case risks related to the fact that the macroeconomic scenario of the programme is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise;</p> <p>In view of the significant projected increase in age-related expenditure, further reform the pension system and set a more ambitious MTO that takes sufficiently into account the implicit liabilities related to ageing.</p> <p>Pursue efforts to enhance expenditure control and the enforceable nature of the multi-annual budgetary plans and improve public spending efficiency and effectiveness;</p>
SK	<p>Summary Assessment:</p> <p>The overall conclusion is that the fiscal strategy presented in the programme is broadly in line with the Council recommendation under the excessive deficit procedure. It envisages a sizeable, frontloaded fiscal consolidation with a view to bringing the deficit below 3% of GDP by 2012, one year before the deadline set by the Council, which is commendable. The budgetary projections are however subject to risks due to favourable growth assumptions for the outer years and might need more specific measures to achieve the planned savings on the expenditure side. Intentions to strengthen the fiscal framework are welcome but need to be followed by concrete actions.</p> <p>Policy Invitations:</p> <p>Implement the deficit reducing measures in 2010 as planned in the budget, and back up the consolidation path for the following years with specific measures to secure the correction of the excessive deficit if possible by 2012, and by 2013 at the latest;</p> <p>Continue reforms of the pension system with a view to ensuring the sustainability of government finances;</p> <p>Implement the envisaged measures to further strengthen the fiscal framework, in particular the introduction of enforceable multiannual expenditure ceilings;</p>
FI	<p>Summary Assessment:</p> <p>The overall conclusion is that that the severe economic crisis has substantially weakened public finances, including the long-term sustainability position. The planned expansionary fiscal policies in 2010 are in line with the EERP. However, the programme's projections, based on current policies, indicate that the general government deficit would exceed the 3%-of-GDP reference value in 2010. Moreover, the projected sluggish medium term fiscal consolidation path would not ensure progress towards the programme's MTO. Taking also account of the downside risks attached to these projections, it would be highly desirable that the Government takes timely action to specify a comprehensive and concrete medium term fiscal strategy to consolidate from 2011 onwards.</p> <p>Implement the 2010 fiscal policy as planned in line with the EERP, while ensuring that the planned breach of the 3%-of-GDP reference value would remain contained and temporary;</p>

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	<p>Policy Invitations: Take timely action to define a comprehensive and concrete medium term fiscal strategy to consolidate from 2011 onwards, also with a view to achieve the MTO and to restore the long-term sustainability of public finances;</p>
SE	<p>Summary Assessment: The overall conclusion is that large surpluses in good times allowed fiscal policy to play an active role in the downturn, in line with the spirit of the Stability and Growth Pact, not only by boosting demand in the short term but also by strengthening the economy's long-term growth potential. The fiscal stance is appropriately continuing to be expansionary in 2010 in line with the EERP. Although partly outdated, the programme projects the deficit to widen to 3.4% of GDP in 2010, from 2.2% in 2009, due mainly to the additional stimulus measures taking effect in this year. Thereafter, the deficit ratio is projected to gradually narrow to 2.1% of GDP in 2011 and 1.1% in 2012.</p> <p>This improvement is due mainly to assumed strong economic growth, as the programme does not envisage any consolidation efforts in these years. Overall risks to the planned adjustment seem somewhat tilted to the upside, with considerable upside risks in 2010 being partly compensated by downside risks in 2011-12. However, should budgetary outcomes fall short of the projected ones, the government would have to stand ready to adopt timely discretionary consolidation measures.</p> <p>Policy Invitations: Implement the 2010 fiscal policy as planned in line with the EERP, while aiming to avoid breaching of the 3%-of-GDP reference value; ensure that the nominal budgetary adjustment projected in the programme is achieved, if necessary by timely adoption of consolidation measures to ensure that lower-than-expected growth does not derail the envisaged consolidation of government finances in the outer years of the programme, as well as to ensure progress towards the MTO;</p>
UK	<p>Summary Assessment: The overall conclusion is that the fiscal strategy in the convergence programme is not sufficiently ambitious and needs to be significantly reinforced to be consistent with the Council recommendations under Article 126(7) TFEU of 2 December 2009. The combination of the operation of automatic stabilisers, falls in asset prices and the fiscal stimulus has provoked a major deterioration in UK public finances. However, the position of the public finances was further weakened by the fact that UK deficits were at risk of breaching the 3% of GDP reference value already in the period leading up to the crisis. A restrictive fiscal policy in 2010/11 is appropriate. A credible timeframe for restoring public finances to a sustainable position, as defined in the Stability and Growth Pact, requires substantial additional fiscal tightening measures beyond those currently planned.</p> <p>With the greater part of the projected reduction in the deficit in the medium term driven by the tight overall spending envelope between 2011/12 and 2014/15, the absence of detailed departmental spending limits to back up those expenditure targets is a source of uncertainty. The achievement of the consolidation forecast by the UK authorities is further clouded by the risk that the macroeconomic context could be less favourable than envisaged by the authorities, as well as the uncertainties relating to the banking sector loans and investments insured by government. Taking into account the negative risks to the UK fiscal projections, a more ambitious consolidation plan for the near and medium-term is required. Achieving primary surpluses in the medium term would also contribute to reducing the risks to the sustainability of public finances which were assessed in the Commission 2009 Sustainability Report as high in the United Kingdom</p> <p>Policy Invitations: Avoid any further measures contributing to the deterioration of public finances in 2010/11 and in the event of weaker economic growth than foreseen in the programme contain the government deficit in 2010/11 to at most that forecast in the January 2010 programme in case risks related to the fact that the macroeconomic scenario of the programme is more favourable than the scenario underpinning the Article 126(7) Recommendation materialise; Target a more ambitious reduction of the government deficit to less than the 3% of GDP Treaty reference value by 2014/15 at the latest, including by strengthening the planned pace of fiscal effort from 2011/12 onwards in line with the Council recommendation under Article 126(7), and seize any further opportunities, including from better-than-expected economic and market conditions, to accelerate the reduction of the gross debt ratio towards the 60% of GDP reference value, thereby also improving the long-term sustainability of public finances; Publish in 2010 the detailed departmental spending limits underlying the overall expenditure projections for at least the three-year period beyond 2010/11; implement the expenditure efficiency savings identified in the Operational Efficiency Programme (OEP) and in other value for money initiatives;</p>

Source: Commission services.

4. THE LONG-TERM SUSTAINABILITY OF PUBLIC FINANCES

The crisis-related fiscal expansions and the ageing of European Union's population raise questions about the sustainability of the Member States' public finances. As the share of working age people in the population falls and the share of the old increases, economies are faced with lower (potential) economic growth and higher costs associated with providing services for the ageing population.

Since the launch of the euro in 1999, 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 conclusions of the Stockholm (March 2001) and Barcelona (March 2002) European Council meetings and the March 2003 Ecofin Council. More recently and importantly, the 22-23 March 2005 European Council put increased emphasis on long-term sustainability issues in the context of the reform of the Stability and Growth Pact.

The assessment of long-term sustainability of public finances is a multifaceted issue and there is not a unique indicator that provides a clear response to what extent a country's public finances are sustainable in the long run. Hence, the Commission and the Council assess long-term sustainability of public finances by using both quantitative indicators and qualitative information so that panoply of factors affecting the long-run state of public finances in the Member States is reflected.

4.1. THE APPROACH USED TO ASSESS THE LONG - TERM SUSTAINABILITY OF PUBLIC FINANCES

A pragmatic definition of what constitutes a sustainable public finance position is used in the assessment by the Commission and the Council, namely whether on the basis of current policies and projected budgetary trends Member States will: (i) meet the government's intertemporal budget constraint so that the discounted value of future revenues matches the discounted value of future government expenditures and the level of outstanding debt; and, (ii) continue to comply with the budgetary requirements of EMU, and in

particular, the Treaty requirement to keep debt levels below the 60 percent of GDP reference value.

The main quantitative indicators that meet the above conditions for a sustainable public finance position are the sustainability gaps that measure the difference between the current and projected budgetary positions (S1 indicator) and that ensure sustainable public finances (S2 indicator).

The Commission and Council approach takes into account several factors to complement the available information on future quantitative budgetary trends. For this purpose, the Commission and the EPC Ageing Working Group produce a set of long-term budgetary projections for several budgetary items, reflecting expected demographic development and already approved reforms. The following section describes the new set of projections that were produced in 2009.

4.1.1. New projections of the budgetary cost of ageing

An increase in life expectancy, alongside a fall in fertility rates is leading to an accelerated ageing of the population in the EU and other parts of the world. Over the years to 2060, the EU population is set to age further. Aside from several social consequences, population ageing has significant economic consequences due to a reduction in the working age population and an increase in government expenditure.⁽¹⁶⁾ Consequently, population ageing puts pressure on a country's public finances primarily through its effects on the labour market and hence economic growth and age-related expenditure. With fewer people being of working age, the potential growth rate of the economy is reduced. Indeed, these changes affect the S1 and S2 indicators, through changes in the estimated rate of economic growth.

The direct costs of ageing involve increases in age-related expenditure. The sustainability assessments use the estimates of the fiscal impact of these changes as presented in the 2009 Ageing Report.⁽¹⁷⁾ As the aim is to provide an estimate of the

⁽¹⁶⁾ Eurostat 'EUROPOP2008' populations projections.

⁽¹⁷⁾ '2009 Ageing Report' joint report of the European Commission and the EPC, *European Economy*, 2, and Commission Communication 'Dealing with the Impact of

long-term effect on sustainability of ageing, the analysis takes the figures for age-related costs starting in 2010. The projections are made on a basis of no-policy change assumption where it is assumed that current tax and spending arrangements continue in the future. The 2009 Ageing Report considers the public cost of ageing using five expenditure categories, the projected changes to these categories are used to quantify the impact of ageing on the sustainability of the public finances.

Overall, on the basis of current policies, age-related public expenditure is projected to increase on average by 4.6 percentage points of GDP by 2060 in the EU – especially through pension, healthcare and long-term care spending. There are however marked differences in the impact of ageing across Member States:

- The increase in government spending in ageing-related categories is likely to be very significant (7 percentage points of GDP or more) in nine EU Member States (Luxembourg, Greece, Slovenia, Cyprus, Malta, the Netherlands, Romania, Spain, and Ireland), although for some countries the large increase will be from a fairly low level⁽¹⁸⁾.
- For a second group of countries – Belgium, Finland, Czech Republic, Lithuania, Slovakia, the United Kingdom and Germany– the cost of ageing is more limited, but still very high (between 4 and 7 percentage points of GDP).
- Finally, the increase is more moderate, 4 percentage points of GDP or less, in Bulgaria, Sweden, Portugal, Austria, France, Denmark, Italy, Latvia, Estonia, Hungary and Poland. Most of these countries have implemented substantial pension reforms, in several cases also involving a partial switch to private funded pension schemes (Bulgaria, Estonia, Latvia, Poland, and Sweden).⁽¹⁹⁾

In addition to the budgetary projections above, the quantitative sustainability assessment also takes into account the future development of revenues coming from taxation of pensions and projections on property income.

4.1.2. The sustainability indicators

The sustainability indicators provide a firm and objective basis to classify the long-term public finances sustainability risks in the EU Member States. The Commission uses the two core sustainability indicators, the S1 and the S2. The S1 indicator shows the durable adjustment to the current primary balance required to reach a target debt of 60% of GDP in 2060, including paying for any additional expenditure arising from an ageing population. The S2 indicator shows the durable adjustment of the current primary balance required to fulfil the infinite horizon intertemporal budget constraints, including paying for any additional expenditure arising from an ageing population.⁽²⁰⁾

In general, the long-term sustainability assessment puts emphasis on the more stringent S2 indicator. This indicator is consistent with the concept of sustainability of public finances over an infinite horizon and is based on regarding budgetary developments and on the most recent comparable information regarding the long-term impact of ageing populations on public expenditure. Alongside the S2 indicator, the relative value of the S1 indicator is considered as it gives an indication of the urgency of any necessary reforms. Where the S1 indicator is markedly lower than the S2, the sustainability constraints will materialise further in the future and therefore allows the Member State a bit more time to implement the necessary reforms without risking as large an impact on their government gross debt. In case of a substantial difference between the S2 and S1 indicators, the country's long-term sustainability position is evaluated more favourably.

an Ageing Population in the EU,' COM (2009) 180 final, 21 April 2009.

⁽¹⁸⁾ A number of countries are planning to introduce pension reforms in the near future. Should these be adopted the classification of these countries may change.

⁽¹⁹⁾ In case of Hungary, the projection of age-related expenditure reflects the recent reforms of the pension

scheme introduced in 2009, i.e. after the 2009 Ageing Report was released. The latest projections were endorsed by the AWG and the EPC and were used in the latest assessment of the long-term risk to public finance sustainability.

⁽²⁰⁾ Further analysis including the derivation of the sustainability indicators can be found in the Commission publication "Sustainability Report 2009", European Economy 9/2009.

Table I.4.1: Increase in age-related expenditure, 2010-2060, % of GDP

	Pension spending		Healthcare		Long-term care		Unemployment		Total	
	Change 2010 to		Change 2010 to		Change 2010 to		Change 2010 to		Change 2010 to	
	2010	2060	2010	2060	2010	2060	2010	2060	2010	2060
BE	10.3	4.5	7.7	1.1	1.5	1.3	7.3	-0.3	26.8	6.6
BG	9.1	2.2	4.8	0.6	0.2	0.2	3.0	0.2	17.1	3.2
CZ	7.1	4.0	6.4	2.0	0.2	0.4	3.3	0.0	17.0	6.3
DK	9.4	-0.2	6.0	0.9	1.8	1.5	8.0	0.1	25.2	2.2
DE	10.2	2.5	7.6	1.6	1.0	1.4	4.6	-0.4	23.3	5.1
EE	6.4	-1.6	5.1	1.1	0.1	0.1	3.2	0.3	14.8	-0.1
IE	5.5	5.9	5.9	1.7	0.9	1.3	5.3	-0.2	17.5	8.7
EL	11.6	12.5	5.1	1.3	1.5	2.1	3.8	0.1	21.9	16.0
ES	8.9	6.2	5.6	1.6	0.7	0.7	4.8	-0.2	20.0	8.3
FR	13.5	0.6	8.2	1.1	1.5	0.7	5.8	-0.2	29.0	2.2
IT	14.0	-0.4	5.9	1.0	1.7	1.2	4.3	-0.2	26.0	1.6
CY	6.9	10.8	2.8	0.6	0.0	0.0	5.8	-0.6	15.5	10.7
LV	5.1	0.0	3.5	0.5	0.4	0.5	3.3	0.3	12.3	1.3
LT	6.5	4.9	4.6	1.0	0.5	0.6	3.5	-0.4	15.1	6.0
LU	8.6	15.3	5.9	1.1	1.4	2.0	4.0	-0.3	19.9	18.2
HU	10.5	0.6	5.8	1.3	0.3	0.4	4.5	-0.3	21.0	2.0
MT	8.3	5.1	4.9	3.1	1.0	1.6	5.0	-0.7	19.2	9.2
NL	6.5	4.0	4.9	0.9	3.5	4.6	5.6	-0.2	20.5	9.4
AT	12.7	1.0	6.6	1.4	1.3	1.2	5.2	-0.2	25.7	3.3
PL	10.8	-2.1	4.1	0.8	0.4	0.7	3.8	-0.6	19.1	-1.1
PT	11.9	1.5	7.3	1.8	0.1	0.1	5.6	-0.4	24.9	2.9
RO	8.4	7.4	3.6	1.3	0.0	0.0	2.7	-0.2	14.7	8.5
SI	10.1	8.5	6.8	1.7	1.2	1.7	5.1	0.7	23.1	12.7
SK	6.6	3.6	5.2	2.1	0.2	0.4	2.9	-0.6	14.9	5.5
FI	10.7	2.6	5.6	0.8	1.9	2.5	6.4	0.0	24.7	5.9
SE	9.6	-0.2	7.3	0.7	3.5	2.2	6.6	0.0	27.1	2.7
UK	6.7	2.5	7.6	1.8	0.8	0.5	4.0	0.0	19.2	4.8
EU-27	10.2	2.3	6.8	1.4	1.3	1.1	4.9	-0.2	23.2	4.6
EA	11.2	2.7	6.8	1.3	1.4	1.3	5.0	-0.2	24.5	5.1

Source: Commission services and Economic Policy Committee.

The 2010 SCP assessment of risks to long-term sustainability of public finances is based on the Ageing Report budgetary projections.⁽²¹⁾ In addition, the assessment reflects developments of public finances as designed in the national stability and convergence programmes by individual Member States.

4.1.3. Additional factors

To make an overall assessment on the sustainability of public finances, other additional relevant factors, not (or not sufficiently) reflected in the sustainability indicators, are taken into account in order to better qualify the assessment with regard to where the main risks are likely to stem. Taking into account these other relevant factors may lead to a somehow different overall assessment than the one that would result from evaluating the sustainability indicators only. Next,

the additional factors tend to be reflected more once the country of interest is not easy to decide to which group it belongs to. Table I.4.2 presents the elements when reaching an overall assessment for the 27 Member States.

The level of the outstanding government debt is arguably the most important additional factor. Indeed, while the sustainability indicators already include information on the current level of debt, they do not incorporate all the specific risks faced by countries with a large initial level of debt. First, high-debt countries are more sensitive to short/medium term shocks to economic growth and to interest rates changes. Second, a high level of debt may lead to higher interest rate than assumed in the projections and increase further the risks to public finance sustainability. Third, when calculating the sustainability indicators, it is assumed that all countries are able keep their structural primary balance as a share of GDP at its

⁽²¹⁾ The only exception is Hungary which presented a new set of projections on age-related expenditure. These projections were endorsed by the AWG and EPC.

current level in the future⁽²²⁾. This factor is used symmetrically as a risk-increasing factor for very high debt countries (notably Belgium, Greece, Italy, Hungary and Portugal) and a risk-decreasing factor for very low debt countries (notably Bulgaria, Estonia, Luxembourg and Romania).

A country's primary balance is also informative with regards to changes to its debt level. A negative primary balance is associated with a rising debt burden while a positive one with falling debt as a share of GDP⁽²³⁾. The Commission 2009 autumn forecast is used to look at the structural primary balance evolution over the years 2008 to 2011. The forecast deterioration of the structural primary balance is seen as risk increasing factor for twelve Member States (Denmark, Germany, Ireland, Spain, France, Cyprus, Luxembourg, Netherlands, Portugal, Finland, Sweden and United Kingdom), of which three (Denmark, Cyprus and Finland) have a particularly marked deterioration which should be flagged as a strong risk-increasing factor.

The evolution of the benefit ratio is strongly driven by the pension system. The benefit ratio is the average benefit for public pension and public and other pensions, respectively, as a share of the economy-wide average wage (gross wages and salaries in relation to employees), as calculated by the Commission.⁽²⁴⁾ A decrease in the public benefit ratio usually leads to a reduction (or slowdown) in government expenditure in pensions. However, it can also lead to other risks to public finances, if: (i) it leads to a substantial increase in the poverty rate of older people, which may require government assistance; (ii) moreover, the projected fall in the benefit ratio may be associated with a large increase in the relative share of social contributions that are diverted from social security or other public pension schemes to private schemes, which may affect public revenue. The sustainability indicators in Poland are clearly dependent on such a marked decrease in the

benefit ratio that there is significant upward risk to the sustainability gap from political pressure. For Austria, Portugal and Sweden the decrease is also an additional risk. Conversely, the high and increasing benefit ratio for Greece must be seen an indication of the types of reforms that are necessary in the country to address its very large sustainability gap.

A high current tax ratio leaves limited room of manoeuvre for using tax increases to finance additional public expenditure as compared to a lower tax ratio. This is the case for Belgium, Denmark, Italy and Sweden, with Belgium combining a high tax ratio with a need to reduce its very high debt. By contrast, low tax ratios are not considered to be a risk-reducing factor, since a possible decision regarding an increase of the tax ratio would not only take into account the financing needs resulting from ageing but would depend on the size of public procurement of good and services, the effectiveness of tax systems, the structure of the tax system and its impact on growth.

4.2. OVERALL ASSESSMENT

There is a large variation in the degree of risks that the Member States are facing and where they mainly come from. Overall, compared with last year's assessments and taking account of the Commission's Spring 2010 Forecast, more Member States showed larger sustainability gaps only few improved their long-term sustainability position.

It should be noted that countries with different characteristics can overall face a similar degree of risks to fiscal sustainability. For example, the projected cost of ageing can be high while the budgetary position is relatively sound. By contrast, a country might have a projected cost of ageing which actually improves its long-term sustainability while its sustainability difficulties arise mainly from its weak budgetary position. In deed the priorities in the two cases are different; in the former case reforms to the social security systems that would curb the increase in age-related expenditure are needed, while in the latter case consolidation efforts would be appropriate.

⁽²²⁾ The structural primary balance is assumed to stay constant, except for the budgetary effects caused by population ageing.

⁽²³⁾ Even in the absence of adverse shocks, a high level of debt involves a higher level of interest payments and therefore requires a consistently positive primary surplus purely to service the debt an higher surpluses to reduce its level.

⁽²⁴⁾ Besides the benefit ratio also other indicators on the adequacy of pension systems exist. See <http://ec.europa.eu/social/main.jsp?langId=en&catId=752>

Countries that have come furthest in coping with the sustainability challenge

Bulgaria, Denmark, Estonia, and, Sweden have in general come furthest in coping with ageing, which implies a strong budgetary position (running large surpluses prior to the crisis, reducing debt and/or accumulating assets) and/or comprehensive pension reforms, sometimes including a shift towards private funded pension schemes, and present therefore a low long-term risk.

For Bulgaria, Denmark, Estonia and Sweden the forecast increases in age-related expenditure are amongst the lowest in EU and their current structural primary balances are either in or close to surplus. This does not mean that in these countries there are no risks regarding the long-term sustainability of public finances however, but that their social protection systems (pension and healthcare) at present appear able to deal with the pressures of an ageing population on current estimates. In particular, in case of Bulgaria and Estonia, a positive impact of low debt level and implemented pension reforms should be seen in the context of the ongoing convergence to the levels observed in the rest of EU.

The intermediate group of countries

The intermediate countries (Germany, Italy, Luxembourg, Hungary, Austria, Poland, Portugal and Finland) consist of Member States with very different characteristics but three distinct categories can be distinguished:

- Belgium, Germany, Austria and Finland are countries with a significant cost of ageing and where measures might be needed to curb these costs, but which currently have relatively strong budgetary positions. For these countries, reforms to address the rising cost of ageing are a priority and these can be undertaken without waiting for the end of the financial crisis, insofar as the reforms do not adversely affect the recovery. This is also the case for Luxembourg which faces the highest increase in age-related expenditure of all EU countries, but which is included in the medium long-term risk category due to its low level of debt, high stock of assets and lower ageing costs at the beginning of the period as shown by its lower S1 indicator.
- Poland and Portugal are countries that need to consolidate, though to different degrees, their public finances over the medium-term but for which the costs of ageing are relatively less of a concern, usually as a result of reforms made to their pension systems. It may be that the government accounts improve when the recovery comes, but where this is not the case budgetary consolidation will be necessary and should be undertaken as soon as the time is right in order to reduce risks to public finance sustainability. In Poland's and Portugal's cases, there is an added risk in relation to the sharp reduction in the benefit ratio.
- For Italy and Hungary neither the budgetary position nor the long term cost of ageing are particularly high. However the initial levels of debt give cause for concern. In both Italy and Hungary, rapid budgetary consolidation is required to ensure a steady reduction of the currently very high level of debt, although it will need to be undertaken at a time when it does not adversely affect the recovery from the economic and financial crisis.

Table I.4.2: Main factors considered in reaching an overall assessment of the public finance sustainability risks

	S2 in the 2009 scenario	Level of debt in 2009	Change in the structural primary balance 2008 - 2011	Tax ratio	Difference between the S1 and S2	Benefit ratio
BE	6.5	98	-2.0	–	0.4	
BG	2.8	15	1.9		2.0	
CZ	9.8	35	-0.3		2.1	
DK	-1.4	39	-4.7	–	0.4	
DE	4.5	73	-2.2		0.9	
EE	1.2	8	2.9		1.2	
IE	14.8	65	-2.4		2.0	
EL	20.3	113	-2.0		2.9	
ES	15.3	55	-2.6		2.5	
FR	7.1	77	-2.4		-0.2	
IT	2.6	115	-0.1	–	-0.7	
CY	12.5	56	-5.9		3.4	
LV	9.0	35	-0.5		0.5	
LT	10.4	30	0.8		1.7	
LU	12.7	15	-3.0		7.1	
HU	-1.3	78	1.3		0.9	
MT	6.4	67	0.7		1.9	
NL	8.5	62	-2.9		1.8	
AT	4.6	67	-1.6		1.0	–
PL	5.6	51	-1.2		0.4	–
PT	8.9	77	-3.5		0.4	–
RO	9.7	23	5.1		2.7	
SI	12.2	34	-0.3		3.4	
SK	8.5	37	0.7		1.8	
FI	4.3	42	-5.0		1.3	
SE	0.5	43	-2.8	–	1.2	–
UK	13.5	73	-4.0		0.1	

Note: A value preceded by a negative sign indicates that the corresponding factor tends to increase the risk to long-term sustainability.

Source: Commission services.

Countries facing the largest sustainability challenges

Countries with the most challenges (Belgium, the Czech Republic, France, Ireland, Greece, Spain, Cyprus, Latvia, Lithuania, Malta, Netherlands, Romania, Slovenia, Slovakia and United Kingdom) are generally characterised by a very significant rise in age-related expenditure over the long-term, underlining that measures aimed at curbing them will prove necessary. This is not, however, the case for Latvia, where age-related expenditure is forecast to be just 1.3 percentage points (p.p.) of GDP higher in 2060 compared with 2010. For Greece and Slovenia (as well as Luxembourg) the increase in these expenditures is over 10 p.p. of GDP. Conversely, Romania is characterised by very low levels of debt which stand at below 20% of GDP, while for Czech Republic, Latvia, Lithuania, Slovenia and Slovakia debt ratios stand at below 40%. At the other end of the spectrum, Greece has a government debt of over 100% of GDP, which is combined with one of

the highest increases in age-related expenditure grouping the whole EU. Latvia, while characterised by very low debt levels, is forecast to have a very large increase in debt by 2010. For Belgium, the strong budgetary position in recent years is counterweighted by very high levels of debt ratio-to-GDP which is forecast to reach 100% by 2010.

For most of the Member States in this group it will be necessary to address both the long-term costs of ageing through reforms to pension systems and the weakness of the budgetary positions. For some Member States the deficits may return to surplus when the recovery comes, but where this is not the case budgetary consolidation will be necessary and should be undertaken as soon as the time is right in order to reduce risks to public finance sustainability.

Conversely, the reforms to the pension and healthcare system which will not adversely affect the recovery of the Member States' economies

should be approached with urgency⁽²⁵⁾. This is particularly the case for countries where age related expenditure is a significant source of unsustainability: Ireland, Greece, Spain, Cyprus,

Malta, Netherlands, Romania and Slovenia. As not all pension and healthcare reforms are neutral with respect to the recovery, care should be taken to consider the effect of any changes undertaken.⁽²⁶⁾

⁽²⁵⁾ Reforming disability and early retirement schemes together with increasing the healthy life expectancy are crucial factors in achieving the Lisbon strategy objective of attracting more people into employment and retaining them on the labour market in order to increase the labour supply of older persons and to contribute to sustainable economic growth in the face of adverse demographic developments. A population in better health will be able to work longer as it grows older, allowing higher productivity and labour participation, and will need less healthcare, ultimately resulting in decreased pressure on public finances..

⁽²⁶⁾ Within these countries, the case of Cyprus should also be noted. Thanks to successful consolidation in the pre-crisis years, Cyprus managed to significantly reduce its debt ratio. Moreover, although the planned increases in age-related expenditure is very large; its demographic projections are such that the increase in ageing-related expenditure will be relatively contained in the first half of the projection horizon.

5. CURRENT DOMESTIC FISCAL FRAMEWORK REFORMS ACROSS THE EU

5.1. INTRODUCTION

The Maastricht Treaty and the Stability and Growth Pact (SGP) impose budgetary obligations on Member States. In order to ensure the respect of objectives, they also stress the importance of *national rules and institutions* for budgetary discipline. The report on the SGP reform endorsed by the European Council on 22 March 2005 says that *national budgetary rules should be complementary to the Member States' commitments under the Stability and Growth Pact*. It also says that *national institutions could play a more prominent role in budgetary surveillance to strengthen national ownership, enhance enforcement through national public opinion and complement the economic and policy analysis at EU level*. This political orientation has been reiterated in subsequent Council conclusions and statements.

In the context of the current crisis, the role national fiscal frameworks may play in sustaining budgetary retrenchment is gaining more importance in the fiscal policy debate. For instance, the last year's EFC report on fiscal exit strategy acknowledges that *fiscal frameworks can provide suitable incentives and constraints for policy makers to commit to lasting fiscal consolidation and sustainable policies*, and recommends to further work on this issue. In the same vein, in the October 2009 Council Conclusions, the Ecofin stated that *important flanking policies to the fiscal exit will include strengthened national budgetary frameworks for underpinning consolidation strategies and support long-term sustainability*. In the same conclusions, the Council also recalled that *this should be reflected in the SCPs to be transmitted by Member States to the Commission by the end of January 2010*.

Against this background, the Commission has been carrying out a number of analyses and research projects in the area of fiscal governance over the latest years. For instance, recent past issues of the PFR include several analytical chapters dealing with different aspects of domestic fiscal frameworks. Most of this research is based on

information provided directly by Member States, and has notably led to the dissemination of a comprehensive database on domestic fiscal rules, independent institutions and medium term budgetary frameworks across EU countries, which is now available at the external DG Ecfm website.⁽²⁷⁾ The 2010 PFR also deals with these issues in the analysis included in Chapter 3 of Part II, which provides policy guidelines related to the appropriate and desirable institutional reforms more conducive to the strengthening of fiscal governance at national level.

This chapter also focuses on fiscal governance but from a different perspective. Specifically, it takes stock of recent and envisaged reforms of domestic fiscal frameworks that have been included by Member States in the last round of the SCPs, and presents and discusses the main features of these announced measures. In line with previous analyses, domestic fiscal frameworks are defined as the set of elements that form national fiscal governance, i.e. the overall system of arrangements, procedures and institutions that underlies the planning and implementation of budgetary policies. The main elements of domestic fiscal frameworks are numerical fiscal rules, independent public institutions acting in the field of budgetary policies, medium-term budgetary frameworks for multiannual fiscal planning (MTBFs) and budgetary procedures governing the preparation, approval and implementation of the budget.

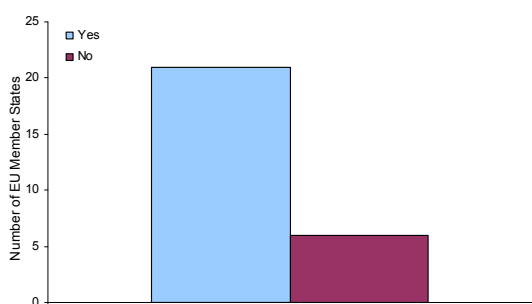
The chapter is structured as follows. Section 2 provides an overview of the informational content of the 2009-2010 SCPs as regards the reform of national fiscal governance. For those countries that included this information in their updates, Section 3 describes more in detail these measures according to the elements of domestic fiscal framework (i.e. rules, institutions, MTBFs and budgetary procedures). Section 4 focus on the link between the recommendations included in the Council Opinions and the policy initiatives announced in the SCPs. Finally, Section 5 summarises the main conclusions of this analysis.

⁽²⁷⁾ http://ec.europa.eu/economy_finance/db_indicators/fiscal_governance/index_en.htm

5.2. OVERVIEW OF THE INFORMATION CONTAINED IN THE 2009-2010 SCPs

A majority of Member States included in their 2009-2010 SCPs information related to the reform of national fiscal frameworks.⁽²⁸⁾ Specifically, 21 countries have already implemented and/or envisage to implement changes in their respective systems of fiscal governance, which can only be considered a positive feature of the last round of SCPs (see graph I.5.1).⁽²⁹⁾ As for those countries that do not foresee any substantial reform of the fiscal framework in the coming years, most of them declare to stick to the prevailing fiscal framework to redress the current fiscal imbalances (e.g. BE, DK and ES) while others announce future reform or strengthening measures but no details are provided (e.g. LU, MT and FI).

Graph I.5.1: Information on national fiscal frameworks included in the 2009-2010 updates of the SCPs



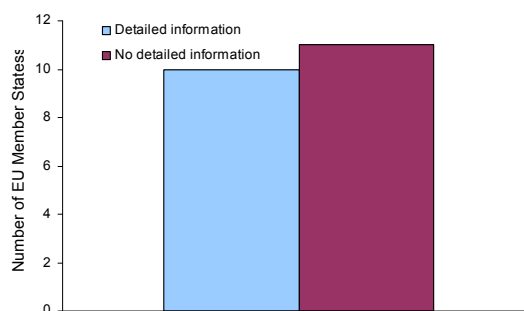
Source: Commission services, 2009-2010 updated SCPs.

However, both the level of detail of this information and the stage of implementation or the degree of advancement of reform plans vary widely across countries (see graph I.5.2 below). Thus, only 10 Member States included detailed information in terms of concrete measures and calendars. While the updates of DE, EE, IT, HU, NL, AT, PL, SI, SE and UK contain exhaustive information about ongoing and future reforms, the programmes of BG, CZ, IE, EL, FR, CY, LV, LT, PT, RO, and SK only provide scant and generic information.

⁽²⁸⁾ This note is based on the programmes submitted by the 27 Member States of the EU.

⁽²⁹⁾ Changes in national fiscal frameworks reported in the SCPs represent all innovations relative to the information set in the DG Ecfm fiscal governance database that currently covers effectively implemented reforms up to 2008.

Graph I.5.2: Detailed information on reform plans included in the 2009-2010 updates of the SCPs



Source: Commission services, 2009-2010 updated SCPs.

Arguably, the level of detail provided in the SCPs is somewhat related to the degree of implementation. Indeed, among the 10 Member States giving comprehensive information only one of them (NL) reports the introduction of reform measures from 2011 onwards, while all the remaining countries have already put into operation (at least partially) the announced policy initiatives between 2009 and the 1st quarter of 2010. By contrast, most of Member States reporting a limited amount of information announce the introduction of their reform actions only from 2010 or 2011 onwards.

5.3. TYPE OF MEASURES ACCORDING TO THE MAIN ELEMENTS OF DOMESTIC FRAMEWORKS

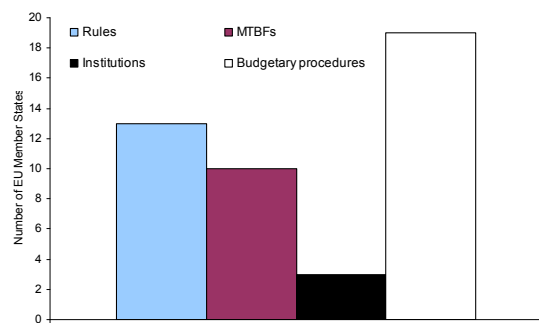
As said in the previous section, 21 Member States report recent and/or future changes to their national fiscal frameworks. These measures address the reform of different elements of these frameworks, namely rules, independent institutions, MTBFs and budgetary procedures.

According to this classification, changes to the existing budgetary procedures are the most frequent policy initiatives and are foreseen by 19 Member States. These are closely followed by the reform and/or introduction of numerical fiscal rules in 13 EU countries.⁽³⁰⁾ Finally, reforms to

⁽³⁰⁾ In 2 of these 14 Member States (SK and UK) two additional rules are planned to be introduced. In the case of the UK, these two new rules replace the former golden and debt rules. As for PL and RO, according to their SCPs, they plan to introduce 4 and 3 new fiscal rules. Specifically, RO plans to implement 1 budget balance and 2 expenditure

MTBFs and institutions rank more distantly with 10 and 3 Member States envisaging changes, respectively (see graph I.5.3 below).

Graph I.5.3: Type of reforms according to the main elements of domestic fiscal frameworks



Source: Commission services, 2009-2010 updated SCPs.

Table I.5.1 provides a general overview of the measures considered by Member States in their respective Stability and Convergence Programmes. These policy actions are classified both according to the elements of the fiscal framework and by country.

Subject to the comprehensiveness of the information submitted by Member States, the next sub-sections describe more in detail these reform measures for each building block of domestic frameworks.

5.3.1. Reforms of numerical fiscal rules

Measures addressing reforms in the field of fiscal rules are primarily implemented through the establishment of 19 new rules constraining the conduct of fiscal policy, whereas only 2 of the

rules, while PL announces the establishment of 1 budget balance rule, 1 debt rule and 2 expenditure rules.

Table I.5.1: Measures included in the 2009-2010 SCPs to reform domestic fiscal frameworks

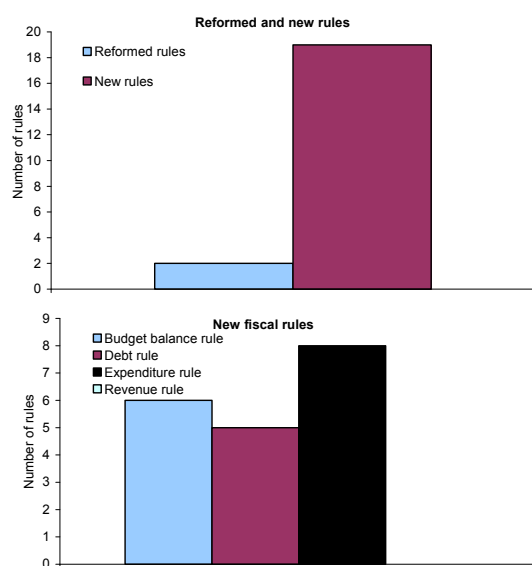
	Numerical rules			MTBF			Independent institutions			Budgetary procedures		
	Number of rules in 2008	Reform existing rules	New rules	Already in place in 2008	Reform existing MTBF	New MTBF	Number in place in 2008	Reform current bodies	New bodies	Measures upgrading procedures	of which higher centralisation	of which top-down budgeting
BE	4	0	0	Yes	No	No	2	No	No	No	—	—
BG	2	0	0	Yes	No	No	0	—	No	No	No	—
CZ	2	0	0	Yes	No	No	0	—	No	Yes	No	No
DK	3	0	0	Yes	No	No	1	No	No	No	—	—
DE	5	0	1 ⁽⁴⁾	Yes	No	No	4	No	No	Yes	No	Yes
EE	2	1	0	Yes	No	No	1	No	No	Yes	No	No
EI	3	0	0	Yes	No	No	0	—	No	Yes ⁽⁵⁾	—	—
EL	0	—	— ⁽¹⁾	No	—	— ⁽²⁾	1	No	— ⁽³⁾	Yes	Yes	Yes
ES	4	0	0	Yes	No	No	2	No	No	No	—	—
FR	5	0	1	Yes	No	No	2	No	No	Yes	No	No
IT	4	0	1	Yes	Yes	No	1	No	No	Yes	Yes	No
CY	0	—	0	No	No	Yes	0	—	No	Yes	No	No
LV	2	0	0	Yes	No	No	0	—	No	Yes	No	No
LT	4	0	0	Yes	No	No	1	No	No	Yes	Yes	No
LU	3	0	0	No	—	—	1	No	No	No	—	—
HU	2	0	1	No	—	Yes	1	No	Yes	Yes	Yes	No
MT	0	—	0	Yes	No	No	0	—	No	No	—	—
NL	2	0	1	Yes	No	No	1	No	No	Yes	No	No
AT	1	0	1	Yes	No	Yes	3	No	No	Yes	No	No
PL	1	1	4	Yes	Yes	No	0	—	No	Yes	No	No
PT	3	0	1	No	—	Yes	2	No	No	Yes	No	No
RO	2	0	3	Yes	No	Yes	0	—	Yes	Yes	No	No
SI	2	0	1	Yes	No	No	1	No	Yes	Yes	No	No
SK	2	0	2	Yes	Yes	No	0	—	No	Yes	No	No
FI	4	0	0	Yes	No	No	0	—	No	No	—	—
SE	3	0	0	Yes	Yes	No	2	No	No	No	—	—
UK	2	0	2 ⁽⁶⁾	Yes	No	Yes	1	No	No	Yes	No	No
Total	67	2	19	22	4	6	27	0	3	19	4	2

(1) The programme announces the introduction of new rules but neither the number nor their features are specified. (2) The programme does not specify whether some multiannual measures strengthening fiscal planning and monitoring constitute the basis for introducing an effective MTBF. (3) The programme does not clarify whether a new body to be implemented in the next future can be considered an independent fiscal institution. (4) The existing golden rule for the Federal Government was abolished in 2009 and replaced by a new cyclically adjusted balance rule. (5) Inclusion of multiannual budgetary targets in the annual budgetary documentation. (6) The two prevailing fiscal rules in 2008 were replaced as of 2010 by binding balance and debt targets over the period from 2009 to 2016. As a result, the total number of fiscal rules in place remains unchanged between 2008 and 2010.

Source: 2009-2010 SCPs

prevailing rules are expected to be reformed (see graph I.5.4 below)⁽³¹⁾.

Graph I.5.4: Reformed and new fiscal rules



Source: Commission services, 2009-2010 updated SCPs.

The degree of implementation of these reforms diverges across Member States. For instance, DE and HU have already introduced, respectively, a budget balance rule on a cyclically-adjusted basis for the Federal government and the Länders; and a debt rule defined in real terms for the central government. In both cases, not only the target definition and the coverage of the rules are known but also their monitoring mechanisms. By contrast, FR announces its intention of establishing a new budget balance rule on a multiannual basis for the whole of the general government sector. A working group, analyzing and assessing various forms of rules, has been established in order to adopt this new rule over the next years. This working group is expected to provide its report by next summer. Similarly to FR, SK announces the introduction of expenditure limits and a debt brake with a strong legal basis but no further information on these policy initiatives is contained in the update. Finally, other countries such as EL also envisage the introduction of fiscal rules in the

⁽³¹⁾ In the case of Greece, the update announces the implementation of new fiscal rules in 2010. However, no details about the type of rules and calendar implementation are provided. As a result, Greece has not been included in graph 4 of this sub-section.

short-term but neither details nor calendars are provided.

By type of rule, 8 out of the 19 new numerical fiscal rules are expenditure rules, whereas new budget balance and debt rules amount to 6 and 5, respectively. No new revenue rule obliging the government to allocate higher-than-expected revenues to debt reduction is announced (see Graph I.5.4 below).

Finally, two countries, PL and EE, plan to reform their existing fiscal rules. In the case of PL, the reform of the existing debt rule for the general government through more stringent corrective mechanisms is accompanied by the establishment of 4 new rules according to the update: a budget balance rule and a debt rule both for local governments to be implemented in 2011 and 2014 respectively, and two expenditure rules constraining non-mandatory expenditure.⁽³²⁾

5.3.2. Reforms of medium-term budgetary frameworks (MTBFs)

In 2008, a large majority of Member States declared to have in place a domestic MTBF for fiscal planning, and only EL, CY, LU, HU and PT reported not to have such fiscal arrangement in their respective fiscal governance systems.

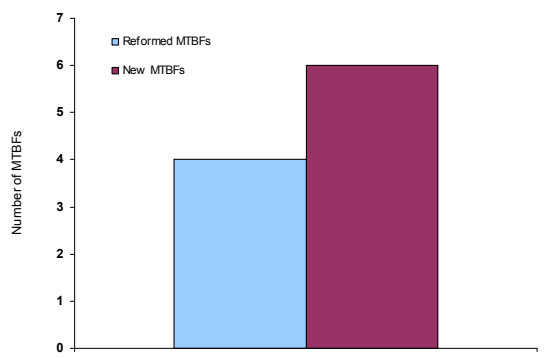
According to the information provided in the 2009-2010 SCPs, 10 Member States report changes to their national MTBFs. Specifically, in 4 Member States the existing MTBF is being reformed while in the remaining 6 countries a new framework is announced (see Graph I.5.5 below).

In 3 cases (AT, RO and UK), newly introduced MTBFs replace the existing frameworks. In the case of HU, by contrast, a new MTBF has been set for the first time in the form of a fiscal responsibility law introducing medium-term fiscal plans covering at least three years. This is also the case for CY and PT, which did not have such fiscal arrangement in place and now announce its implementation. By contrast, neither EL nor LU envisage the establishment of a domestic MTBF.

⁽³²⁾ For these two expenditure rules, however, the programme does not provide a concrete calendar and is not fully clear whether the rule is applied to the general government sector or only to the State budget.

As a result, the total number of domestic frameworks is expected to increase from 22 in 2008 to 25 at present.

Graph I.5.5: Reformed and new MTBFs according to the SCPs



Source: Commission services, 2009-2010 updated SCPs.

Finally, the 4 reforms of the existing frameworks (IT, PL, SK and SE) mainly consist of the reinforcement of the binding nature of fiscal targets and the extension of the period covered by the framework. The latter applies particularly to SE, which has recently set a legally binding three-year period for the existing framework.

5.3.3. Reforms related to independent public institutions

The resort to independent public institutions acting in the field of fiscal policy is by far the less popular policy option to reform national fiscal governance. Thus, only 3 new independent bodies have been (or will be) set up compared to the situation prevailing in 2008, when the number of these institutions in the EU amounted to 27. Besides, no reforms of the existing institutions in 2008 are announced in the 2009-2010 SCPs.

The newly introduced independent bodies have been established in HU and SI. In HU, the new body has been entrusted with the mandate of assuring the transparency of fiscal planning and is supported by a secretariat. In turn, the new institution in SI acts as a consultative body for the assessment of fiscal policy and budgetary developments as well as structural reforms (see the country specific annex for further information). Finally, the recently approved Fiscal Responsibility Law in RO will entail the establishment of a new independent institution.

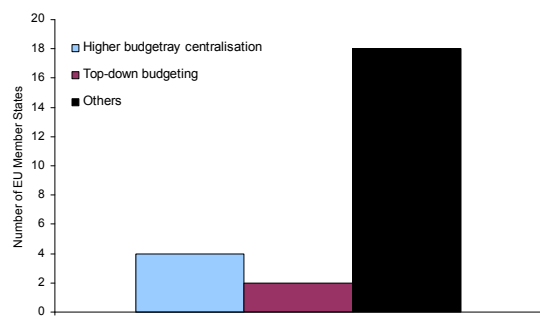
Overall, these 3 new institutions help rebalance to some extent the earlier uneven distribution of these bodies across the EU. In 2008, the 27 existing institutions were spread across 17 EU countries, of which 13 belonged to the former EU15. At that time, SI was one of the four new Member States having already introduced an independent body (i.e. the IMAD, which notably provides independent forecasts for the budget preparation).

5.3.4. Changes to domestic budgetary procedures

Changes to domestic budgetary procedures account for the largest number of measures addressing the reform of national fiscal governance, particularly at the planning stage.⁽³³⁾ According to the 2009-2010 SCPs, 19 Member States have already implemented, or will do it in the next future, policy measures targeting the upgrading of the current budget process.

However, only a limited number of countries report having designed and/or implemented measures strengthening the centralisation of the budget process or the introduction of top-down budgeting (see graph I.5.6). These are the two elements of domestic budgetary procedures most conducive to fiscal discipline as they act to address the common-pool problem. Finally, the other reported measures aim mainly at performance and programme budgeting and, to a lesser extent, the reinforcement of monitoring mechanisms and the improvement of reporting procedures to increase transparency.

Graph I.5.6: Reforms of budgetary procedures in the SCPs



Source: Commission services, 2009-2010 updated SCPs.

⁽³³⁾ The other two dimensions of the budget process are the approval and the implementation stages.

5.4. THE ASSESSMENT OF THE DOMESTIC FISCAL FRAMEWORKS REFORMS

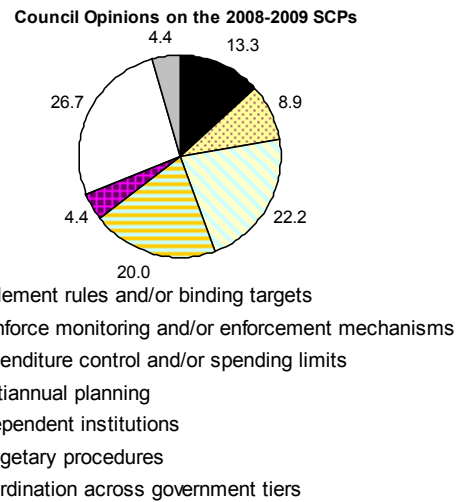
This section summarises key features of the assessment on the domestic fiscal frameworks reforms. It does so, first, by comparing policy invitations in the Council Opinions (COs) made on the two last rounds of SCPs. It then compares the reforms reported in the 2009-2010 SCPs with the policy invitations issued by the Council on the previous round of SCPs. Finally, it briefly comments the Commission services' Macro Fiscal Assessments.

5.4.1. Last year's COs and the current COs on the 2009-2010 SCPs

This sub-section looks at the nature of the policy invitations issued by the Council on the last two rounds of SCPs. Graph I.5.7 shows how the policy invitation issued last year, on the 2008-09 SCPs, were distributed by type of measure. Overall, the graph shows that over 25% of the invitations concerned weaknesses in domestic budgetary procedures. These policy invitations mainly referred to concerns about the transparency, the performance and programme budgeting and the level of centralisation of the budgetary process. 20% of the invitations concerned multi-annual planning while 22% of the invitations related to issues of expenditure control and/or expenditure limits. Grouping together the invitations concerning expenditure with those on the implementation of rules and binding targets and those on the reinforcement of monitoring and/or enforcement mechanisms, shows that 45% of the advice given was directly concerned with fiscal discipline.

Graph I.5.8 shows the distribution of policy invitations issued on the current round of SCPs, by type of measure. Compared with the previous year, there is a significant increase in the share of invitations concerning a reinforcement of the monitoring or enforcement mechanisms (from 9% to 17%) and the coordination across government tiers (from 4% to 10%). There is a countervailing decrease in the share of recommendations requesting a strengthening of budgetary procedures and those concerning multiannual planning. However, in absolute terms, the number of invitations falling in these two categories remained roughly the same between last year and this.

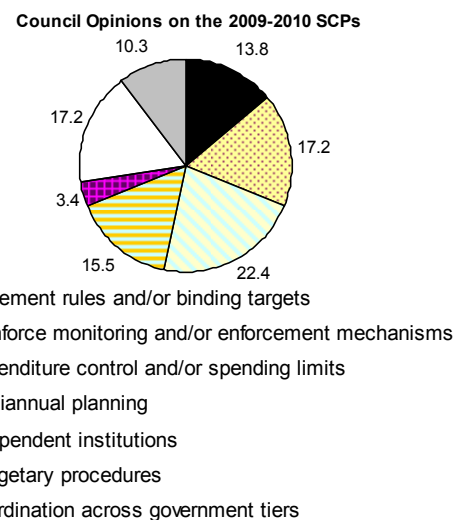
Graph I.5.7: Council policy invitations on last year's SCPs by type of measure (as a % of total measures)



Source: Commission services, 2009-2010 updated SCPs.

The group of measures addressing fiscal discipline more directly, i.e. the invitations on rules, monitoring and enforcement procedures and the overseeing of public spending developments, increased further. In this year's round, 55% of the advice given covered these issues, compared with 45% last year.

Graph I.5.8: Council policy invitations on this year's SCPs by type of measure (as a % of total measures)



Source: Commission services, 2009-2010 updated SCPs.

5.4.2. Last year's COs and policy initiatives contained in this year's SCPs

A relevant question when analysing and assessing the reform measures included in the 2009-2010 SCPs is to what extent they follow the policy invitations issued by the Council in last year's COs.

Last year, 19 Member States received a policy invitation relating to the reform of fiscal frameworks.⁽³⁴⁾ Of these, 7 Member States included measures in the 2009-2010 SCPs which follow (at least partly) their policy invitations, while the initiatives of the remaining 12 Member State are not in line with the recommendations.

In conclusion, in spite of the significant number of invitations addressing the reform of domestic fiscal frameworks, the fulfilment of the policy invitations included in the previous round of Council Opinions is rather limited.

5.4.3. The 2009-2010 SCPs and the Commission's assessments

Finally, an additional interesting exercise consist of looking at the Macro Financial Assessment of the last round of SCPs to see how the Commission has evaluated the reforms announced in the updates.⁽³⁵⁾

The assessment is somewhat negative (or mixed in some cases) with respect the measures included in the SCPs of 10 Member States. For instance, the assessment of the recent initiatives in BG points to likely counterproductive effects in terms of transparency. While in the case of BE, ES and MT the update does not foresees major reforms, the assessment underlies the need for further improvements in their national fiscal frameworks. As for CZ, EI, EL, FR, LV and UK the assessment considers that progress has been made recently. However, in all these countries there is significant room for additional improvements and the assessment puts forward some policy proposals to strengthen the current framework.

⁽³⁴⁾ Those Member States that did not receive any policy recommendation in the field of fiscal governance were CZ, DK, ES, CY, LU, NL, FI and SE.

⁽³⁵⁾ At the time this chapter was being prepared, the assessments of the updated programme of Portugal and Cyprus were note yet available.

Although there is still margin for further progress to effectively strengthen fiscal governance, the Commission concludes that important improvements have been achieved (or can be achieved if the envisaged measures are implemented) in 10 Members States (i.e. DE, EE, IT, HU, AT, LT, PL, RO, SI, and SK).

Finally, no significant weaknesses are identified in the case of DK, LU, NL, FI and SE.

5.5. MAIN CONCLUSIONS

Following the 2009 Council Conclusions, a majority of Member States have included in their respective SCPs information related to the reform of domestic fiscal frameworks. Specifically, 21 EU countries report recent and/or future changes to be implemented in the next years. However, detailed information on the scope of these measures and/or an implementation calendar is only provided in 10 cases.

By type of measure, changes to the existing budgetary procedures are the most frequent policy initiatives and are foreseen by 19 Member States. As for reforms related to numerical fiscal rules, they are envisaged in 13 SCPs, and the amendment of MTBFs or the introduction of new frameworks is reported by 10 countries. Finally, policy initiatives in relation to independent institutions are limited to 3 Member States.

Most of the measures targeting the upgrading of the existing budgetary procedures are related to transparency issues, programme and performance budgeting and monitoring mechanisms. By contrast, those elements of the budget process most conducive to fiscal discipline (i.e. the centralisation of the budget process and the use of top-down budgeting) are hardly addressed.

The announced reforms of fiscal rules are for the most part based on the introduction of 19 new rules, while only 2 countries announce the reform of existing rules. 8 of these new rules establish constraints on expenditure developments while new budget balance and debt rules amount to 6 and 5, respectively. No new revenue rules are foreseen.

Changes to MTBFs consist of both the reform of the existing frameworks and the introduction of

new ones (4 and 6 Member States respectively). Three countries not having in place a MTBF in 2008 announce now the introduction of a new framework. Overall, the total number of MTBFs currently amounts to 25.

The resort to independent fiscal institutions is by far the less frequent policy initiative according to the updates. In only 3 Member States the introduction of such bodies acting in the field of fiscal policy is announced.

Similarly to the previous round of the Stability and Convergence Programmes, the draft Council Opinions on the 2009-2010 SCPs continue to show a majority of policy invitations targeting the improvement of the prevailing budgetary procedures. However, there has been now a significant increase in recommendations requesting a reinforcement of monitoring and enforcement mechanisms of fiscal targets. In addition, the sum of those policy invitations more directly linked to fiscal discipline (i.e. rules, monitoring and enforcement procedures and the overseeing of spending developments) represents by far the main area of this year's policy invitations.

In spite of the significant number of recent or announced reforms of domestic fiscal frameworks, compliance in relation to the last year's policy invitations is rather limited. Only in 7 cases the measures contained in the 2009-2010 SCPs follow (at least partly) last year's policy invitations.

To conclude, the Macro Financial Assessments of the programmes are somewhat mixed with respect to the measures included in the SCPs of 10 Member States. By contrast, the evaluation of the recently implemented or envisaged measures is rather positive in other 10 EU countries. However, the Commission considers that supplementary policy initiatives would be needed with a view to effectively strengthening fiscal governance. Finally, only in 5 countries, the existing frameworks do not seem to present major weaknesses. The assessments for CY and PT were not yet ready at the time this analysis was conducted.

Part II

Evolving budgetary surveillance

SUMMARY

Budgetary surveillance is a key factor in improving the management of the public finances. At a time with increased debt and deficits, and larger than usual uncertainty about the short and medium term evolution of the underlying macroeconomic fundamentals, the structure within which fiscal policy is set will be key in guiding policy making. Addressing the upcoming challenges successfully will require strong fiscal frameworks at both EU and national level.

At an EU level, the implementation of budgetary surveillance was deeply affected from the start of the crisis, due to the need to support aggregate demand around Europe through fiscal policy, as monetary policy reached its lower bound. The European rules-based fiscal framework, which requires Member States to avoid excessive deficits and to achieve their medium-term budgetary objectives (MTOs), was not conceived to cater for such extraordinary circumstances. However, the Stability and Growth Pact, following the changes of the 2005 reform has proved flexible enough to accommodate a coordinated budgetary stimulus via the European Economic Recovery Plan (EERP), while anchoring Member States' medium-term policies by requiring commitment to timely budgetary consolidation beyond reversing the budgetary stimulus.

Section II.1 discusses how the Stability and Growth Pact was implemented through the crisis and what it means for the exit strategies which are beginning to be implemented. Taking account of the principles agreed for fiscal exit by the ECOFIN Council in October 2009, country-specific circumstances are key to its implementation. For countries under the Excessive Deficits Procedure (EDP), the fiscal effort required and the timeline over which it is to be implemented have been modulated in light of the overall fiscal situation, including primarily deficit and debt levels but also other indicators of fiscal and macro-financial risk. There has been closer attention paid to long-term sustainability issues and the quality of the national fiscal frameworks, which provide the structure within which fiscal policy is implemented, through the issuance of specific recommendations on these issues.

Applying the EDP under the circumstances of a financial crisis with large capital injections and support measures for the financial sector requires

consistent measurement of the cost of these measures. Section II.2 reviews the 15 July 2009 Eurostat decision, which set out accounting guidelines for public interventions carried out in the context of the financial crisis. The need for elaborating on the applicable accounting rules became evident, as measures taken by Member States in support of the financial sector often involved innovative and complex financial transactions, the statistical treatment of which could not have been fully foreseen by the ESA95 rules. Section II.2 devotes particular attention to two special cases, the recording of which can be particularly intricate. These are the liquidity schemes and the majority privately-owned special purpose entities.

Both the principles of the EU fiscal framework and the experience with past consolidations confirm the importance of strong national fiscal frameworks for achieving the maintaining sound public finances. Section II.3 looks into the components of fiscal frameworks in more detail in order to draw conclusions about desirable reforms against the unprecedented challenge of fiscal consolidation stemming from the crisis.

Domestic fiscal frameworks comprise the arrangements, procedures and institutions governing the planning and implementation of budgetary policies. Their main components are numerical fiscal rules, independent fiscal institutions and budgetary procedures including medium-term budgetary frameworks for multi-annual budgetary planning. The exact combination of these that will ensure optimal policy will differ on a country by country basis, but expenditure rules and an emphasis on mechanisms to enforce medium term plans effectively appear to be key to successfully managing fiscal policy. What is clear, is that the interaction of the various facets of domestic fiscal frameworks is of central importance and all the elements that comprise and influence them should be considered together in a holistic way when changes are implemented. In parallel, in order for the fiscal framework to function effectively, statistical reporting, accounting and monitoring issues must function up to minimum standards; the strengthening of these fundamentals must take place before the fiscal framework becomes more constraining. Finally, despite the importance of domestic frameworks and the need to adjust and strengthen them to aid

the consolidation process, they are not a panacea and cannot be a substitute for political commitment to fiscal discipline.

Within the European framework, budgetary targets should reflect the medium-term objectives (MTOs) of the SGP. These set out the position that each Member State should aim to reach in order to ensure medium and long term sustainability while maintaining an adequate safety margin with regard to the 3% deficit limit and allowing room for budgetary manoeuvre. The 2005 reform of the SGP explicitly recognised the need for the MTOs to take into account implicit liabilities related to ageing, but left the modalities of its implementation to be defined. Section II.4 presents the principles that have been recently agreed for incorporating the budgetary cost of ageing in the MTOs while also giving appropriate weight to the initial level of debt.

The final two sections of Part II look at the measurement of the underlying fiscal stance in more detail. The ability to adequately assess the underlying budgetary position is important to both EU surveillance and overall policy setting. The experience of the crisis has highlighted some of the weaknesses of the methodologies used; in particular additional revenues received during the boom were in many cases considered to be structural improvements in the underlying position rather than temporary additions due to exceptional conditions.

Despite persisting problems, in recent years there have been important developments in the measurement of the cyclically adjusted budget balance (CAB). Section II.2 discusses these developments within the context of the work undertaken at the European Commission with Member States, through the Output Gap Working Group and the Economic Policy Committee. A first aspect is the improvement in the measurement of potential output. The current production function approach can only yield accurate estimates after a considerable lag, leading to frequent revisions in the estimates. By including real-time capacity utilisation data in the estimation of the output gap, it is possible to improve the accuracy and reduce ex post revisions. Another problem is posed by variations in tax elasticities.

The assumption of constant tax elasticities relative to the tax bases may have contributed to EU governments overestimating their underlying or structural tax revenues. In turn, these overestimations of revenues supported either tax cuts or increases in spending that proved unsustainable in retrospect. By using data collected at a national level on the discretionary changes made to tax categories, it is possible to improve our understanding of how net tax elasticities vary and to analyse EU governments' discretionary fiscal policy choices in the run-up to the 2008/2009 crisis.

The methodology used to estimate the CAB also implicitly assumes that all tax bases are linked to output. However, recent experience highlights the importance of deviations of domestic demand from output for tax revenues. This can be particularly important in booms involving buoyant domestic demand and widening current account deficits. Section II.6 presents a complementary indicator, the cyclically and absorption adjusted budget balance (CAAB), which considers deviations in absorption, as well as output, from its 'potential' level. This 'potential' corresponds to the level of absorption when the country's current account balance is in line with fundamentals.

Overall, the CAB and the CAAB move in parallel. However, in countries with large deficits or surpluses in the current account, there can be substantial divergences between the two measures. This is evident in looking at the pre-crisis period. The CAAB of Member States with large current account deficits was in many cases more than 1 percentage point (and up to more than 3 percentage points for Bulgaria) lower than the CAB. Use of the absorption adjusted measure for the budget balance during the boom could have helped prevent the loosening of fiscal policy, which then resulted in the need for greater consolidation once the deficits deteriorated with the onset of the crisis. Conversely, in countries with large current account surpluses, the CAAB was considerably higher than the CAB (up to 1 percentage point for Germany and the Netherlands and more for Sweden).

1. IMPLEMENTATION OF THE STABILITY AND GROWTH PACT THROUGHOUT THE CRISIS

The unprecedented economic and budgetary developments profoundly affected the implementation of fiscal surveillance in the EU. Since the first signals that economic and financial crisis started in the late summer of 2007 would have had significant implications for the European economies, some commentators rose doubts about the opportunity to continue applying the rule-based fiscal framework, which they considered an obstacle to the adoption of a fiscal policy aimed a macroeconomic stabilisation. However, the flexibility introduced by the 2005 reform has allowed pursuing an expansionary fiscal policy at the EU and euro area level, without suspending the fiscal policy framework enshrined in the Treaty.⁽³⁶⁾

Despite some difficulties, the implementation of the Stability and Growth Pact (SGP) not only continues playing a key role in anchoring expectations of sustainability, but has also provided a highly useful framework for co-ordination during a crisis that has exposed the need for a enhanced co-operation at European and global level. It has been recognised as particularly important to guide the exit phase from the extraordinary fiscal measures adopted in response to the crisis. Confirming the Conclusions of the October's Council of finance ministers (Ecofin), in December 2009, the European Council emphasised that "the fiscal exit strategy will be implemented within the framework of the SGP, which remains the cornerstone of the EU's budgetary framework" (See Box II.1.1).

While the rules and principles of the SGP are relevant and valid, the existing mechanisms have failed to induce countries to build up adequate buffers in good times. To the end of improving economic governance in the EU, the Commission has adopted on 12 May 2010 a Communication on 'Reinforcing economic policy coordination (See Box II.1.3).

⁽³⁶⁾ The EU fiscal framework is enshrined in Articles 121 and 126 of the Treaty. In particular, Article 126 sets out the excessive deficit procedure. The two regulations and the Council agreement referred to as Stability and Growth Pact (SGP) further specify how the fiscal surveillance envisaged by the Treaty is implemented.

1.1. FISCAL EXPANSION OVER 2009-2010, CONDITIONAL ON FISCAL SPACE

Based on the requirements for Member States to avoid excessive deficits as well as to achieve and maintain their medium-term budgetary objectives (MTO), the EU fiscal framework was conceived to be implemented in a context significantly different from the exceptional ones unleashed by the current crisis. Its *raison d'être* is to secure fiscal discipline and the sustainability of public finances that are necessary to maintaining an economic environment in which monetary policy can effectively pursue price stability. However, the financial nature of this crisis weakened the traditional monetary transmission mechanism and the zero rate interest bound came in sight. In the distinctive context of unusually large output gaps and unusual reduction in the potency of monetary policy, fiscal policy has been called to supporting a plummeting aggregate demand.

The European Economic Recovery Plan (EERP), launched by the Commission in November 2008 and confirmed by the European Council in December 2008, envisaged a co-ordinated budgetary stimulus.⁽³⁷⁾ The EERP noted that Member States should take advantage of the framework offered by the SGP and anchored to it the counter-cyclical macro-economic response, specifying that Member States should commit to reverse the budgetary deterioration and return to the aims set out in the medium term objectives. The EERP also indicated that, to maximise its impact, the budgetary stimulus should take account of the different room for fiscal manoeuvre of each Member State. For Member States facing significant external and internal imbalances, budgetary policy should essentially aim at correcting such imbalances.

For some Member States outside the euro area, the reversals of international capital flows and the ensuing financing difficulties made soon evident the need for urgent fiscal correction. In particular, Hungary, Latvia and Romania have undertaken adjustment programs supported by financial assistance for their balances of payment from the

⁽³⁷⁾ See Box I.1.1.

Box II.1.1: Fiscal exit strategy: principles agreed by the Ecofin Council on 20 October 2009

- The exit strategy should be coordinated across countries in the framework of a consistent implementation of the Stability and Growth Pact.
- There is a need for timely withdrawal of the fiscal stimulus. Provided that the Commission forecasts continue to indicate that the recovery is strengthening and becomes self-sustaining, fiscal consolidation in all EU Member States should start in 2011 at the latest. Specificities of country situations should be taken into account, and a number of countries need to consolidate before then.
- In view of the challenges, the planned pace of the fiscal consolidation should be ambitious, and will have to go well beyond the benchmark of 0.5% of GDP per annum in structural terms in most Member States.
- Important flanking policies to the fiscal exit will include strengthened national budgetary frameworks for underpinning the credibility of consolidation strategies and measures to support long-term fiscal sustainability, as emphasised by the SGP. In addition; structural reform efforts should be strengthened to enhance productivity and to support long-term investment.

These elements should be reflected in the stability and convergence programmes, to be transmitted by Member States to the Commission by the end of January 2010.

EU, the IMF and other bilateral and multilateral sources (See Box II.1.2).

1.2. THE SGP AND THE FISCAL EXIT STRATEGY

In October 2009, the Ecofin Council agreed on principles for the fiscal exit strategies making explicit that the exit strategy should be coordinated across countries in a framework of a consistent implementation of the SGP (See Box II.1.1). In particular, the differentiation of fiscal consolidation on the basis of the different countries' situations is one of the key principles of fiscal exit strategy agreed by the Council. This point has also to be seen in relation to the expansionary fiscal policy that the EERP called to be implemented over 2009-2010: in some countries the structural fiscal balance will still be deteriorating in 2010, while, in view of the higher fiscal risks, other Member States, even if not subject to EDP, should be already consolidating. By ensuring a horizontal consistency across countries that does not imply equalisation of the effort required but, instead, an effort coherent with the fiscal and macrofinancial situation, the implementation of the SGP allows for a coordination of fiscal policy through the exit from the crisis, which, in turn is aimed at balancing stabilisation and sustainability concerns.

Based on a macroeconomic scenario in the Commission forecasts that expects real GDP growth returning positive while the fiscal stimulus is gradually withdrawn, all Council recommendations for the correction of the excessive deficit, as well as the Council invitations in the Opinions on the 2009-2010 Stability and Convergence Programmes, envisage fiscal consolidation to start in 2011 at the latest. To the extent that the recorded output losses reflect supply shocks and adjustment needs (commodity prices, risk premia increases, overinvestment, construction capacity, etc.), it is illusory and counterproductive to try to use fiscal policy to stabilise output at a pre-crisis level, as this would bring the economy further away from its adjustment path and endanger fiscal sustainability.

As indicated by the Council, in most Member States the pace of fiscal consolidation goes well beyond the benchmark of 0.5 of a percentage point of GDP per annum. In fact, the structural deterioration in deficit and debt position induced by the crisis has been such that a recovery in the economy and a withdrawal of the stimulus measures adopted in line with the EERP will be in most cases insufficient to put public finances back on a sustainable path (see illustrative projections for the government debt-to-GDP in Section III.2).

The Council recalled that the intensification of structural reforms is desirable to foster potential output growth, which would contribute to a reduction of the debt-to-GDP ratio. As indicated above, where they could have a more direct impact on public finances, the Council has addressed to some countries recommendations and invitations to implement structural reforms, particularly with regard to the social security system. Different reforms aimed at enhancing productivity also feature as invitations in the Council Opinions on the SCPs. Last but not least, strong national fiscal rules and institutions are essential for implementing the fiscal strategy with the best mix of enhancing sustainability, strengthening the supply side of the economy and minimising the output loss. Anchoring the consolidation in medium-term budgetary frameworks with strong expenditure control enhances credibility, which may positively affect demand and reduce the risk of high spreads and market turbulence. Accordingly, the Council included the strengthening of fiscal frameworks among the agreed flanking policy to exit.

1.3. ONGOING IMPLEMENTATION OF THE FISCAL EXIT STRATEGY THROUGH THE EDP RECOMMENDATIONS

As a result of the budgetary impact of the crisis, as well as of the adoption of fiscal stimulus measures, a majority of Member States recorded a deficit above the 3% of GDP reference value in the Treaty in 2009, with several countries breaching the threshold already in 2008. Ensuing from a severe economic downturn, the excess of the deficit over the 3% of GDP can be considered as exceptional. However, excessive deficit procedures had to be

opened to recommend a fiscal adjustment, as the deficits did not remain close to the reference value, and the excess over the reference value could be expected not to be temporary.⁽³⁸⁾ In December 2009, the number of countries subject to excessive deficit procedure (EDP) reached twenty. On the basis of the 2009 deficit outturns and the 2010 planned deficit notified in April 2010, Reports under Article 126(3) will have to be prepared/have been prepared for other five Member States.

According to the SGP, where special circumstances exist, the Member State may be allowed to correct its excessive deficit in a medium-term framework, rather than in the year following its identification. This provision has permitted granting relatively long deadlines for the correction of the excessive deficit, allowing implementing corrective action in time frames consistent with the recovery of the economy, except for cases of immediate sustainability risks. Furthermore, differently from past practice, in the recommendations for the correction of the excessive deficit the fiscal effort that the concerned Member State should ensure over the programme period has been specified in terms of an annual average, thus leaving some room for adjusting the degree of frontloading/backloading of the adjustment path. This is also in line with recommendations paying attention to the quality and the sustainability of the consolidation rather than only the achievement of a nominal or structural benchmark for the deficit. The lack of a firm annual benchmark should not be taken to mean that countries can backload all the adjustment to the outer years of the correction, particularly as the year when the consolidation should start is specified.⁽³⁹⁾

⁽³⁸⁾ See Section I.2 for details on the ongoing EDPs.

⁽³⁹⁾ The starting year indicated in Table II.1.1 represents the year from which the average fiscal effort specified in the EDP recommendations should be computed. This does not necessarily match the starting year recommended for consolidation, which, in a few countries is ongoing since 2009. However, for most countries consolidation is set to begin in 2010. For Austria, the Netherlands and Germany, consolidation is recommended to start in 2011. The Council Decision of May 2010 giving notice to Greece to take measures for the deficit reduction judged necessary in order to remedy the situation of excessive deficit by 2014 includes targets in nominal terms.

Table II.1.1: Recommendations under the Excessive Deficit Procedure

	EDP triggering deficit	Deadline	Estimated 2009 deficit in the recommendation (% of GDP)	Fiscal effort		Recommendations on	
				Annual average (p.p. of GDP)	Starting year	Budgetary framework	Sustainability
BE	2009	2012	5.9	¾	2010		
CZ	2009	2013	6.6	1	2010	yes	
DE	2009	2013	3.4	≥0.5	2011		
IE	2008	2014	12.5	2	2010	yes	yes
EL (1)	2007	2014	13.6	>2	2010	specific measures	specific measures
ES	2008	2013	11.2	>1.5	2010		
FR	2008	2013	8.3	>1	2010		
IT	2009	2012	5.3	≥0.5	2010		
LV	2008	2012	10.0	≥2¾	2010	yes	
LT	2008	2012	9.8	2¼	2010	yes	
HU	2003	2011	3.9	≥cumulative 0.5 over 2010-2011	2010	yes	
MT	2008	2011	4.5	¾	2011	yes	
NL	2009	2013	4.7	¾	2011		
AT	2009	2013	4.3	¾	2011		
PL	2008	2012	6.0	≥1¼	2010	yes	
PT	2009	2013	8.0	1¼	2010	yes	
RO	2008	2012	7.8	1¼	2010	yes	yes
SI	2009	2013	6.3	¾	2010		yes
SK	2009	2013	6.3	1	2010	yes	
UK	2008/09	2014/15	13.0	1¼	2010/11	yes	

(1) Council Decision under articles 126(9) and 136 adopted on 10 May 2010.

Source: Commission services

The flexibility introduced by the reform in 2005 has notably permitted extending some of the originally deadlines recommended when the economic downturn turned out even more pronounced than initially expected. Namely, all the deadlines for the correction of excessive deficit set in spring 2009 (for Greece, Ireland, France, Spain and the United Kingdom⁽⁴⁰⁾) were revised following the assessment of effective action (inadequate action in the case of Greece), as the impact of the deeper-than-expected contraction on the government accounts qualified as an “unexpected economic event with major unfavourable consequences for government finances”. Deadlines for Malta and Lithuania, set in July 2009 were also revised in February 2010. Instead, there was no reason to change the deadline for correction recommended, also in July 2009, to Poland and Latvia. The target years for correction were normally postponed by one year, except for Greece and Hungary, which were granted an extension by two years. In the case of Greece, the postponement was consistent with a stepping up of the excessive deficit procedure. For Hungary, it concerned the revision of a Council recommendation issued back in 2006, which

targeted a correction of the excessive deficit by 2009.

Table II.1.1 highlights some key features of the ongoing EDPs. In particular, it shows that the different deadlines recommended do not aim at ensuring an identical annual fiscal effort across Member States. Quite the opposite, in line with the principle agreed by the Council that specificities of country situation should be taken into account, the recommended fiscal effort vary significantly, reflecting the starting budgetary position and, to some extent, the very different degree of fiscal and macroeconomic vulnerabilities.

Table II.1.1 also shows that some Member States have received recommendations to strengthen the fiscal framework and/or implement reforms with a direct bearing on fiscal sustainability, such as pension reform. In particular, with regard fiscal frameworks, the consolidation experiences in the run-up to EMU and over the past decade have shown that countries with strong medium-term budgetary frameworks and expenditure rules managed to meet budgetary plans and sustain consolidation efforts.⁽⁴¹⁾ Accordingly, where frameworks are currently less performing, their strengthening is recommended to support the

⁽⁴⁰⁾ In the case of the United Kingdom, the new recommendation under Article 104(7) issued by the Council on 27 April 2009 followed the assessment that action was not taken in response to the recommendation that the Council addressed to the UK on 8 July 2008.

⁽⁴¹⁾ For a discussion on the role of budgetary framework in sustaining consolidation efforts, see European Commission (2008).

implementation of the sheer fiscal adjustment needed over the relatively long period envisaged for the correction. Recommendations addressing long-term sustainability normally require the implementation of reforms capable of curbing age-related expenditure growth for those countries having a poor performance according to the sustainability gap indicator, specifically its cost of ageing component (see Section I.4). These reforms ensure a reduction in the size of the further adjustment needed to put public finances on a sound footing beyond the correction of the excessive deficit and have a positive effect on potential growth.

The case of recommendations going beyond the simple specification of a deadline for correction of the excessive deficit and related fiscal effort sees its farthest application in the case of Greece, for which for first time the budgetary and economic surveillance instruments foreseen in the Treaty have been used simultaneously and in an integrated way. On recommendation by the Commission, ⁽⁴²⁾ on 12 February 2010, the Council (i) stepped up the excessive deficit procedure for Greece by adopting a decision under Articles 126(9) and (ii) issued a recommendation under Article 121(4) to Greece with a view to bringing its economic policies into line with the EU's Broad Economic Policy Guidelines (BEPGs). The Council called on Greece to implement specific consolidation measures and adopt a comprehensive structural reform package to increase the competitiveness of the economy by indicated deadlines.⁽⁴³⁾ All these elements were further developed and specified in the Council decision under Articles 126(9) and 136 ⁽⁴⁴⁾

addressed on 10 May 2010 to Greece with a view to reinforcing and deepening fiscal surveillance and giving notice to take measures for the deficit reduction judged necessary to remedy the situation of excessive deficit.⁽⁴⁵⁾ The Decision sets nominal targets for the government deficit over 2010-2014 and specifies in detail the measures, including structural reforms, to adopt in 2010 and 2011. The stability support provided to Greece (See Box I.2.2) is conditional on Greece respecting this Decision.

As the sovereign debt crisis risked spreading across other euro-area economies, the Council of 9 and 10 May also decided on the establishment of a European Stabilisation Mechanism (See Box II.1.2). In the same meeting, the Council agreed that plans for fiscal consolidation and structural reforms would be accelerated, where warranted, and welcomed the commitment of Portugal and Spain to take significant additional consolidation measures in 2010 and 2011.

On 12 May the Commission issued a Communication on 'Reinforcing economic policy coordination. It suggests reinforcing fiscal surveillance and recognises the need to expand economic surveillance and deepen the analysis beyond the budgetary dimension to address other macroeconomic imbalances (See Box II.1.4).

⁽⁴²⁾ The Commission also launched an infringement procedure to ensure the Greek authorities comply with their duty to report reliable budgetary statistics.

⁽⁴³⁾ Measures requested and carried out by Greece in the aftermath of the 126(9) notice include a reduction of public wages, a freeze of pensions, cuts in government financing to social security, increase in VAT rates and excise taxes.

⁽⁴⁴⁾ Article 136(1)(a) foresees the possibility of adopting measures specific to the Member States whose currency is the euro with a view to strengthening the coordination and surveillance of their budgetary discipline.

⁽⁴⁵⁾ According to the preliminary assessment carried out by the Commission in March 2010, Greece was implementing the measures required in the original 126(9) Decision issued in February. However, the abrupt change in the economic scenario required the issuance of revised recommendations.

Box II.1.2: Establishing a European stabilisation mechanism

As the risk of contagion of the sovereign debt crisis spread towards vulnerable euro-area Member States, the Council and the Member States decided on 10 May 2010 on a comprehensive package of measures to preserve financial stability in Europe, including a European Financial Stabilisation Mechanism (EFSM) and a European Financial Stability Facility (EFSF), able together to provide support for a total volume of up to EUR 500 billion.

The EFSM is based on Art. 122.2 of the Treaty, which foresees that Union financial assistance may be granted to Member States threatened by severe difficulties caused by exceptional occurrences beyond their control. This instrument allows the Commission to borrow in financial markets up to about EUR 60 billion on behalf of the Union under an implicit EU budget guarantee. The Commission then on-lends the proceeds to the beneficiary Member State. This lending arrangement implies that there is no debt-servicing cost for the Community: all interest and loan principal is repaid by the beneficiary Member State via the Commission. The EU budget guarantees the repayment of the bonds in case of default by the borrower. The mechanism, which is open to all EU countries, will operate without prejudice to the existing facility providing medium term financial assistance for non euro area Member States' balance of payments (see Box II.1.3).

Euro area Member States stand ready to complement the resources of the EFSM through the EFSF, up to a volume of EUR 440 billion. The EFSF takes the form of a Special Purpose Vehicle that will (if and where needed) issue bonds on the markets with the pro rata guarantee of euro area Member States, in accordance with their share in the paid-up capital of the European Central Bank. The EFSF then on-lends the proceeds to the beneficiary Member States.

The activation of these mechanisms is subject to strong policy conditionality, i.e. in order to receive the instalments of assistance the concerned Member State has to implement a wide ranging set of policy measures designed to restore its fiscal viability and competitiveness. The IMF will participate in financing arrangements and is expected to provide at least half as much as the EU contribution through its usual facilities, jointly with the European programmes.

Box II.1.3: Balance-of-payments assistance and policy conditionality

The Community can provide balance-of-payments support to non-euro area Member States through its medium-term financial assistance facility under Article 119 of the Treaty. The assistance (1) aims to overcome short-term liquidity constraints while, through policy conditionality, supporting the correction of underlying macroeconomic and financial imbalances. The funds for the loans under the Facility are raised by the Commission (on behalf of the Community) on financial markets, and are on-lent to the recipient country at the same conditions (i.e., the borrowing country benefits from the AAA credit rating of the Community).

In order to be able to respond effectively to the crisis environment, the ceiling for the EU balance-of-payments Facility was raised from €12 to €25 billion in late 2008 and further to €50 billion on 5 May 2009. A total €14.6 billion has been committed under the Facility, following the approval of loans to Hungary (€6.5 billion, Latvia (€3.1 billion) and Romania (€5 billion).

While the facility is in principle a free-standing instrument, in practice the Community financial assistance is provided in the context of broader concerted financing packages, involving other stakeholders as appropriate (IMF, World Bank, other IFIs, bilaterals). This enhances the leverage and effectiveness of the financial support.

Policy conditionality in the context of the EU balance-of-payments assistance focuses on the key challenges that need to be tackled to restore a sustainable external position; in the ongoing programmes for Hungary, Latvia and Romania these have been fiscal policy, fiscal governance, financial stability (including rescue packages and strengthening of supervision and regulation) and structural reforms. Policy conditionality is enshrined in a Memorandum of Understanding agreed with the authorities. The fiscal targets in the Memorandum reflect the Member States' obligations under the SGP, particularly in terms of compliance with EDP recommendations. The reforms of the budgetary framework and of the pension systems recommended under the EDP are specified more in detail in the Memorandum of Understanding. The Commission monitors compliance with conditionality and decides on the release of subsequent instalments, following consultation of the Economic and Financial Committee (EFC).

Up to April 2010, disbursements under the three ongoing programmes have amounted to €10.7 billion (see Table 1).

Table 1: Balance-of-payments assistance

	Hungary	Latvia 1/	Romania
Total assistance package	€20 bn	€7.5 bn	€20 bn
EU (Art. 119)	€6.5 bn	€3.1 bn	€5 bn
IMF	€12.5 bn	€1.7 bn	€12.95 bn
Other multilaterals	€1 bn	€0.5 bn	€2 bn
Bilaterals	...	€2.2 bn/1	...
<i>p.m. Disbursements by the EU 2/</i>	<i>€5.5 bn</i>	<i>€2.7 bn</i>	<i>€2.5 bn</i>

Notes: 1/ Contributions by Sweden, Denmark, Finland, Norway, the Czech Republic, Poland and Estonia.

2/ Disbursements as of 15 April 2010.

Sources: European Commission and IMF.

(¹) The facility is governed by Council Regulation (EC) No 332/2002.

Box II.1.4: Reinforcing compliance with the Stability and Growth Pact and deeper fiscal policy coordination: The Commission Communication of 12 May 2010

The global economic crisis has challenged the current mechanisms of economic policy coordination in the European Union and revealed their weaknesses. The functioning of the Economic and Monetary Union has been under particular stress, as highlighted by the recent experiences with Greece in particular, due to insufficient coordination during the crisis and earlier failure to comply with the underlying rules and principles. The existing surveillance procedures have not been comprehensive enough.

To the end of improving economic governance in the EU and remedying the said situation with measures that should be taken in the short term on the basis of the Treaty, the Commission has adopted a Communication on 12 May 2010, entitled 'Reinforcing economic policy coordination'.⁽¹⁾ That Communication, apart from suggesting a strengthening of compliance with the Stability and Growth Pact, also proposes to extend surveillance to macro-economic imbalances in euro area Member States using a scoreboard with key indicators and to set up a crisis resolution mechanism for the same countries. Its main messages and suggestions for improving budgetary surveillance under title III.1 regarding fiscal policy are as follows:

The rules and principles of the Stability and Growth Pact are relevant and valid. But, the Pact has failed to induce countries to build up adequate buffers in good times. Reinforcing the preventive dimension of budgetary surveillance must be an integral part of closer coordination of fiscal policy. Also, compliance with the rules needs to be improved and more focus needs to be given to the sustainability of public finances.

- The preparation and assessment of Stability and Convergence Programmes forms the core of the preventive work under the Pact. Its impact and effectiveness should be decisively strengthened by increasing the ex-ante dimension of the process, and by giving it teeth. The former is addressed below through the introduction of a "European semester". The latter could be done, for example, by including the possibility of imposing interest-bearing deposits when Member States make insufficient progress towards their budgetary Medium Term Objectives in good economic times.
- National fiscal frameworks, i.e. the country-specific institutional policy settings that shape fiscal policy-making at the national level, should better reflect the priorities of EU budgetary surveillance. To give concrete meaning to the complementarity between the EU and national fiscal frameworks, the obligation in Protocol Nr 12 TFEU for Member States to have in place budgetary procedures that ensure compliance with their Treaty obligations on budgetary discipline could be specified through legally binding instruments. Such instruments would for instance require national frameworks to reflect multi-annual budgeting procedures.
- The Excessive Deficit Procedure (EDP) forms the cornerstone of the corrective part of the Stability and Growth Pact. But, the corrective dimension embedded in the EDP comes into play too late to provide the right incentives for Member States to tackle emerging fiscal imbalances. The functioning of the EDP could be improved by speeding up the procedures, in particular with regard to countries in repeated breach of the Pact.
- More prominence should be given to public debt and sustainability, in view of mounting threats deriving from bank rescue packages and ageing populations in particular. Recent events have highlighted not only the vulnerability of Member States servicing a very large public debt burden, but also the potentially negative cross-border repercussions. High indebtedness weighs on medium- and long-term growth prospects and deprives governments of the ability to run credible counter-cyclical policies when needed. The debt criterion of the excessive deficit procedure should effectively be

⁽¹⁾ COM (2010) 250 final, 12/05/2010: 'Reinforcing economic policy coordination'

(Continued on the next page)

Box (continued)

risks stemming from explicit and implicit liabilities should be taken into account as relevant factor. Symmetrically, the abrogation of the EDP for Member States with debt in excess of the 60% of GDP threshold should be conditional on an assessment of projected debt developments and risks. Indeed the EDP should better take into account the interplay between debt and deficit to improve incentives to run prudent policies.

- To ensure better compliance with the Pact, more attention should also be paid to the use of EU funds. Currently this only comes in at a relatively late stage of the Excessive Deficit Procedure, when a country has already failed to comply with recommendations to correct the excessive deficit (Art. 126.8 of the TFEU), and then only for recipients of cohesion funds, which are subject to the possible suspension of the commitments under the instrument. Moreover, this provision does not help the country concerned to address the underlying reasons of the excessive deficit. So in order to support Member States to safeguard the sustainability of the public finances, action should be taken much earlier than currently envisaged, and a broader range of EU funds should be considered.

For example, conditionality could be enhanced or Member States could be asked to redirect funds to programmes and projects that would support revenue-raising or improve the quality of public finances, once a report on the existence of an excessive deficit has been prepared (Art. 126.3 of the TFEU). Changes in the use of EU funds in this regard could realistically only be introduced in the context of the next Financial Framework. Nevertheless, some related measures should be implemented still within the current period, such as accompanying recurrent breaches of the Pact by a more rigorous application of the existing clause on the suspension of cohesion fund commitments.

2. STATISTICAL TREATMENT OF GOVERNMENT SUPPORT TO FINANCIAL INSTITUTIONS

This section briefly discusses statistical issues in government sector accounting arising in the context of public interventions that were carried out in response to the financial crisis. In particular it reviews the 15 July 2009 Eurostat decision (the Decision) and its implications for the recording of government deficit and debt. The need for further elaborating the rules of ESA95⁽⁴⁶⁾ emerged, as measures taken by Member States in support of the financial sector often involved innovative and complex financial transactions, the statistical treatment of which could not have been foreseen by the original ESA95. Two specific cases are explored in more detail in order to take a closer look at the application of these new rules, namely, the liquidity schemes (such as the Special Liquidity Scheme of the UK) and the classification of special purpose entities (such as the SFEF of France).

2.1. ACCOUNTING ISSUES IN THE CONTEXT OF THE CRISIS

ESA95 provides a comprehensive accounting framework that gives clear guidance on how to record the effects of tax and spending decisions by governments as well as governments' financial transactions. However, the complexity of some of the newly invented measures deployed to alleviate stress in financial markets called for the clarification of the existing accounting rules as to ensure appropriate statistical treatment.

The new Eurostat decision considers seven types of transactions that were seen as particularly relevant with respect to 'public interventions to support financial institutions and financial markets during the financial crisis'.⁽⁴⁷⁾ While the specific characteristics of the individual interventions need

to be assessed for statistical recording, the Decision set out guidelines, for each transaction type, on how the existing ESA95 accounting rules should be applied.⁽⁴⁸⁾

The consistency of treatment across the whole range of measures deployed by governments is particularly important when very different arrangements are used to achieve very similar economic purposes. In this respect, it is useful to remind that, according to ESA95, transactions are recorded according to their economic substance, rather than on the basis of their legal or administrative arrangements. For instance, one of the most pressing problems during the crisis was the general mistrust among monetary financial institutions (MFIs) stemming from the fact that it was impossible to know how much impaired assets affected the balance sheet of each institution. One option was to permanently remove these assets from the banks' balance sheets by selling them to a special body, a 'bad bank', which would therefore assume all risks associated with these assets. Another permanent solution was used in the Netherlands, where the government took over large part of the risks associated with these assets by 'exchanging' a preset stream of payments for the gains banks received from holding the impaired assets. Special liquidity schemes, like the one used in the UK, offer a more temporary solution. In this case the government or the central bank, for the duration of the crisis, would exchange the 'infected' assets with trusted government bonds. Another temporary solution was found by France, where a designated institution, backed by state guarantees, was set up to provide medium-term funding to banks, this way buttressing the improperly functioning market.

2.2. THE EUROSTAT DECISION

The appropriate accounting treatment of *recapitalisation*, *loan* and *guarantee* type of transactions, as referred to by the Decision, were in

⁽⁴⁶⁾ ESA95 stands for European System of National and Regional Accounts. ESA95 is the EU version of the UN's System of National Accounts (SNA1993). The ESA rules are in Council Regulation (EC) N° 2223/96 (OJ L 310, 30.11.1996, p. 1), as last amended by Regulation (EC) N° 1392/2007 of the European Parliament and of the Council (OJ L 324, 10.12.2007, p. 1). Based on the new edition of the SNA (SNA2008) the ESA system is currently being revised. The new regulation was originally foreseen to be adopted in 2010.

⁽⁴⁷⁾ http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/methodology/decisions_for_GFS

⁽⁴⁸⁾ Section II.1 in the Public Finance Report 2009 discusses each decision in somewhat more detail. Furthermore, for the initiated reader, Eurostat also published a methodological note: http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/methodology/guidance_accounting_rules

general less controversial among the statisticians for the reason that the existing rules were not called into question by the practices followed during the financial crisis. However, some specificities regarding the application of the rules deserve some attention.

The accounting treatment of *recapitalisations* focuses on whether the government acts in a way comparable to a private investor; that is, whether or not the price paid for the shares or other equity bought exceeds their market price or fair value, or, equivalently, if the expected rate of return on the financial investment is deemed or not to be in line with the markets. ESA95 rules prescribe that the amount paid in excess of what would be a justifiable value has to be recorded as a deficit-increasing transaction. The Decision recalls that EU State Aid rules could provide an appropriate benchmark for the valuation of the transactions.

Similarly to the case of purchase of equity, in the statistical recording of *purchase of assets* (including securities and loans) and *defeasance*⁽⁴⁹⁾ the proper valuation of the transaction is crucial. During a financial crisis, however, when markets do not function normally or even may cease to exist, it may be difficult to determine the market price or the expected rate of return of the asset bought. To this end, the Decision set forth a decision tree to determine whether the price paid for these assets should be considered to reflect their fair market value. For the valuation of assets at the time of the purchase one could use the market value if a functioning market exists or if the assets were acquired in a way equivalent to a market (e.g. through auctions), or one could use the book value of the assets as a benchmark. If the above methods fail, the value should be determined based on an independent valuation, founded on a market-based approach. However, the so derived value of the assets has to be re-examined when they are eventually sold. If the price received for the assets by the government is higher than the determined market value, taking into account the market conditions under which the purchase and sale take place, a capital transfer must imputed at the time of the sale.

⁽⁴⁹⁾ An operation where the government directly buys impaired assets from MFIs or when these assets are moved to a separate body (a 'bad bank') in exchange for payments is referred to as financial defeasance.

Granting a *loan* to a financial institution is normally recorded as a financial transaction and hence has no direct and immediate impact on the government deficit. On the other hand, when other than only economic considerations play a role and thus it is very likely that the loan will not be repaid, the funds transferred to the corporation by the government are recorded as a non-financial transaction (capital transfer). However, systematic future losses are hard to be inferred in times of financial crisis and thus this deficit-increasing case is likely to be less relevant for financial sector support measures.

Contrary to the previous transaction types, *guarantees* are not recorded⁽⁵⁰⁾ and therefore have no impact on government accounts, until the moment they are actually called. As a corollary to this principle, guarantees must be recorded at issuance as a liability, with an accompanying capital transfer, when there is written or other irrefutable evidence that they will be called.

The Decision also considered the accounting rules for *exchange of assets* and the *classification of certain new bodies*. These transaction types are discussed in the next subsection.

2.3. APPLYING THE RULES TO SPECIAL CASES

Some of the rescue measures taken in the context of the financial crisis included operations that were not clearly covered by the existing accounting framework or were used in a clearly different manner. Two examples are worthwhile mentioning: (i) special liquidity schemes and (ii) special purpose entities set up in the context of the financial crisis.

Liquidity schemes

The presence of illiquid or impaired assets on banks' balance sheets created problems when banks wanted to use their assets as collateral in normal financing operations. To address this problem, authorities temporarily exchanged these illiquid assets for liquid government securities

⁽⁵⁰⁾ A contingent asset is nevertheless recorded as a financial asset in cases where the contractual arrangement itself has a market value because it is tradable or can be offset on the market.

agreeing to swap them back when the market for these assets has recovered.⁽⁵¹⁾ Such an operation, however, not only required issuing large quantities of government securities, but needed to be arranged in such a way that the large risks associated with the illiquid assets would not be transferred to the government or the central bank.

Typically, in such a liquidity scheme, the government lends newly issued (but never sold on the market) government securities to the central bank with no intervening payments in return, except for some service fee. The central bank then exchanges these securities for the impaired assets held by the financial institutions and agrees with them that the reverse exchange would take place before the issued government securities mature. This way, the balance sheets of the banks are 'cleaned' of these illiquid assets, at least temporarily. To reduce the risk borne by the authorities, participating banks are requested to provide more illiquid assets in value than the value of the government securities they receive in exchange.

The statistical recording of this complex operation was not clearly defined before the Decision. In a conventional stock-lending transaction without a flow in cash the ownership of the exchanged assets is not transferred, which implies that these transactions are not recorded in the system. Transactions within a liquidity scheme can be viewed as a sequence of 'stock-lending with no cash' operations. First, the government lends its own liabilities to the central bank and then the central bank lends these government securities on to other banks without any cash payments in return. These banks also lend their illiquid assets to the central bank without receiving offsetting cash collateral. In this interpretation no transaction would have to be recorded in the system (apart from the associated fees).

Although a number of questions arise regarding the stock-lending interpretation of this operation, we will focus on one specific aspect here. Namely, should the government securities, issued for the special purpose of this scheme, be viewed as part of the outstanding stock of government gross debt?

⁽⁵¹⁾ Such a scheme, called Special Liquidity Scheme (SLS), was used in the UK starting as early as April 2008.

The question is relevant, since in the above interpretation the economic ownership of the government securities is not transferred, and thus it still lies with the government, in which case government debt should not be affected. This is exemplified by the fact that the so issued government securities must be returned (re-exchanged) to the central bank some time before their maturity. Consequently, no interest or principal payments are made related to these securities.⁽⁵²⁾ On the other hand, while being in the possession of the participating banks, these government liabilities can, in fact, be used as collateral or could be traded on the market. Hence, in reality they are indistinguishable from other government securities, which constitute the government debt.

There is an alternative interpretation of liquidity schemes which would result in including these government securities in general government gross debt. This involves either assuming that the government securities do not remain in the economic ownership of the government (relevant for schemes operated via central banks) or that the operation is recorded as two parallel repurchase agreements, called back-to-back repos (for schemes operated directly by the government).

The Decision has resolved this issue by stating that a liquidity scheme is to be recorded as a stock-lending transaction (i.e. not affecting the consolidated gross debt) only when the exchange of assets is temporary and the risk of loss is expected to be small. In cases where the liquidity scheme is of indeterminate or not short duration⁽⁵³⁾ and/or the risk of loss is not expected to be small, the second interpretation should be used and hence government debt will be affected.

Special purpose entities

The other interesting case to be explored here in more detail is how special purpose entities (SPE), set up explicitly to address specific aspects of the

⁽⁵²⁾ Interest payments for the government securities used in these schemes are typically 'rolled-up', meaning that they become due at maturity.

⁽⁵³⁾ The Decision considers that a scheme is of short duration if the initial issuance of government securities takes place during the period of the financial crisis. The latter is defined as starting in summer 2007, while its end date (for statistical purposes) will be also set by Eurostat.

financial crisis, are to be recorded in government accounts, especially in the case when private sector corporations hold the majority stake.

Special purpose entities were typically used during the crisis as a substitute for a deteriorating segment of financial markets.⁽⁵⁴⁾ Given the substantial uncertainty regarding the asset quality of banks' balance sheets and consequently high counterparty risk in interbank markets, banks were reluctant to make business with each other. To compensate for this, special financial institutions were set up which would intermediate between banks to revive the failing market segment.

The degree of autonomy with regard to the decisions and transactions the institution carries out is decisive in recording it in either the public or private sector. For instance, a government decree obliging the unit to enter into certain transactions or the government bearing the institution's losses or the fact that its operations are covered by a government guarantee could imply that the unit's economic interest lies with the government, in which case the entity should be classified in the public sector.

However, in an attempt to treat the different public interventions with akin economic purposes similarly, namely to alleviate financial market stress, the Decision allows certain majority privately-owned entities to be recorded outside the general government sector. The conditions include that the SPE is established for a short duration, has a sole purpose to address the financial crisis and its expected losses are small in comparison with the total size of their liabilities. Nevertheless, if the body continues to acquire assets after the financial crisis then it may be reclassified in the public sector.

In accordance with the Decision, in order to improve the quality of data available regarding public interventions during the financial crisis, The European Commission (Eurostat) has started to collect information on guarantees, liquidity support measures, and special purpose entity operations in a supplementary table, which will be published alongside the EDP notifications.

⁽⁵⁴⁾ The French SFEF (Société de Financement de l'Economie Française) could serve as an example.

3. NATIONAL FISCAL FRAMEWORKS

3.1. INTRODUCTION

The current economic crisis has called for huge fiscal efforts to avoid a deflationary spiral. This resulted in large structural deficits and growing debt ratios EU-wide, putting at risk fiscal sustainability. The resulting need for fiscal consolidation means that a well-designed fiscal policy exit strategy once the recovery is firmly underway is necessary. At the same time, to facilitate the exit and sustain budgetary consolidation, domestic fiscal frameworks need to be strengthened and adapted in the light of the lessons of the crisis. The importance of strong and resilient fiscal frameworks has been emphasised by the October 2009 Council conclusions on the fiscal exit strategy. Specifically, the Council stated that *"...important flanking policies to the fiscal exit will include strengthened national budgetary frameworks for underpinning consolidation strategies and support long-term sustainability."*

Domestic fiscal frameworks can be defined as the set of elements of the institutional policy setting that shape fiscal policy making at the national level. They comprise the arrangements, procedures and institutions governing the planning and implementation of budgetary policies. The main components of domestic fiscal frameworks are (1) numerical fiscal rules, (2) independent fiscal institutions (i.e., specific public bodies acting in the field of budgetary policy), and (3) budgetary procedures governing the preparation, approval, and implementation of budget plans. As part of the latter category, (4) medium-term budgetary frameworks (MTBFs) for multi-annual budgetary planning are specifically considered apart because of their importance in fostering medium term horizons for fiscal policies.

This chapter analyses what elements and considerations should be taken into account more carefully in designing resilient fiscal frameworks so as to support optimal policy-making during the needed fiscal retrenchment, to avoid repeating past policy mistakes in the period of expansion, and to promote the respect of the Stability and Growth Pact provisions. It is organised as follows. First, the stylised facts on the contribution of fiscal frameworks to budgetary consolidation are reviewed (section II.3.2). In the next section, a

comprehensive overview of the main elements of domestic fiscal frameworks as well as different policy options for their strengthening are provided (section II.3.3). Next follows a discussion on how best to ensure the successful implementation of domestic fiscal framework reforms and the implications of recent institutional developments at both national and EU levels on the appropriate design of country-specific fiscal governance (section II.3.4). Thereafter, policy lessons are drawn from successful country experiences to outline an ideal fiscal framework (section II.3.5). Finally, a summary of the main arguments is provided (section II.3.6).

3.2. DID DOMESTIC FISCAL FRAMEWORKS PLAY A ROLE IN PREVIOUS CONSOLIDATION EPISODES?

In the past twenty years, a sizeable body of literature has elaborated on the determinants of successful fiscal consolidation. The first wave of these analyses – between the late 1980s and the mid-1990s – focused primarily on the composition of the adjustment and the role played by the political and institutional setting (such as coalition versus single-party governments and the prevailing electoral system). According to this research, successful fiscal consolidations were preponderantly expenditure-based, particularly through primary current expenditure cuts based mainly on public wages and transfers. Fiscal adjustments following this strategy were generally longer-lasting than those based on tax increases and investment cuts (Alesina and Perotti (1995), *ibid.* (1996), Alesina and Ardagna (1998)). More recent studies, based on the experience of EMU, have qualified these findings, highlighting the role of revenue increases as part of a successful mix of consolidation measures (European Commission (2007)). These findings are likely to reflect the specific situation in the run-up to EMU that prompted efforts to reduce the size of government and therefore reduced the margin to implement "easy" expenditure cuts on less sensitive spending programmes. At the same time, many countries faced sizeable fiscal adjustments to qualify for EMU, leading them to resort to tax hikes to supplement the expenditure containment efforts. Under those circumstances, the success of consolidation plans was particularly dependent on

policy-makers' ability to maintain both expenditure cuts and revenue increases over time. These results are particularly relevant in the current scenario, in which the huge fiscal efforts required to restore budgetary discipline seem only attainable through a combination of measures.

Importantly, this recent research has also highlighted the prominent role that some elements of domestic fiscal frameworks seem to have played in the fiscal consolidation episodes since the early 1990s. While some research shows that fiscal rules have sustained fiscal discipline in a significant number of countries (Larch and Turrini (2008), Guichard et al. (2007)), other papers emphasise the importance of well-designed budgetary procedures in ensuring the centralisation of the budget formulation (von Hagen et al. (2002)). Other contributions have analysed the effect of specific characteristics of fiscal frameworks on budgetary performance. For example, countries implementing stronger rules over a larger share of general government finances are found to register better budgetary outcomes (Debrun et al. (2008)), whilst effective medium-term budgetary planning appears instrumental in sticking to budgetary plans (European Commission (2007)). The quality of domestic budgetary procedures is also shown to contribute to better budgetary performance (Fabrizio and Mody (2006)).

3.3. REVIEWING THE MAIN ELEMENTS OF FISCAL FRAMEWORKS: SOME GUIDELINES

This section addresses the reform of the main building blocks of national fiscal governance in more detail, following the taxonomy considered in the introduction. Notwithstanding the separate analysis of these elements (i.e. numerical fiscal rules, independent public institutions, medium term budgetary frameworks and budgetary procedures), their complementarities and an overall perspective on the reform of the whole fiscal framework should be kept in mind, as stressed in the previous section.

3.3.1. Numerical fiscal rules

According to the most commonly agreed definition, numerical fiscal rules provide 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 (Kopits and Symansky (1998)). This definition thus excludes fiscal targets which may be revised frequently without any restriction, such as those included in most medium-term budgetary frameworks in many EU countries. The main objective of fiscal rules is to establish constraints on the use of policy discretion in order to promote sound budgetary policy-making. In 2008, there were 67 rules in place in EU Member States, of which more than one third were budget balance rules; debt and expenditure rules represented about one quarter each, and revenue rules accounted for less than 10%.

Recent research provides ample evidence on the influence of numerical fiscal rules on budgetary outcomes (Debrun et al. (2008); European Commission (2009)). The extent of this influence depends strongly on a number of features which have been extensively analysed (e.g. Bohn and Inman (1996)). The findings of this research suggest that elements such as the statutory basis of the rule, the monitoring of budgetary developments against the fiscal targets, and the existence of corrective mechanisms in case of non-compliance should be carefully taken into account in the design of fiscal rules to ensure their effective influence on the conduct of fiscal policy. According to available evidence, features related to the enforcement and corrective mechanisms are particularly relevant for the effectiveness of fiscal rules (Ayuso-i-Casals et al. (2009)). Box I summarises the key elements in the design of effective fiscal rules.

The influence of fiscal rules on fiscal outcomes can be seen under two angles: budgetary discipline and macroeconomic stabilisation. The contribution of fiscal rules to the first objective, improving fiscal discipline, is well-documented by a large number of country-specific consolidation episodes and confirmed by the literature (IMF (2009)). A potential drawback of their use, however, is their possible adverse effects in terms of weak macroeconomic stabilisation. In the design of rule-based fiscal frameworks, an appropriate balance between these two objectives needs to be sought. The following sub-sections sketch out the features of budget balance, debt, expenditure, and revenue rules and discuss their implications with regard to both fiscal discipline and stabilisation.

Budget balance rules

Budget balance rules are by far the most widespread fiscal rules in force across the EU Member States, accounting for twenty-six out of the sixty-seven fiscal rules in force in 2008. Recent empirical research suggests that budget balance rules are effective policy tools as, on average, they are linked to better budgetary outcomes – that is higher surpluses or lower deficits. They therefore seem to address satisfactorily the deficit bias and are generally appropriate in terms of budgetary discipline (Debrun et al. (2008)). However, they might entail risks for the quality of public expenditure. If no item is excluded from their coverage, fiscal adjustment may rely excessively on cuts to growth-enhancing, but politically less sensitive, expenditure categories (e.g., R&D spending). This has prompted some countries to introduce budget balance rules that exclude investment expenditure, so-called golden rules. In practice, though, this concept is difficult to operationalise, and conventional definitions offer scope for opportunistic behaviour to circumvent the rule (European Commission (2003)).

A major criticism of budget balance rules concerns their potential adverse effect on macroeconomic stabilisation. Specifically, budget balance rules defined in nominal terms (either in level or as a percentage of GDP but not cyclically-adjusted) may introduce a pro-cyclical bias in the conduct of budgetary policy.

The extent to which deficit rules interfere with the stabilisation function of fiscal policy depends on their design. For example, multi-annual deficit rules defined over the cycle are likely to be more stabilisation-friendly than budget balance rules operating on a single year basis. The most frequent problem of rules defined over the cycle is the correct assessment of the cyclical position of the economy. Alternatively, cyclically-adjusted budget balance rules may provide flexibility to account for the cycle while ensuring discipline. However, these rules are also vulnerable to uncertainties on the measurement of the output gap, which renders real-time monitoring difficult. Still, the current EU fiscal framework relies on cyclically adjusted medium-term objectives, not least against the background of recent improvements in the measurement of the cyclically-adjusted balance (see Larch and Turrini, 2009). In addition, some

Member States such as Germany have recently implemented new budget balance rules following the same approach as at EU level.

Further complications of the stabilisation function of fiscal policy by budget balance rules arise from their distribution across levels of government. In the EU Member States, most of these rules apply to territorial governments; they are defined in nominal terms with annual time horizons, implying risks of pro-cyclicality. However, rules defined in cyclically-adjusted terms similar to those applied to general and central governments are hardly feasible at territorial level. Therefore, against the risk of pro-cyclicality, well-defined coordination mechanisms between the various levels of government are required. Coordination should be implemented during the preparatory phase of the budget process, and it should be based on a medium-term perspective that explicitly takes the implications of the sub-national rules for fiscal stabilisation into account.

An additional option to endow budget balance rules with flexibility to cater for cyclical fluctuations is the incorporation of escape clauses allowing the temporary suspension of the rule. This provisional suspension should be conditional on exceptional events such as natural catastrophes or a sharp output contraction. However, the definition of these escape clauses must be clear and confined to strictly specified circumstances in order to preserve credibility (see Box II.3.1). The GDP contraction experienced in 2008 and 2009 would presumably fall in any conceivable definition of exceptional circumstances.

A further possibility to counter the risk of pro-cyclicality is to supplement budget balance rules with the so-called "rainy day funds". Such stabilisation funds require that fiscal surpluses resulting from economic booms be set aside as contingency reserves that may be withdrawn during slowdowns to finance deficits. For the USA, where they are much more widespread than in the EU, such funds have been found to considerably reduce expenditure volatility and enhance the counter-cyclicality of fiscal policy (Hou and Moynihan (2008), Wagner and Elder (2005)). In the EU, however, the introduction of "rainy day funds" is discouraged by the definition of budget deficits adopted for assessing compliance with the rules forbidding excessive

Box II.3.1: Key elements in the design of fiscal rules

Statutory base: Ideally, any rule should be backed by strong legal provisions signalling the importance attached by the government to fiscal consolidation (e.g., a law of fiscal responsibility). The legal statutory base should clearly establish the requirements for amending the rule, in order to enhance credibility. It should also specify the monitoring mechanisms and the pre-established enforcement procedures in case of non-compliance.

Multi-annual character: Rules embedded into a medium term budgetary framework, as a part of a comprehensive fiscal strategy, may better adapt to economic and country specific circumstances, and may facilitate the internalisation of the budgetary effects of current policies over the medium term. A multi-annual timeframe may limit the potential circumvention of the rule by postponing the recording of expenditures or the implementation of structural adjustments.

Accounting system: The use of the ESA95 methodology is consistent with the EU fiscal surveillance framework. However, data are more readily available on a cash basis. The need for timely monitoring therefore suggests a dual approach: a rule could be defined in cash terms with translation into ESA95 done on a quarterly basis.

Monitoring: The effectiveness of monitoring relies on two elements. First, in order to monitor compliance with the rule in an effective manner, updated and reliable data must be available. Where they are not, compliance can only be assessed with considerable delays. Second, an independent monitoring body is more likely to result in necessary adjustments of budgetary trends being implemented once they have been identified.

Enforcement mechanisms: The design of corrective and enforcement mechanisms is an important feature to ensure the proper functioning of fiscal rules. The actions to be taken in case of non-compliance should always be defined ex-ante so as to make the rule credible and enforceable. Otherwise, the cost of non-compliance would be only reputational, which is insufficient in the presence of acute fiscal distress and weak budgetary institutions. The enforcement of corrective measures ought to be ensured by a non-partisan institution, legally endowed with the requisite competencies. Monitoring and enforcement could be carried out by the same independent body.

Sanctions: In the case of non-compliance with the rule, pre-established sanctions may supplement the enforcement mechanisms. They may adopt two different forms. In developed nations, non-compliance sanctions typically apply to institutions, comprising fines, automatic withholdings of transfers, restrictions on debt insurance, etc.⁽¹⁾ In developing countries, personal sanctions prevail, including dismissal procedures, obligations to resign, fines, or lower wages.

Escape clauses: Well-defined escape clauses constitute a key feature of good fiscal rules. They specify the circumstances under which departures from the rule are admissible: usually these include natural disasters or acute economic slowdowns or recessions. Precise escape clauses may reinforce credibility, while vague and non-concrete clauses may render the rule ineffective. Overall, the definition of escape clauses requires particularly attention: they should only allow for a limited number of circumstances.

⁽¹⁾ For example, in Spain the existing law establishes that in case the 3% deficit threshold of the EU fiscal framework is breached, all government layers have to contribute to the payment of a possible fine in proportion to their share over the overall deficit.

deficits. The introduction of such funds would therefore first require a review of the current ESA95 rules applied both at EU and national level. Then clear rules regulating the use of these funds would also be needed (see Balassone et al. (2009)).

Debt rules

In 2008, eighteen domestic debt rules were in operation across EU Member States; the large majority applied to sub-national governments.

They typically limit debt according to the debt repayment capacity measured by the debt service-to-current revenue ratio (Bernoth et al. (2004)). For higher levels of government, the target definition usually follows the EU debt threshold formulation, with a ceiling being set as a percentage of GDP. Given the challenge of debt reduction in the years ahead, debt rules may gain importance across the EU Member States.

Similarly to balance budget rules, debt rules are found to have a strong influence on fiscal discipline (Debrun et al. (2008)). Their effectiveness depends on the ambition of the target and on a number of design features, in particular monitoring and enforcement (see Box I). Besides possible adverse effects on the quality of public expenditure, the same potential shortcomings identified for budget balance rules with respect to the stabilisation function of fiscal policy apply to debt rules. Debt rules which are embedded in a medium-term framework may be better able to take into account stabilisation concerns, thus limiting their potential pro-cyclical bias. In addition, strong policy coordination across government tiers when setting fiscal targets is the most appropriate way to offset possible pro-cyclical effects stemming from debt rules applied to sub-national authorities. The counter-cyclical stance of debt rules may be further enhanced by escape clauses and "rainy day funds".

Expenditure rules

In 2008, seventeen domestic expenditure rules were in place in the EU. They represent around one third of all fiscal rules and predominantly concern central governments and social security spending. Most of these rules are embedded into a medium-term budgetary framework.

Expenditure rules serve to address two frequent pitfalls in fiscal policy making: recurrent primary spending overruns and pro-cyclical budgetary policies. They foster accountability by targeting the part of the budget that is under more direct government control, particularly if specific items not fully under the influence of government, such as interest payments are excluded from their coverage. This strong accountability may promote not only the respect of the target but also transparency in the course of the budget process

(Deroose et al. (2006)). Spending rules and limitations of their coverage bear similar problems with regard to the quality of public expenditure as do budget balance rules (see above).

However, expenditure rules are effective in sustaining fiscal discipline, as proven by their extensive use during large budgetary consolidations. Moreover, they are consistent with the stabilisation objective as well as they hardly prevent the automatic stabilisers from operating and they may curb pro-cyclical spending stemming from pressures in the presence of revenue windfalls in good times.

Admittedly, the functioning of this type of rules may also be associated with some pitfalls. For instance, a pro-cyclical bias could result if the expenditure target is defined as a share of GDP. In practise, this is however rarely observed. Another possible shortcoming of expenditure ceilings is the incentive to use tax expenditures for various policy objectives to which direct spending might be better suited. At worst, the result can be that large tax expenditures do away with a significant part of the benefits of spending restraint due to lower tax receipts, while at the same time these tax exemptions may be inappropriate policy instruments i.e. less targeted instruments for the ultimate purpose. Once significant tax expenditures have been introduced, it is politically very difficult to withdraw them, which may eventually lead to an erosion of the tax base and a complicated tax system. This makes advisable to supplement spending ceilings with budget balance rules and/or clear regulations constraining the resort to tax expenditures.

Despite these potential disadvantages, expenditure rules represent the cornerstones of the most resilient domestic fiscal frameworks in some EU Member States, namely those of the Netherlands, Denmark, Sweden, and Finland.

Experience in these EU countries shows that binding spending ceilings can play a crucial role in the functioning of the whole fiscal framework (Kopits (2007)). Expenditure rules may also prompt the adoption or strengthening of sound budgetary procedures, such as top-down budgeting and more centralised budgeting processes. Well-designed expenditure rules appear decisive to ensure the effectiveness of budget balance rules

(Guichard et al. (2007)). Ideally, such rules should cover the whole of the general government sector, which requires proper coordination across levels of governments (see sub-section II.3.4.2). Such coordination could enhance ownership of fiscal targets and increase their respect, particularly in highly decentralised countries.

Revenue rules

Revenue rules are not common across national fiscal frameworks in the EU: in 2008, only six EU Member States had such rules.

Revenue rules can aim at a wide range of objectives relating to the revenue side of the budget, such as establishing a ceiling on the tax burden or constraining specific tax revenue developments. The most widespread objective is the avoidance of pro-cyclical policies. In the pursuit of this objective, an important issue is how to deal with budgetary revenues that exceed budgeted figures and forecasts. One possibility is to oblige fiscal authorities to specify the allocation of higher-than-expected revenues *ex ante* in the budget law. One obvious example is to allocate such revenues to the purpose of debt reduction, thereby mitigating expenditure pressures in good times. At present, France, Lithuania, and the Netherlands operate such revenue rules. However, only the latter systematically assigns unexpected revenues to deficit reduction. Other fiscal arrangements can, of course, supplement revenue rules to implement countercyclical fiscal policies during economic booms. For example, the previously mentioned "rainy day funds" can help resist political and social pressure to spend windfalls in good times. Finland is an example of a country operating such a fund for unemployment insurance contributions since 1999.

A crucial issue in the functioning of the above rules is how to distinguish transitory from permanent revenue increases. Here, the current economic crisis offers important lessons to be drawn in particular in connection with asset price increases (Joumard and André (2008)). Owing to the technical difficulties inherent in differentiating permanent from temporary revenues, higher than anticipated tax proceeds from booming property and asset prices were considered permanent in many cases. This allowed for additional public expenditure, leading to risk of pro-cyclicality and

unsustainable fiscal policies. Spain is a telling example in this respect. Ex post analysis has shown that since the mid-1990s about half to three quarters of tax revenue increases it experienced were transitory and caused by the exceptional economic growth at the time. However, conventional techniques of cyclical adjustment overestimated structural revenues and provided an incorrect assessment of the fiscal stance at the time (Martinez-Mongay et al. (2007)).⁽⁵⁵⁾

3.3.2. Independent fiscal institutions

- A complementary policy option to reinforce fiscal governance is the establishment of independent fiscal institutions (also called fiscal councils). These are non-partisan public bodies acting in the field of budgetary policy that are financed by public funds and are functionally independent vis-à-vis fiscal authorities. The definition excludes the central bank, government or parliament. These independent bodies are entrusted with some technical tasks relating to fiscal policy, such as the preparation of macroeconomic forecasts or the assessment of budgetary measures, while the final decision on budgetary targets and the fiscal stance remains under the sole authority of the elected government.⁽⁵⁶⁾

In 2008, twenty seven independent institutions were established in seventeen EU countries. These public bodies have been contributing positively to

⁽⁵⁵⁾ This experience once more highlights the importance of caution in the adoption of revenue projections for the budget preparation. It further underlines that the implementation of unfunded tax cuts or expenditure increases must be carefully considered, especially those that are difficult to revert. To guard against misreading revenue windfalls as durable improvements in the underlying fiscal position, changes are required in budgetary policy making that go beyond the institutional setting. In particular, in addition to debt and deficit data, the formulation of fiscal policy should be based on a follow-up of a wider set of indicators relating to fiscal space, such as the external deficit, competitiveness indicators, inflationary pressures, and so on. Moreover, expenditure projections should take into account long-term GDP growth prospects and an inflation target in line with the ECB price stability objective rather than over-optimistic scenarios extrapolating from transitory boom periods with buoyant revenues.

⁽⁵⁶⁾ As a result, the type of independent public institutions considered in this section does not entail any delegation of the conduct of fiscal policy as suggested by some proposals in the literature (Wyplosz (2005)).

fiscal policy making through one or several of the following three channels.

- The provision of unbiased inputs for the annual budget preparation, such as macroeconomic forecasts on which budgetary projections are based.
- The provision of independent analysis on fiscal policy issues. This may include monitoring budgetary developments, assessing compliance with the existing fiscal rules and/or estimating the budgetary cost of specific policy measures.
- The issuing of regular assessments and recommendations relating to different aspects of fiscal policy, such as recommendations addressing long-term sustainability issues or proposals containing fiscal targets for the different tiers of general government.

In a number of cases, these institutions have been successful in disseminating their policy advice and effectively influencing the conduct of fiscal policy. Such successful institutions include the Netherlands Bureau of Economic Policy Analysis (CPB), the National Account Institute (NAI) and the High Council of Finance (HCF) in Belgium, the Institute of Economic Research (WIFO) in Austria, the Institute of Macroeconomic Analysis and Development (IMAD) in Slovenia and the recently established Swedish Fiscal Policy Council. In four of these cases (i.e. the CPB, the NAI, the WIFO and the IMAD), the government has entrusted the independent institutions with the provision of macroeconomic forecasts for the budget preparation. Overall, these public bodies enjoy a good reputation, which generally has been acquired through a long period of time and are highly respected by the political establishment.

In addition to the tasks mentioned above, new proposals to enhance the scope of the activities entrusted to independent fiscal institutions have recently emerged. In the aftermath of the economic crisis, the introduction of fast decision-making mechanisms to trigger measures for crisis prevention has been suggested, including mechanisms which aim to reduce the lags that usually constrain the effectiveness of discretionary policy. Examples of such mechanisms are clear escape clauses allowing the temporary suspension

of fiscal rules in the presence of a marked deterioration of economic conditions, the specification of state-contingent one-off fiscal stimulus measures in consolidation plans to safeguard short-term growth, or predefined stabilisation measures automating the discretionary policy reaction to sharp cyclical fluctuations (Solow (2005)), Feldstein (2007)). National independent fiscal bodies could be involved in the implementation of such mechanisms by assessing the suitability and the timing of the measures foreseen – for example, whether and when to temporarily suspend fiscal rules, implement a one-off fiscal stimulus, or adopt any pre-established stabilisation measures – thereby counteracting the credibility risks that arise from political interference in their operation. In the European context any measures introduced by or due to independent fiscal institutions still have to comply with the Stability and Growth Pact. In addition, if independent fiscal institutions are given a role in implementing one-off stimulus measures, this raises the risk of asymmetric fiscal expansions. Such mechanisms should therefore be accompanied by appropriate measures for good times, to counter-act the risk of creeping debt accumulation. These could include "rainy day funds" to allocate revenue windfalls (see section II.3.3.1).

National independent fiscal institutions can also be instrumental in addressing credibility problems relating to budget balance rules defined in cyclically-adjusted terms or over the cycle. Technical difficulties in identifying the cyclical position of the economy and estimating the output gap as well as the shortcomings of preliminary data at the time when budgetary decisions are taken may harm the credibility of fiscal policy. One remedy might involve fiscal councils providing cyclically adjusted indicators and assessments of the fiscal room for manoeuvre.

Unlike fiscal rules, which can be operational immediately, the setting up of new fiscal institutions is less straightforward and more time is required until they are fully functional. First, the tasks assigned to these bodies generally require specific technical and methodological skills, which may be scarce in some countries, particularly in some small new EU Member States. In such cases, the assignment of tasks to the new institution should be preceded by an assessment of the

available technical expertise to decide what technical tasks can be effectively delegated. Second, independent fiscal bodies usually need time before their mandate is completely developed: their performance has been found to improve from a long "learning by doing" process and, more importantly, time is also needed for the build-up of a reputation which is an essential asset of such institutions. For this latter reason, some proposals suggest to widen the mandates of existing institutions – provided that they have the capabilities and reputation to effectively play the role of a fiscal council – instead of setting up new fiscal bodies. This has been done with the courts of auditors in some EU Members such as the United Kingdom.

The actual establishment of national fiscal bodies depends on domestic institutional characteristics and preferences. Still, existing experience provides some useful guidance for the design of such institutions that focuses on the following elements. These are summarized in Box II.3.2.

Box II.3.2: Important elements in the design of independent fiscal institutions

The mandate: The mandate should be clear and unambiguous, specifying the tasks assigned to the institution and the scope of its activities, and backed by strong legal provisions. In this respect the following remarks are pertinent:

- The mandate should ensure that the tasks assigned to the institution will be carried out on a regular basis and not only occasionally. Forecasts, monitoring tasks and assessments should be comprehensive and not limited to partial aspects.⁽¹⁾
- Should the mandate include the provision of forecasts and/or monitoring tasks, the institution should be given access to internal information in the national statistical office, ministries and other governmental bodies.
- Finally, where the institution is entrusted with the enforcement procedures of fiscal targets and rules, the scope of the measures this independent body can take and the possible connections with the judiciary branch should be unequivocally specified in its mandate and supported by legal provisions.

Functional independence: A high degree of autonomy and functional independence vis-à-vis fiscal authorities are important preconditions to ensuring the institution is not hampered by political interference. This can be ensured by:

- Public financing, preferably stipulated in a legal text.
- Specific appointment procedures, particularly for the governing board, ensuring its functional independence.

Involvement in the budget process: The involvement of the institution in the budget process emerges as the most crucial element determining its influence on the conduct of fiscal policy. The arrangements in some EU countries have proved to be effective in conveying the policy messages issued by independent bodies. These include, for example, regular hearings in the parliament during the budget preparation, consultation by the government in the course of the budgetary process, or the obligation of fiscal authorities to justify departures from the forecasts or recommendations released by the institution. Delegation of macro forecasts for the budget preparation is an example of strong involvement in the budget process. Country experiences show that independent forecasts result in more realistic macroeconomic scenarios being used to adopt policy decisions, with biases in the growth assumptions due to government optimism being reduced (Jonung and Larch (2006)).

⁽¹⁾ For example, in some EU countries government revenue projections are provided by an independent body. However, these forecasts are based on the macroeconomic assumptions prepared by the government. This is likely to hamper the quality of the revenue forecasts as optimistic bias in the macro projections would reverberate into tax revenue forecasts.

3.3.3. Medium-term budgetary frameworks

Medium-term budgetary frameworks are fiscal arrangements whereby the horizon of fiscal planning is extended beyond the annual budgetary calendar. Their importance stems from the fact that most fiscal measures have budgetary implications going well beyond the yearly budgetary cycle. A well-designed MTBF reflects the impact of past budgetary commitments as well as the future cost

of new policy measures. In 2008, twenty-two EU countries had a MTBF.

Medium-term budgetary objectives incorporated into a MTBF represent a weaker form of commitment than a rule including binding targets. Still, by shedding light on the future costs of ongoing policies, they may enhance fiscal discipline. They also facilitate monitoring by providing benchmarks against which budgetary developments can be assessed over time. Despite

the country-specific character of these fiscal arrangements, the existing literature on MTBFs provides some guidance on the appropriate design of such frameworks. Box II.3.3 summarises these desirable design features.

In addition to the elements contained in Box II.3.3 some successful country policy experiences provide a number of valuable insights into how best to design MTBFs. Specifically, the two following elements are relevant.

First, complementarities between multi-annual expenditure rules and MTBFs should be exploited in order to adhere to medium-term budgetary objectives. In particular, expenditure rules cannot exclude risks related to the revenue side of public budgets, such as non-financed tax cuts or systematically upbeat revenue forecasts. Therefore it is advisable to supplement expenditure rules with medium term objectives for the budget balance based on cautious growth assumptions and plausible revenue projections.

Second, MTBFs should preferably adopt the form of a fixed framework relying on binding spending ceilings. Fixed frameworks imply that budgetary objectives, for example spending targets, are set once for all and are not adjusted over time unless unexpected exceptional events arise during the period covered by the framework. Telling examples of this approach are the frameworks implemented in the Netherlands, Sweden, and Finland. Most of these MTBFs are based on a multi-annual spending rule providing binding expenditure limits. Fixed frameworks represent a constraint on discretionary fiscal policy and contrast sharply with flexible frameworks, which allow for (annual) target revisions according to policy changes.

Apart from the country examples mentioned in the previous paragraph, most MTBFs implemented in the remaining EU Member States tend to show some common shortcomings (European Commission (2009)). These include the non-binding character of the fiscal targets and their frequent revision, the lack of political commitment,⁽⁵⁷⁾ unrealistic macroeconomic assumptions on which the budgetary projections are based, and the absence of independent monitoring and corrective mechanisms in case of deviation from the projected fiscal path. These weaknesses call for a reform of the MTBFs, especially given the need for time-consistent long-run consolidation plans under the present budgetary imbalances. While there is no one-size-fits-all design of an appropriate MTBF, experience suggests that the principles presented in Box III can be a useful starting point to strengthen the current MTBFs and ensure an effective medium-term fiscal planning.

⁽⁵⁷⁾ In several EU countries, national parliaments only discuss the projected medium-term path together with the annual budget law and focus exclusively on the budgetary figures of the year ahead.

Box II.3.3: Key elements in the design of MTBFs

Coverage: MTBFs should ideally cover the general government sector, or at least the central government plus the social-security sub-sectors, over a period of three or four years. A breakdown of the general government budgetary projections into sub-sectors should also be provided, particularly for highly decentralised countries.

Expenditure projections: As explained in the main text, effective MTBFs are usually based on binding expenditure limits. An appropriate breakdown of these projected spending ceilings according to the main expenditure areas is required in order to incorporate spending policy priorities and the envisaged expenditure adjustments in the medium-term fiscal planning.

Revenue projections: Expenditure projections should be complemented by plausible revenue projections based on cautious macroeconomic assumptions. Similarly to the expenditure side, an adequate breakdown by main type of revenues should also be provided in order to show the budgetary impact of tax policy measures.

Analysis of departures from the envisaged fiscal path: The previous year's actual budgetary outcomes should be compared to the projections initially set out in the MTBF. Differences and deviations should be explained and justified. Likewise, measures implemented to offset deviations from the medium term path of fiscal projections should also be spelled out. All this information should be included in the MTBF documentation.

Macroeconomic assumptions: The baseline projections and the corresponding macroeconomic assumptions should be supplemented by the inclusion of alternative scenarios. This should allow the identification of budgetary priorities in case an unforeseen increase or decrease in revenues materialises, which in turn could also be instrumental in reducing the need to resort to ad-hoc supplementary budgets ⁽¹⁾.

Accounting system: The correspondence between fiscal projections on a cash basis and their values based on ESA 95 concepts should be clearly specified. While the cash figures allow more timely monitoring, the corresponding ESA95 data increase transparency and the consistency of the current medium term budgetary planning in relation to the fiscal targets relevant for compliance with the SGP to be checked.

Input into the annual budget law: The projections and objectives included in the medium term framework should form the basis on which the budget law is prepared. In this respect, the role played by the Parliament in the MTBF preparation should be strengthened: the projected fiscal path, particularly the expenditure targets, should formally be presented, discussed and approved in the Parliament before the submission of the annual budget law. ⁽²⁾

Monitoring and corrective mechanisms: Monitoring mechanisms should be specified with respect to the frequency of assessments and the body responsible for undertaking these and corrective procedures pre-defining actions in case of deviations from the envisaged fiscal path should be clearly stipulated. Where a MTBF relies on a multiannual spending rule, these mechanisms should be closely linked to those for the monitoring the expenditure ceilings. The same institution should monitor and enforce both elements of the fiscal framework where these tasks are assigned to an independent body.

⁽¹⁾ This specific aspect is closely linked to the introduction of a revenue rule pre-establishing the allocation of higher-than-anticipated revenues.

⁽²⁾ A significant shortcoming of most MTBFs in operation is their weak influence on the annual budget law. Ideally, fiscal targets included in the budget law should be based on the targets considered in the first year of the MTBF. In the same vein, the fiscal strategy adopted in the MTBF should form the basis for the main fiscal measures contained in the budget. In a number of Member States, this link is established in the opposite direction (i.e. targets considered in the first year of the MTBF are revised annually according to the figures of the annual budget law). This approach places fiscal policy making in a very short-term perspective and renders the implementation of a time consistent budgetary strategy difficult.

3.3.4. Budgetary procedures

Domestic budgetary procedures encompass all the procedural rules laid down in law covering the planning, approval and execution of the budget process. According to the literature, seven budgetary dimensions are conducive to the quality of the budget process (von Hagen and J. M. Poterba (1999) and A. Alesina and R. Perotti (1999)); these dimensions are set out in Box II.3.4.

Given the focus of the present review on the contribution of elements of fiscal frameworks to budgetary consolidation, below we focus on the three dimensions that are most relevant in this respect. These are transparency and realistic economic assumptions, budgetary centralisation, and top-down budgeting. Comprehensive information on the budgetary procedures in the EU Member States is available from the OECD dataset on the subject that includes 20 EU Members (the Baltic countries, Cyprus, Malta, Bulgaria and Romania are excluded); this dataset has been most recently updated in 2007. In terms of the dimensions of budgetary procedures discussed above, it shows the following.

First, concerning prudent economic assumptions and transparency, half of the EU countries surveyed do not have any independent review of the economic assumptions used in the budget preparation. Additional sources to the OECD database show that the EU Members not covered by the survey do not have any independent review of the macroeconomic assumptions for budgetary forecasts either. Importantly, one third of the EU countries surveyed by the OECD do not release the methodology used for establishing the economic assumptions to the public; this appears to be the case for the other seven EU countries as well. Also, only in three EU Members are the economic scenarios for budget preparation provided by independent bodies; in all other cases, they are decided upon by the respective ministry of finance or other governmental bodies.

Second, in terms of the degree of centralisation of the budget process, in two thirds of the EU countries considered in the survey and apparently in the countries left out as well, neither the minister of finance nor the prime minister have the final say to resolve disputes between spending ministries and the central budget authority. In

twelve Member States out of the twenty, the legislature has unrestricted power to amend the budget proposed by the executive, including its overall size.

Third, as concerns the implementation of top-down budgeting, only a limited number of Member States impose a binding expenditure ceiling at an early stage of the budgetary planning. In the large majority of EU countries, overspending may occur before a supplementary budget law has been approved by the legislature.

Thus, in most EU Member States there is considerable scope for improvement of their budgetary processes along these three important dimensions. For the sake of unbiasedness, the elaboration of macroeconomic projections for budget preparation should be assigned to an independent body, as practiced by Belgium among others, where the National Accounts Institute provides a good example of an independent body being based on existing institutions and technical capabilities. Next, a higher degree of centralisation of the budget preparation should be considered a priority in countries exhibiting insufficient central control over the budgetary process. Stronger centralisation can be implemented by strengthening the fiscal rules and the medium term budgetary framework (including the implementation of binding spending ceilings in particular), or by reinforcing the role played by the minister of finance. This can include granting him or her a veto on spending decisions. Finally, the introduction of top-down budgeting should be considered an essential element of fiscal framework reforms. This can be expected to foster the centralisation of the budget process as well. In any case, the successful implementation of top-down budgeting goes hand in hand with the establishment of effective binding spending ceilings and the existence of a strong minister of finance.

Box II.3.4: The seven dimensions of the budget process

(1) Transparency: Transparency requires reliable and timely budgetary data, standard accounting practices, and a comprehensive coverage of the budget law. Transparency is crucial for the accountability of fiscal authorities.

(2) Multiannual budgetary planning: A medium-term budgetary framework provides the basis for fiscal strategies beyond the yearly budgetary cycle. It allows fiscal authorities to commit to a pre-defined path for the main budgetary aggregates and to take into account the multiannual budgetary impact of policies.

(3) Budgetary centralisation at the planning and approval stages: As one of the most important dimensions of the budget process, budgetary centralisation heavily influences fiscal outcomes. Fragmented budget preparation by a large number of actors results in deficit bias because of the common pool problem.

(4) Budgetary centralisation at the implementation stage: During the execution of the budget, some decentralisation may be needed in order to better allocate resources. While the overall spending ceiling should always be respected, some flexibility in the distribution of resources among spending programmes might be appropriate.

(5) Top-down budgeting: This approach starts the budgetary planning with a binding ceiling on the total amount of resources to be distributed among expenditure areas and programmes. This is more conducive to fiscal discipline than the traditional bottom-up approach, where total spending is obtained as the sum of the individual expenditure requests of all ministries and agencies.

(6) Realistic economic assumptions and reserves: Prudent and plausible macroeconomic assumptions should avoid systematic overly optimistic budgetary projections. Reserve funds provide flexibility to deal with unexpected budgetary developments.

(7) Performance budgeting: This practice is based on the evaluation of spending programmes against the achievement of their policy objectives: resource allocation in the budget preparation is then based on the efficiency of past spending.

3.4. THE STRENGTHENING OF DOMESTIC FISCAL FRAMEWORKS: GENERAL CONSIDERATIONS

The findings summarised in the previous sections have given rise to a commonly accepted view that fiscal discipline needs to be backed by adequate domestic fiscal governance. National fiscal frameworks should therefore be reformed where necessary to provide the right incentives for fiscal policy making to favour sound and sustainable fiscal policies. Policy experiences show that the success of such reforms is subject to a number of preconditions. In addition, in the context of EMU, the reform of domestic fiscal governance must be consistent with Member States' commitments under the EU fiscal framework, while any reform also has to be adapted to the domestic institutional set-up and the degree of fiscal decentralisation in

the country in question. The following sub-sections elaborate on these issues in more detail.

3.4.1. Preconditions for a successful reform of domestic fiscal frameworks

Reforms of fiscal frameworks have to address country specific fiscal problems within the specific national institutional and political setting. Therefore, there is no one-size-fits-all solution for their reform. When planning such a reform, the specific domestic circumstances to be taken into careful consideration. Nevertheless, experience provides important lessons about common elements, as discussed in the following paragraphs.

First and most importantly, the reform of fiscal governance must comprehensively address all the main institutional pitfalls. Partial or fragmented

reforms usually fall short of delivering the expected improvements. For example, the establishment of an independent monitoring body and the introduction of fiscal rules are complementary rather than substitutive measures, displaying strong feedback effects. Policy-makers should pay attention to these interplays.

A second common element to all reforms is the need to secure the functioning of the most basic fundamentals of the fiscal framework. In particular, statistical reporting, accounting and monitoring issues must function up to minimum standards. A common standardised accounting methodology in the whole public administration and the regular availability of reliable budgetary statistics are key pre-conditions for well-functioning fiscal frameworks, as are regular monitoring and timely reporting of the main expenditure and revenue categories. Some EU countries currently suffer from these fundamentals being insufficiently developed. In this context, the appropriate sequencing of the reforms is also relevant: the strengthening of these fundamentals has to take place prior to the introduction of more elaborated elements such as constraining fiscal rules or medium-term fiscal planning. Failure to do so would render the latter ineffective.

Finally, explicit tools such as rules or medium-term budgetary frameworks do not substitute for political commitment to fiscal discipline. A strong political willingness to restore fiscal stability and a broad social consensus on the need to conduct sound fiscal policies must necessarily support the establishment of any reform to ensure its success.

3.4.2. Reforming domestic fiscal governance: national and EU perspectives

In the last decade, the management of the public finances in EU countries has been affected by two major changes in the economic and institutional setting. These are deeper European integration notably including the establishment of EMU, and progressive fiscal decentralisation in a significant number of EU Member States, which implies the assignment of greater fiscal powers to sub-national governments. The reshaping of national budgetary competencies has not only affected the conduct of fiscal policy domestically, but it has significant implications for the fulfilment of fiscal

requirements at EU level as well. The Treaty and the SGP obligations apply to the general government as whole, i.e. to central, regional, and local governments, and the social security sub-sector. Against the background of growing decentralisation, the role of territorial governments in ensuring the respect of the SGP provisions has considerably increased. The close link between national fiscal governance and the fulfilment of Member States' commitments at EU level has been repeatedly stressed by the Council. The reform of national fiscal governance should thus take into account the growing budgetary decentralisation and its implications for sustained fiscal consolidation within the EU framework; fiscal relations across levels of government should be designed to promote stability-oriented policies. In this context, the following elements appear relevant.

First, the distribution of fiscal responsibilities across government tiers should be transparent. Transparency should apply to all stages of intergovernmental relationships. This implies that policy responsibilities across layers of government should be clearly established, to allow for the clear assignment of spending functions to government tiers and to avoid responsibility shifting. The distribution of expenditure powers should be accompanied by a stable financing system for territorial governments. The funding mechanisms should be based on transparent rules governing the transfers to sub-national authorities and the working of tax-sharing schemes. In addition, in accordance with their spending powers, a reasonable extent of tax autonomy should also be provided to lower levels of government, to avoid vertical fiscal imbalances. Transparency should also be present in the monitoring and enforcement mechanisms in force. Particular tasks might be assigned to state audit offices or other specific independent bodies. In this context, the timely availability of reliable budgetary data for the lower tiers of public administration is crucial.

A second feature to support a fiscal decentralisation process compatible with sound public finances concerns fiscal rules and independent fiscal institutions. All levels of government must respect spending limits to ensure budgetary discipline; fiscal rules serve to foster the respect of the prevailing institutional fiscal framework and to support policy makers'

accountability. In turn, independent fiscal institutions can play a role in enhancing fiscal sustainability by promoting strong and efficient coordination across different layers of general government.

There is also a view that the disciplining effect exerted by financial markets could be more supportive to sound fiscal policies at all levels of government than fiscal rules. It is argued that as sub-national governments gain greater budgetary autonomy, they should also have access to domestic and international credit markets, which in turn could impose fiscal discipline through differentiated risk premia. This could reduce the need for fiscal rules. However, so far, experience shows that credit markets fail to exert disciplining pressure on sub-national governments; since these have only limited tax autonomy, they are receive to transfers from the central government. Just the possibility of these transfers may be considered by the markets an implicit guarantee of debt. Further, controls imposed by financial markets tend to be sudden and abrupt, imposing additional costs that would be best avoided. For these reasons, the market mechanism does not appear to be a suitable replacement for fiscal rules in terms of maintaining fiscal discipline at a territorial level.

One final element to ensure sound fiscal relations across levels of government is a fluent political dialogue supported by appropriate institutions. In this context, the commitment of all general government tiers to co-operate in such coordination is crucial. A disciplinary framework proven to foster co-ordination across levels of government is provided by the so-called "domestic" or "internal stability pacts" currently in place in several EU countries, notably Belgium, Italy, Spain, and Austria. In these countries, in spite of some obvious shortcomings (e.g., weak monitoring and enforcement mechanisms), domestic stability pacts and the rules or working agreements that assist their implementation have played an important role in coordinating government tiers' efforts to support the respect of the SGP.

3.5. IS THERE AN IDEAL MODEL OF FISCAL FRAMEWORKS?

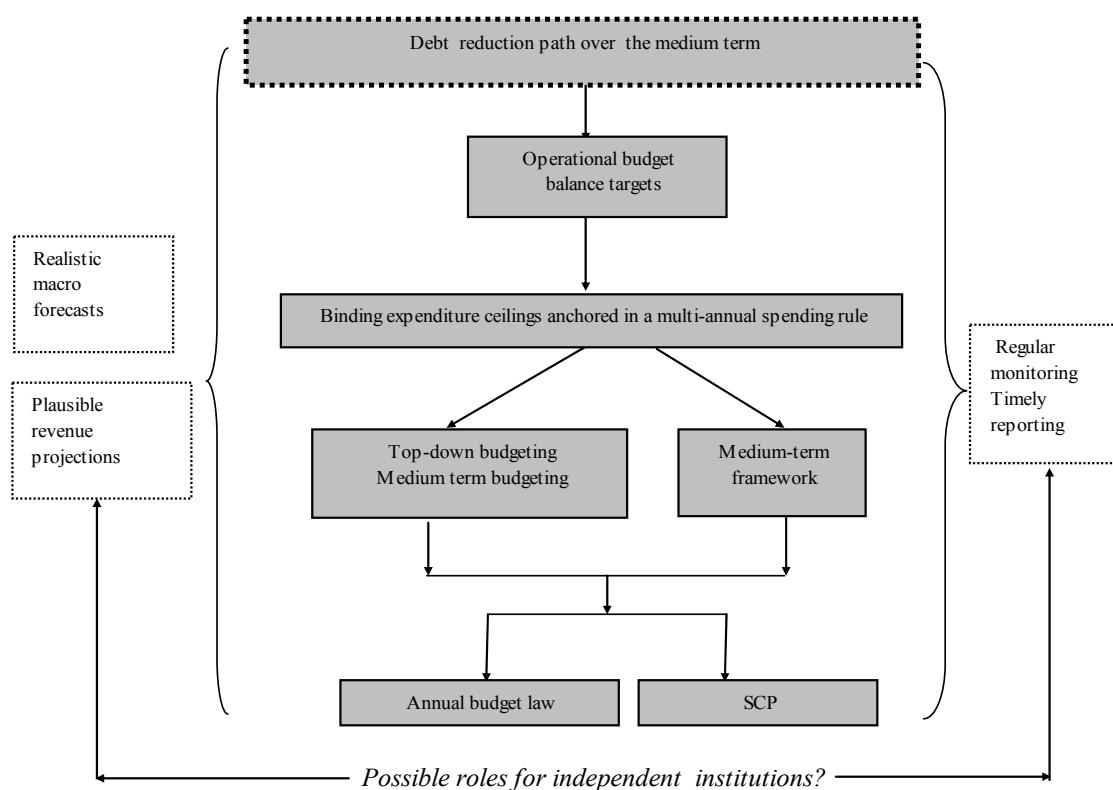
When planning a reform of the national fiscal framework, it is important to consider the fact that policy setting will adapt to the particular specifications of the new framework and that how this will occur will depend on political, legal, and cultural factors. Therefore, no particular fiscal framework can be ideal for all countries. However, with a view to strengthening existing domestic frameworks, some common principles stemming from successful country experiences and reflecting the overarching objective to restore fiscal sustainability may be identified.

Specifically, multi-annual spending rules embedded into a MTBF have generally been adopted as a cornerstone of ambitious consolidation plans and are currently one of the main building blocks of the most successful and resilient domestic fiscal frameworks across EU countries. The Netherlands, Denmark, Sweden and Finland, which can be considered the most successful Member States in terms of fiscal discipline, have rule-based systems in place which are based upon an expenditure rule combined with revenue or cyclically adjusted budget balance rules. While in all of them the centralisation of the budget process is supported by these expenditure ceilings and top-down budgeting, the role played by independent fiscal bodies (e.g. the CPB in the Netherlands and the Swedish Fiscal Policy Council) is also crucial to enhancing transparency and promoting sound fiscal policies.

Following these countries' experiences, the following lessons concerning the interplay among the different targets and rules can be drawn to aid the reversal of unsustainable debt trends:

- Regardless of whether a debt rule is in place or not, the central objective of fiscal policy over the next years across the EU should consist in halting and reversing the growing debt ratio. This demands the formulation of a path for debt developments consistent with a prudently defined sustainability objective and macroeconomic scenario.

Graph II.3.1: Domestic fiscal frameworks based on the expenditure side



Source: Commission services.

- The path for the evolution of the debt ratio should be underpinned by operational (primary) budget balance targets, which might be translated into a budget balance rule, ideally applying to the whole of the general government sector (or at least the central government and the social security sector). This should be consistent alongside the achievement of the medium-term objectives of the SGP.
- These budget balance targets should in turn be operationalised through binding expenditure ceilings based on a multi-annual spending rule for the general government. Expenditure thresholds would reflect the envisaged debt reduction path be based on cautious macroeconomic and revenue projections for the relevant period. The expenditure rule could be supplemented by a revenue rule to ensure that higher-than-expected receipts are allocated to debt reduction.
- Finally, a budget balance and/or debt rule consistent with the envisaged overall expenditure ceilings should be applied to sub-central governments.

The following illustration encapsulates the main relationships among fiscal rules and other elements of domestic fiscal frameworks according to this ideal model.

3.6. MAIN CONCLUSIONS

In the context of the current crisis, the huge fiscal effort put in place by EU countries seems to have helped avoid a deflationary spiral in the short term. However, the other side of the coin is that large structural deficits and growing debt ratios will have to be addressed in the next future. This places fiscal issues at the core of current and future policy initiatives to restore stability and promote a growth-oriented macroeconomic framework. In this context, well-designed domestic fiscal

frameworks can enhance policymakers' commitment to a lasting fiscal consolidation and sustainable budgetary policies. The appropriate features of fiscal frameworks are, however, country specific and there are no one-size-fits-all solutions.

Despite the importance of these country-specific circumstances, economic analysis and policy experience provide a number of insights on how the main elements of domestic frameworks should be designed and implemented. The reform of these elements, namely numerical rules, independent fiscal institutions, medium term budgetary frameworks and budgetary procedures, should be regarded as a single process. All these fiscal arrangements are closely interconnected, and the functioning of one of them affects the working of the remaining elements. Partial or fragmented reforms usually fall short of providing the needed improvements. For example, the strengthening of fiscal rules and the upgrading of budgetary procedures are complementary rather than substitutive measures. Policy makers should be mindful of these interplays. With this in mind, the strengthening of domestic fiscal frameworks should focus on their four key elements.

First, national fiscal governance should primarily rely on a rule-based framework. There is a large body of empirical evidence suggesting that numerical fiscal rules can considerably strengthen fiscal discipline. While, in the end, their effectiveness depends on a number of characteristics and on the monitoring and enforcement mechanisms in particular, potential shortcomings relating to the stabilisation function of fiscal policy may be addressed by adequate design and target definition. This could involve rules defined on a cyclically adjusted basis or over the cycle. Expenditure rules exhibit a number of properties that could adequately tackle some of the observed pitfalls in the domestic fiscal policy making: recurrent spending overruns and the pro cyclical policies. Rule-based systems, consisting of an expenditure rule supplemented by a revenue rule and/or a budget balance rule, appear to have yielded positive budgetary outcomes in terms of both discipline and stabilisation in a number of EU countries (e.g. the Netherlands, Sweden, Denmark, and Finland).

Countries with a high degree of fiscal decentralisation should pay due attention to the interactions between their rules and how fiscal policy is implemented across government levels. In particular, most fiscal rules applied to territorial governments are budget balance or debt rules, which may imply a pro cyclical bias of fiscal policy. A feasible solution to address this shortcoming should be based on a close coordination of all government layers and on the adoption of a multi-annual perspective to take into account the effects of the cycle. This coordination should take place at an early stage of the budget process, and preferably when fiscal targets for all government tiers are set.

A complementary policy option to reinforce fiscal governance is the establishment of non-partisan public bodies acting in the field of budgetary policy. In some Member States, such as Belgium and the Netherlands, these institutions play an important role in promoting sound and sustainable fiscal policies. The main fields in which these bodies carry out their activities are the preparation of macroeconomic forecasts for the budget preparation, the analysis of budgetary developments vis-à-vis the respect of fiscal targets, and the estimation of the budgetary impact of specific policy measures.

A third policy option to reinforce national fiscal governance and supplement rules and institutions is the strengthening of national medium term budgetary frameworks for multi-annual fiscal planning. Most EU Member States currently have a MTBF in place. However, a large majority of them also display significant shortcomings that hamper the use of this fiscal arrangement as an effective policy instrument for time-consistent fiscal planning. These weaknesses mainly consist of the non-constraining character of fiscal targets (i.e. budgetary figures considered in the MTBFs are merely projections and are not binding), and a lack of political commitment. Likewise, budgetary projections are frequently based on unrealistic macroeconomic assumptions resulting in credibility problems. Finally, the absence of independent monitoring and regular reporting, together with the absence of corrective mechanisms further weaken the use of this fiscal arrangement. All these shortcomings should be addressed in order to render domestic MTBF an effective fiscal planning tool in the current context

of fiscal consolidation measures over the medium-term.

Finally, available information suggests there is still some margin to further improve the existing budgetary procedures at national level. These procedural rules cover the three stages of the budget process, namely planning, approval and execution. A significant number of Member States show weaknesses, which mainly relate to transparency, the centralisation of the budgetary process, scant use of top down budgeting and the use of overly optimistic economic assumptions.

The lack of centralisation at the budgetary planning stage emerges as one of the main problems in the domestic budget process in a number of Member States, particularly in some new ones. This potentially enhances the deficit bias through the common pool problem and may hamper fiscal discipline. This shortcoming should be addressed by the reinforcement of the ministry of finance with a veto over other ministries' requests, the implementation of expenditure rules providing binding spending limits, and the constraining of the power of the parliament to modify the overall size of the budget.

4. INCLUDING IMPLICIT LIABILITIES IN THE MEDIUM-TERM BUDGETARY OBJECTIVES

In the original SGP, all Member States were expected to pursue the attainment of a budgetary position close-to-balance or in surplus in the medium-term. The reform of the SGP in 2005 clarified that medium-term budgetary objectives (MTO) should be interpreted in structural terms and established that they should be differentiated to take into account differences in Member States economic fundamentals and risks to budgetary sustainability. Each Member State therefore sets its own medium-term budgetary objective (MTO). As a rule, this is the position a Member State aims to reach within the period of its stability and convergence programme and the programme sets out the steps it will take over that period to reach the position.

4.1. MTOS IN THE REVISED SGP

The revised SGP specifies that MTOs pursue a triple aim: a) provide a safety margin with respect to the 3 % of GDP deficit threshold; b) ensure rapid progress towards sustainability; and c) taking the first two objectives into account, allow room for budgetary manoeuvre, in particular taking into account the needs for public investment. Additional provisions were agreed for euro-area and ERM II Member States. For these countries, the country specific MTOs are specified within a defined range between -1 percent of GDP and balance or surplus, in structural terms (cyclically adjusted balance net of one-off and temporary measures). The Council considered in 2005 that making the aim of ensuring rapid progress towards sustainability fully operational required further work. Accordingly, in a transitory phase until criteria and modalities for taking into account implicit liabilities were established, MTOs were to be differentiated on the basis of the debt ratio and potential growth, while preserving sufficient margin below the reference value of -3% of GDP. Setting out MTOs fully reflecting the reform of the Pact was therefore effectively conditional on reaching a common approach on how to incorporate implicit liabilities (increases in public expenditure due to ageing populations) in the definition of the medium-term budgetary objectives.

4.2. NEW MTOS TAKE INTO ACCOUNT IMPLICIT LIABILITIES DUE TO AGEING POPULATIONS

Following a technical agreement ultimately reached in the Economic and Financial Committee, the 7 July 2009 Ecofin Council Ministers took note of the new approach to be used for setting MTOs in line with the provisions of the reform Stability and Growth Pact⁽⁵⁸⁾. This followed the conclusions of the 9 October 2007 and the 5 May 2009 Ecofin Council, which had stressed the aim of arriving at an agreement in connection with the updating of the long-term projections of age-related expenditure by the Commission and the Ageing Working Group of the Economic Policy Committee, due in the course of 2009. The 10 November 2009 Ecofin Council endorsed the incorporation of the new approach in the Code of Conduct⁽⁵⁹⁾ and, in line with earlier conclusions, confirmed that the new MTOs were implemented starting from the 2009-10 round of Stability and Convergence Programmes.

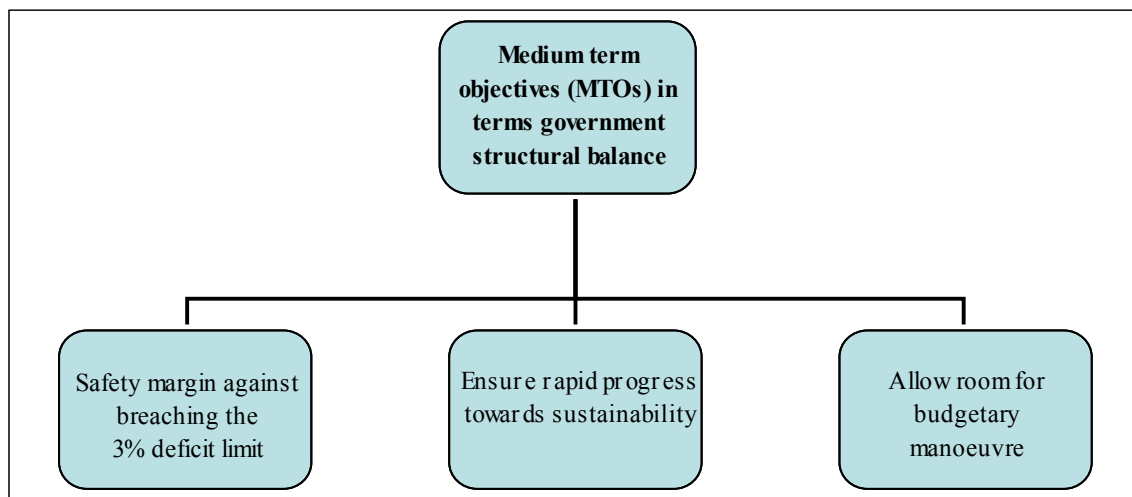
The relevant provisions in the code of conduct are reported in Box II.4.1.

In order to measure the respect of adequate safety margin with respect to the 3 percent to GDP deficit the Commission introduced in 2000 the concept of minimal benchmark. Since the EU fiscal framework requires the 3 percent reference value for deficits are to be respected even in the event of adverse cyclical developments, automatic stabilisers can be allowed to play freely over the cycle without breaching the 3 percent reference value only when the structural fiscal position incorporates a sufficient cyclical safety margin. With a view to provide Member States with an indication on the minimal structural budgetary position consistent with a sufficient safety margin, the Commission introduced in 2000 the concept of

⁽⁵⁸⁾ Conclusions of ECOFIN Council of 7 July 2009.

⁽⁵⁹⁾ Specifications on the implementation of the Stability and Growth Pact and Guidelines on the format and content of Stability and Convergence Programmes.

Graph II.4.2: Triple aim of the MTO's



Source: Commission services.

‘minimal benchmark’, which has been regularly updated by the Working Group on Output Gaps (OGWG) of the Economic Policy Committee⁽⁶⁰⁾.

The debt rules mentioned under (i) and (ii) in BOX 1 reflect the need to differentiate between low- and high-debt countries by taking as a starting point the debt-stabilising balance for a debt at 60% of GDP, and imposing a more demanding objective on high-debt countries in proportion to the distance to the 60% of GDP reference value, so as to ensure that the debt is rapidly brought to below the reference value. Concerning the final, and more innovative, component of the MTO, reflecting the need to partially frontload the budgetary cost of ageing, the reference long-term projections on age-related expenditure⁽⁶¹⁾ are those produced by the Commission and the Working Group on Ageing of the Economic Policy Committee⁽⁶²⁾. The same growth projections enter also the calculation of the debt-stabilising balance.

Table II.4.1. shows the relevant variables for the MTOs for the EU27 Member States. High debt ratios, low potential GDP growth and high increases in the cost of ageing would respectively contribute to a higher MTO, while the minimum benchmark and a structural deficit of one (for the Euro area and ERM2 countries) act as minimum bounds. The new MTOs that Member States have presented in their stability and convergence programmes are presented in section I.3.

⁽⁶⁰⁾ For the definition of the minimum benchmark see European Commission: 'Public Finances in EMU 2006', European Economy 3/2006.

⁽⁶¹⁾ The present value of the change in age-related expenditure is calculated in a similar manner as the LTC component in the sustainability indicators. The calculations assume an infinite horizon with age-related expenditure stabilising to the projection end-year-value. See European Commission: 'Sustainability Report 2009', European Economy 9/2009.

⁽⁶²⁾ European Commission and Economic Policy Committee: '2009 Ageing Report' European Economy 2/2009.

Box II.4.1: Relevant provisions in the Code of Conduct

The MTO is defined in cyclically adjusted terms, net of one-off and other temporary measures. The reference method for the estimation of potential output is the one adopted by the Council on 12 July 2002. ⁽¹⁾ One-off and temporary measures are measures having a transitory budgetary effect that does not lead to a sustained change in the intertemporal budgetary position. ⁽²⁾

The MTO pursues a triple aim:

- *providing a safety margin with respect to the 3% of GDP deficit limit.* This safety margin is assessed for each Member State taking into account past output volatility and the budgetary sensitivity to output fluctuations.
- *ensuring rapid progress towards sustainability.* This is assessed against the need to ensure the convergence of debt ratios towards prudent levels taking into account the economic and budgetary impact of ageing populations.
- *taking (i) and (ii) into account, allowing room for budgetary manoeuvre, in particular taking into account the needs for public investment.*

The MTOs are differentiated for individual Member States to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risk to the sustainability of public finances, also in face of prospective demographic changes. The country-specific MTOs may diverge from the requirement of a close to balance or in surplus position.

Specifically, the country-specific MTOs should take into account three components: i) the debt-stabilising balance for a debt ratio equal to the (60% of GDP) reference value (dependent on long-term potential growth), implying room for budgetary manoeuvre for Member States with relatively low debt; ii) a supplementary debt-reduction effort for Member States with a debt ratio in excess of the (60% of GDP) reference value, implying rapid progress towards it; and iii) a fraction of the adjustment needed to cover the present value of the future increase in age-related government expenditure. This implies a partial frontloading of the budgetary cost of ageing irrespective of the current level of debt. In addition to these criteria, MTOs should provide a safety margin with respect to the 3% of GDP deficit reference value and, for euro area and ERM II Member States, in any case not exceed a deficit of 1% of GDP. The examination of the country-specific MTOs by the Commission and the Council in the context of the assessment of Stability and Convergence programmes should indicate whether they adequately reflect the objectives of the Stability and Growth Pact on the basis of the above criteria. Potential growth and the budgetary cost of ageing should be assessed in a long-term perspective on the basis of the projections produced by the Working Group on Ageing attached to the Economic Policy Committee. MTOs can be revised when a major structural reform with impact on the cost of ageing is implemented and in any case every four years preferably after a new set of projections is produced by the Working Group.

Member States may present more ambitious MTOs than implied by these criteria if they feel their circumstances call for it.

For Member States outside of the euro area and not participating in ERM II, country-specific MTOs would be defined with a view to ensuring the respect of the triple aim mentioned above.

⁽¹⁾ Due to data problems, a different method may be used for the estimation of potential output in the case of recently acceded member states (RAMS). The method used should be agreed by the Economic Policy Committee on the basis of a proposal of the Output Gap Working Group.

⁽²⁾ Examples of one-off and temporary measures are the sales of non-financial assets; receipts of auctions of publicly owned licenses; short-term emergency costs emerging from natural disasters; tax amnesties; revenues resulting from the transfers of pension obligations.

Table II.4.1: Subcomponents of the MTOs

	Debt (2008) %of GDP	Average nominal GDP growth (2010-2060) %	Minimum Benchmark	Euro area and ERM2	Cost of ageing (infinite horizon) %of GDP
BE	89.6	3.8	-1.3	-1	4.7
BG	14.1	3.7	-1.8		1.3
CZ	29.8	3.6	-1.6		3.5
DK	33.3	3.8	-0.5	-1	1.6
DE	65.9	3.2	-1.6	-1	3.1
EE	4.8	3.8	-1.9	-1	-0.3
IE	43.2	4.4	-1.5	-1	6.7
EL	97.6	3.7	-1.4	-1	11.4
ES	39.5	3.9	-1.2	-1	5.7
FR	68	3.9	-1.6	-1	1.9
IT	105.8	3.5	-1.4	-1	1.4
CY	49.1	4.8	-1.8	-1	8.2
LV	19.5	3.4	-2	-1	0.7
LT	15.6	3.5	-1.9	-1	3
LU	14.7	4.6	-1	-1	12.6
HU	73	3.7	-1.6		1.4
MT	64.1	3.7	-1.7	-1	5.8
NL	58.2	3.5	-1.1	-1	5.1
AT	62.5	3.7	-1.6	-1	3
PL	47.2	3.5	-1.5		-1.7
PT	66.4	3.9	-1.5	-1	1.9
RO	13.6	3.8	-1.8		4.7
SI	22.8	3.4	-1.6	-1	8.3
SK	27.6	3.7	-2	-1	2.6
FI	33.4	3.7	-1.2	-1	4.7
SE	38	3.9	-1		1.5
UK	52	4.1	-1.4		3.5

Source: Commission services and EPC

5. DEVELOPMENTS IN CYCLICALLY-ADJUSTED BUDGET BALANCE MEASUREMENT

The assessment of EU governments' structural budget position has led to sometimes sizeable ex-post revisions due to sharp reversal in economic conditions that affected potential output estimates. Also discretionary actions taken by EU countries' governments affected CAB measurement.

This section reviews two strands of recent methodological work by Commission services dealing with these issues in the context of the Output Gap Working Group (OGWG) of the Economic Policy Committee (EPC). First, this section describes recent work on to the assessment of the output gap using real-time information on capacity utilisation. It shows that by including information contained in capacity utilisation alongside its statistical characteristics, estimates of potential output can be enhanced, thereby improving the assessment of the structural budgetary positions in real time. Second, the section deals with the role played by discretionary fiscal policy measures to explain short-term variations in tax revenues by exploiting data collected in the context of the OGWG. In the run-up to the global 2008/2009 financial crisis some countries have introduced generous tax breaks in the wake of large tax revenue windfalls which, with hindsight, proved to be unsustainable. Results are presented providing evidence on the procyclical nature of discretionary policy changes affecting tax revenues in the EU.

5.1. THE POTENTIAL OUTPUT ESTIMATION AND THE PROBLEM OF REVISIONS

The use of univariate statistical techniques (such as the Hodrick Prescott filter, thereafter HP) to derive measures of the level of potential output (and of the output gap) have been recognized to have at least two serious drawbacks, see in particular Kuttner (1994). First, potential output measures generated with these techniques lack a substantive economic foundation. Second, such techniques generally allow for identifying turning points in the potential output trajectory only with a considerable lag and can thus lead to large ex-post revisions. This can substantially exacerbate the uncertainty associated with real-time potential output estimates.

The estimation method currently applied by Commission services is based on the so called Cobb-Douglas production function approach.⁽⁶³⁾ This approach relates potential output to the capital stock, hours worked, the Non-Accelerating Inflation Rate of Unemployment (NAIRU) and the permanent component of Total Factor Productivity (TFP). It is hence better grounded in economic theory than a univariate type of approach. However, the NAIRU and TFP are themselves unobservable and have to be estimated. The introduction of a bivariate procedure linking unemployment and inflation in a Phillips curve relationship to disentangle the permanent and cyclical components of labour has allowed enhancing the reliability of the NAIRU estimates so far. Yet, the permanent and cyclical components of TFP have been extracted with the Hodrick-Prescott filter, and hence can be argued to be themselves susceptible to Kuttner's critiques. In particular, the fact that the method utilizes only limited information, see Baxter and King (1995) and D'Auria et al. (2010) for a discussion of these issues in the recent EU context.

A direct consequence of the high uncertainty around the estimates of TFP components at the end of the sample is that the estimates of potential output and of the cyclically adjusted budget balances (CAB) are frequently revised. This makes real-time fiscal policy assessment, especially in the vicinity of business cycle turning points difficult. Taking these factors into considerations, the European Commission has proposed to replace the HP method of the TFP components extraction with a new bivariate model that exploits the theoretical link between TFP cycle and capacity utilisation that arises in the Cobb-Douglas production framework. The new method has been applied officially applied for the first time in parallel to the HP filter in the 2010 Spring forecast round.⁽⁶⁴⁾ The general structure of the new model is presented in Box II.5.1. A more detailed technical description of the method can be found in D'Auria et al. (2010, forthcoming).

⁽⁶³⁾ See Denis et al. (2006) for a description of this method.

⁽⁶⁴⁾ The definitive move to the new method will take place in the autumn 2010 forecast round as endorsed by the Economic and Financial Committee.

CAB revision analysis

The usefulness of capacity utilisation data for disentangling TFP components is justified on two grounds: first, capacity utilisation is measured with acceptable precision and, crucially, without revisions. This can be expected to be helpful in reducing TFP trend estimate revisions due to the updates of the underlying series.⁽⁶⁵⁾ Second, capacity utilisation indicators have been found to strongly co-move with the unobserved cyclical component of TFP, hence enabling unbiased extraction of the TFP cycle even at the end of the sample.⁽⁶⁶⁾ Mechanically, one should expect a similar effect of the new method on the real-time estimates of national CABs, since their construction requires the TFP cycle estimates as one of the input arguments.

Following Planas et al. (2010) the two different methods used here, i.e. the HP and capacity-utilisation affect all years of estimation of the CAB. One can exploit this feature to measure the sensitivity of CAB estimates to ex-post revisions. Graph II.5.1 does this by reporting the standard deviations of revisions of CAB measurement recorded for 11 EU Member States calculated over the period 2000-2008.⁽⁶⁷⁾ The revisions are computed on CAB estimates using the different autumn vintages of DG ECFIN Ameco database running from the autumn 2000 to the autumn 2009 vintages over four different time horizons. The number of time horizons considered is conditioned by the data needed to compute meaningful statistics (i.e. standard deviations are used here) over sufficiently long time span to calculate differences in the CAB estimates recursively for years 2008 till 2000 using the different autumn vintages of the Ameco database. The numbers on

the x-axis correspond to the different time horizon considered to calculate the standard deviations.⁽⁶⁸⁾ As can be seen, the average standard deviation of the revisions of the CAB estimates based on TFP cycle estimates obtained with the bivariate method is in general smaller than the average standard deviation of revisions on HP filter for every time-horizon considered in nine out of eleven Member States.⁽⁶⁹⁾ Only for two Member States (Spain and UK) the result is ambiguous and depends on the time horizon. It is also worth noting that for a number of Member States (Denmark, Germany, Ireland, Italy and Portugal), the bivariate method produced standard deviation of the revisions which are smaller by at least 20% across all time horizons. This result therefore provides supporting evidence in favour of the use of the capacity utilisation as this method significantly reduces the ex-post CAB revisions compared to the HP method. Ongoing work in this area by the Commission services will allow to extend the method to other Member States once data availability becomes sufficient for this purpose.

⁽⁶⁵⁾ It should however be understood that such revisions will never be completely eliminated.

⁽⁶⁶⁾ The positive impact of the new method on decreasing the size of TFP cycle revisions in real time has also been documented for a sample EU Member States in Planas et al. (2010).

⁽⁶⁷⁾ The period 2000 -2008 is determined by the availability of previous Ameco vintages from the autumn 2000 till the autumn 2009, i.e., the first year for which the estimate of the CAB can be compared using the HP and capacity utilisation method is 2008 using the autumn 2008 and the autumn 2009 Ameco vintages. The countries covered are Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, the Netherlands, Portugal and United Kingdom. Due to lack of data the new method is not yet applicable for the Austria, Finland, Luxemburg and Sweden and the 12 New Member States.

⁽⁶⁸⁾ For instance, the first measure of the size of revisions reported in Graph II.5.1 covers eight years, i.e., from 2008 till 2000 and for each of these years the difference between two different estimates are calculated the following way: The time horizons in the x-axis correspond to the years considered to calculate the standard deviation in the revisions of the CAB estimates. For instance, the standard deviation of the CAB estimate corresponding to the time horizon 1 covers the differences in the CAB estimated for the years 2008 (using the autumn 2009 and the autumn 2008 forecast), the year 2007 (using the autumn 2008 forecast and the autumn 2007 forecast), etc. till the year 2000 (using the autumn 2001 forecast and the autumn 2000) forecast. Time horizon 2 covers the years 2007 (using the autumn 2008 forecast and the autumn 2007 forecast), etc. till the year 2001 (using the autumn 2002 forecast and the autumn 2001) forecast. By doing these calculations recursively (i.e. moving down from year 2008 to year 2000) one obtains four standard deviations values measuring the size of the revisions in the CAB estimate.

⁽⁶⁹⁾ It can also be observed that the size of revisions tends to grow when moving from the first time horizon to the fourth time horizon which might simply reflect the smaller number of years that is considered each time.

Box II.5.1: A joint model for TFP and capacity utilisation

The basic structure of the new bivariate method is similar to the Phillips-curve augmented unobserved component model proposed by Kuttner (1994) for estimating potential output and output gap in the US.

In the Cobb-Douglas production function framework TFP can be related to the labour efficiency (E_L) and capital efficiency (E_K) levels of the available technology and to labour and capital capacity utilisation (U_L and U_K respectively) according to:

$$(1) \quad TFP = (E_L^\alpha E_K^{1-\alpha}) (U_L^\alpha U_K^{1-\alpha})$$

where the constant α represents the labour share of income. Since efficiency is a persistent process whereas capacity utilisation depends on the current economic condition, equation (1) suggests a TFP-decomposition into a trend P and a cycle C such that $TFP = P \times C$ with:

$$P = E_L^\alpha E_K^{1-\alpha} \quad C = U_L^\alpha U_K^{1-\alpha}$$

The first relationship has no empirical relevance since efficiency is not measured. Capacity utilisation measures are instead available, although so far without discriminating between the different production factors. It follows that only aggregate capacity utilisation series (U) can be readily obtained. By construction we expect U_L and U_K to be significantly correlated. Given that average hours worked per employee already contain some cyclical movements, the link with labour utilisation should be somewhat looser. But if there are fluctuations in the degree of labour hoarding that are not captured by the number of hours variable, a correlation between labour and capital utilisation may nevertheless be present. It is thus assumed that:

$$u_L = \gamma u_K + \varepsilon \quad 0 < \gamma < 1$$

where lowercase letters denote logarithms and ε is a random shock. Hence log-TFP is related to capacity utilisation through:

$$tfp = p + (1 - \alpha + \alpha\gamma)u + \alpha\varepsilon$$

This link is exploited to detrend TFP through the following bivariate model:

$$(2) \quad \begin{aligned} tfp_t &= p_t + c_t \\ u_t &= \mu_u + \beta c_t + e_{ut} \end{aligned} \quad \beta = \frac{1}{1 - \alpha(1 - \gamma)} > 1$$

where the small-case letters indicate log-levels of their large-case letter counterparts. Given that both α and γ lie in the (0,1)-interval, the loading coefficient β should be greater than one. The value of β can be considered a formal quantitative measure of the link between the capacity utilisation and TFP. The term e_{ut} in the second equation of system (2) stands for a random shock. System (X.2) must be completed with assumptions about the unobserved components dynamics. Their general structure as well as specific assumptions made for every Member States are discussed in D'Auria et al. (2010, forthcoming).

Construction of the capacity utilisation composite indicator

Data on capacity utilisation for the EU can be obtained from: the Capacity Utilisation Indicator (CUI), which is available for manufacturing only, and the Business Survey Capacity Indicator (BS) collected for both manufacturing and services as a part of the EC Business and Consumer Survey Programme, see the European Economy Special Report 5/2006. Due to its wider scope, BS is thought to be a superior measure of capacity utilisation for the total economy. It has the disadvantage however that data on the Service sector has been collected only since years 1995-1998 for most Member States. For this reason, CUI, suitably rescaled,

(Continued on the next page)

Box (continued)

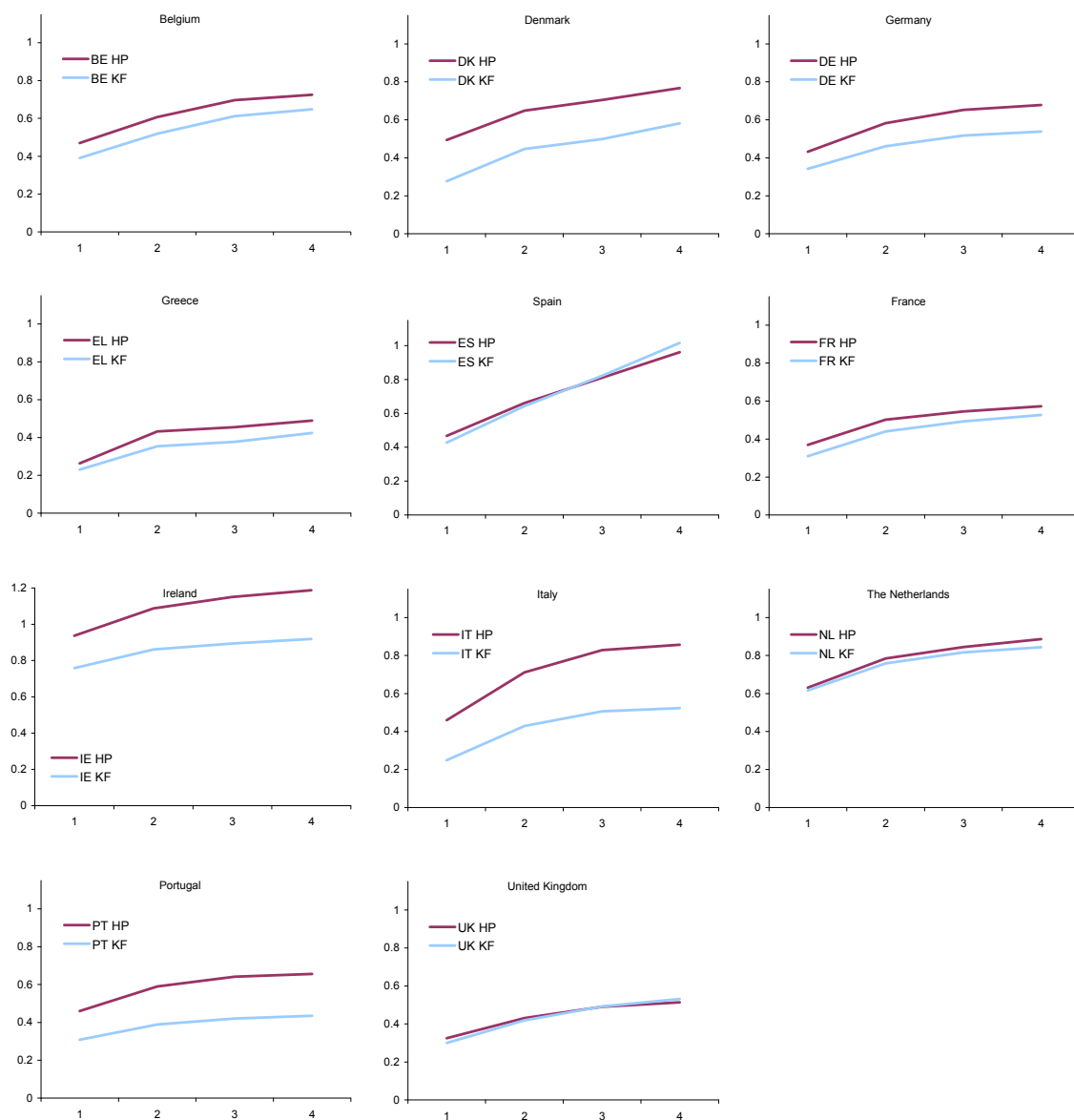
is used for the period when BS is not available, while BS is used for the remaining years. Only CUI is used for Luxemburg as business surveys are not conducted for this country. Ireland has interrupted business surveys in 2009.

Model estimation

The model can be estimated using the standard maximum likelihood method or applying a Bayesian approach. The latter is preferred as it overcomes a stability problem that can occur with maximum likelihood estimation whereby 0-coefficient estimates are obtained for structural shock variances. Another advantage of Bayesian approach is that the additional information possessed by modellers and policy makers that is not captured in the data can be easily incorporated into the analysis. For instance, some information is *a priori* available about the periodicity of the TFP cycle or the inertia of its trend. In the Bayesian framework all parameters are considered as random variables with an initial distribution that reflects the prior knowledge. The estimation procedure aims at delivering posterior distributions of all unobserved quantities given both prior assumptions and observations. The likelihood is evaluated by casting model (2) into a state space format in order to apply the Kalman filter. More details about the methodology and the prior distributions are given in D'Auria et al. (2010, forthcoming). ⁽¹⁾

⁽¹⁾ All computations are made by programme GAP developed in the Joint Research Centre and downloadable from CIRCA website
http://circa.europa.eu/Public/irc/ecfin/outgaps/library?l=/method/nawru_estimation&vm=detailed&sb=Title

Graph II.5.1: One to four-step ahead revision standard deviations (x 100) for four different time horizons (1)



(1) The time horizons in the x-axis correspond to the years considered to calculate the standard deviation in the revisions of the CAB estimates reported in the y-axis. For instance, the standard deviation of the CAB estimate corresponding to the time horizon 1 covers the differences in the CAB estimated for the years 2008 (using the autumn 2009 and the autumn 2008 forecast), the year 2007 (using the autumn 2008 forecast and the autumn 2007 forecast), etc. till the year 2000 (using the autumn 2001 forecast and the autumn 2000 forecast). Time horizon 2 covers the years 2007 (using the autumn 2008 forecast and the autumn 2007 forecast), etc. till the year 2001 (using the autumn 2002 forecast and the autumn 2001 forecast).

Source: Commission services.

5.2. THE PRO-CYCLICAL NATURE OF DISCRETIONARY MEASURES AFFECTING TAX REVENUES

The data collected by the Commission services on the impact of discretionary measures on tax

revenues in the context of the Output Gap Working Group can be used to better understand recent tax policy changes (see European Commission, 2009 for a description of the database). Before 2008 many EU countries benefited from substantial tax revenue windfalls and relatively high apparent tax elasticities. This led some to introduce generous

tax breaks which, with hindsight, proved to be unaffordable in the aftermath of the 2008/2009 global financial crisis. Graphs II.5.2-II.5.5 provide an illustration of the recent evolution of apparent tax elasticities and the output gap, with the latter measuring the business cyclical position for a limited set of countries. ⁽⁷⁰⁾ Total tax revenues and apparent tax elasticities, both gross and net of the effect of discretionary measures for each broad tax category are reported for selected countries. The net elasticities are derived using the proportional adjustment method described in European Commission (2009). For each tax category, the tax base used is nominal GDP in order to ensure direct comparability with the OECD/Commission tax elasticities used to calculate the cyclically adjusted balance, as depicted in Graphs II.5.2-II.5.5. ⁽⁷¹⁾ Apparent tax elasticities appear to be very volatile in the short-run and can sometimes depart substantially from the OECD/Commission benchmark. In certain cases, however, the impact of discretionary measures on the tax elasticity is large, yielding some substantial discrepancies between net and gross elasticities in these cases. Graph II.5.2 depicts the results for the apparent elasticity of direct taxes with respect to GDP in selected countries. Both net and gross elasticities appear to be very volatile and tend to fluctuate around the OECD/Commission benchmark elasticities, reflecting general business cycle variations as shown by the output gap values. Graph II.5.3 shows the results of an equivalent exercise for a different set of countries and indirect taxes. Again, high volatility of apparent tax elasticities can be seen with some significant departures from the OECD/European Commission benchmark also being due to the overall output variations as indicated by the values of the output gap. Graph II.5.4 which shows tax elasticities of Social Security Contributions shows lower volatility for both net and gross elasticities and a smaller impact of discretionary measures on the tax elasticities. Graph 4 plots gross and net apparent elasticities of the total tax revenues for a larger sample of countries and also shows that, while gross and net tax elasticities are often highly

correlated, the incidence of discretionary measures can in some years be rather large and drive to sizeable discrepancy between the two series. ⁽⁷²⁾

Graphs II.5.2-II.5.5 can be used to illustrate the pro or counter-cyclical nature of discretionary measures. For instance, for a given level of output growth, tax cuts will result in the net tax elasticity being higher than the gross elasticity, as the change in tax revenues in the gross case includes the tax cut while the change in tax revenues in the net case does not. Similarly, in case of a tax increase, the net tax elasticity will be lower than the gross tax elasticity. ⁽⁷³⁾ Graph II.5.4 concerning total taxes shows that discretionary measures tended to be counter-cyclical in Italy in 2003, counter-cyclical in France in 2004-2005, and in the Czech republic in 1998-2003, while they tended to be pro-cyclical in Malta in 2004-2005. ⁽⁷⁴⁾

⁽⁷²⁾ The correction of tax revenues taking into account the entire series of discretionary measures yields tax elasticities net of discretionary measures which can depart significantly from the gross tax elasticities series as shown by the Czech case. This reflects the fact that discretionary measures can have long-lasting effects and thus can affect tax elasticities over long periods of time.

⁽⁷³⁾ Apparent net tax elasticities are higher than the gross tax elasticities when discretionary measures imply a negative variation of tax revenues (i.e. a tax cut) and lower when discretionary measures represent a tax revenue increase. To see this, one can consider the simple case where the change in tax revenues is observed over a two years period, between t and t-1, such that net tax elasticities in year t-1 is A_{t-1} . It can be written as follows using the proportional adjustment method, assuming that the year t represents the base year:

$$A_{t-1} = T_{t-1} \frac{T_t}{T_t - DM_t}$$

. T_t is the gross tax level and DM_t is the discretionary measure in year t (i.e. the base year). The variation in tax revenues net of discretionary measures between t-1 and t will be larger than the variation of gross tax revenues,

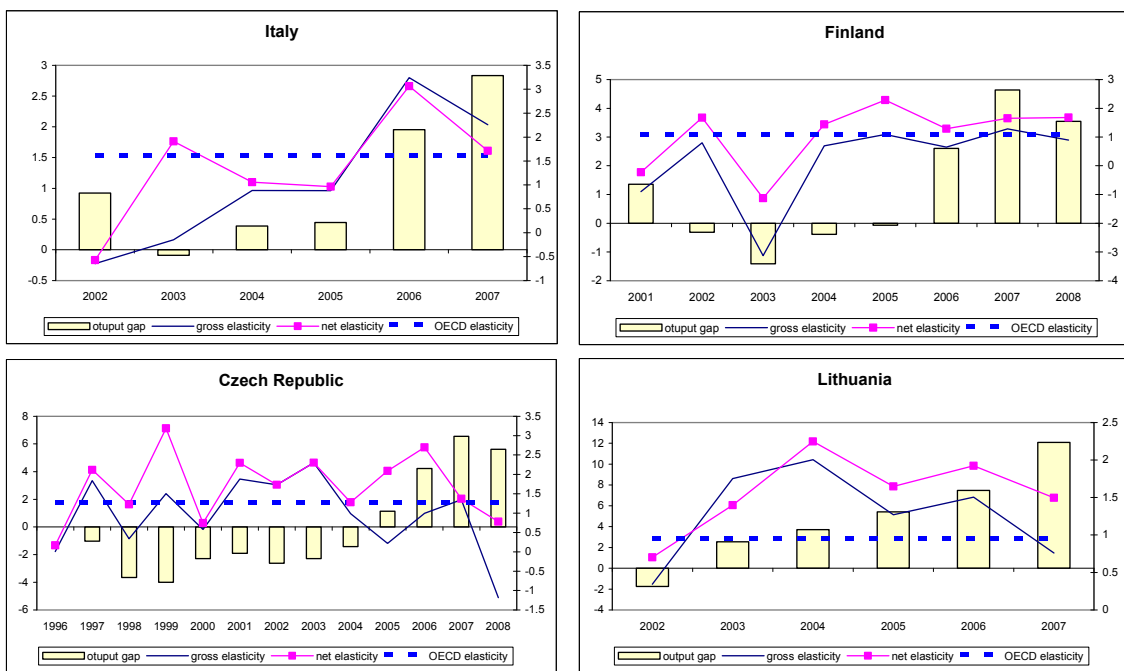
$$\text{i.e., } \Delta A_t > \Delta T_t \text{ if } \frac{T_t - T_{t-1}}{T_t - DM_t} > \frac{T_t - T_{t-1}}{T_t} \text{, i.e., if } DM_t < 0 \text{ Conversely, } \Delta A_t < \Delta T_t \text{ if } DM_t > 0.$$

⁽⁷⁴⁾ Following the explanation given above, during expansionary phases of the cycle, pro-cyclical discretionary measures would yield negative tax revenue variations and thus higher net tax elasticities than in a no-policy change scenario while during slowdowns discretionary measures would yield positive tax revenue variations compared to a no-policy change scenario, thus resulting in lower net tax elasticities. In both cases net tax elasticities changes would amplify variations in gross tax elasticities and this would, in principle, yield larger variance.

⁽⁷⁰⁾ Apparent tax elasticities have therefore been computed by dividing the annual growth of the revenue series (both gross and net) with the nominal GDP annual growth rate.

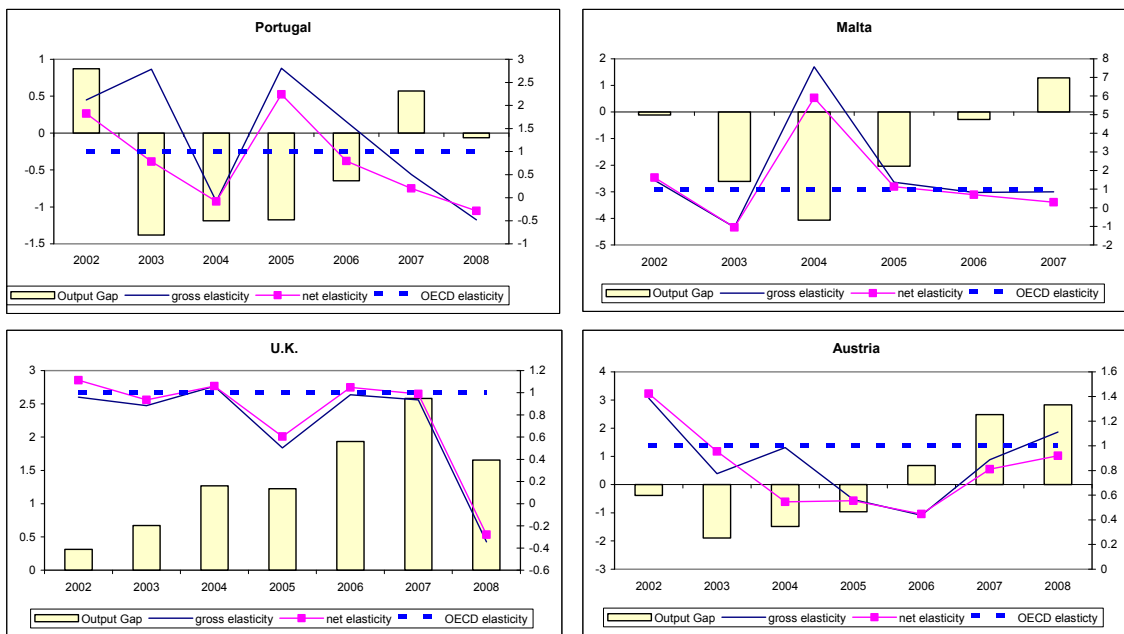
⁽⁷¹⁾ The OECD/Commission tax elasticities are available in European Commission (2006), Public Finances in EMU 2006, Directorate General for Economic and Financial Affairs, European Commission.

Graph II.5.2: Gross and net (for the impact of discretionary measures) tax elasticities to GDP and output gap: direct taxes



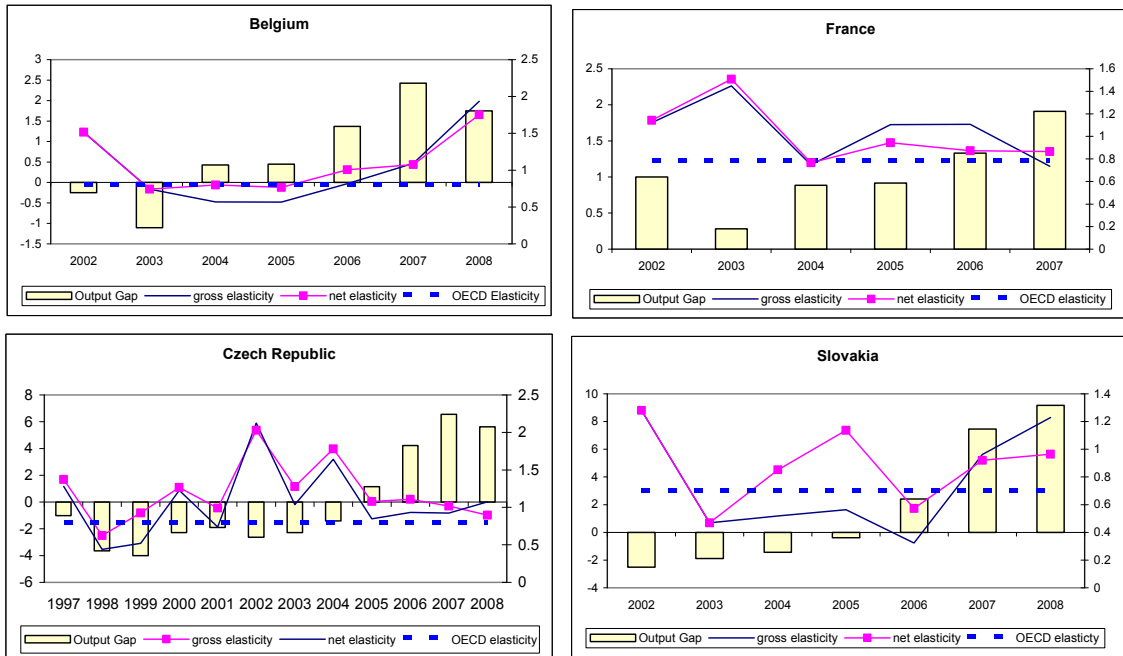
Note: output gap expressed in percentage of potential output
Source: Commission services.

Graph II.5.3: Gross and net (for the impact of discretionary measures) tax elasticities to GDP and output gap: indirect taxes



Note: output gap expressed in percentage of potential output
Source: Commission services.

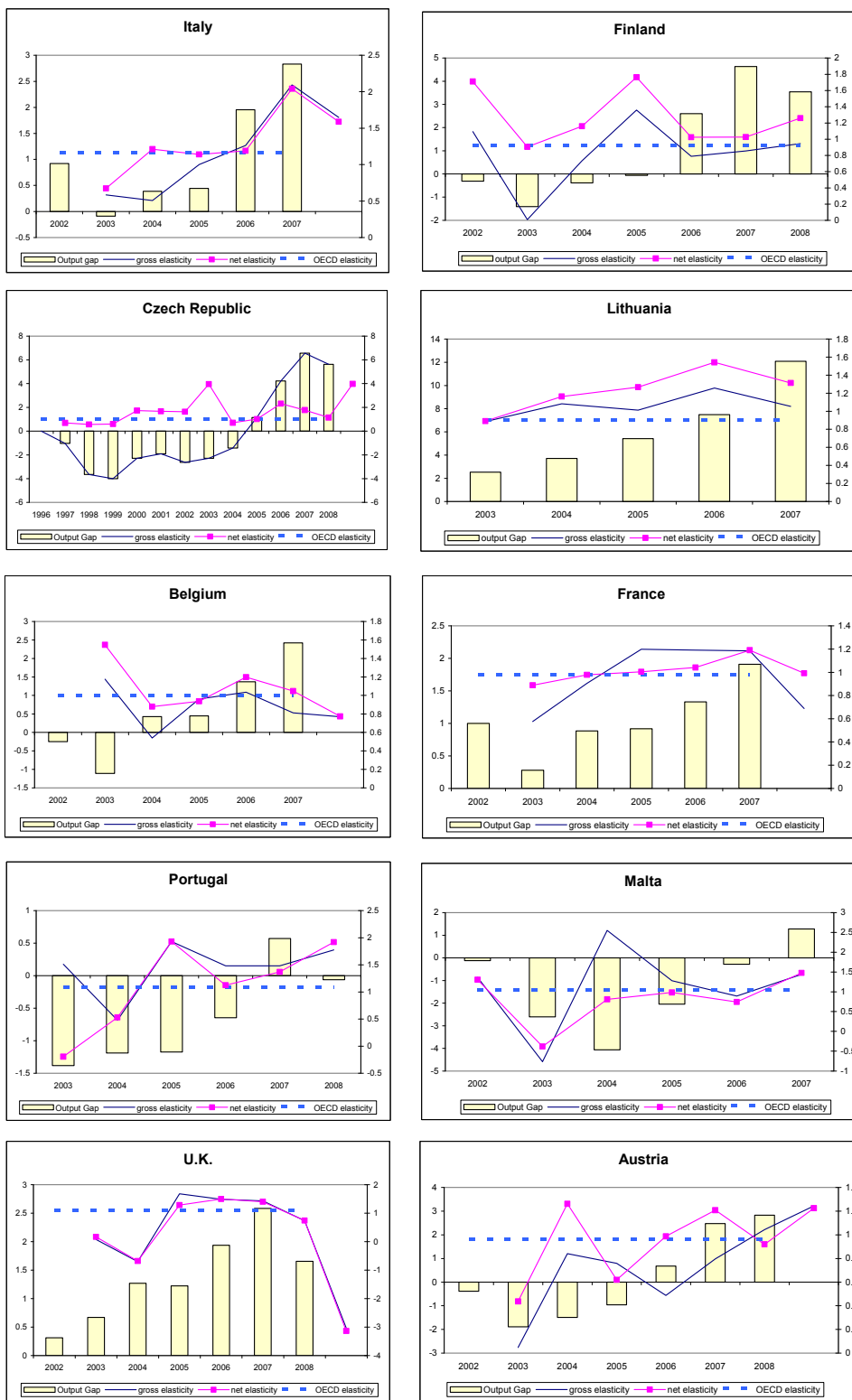
Graph II.5.4: Gross and net (for the impact of discretionary measures) tax elasticities to GDP and output gap: social security contributions



Note: output gap expressed in percentage of potential output

Source: Commission services.

Graph II.5.5: Gross and net tax elasticities to GDP and output gap: total tax revenues



Note: output gap expressed in percentage of potential output
Source: Commission services.

The descriptive evidence provided above does not, in itself, provide a clear picture on the overall pro- or counter-cyclical nature of discretionary measures affecting tax revenues. One difficulty is that in most cases the time span available does not cover a full business cycle. A more consistent way to look at the pro or counter-cyclical nature of discretionary measures is to consider their relationship with the output gap using econometric estimations with the dependent variable being the estimated impact of discretionary measures on tax revenues (in percent of GDP) and with the output gap being included as main explanatory variable as of interest.⁽⁷⁵⁾ A negative correlation coefficient would suggest that discretionary measures are pro-cyclical and a positive coefficient that they are counter-cyclical. The analysis has been carried out by pooling data across countries and years in order to overcome the constraints of the short time scale. Only countries covering a sufficiently long time period for each tax category are used in order to capture any cyclical pattern of discretionary measures. The period covered by the estimations is 2001-2007 and the countries included are Belgium, the Czech Republic, Finland, France, Lithuania, Malta, Sweden and the UK. The following equation has been estimated for this sample of countries:

$$DM_{i,t} = \beta_0 + \beta_1 OG_{i,t-1} + \varepsilon_{it} \quad (1)$$

where $DM_{i,t}$ indicates the variation in tax revenues as a result of discretionary measures in percentage of GDP in country i in year t and $OG_{i,t-1}$ is the business cycle position which is represented by the level of output gap in year $t-1$.⁽⁷⁶⁾ The term $\varepsilon_{i,t}$ is an error term which can be decomposed into two subcomponents:

$$\varepsilon_{i,t} = \alpha_i + \lambda_{i,t} \quad (2)$$

⁽⁷⁵⁾ The lagged output gap is used instead of the actual value in order to account for the potential lag in fiscal policy setting and to avoid endogeneity issues. Section II provides a discussion and references on this point.

⁽⁷⁶⁾ As is usual in the fiscal policy literature analysing the link between the fiscal stance and the business cycle, the output gap is observed in $t-1$, as that the fiscal stance measures the difference in budgetary position between year t and $t-1$. In addition, the use of lagged output gap reduces the potential endogeneity of discretionary measures affecting tax revenues. See in particular, European Commission (2006), Public Finance Report in EMU-2006, (Directorate General for Economic and Financial Affairs) for a review of the literature.

The coefficient α_i represents an unobserved country specific-effect and $\lambda_{i,t}$ is an error term which is assumed to have the *i.i.d.* properties. In order to remove the unobserved country-specific components which could influence the relationship between discretionary measures and the business cycle, equation (1) has been estimated using a panel fixed (within) estimator which allows the removal of these unobserved effects. The results of the estimation of Equation (1) are reported in Table II.5.1. It presents results for discretionary measures concerning all taxes categories as well as for each tax category separately. Column (1) of Table II.5.1 shows that the sign of the coefficient on the lagged output gap is negative and significant, indicating that discretionary measures tend to increase tax revenues when the output gap is lower and to decrease tax revenues when the output gap is higher, thus suggesting that discretionary measures affecting total taxes are on average pro-cyclical for the sample of countries and period covered.

Column (2) of Table 2 includes additional control variables that are usually considered in the fiscal policy literature. These variables include two fiscal indicators: the level of debt and the budgetary position in year $t-1$. The expected sign of the estimated coefficients is positive on the debt variable and negative on the net lending position (assuming that discretionary measures are taken for fiscal consolidation, i.e. to reduce deficit and debt levels). In addition to the fiscal variables, two other variables are used: a dummy variable indicating whether in year $t-1$ general elections took place in country i and an indicator measuring the quality of fiscal governance, which has been found to be relevant in the literature studying the pro-cyclical nature of fiscal policy.⁽⁷⁷⁾ A higher value for this variable indicates better fiscal governance. The expected sign on the election variable is negative if tax reductions are used for electoral purposes. The results of the estimation of the link between the output gap and discretionary measures, controlling for these other potential determinants, are reported in Column (2) of Table 2 and show that the relationship between the

⁽⁷⁷⁾ For a description of the database on fiscal governance, see also European Commission (2006), Public Finance Report in EMU-2006, (Directorate General for Economic and Financial Affairs). For evidence regarding the role played by fiscal institutions on the cyclicity of fiscal policy, see Debrun et al. (2008).

Table II.5.1: Econometric estimation of the link between the output gap and discretionary measures. Panel (fixed-effect) estimations

	Total taxes		Direct taxes		Indirect taxes		Social security contributions	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Output gap	-0.046*** (0.009)	-0.034*** (0.01)	-0.034*** (0.007)	-0.031*** (0.008)	-0.007 (0.004)	-0.004 (0.005)	-0.001 (0.002)	0.000 (0.003)
Debt		-0.001 (0.006)		-0.004 (0.005)		0.001 (0.003)		0.001 (0.002)
Net lending		-0.047*** (0.015)		-0.014 (0.013)		-0.009 (0.008)		-0.008* (0.004)
General elections		-0.056 (0.044)		-0.037 (0.038)		-0.022 (0.025)		0.002 (0.013)
Fiscal rules		0.045 (0.066)		-0.017 (0.056)		0.025 (0.037)		0.028 (0.019)
Constant	-0.054** (0.022)	-0.092 (0.294)	-0.101*** (0.017)	0.105 (0.253)	0.026** (0.011)	-0.045 (0.164)	0.004 (0.006)	-0.055 (0.085)
Observations	55	55	55	55	55	55	55	55
Number of country	8	8	8	8	8	8	8	8
R-squared	0.38	0.54	0.36	0.41	0.06	0.12	0.01	0.13
F test for fixed effects	4.66***	2.27**	2.57**	1.53	3.43***	2.43**	2.16*	0.86

Notes: Standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. The period covered by the estimations is 2001-2007 and the countries are Belgium, the Czech republic, Finland, France, Lithuania, Malta, Sweden and the UK.

Source: Commission services.

lagged output gap and discretionary measures remains negative and significant. The value of the coefficient decreases slightly suggesting that the additional control variables considered capture a small part of the link between discretionary measures affecting tax revenues and the business cycle. None of the other variables included in the equations are significant, however, excepting the net lending variable which displays a negative sign suggesting that countries with a deteriorated budgetary balance in year t tend to adopt discretionary measures that increase tax revenues, thus pointing to fiscal consolidation. Similar estimations are undertaken for each tax category separately in Columns (3) to (8).

The results indicate that only direct taxes display the same pro-cyclicality result as total taxes. This result, together with a detailed inspection of the data reported by the Member States, could possibly suggest that direct taxes are more frequently used in a pro-cyclical way to lower the tax burden during good times and to increase it during bad times, compared to other tax categories. The limited sample of countries and time periods considered, however, means that these results should be interpreted with caution and further robustness checks should be conducted over longer time spans and for more countries, when internationally comparable data become available.

6. CORRECTING THE CYCLICALLY-ADJUSTED BUDGET BALANCE FOR CURRENT ACCOUNT IMBALANCES

6.1. INTRODUCTION

Over the past decade, a number of EU countries experienced absorption booms involving phases of buoyant domestic demand that were coupled with widening current account deficits.⁽⁷⁸⁾ When the external imbalances underwent a sharp correction following the global crisis, the fiscal position also abruptly shifted to expose very large deficits.

This section discusses ways to construct indicators for the conduct of fiscal policy, which take both the impact of the economic cycle and the movements in absorption, and therefore the current account, into consideration. Compared with the conventional cyclically-adjusted budget balance (CAB), correcting budgetary indicators for absorption booms and busts it improves the assessment of the structural fiscal balance in countries experiencing large swings in their current account. It could contribute to an appropriate calibration of the fiscal impulse.

6.2. ADJUSTING THE CAB FOR CURRENT ACCOUNT IMBALANCES

There are a number of well documented difficulties in assessing the structural budgetary position using the CAB. Alongside the inherent difficulties of measuring the cycle in real time, revenue elasticities may also fluctuate during the cycle, leading to an incorrect distinction between the cyclical and the structural component of budget balances. In particular, in countries experiencing fast growth of domestic demand, and therefore growing current account deficits and higher than normal tax elasticities have contributed to artificially pushing up cyclically-adjusted balances.

Introducing improvements in the CAB is not an easy task. Despite a consensus that the CAB may not always send the right signals due to fluctuating revenue elasticities, there has been at best partial progress on this issue. The CAB approach employed in EU budgetary surveillance measures

the cycle using the output gap and adjusts the budgetary totals using constant elasticities with sensitivities that vary in proportion with the share of the budgetary components in GDP.⁽⁷⁹⁾ The elasticities capture the percentage change of budgetary items associated with a percentage output change while the sensitivities measure the value changes in budgetary items associated with value changes in output. This approach implicitly assumes that the impact of the cycle on revenues is not strictly constant, but varies only in proportion of changing revenue composition. The composition of tax bases is assumed to play no role. An alternative approach is to take cycles in the different tax bases into account, by considering the gaps between the actual and the filtered value of tax bases.⁽⁸⁰⁾ This approach can take into account whether tax bases are unusually high or low compared with their trend. However, the benchmark tax base composition where all tax bases are in line with their trend has no strong conceptual underpinning and neglects the possibility of structural transformations that may lead to lasting adjustments in tax bases.

The main idea behind the fiscal indicator adjusted to take into account the impact of absorption boom and busts which is developed in this section, is that the definition of a well-founded benchmark for the composition of tax bases can be naturally related to a country's need to maintain prudent current account positions. The implicit assumption in the CAB is that all tax bases are linked to production (output). Hence the underlying budgetary position is computed by purging the budget balance from the effects resulting from output being different from potential. However, as discussed above, a sizeable share of taxes is linked to domestic demand (absorption) rather than output. For this reason a cyclically and absorption adjusted budget balance (CAAB) where "gaps" not only in output but also in absorption play a role is desirable.

In line with the approach proposed by Jaeger and Klemm (2007), the purpose is to strip out the automatic effects of both output and domestic

⁽⁷⁸⁾ See Part IV for a discussion of fiscal policy in the context of absorption booms and busts.

⁽⁷⁹⁾ See Part II.5 for recent improvements in CAB measurement and European Commission (2006) Box II.3 for more details on the development of the CAB over time.

⁽⁸⁰⁾ For more information, see Bouthevillan et al. (2001).

demand (absorption) from the actual balance. A meaningful notion of "absorption gap" should capture the difference between actual and "potential" absorption, where "potential" absorption is the level of absorption when the country's current account balance is in line with fundamentals. A common benchmark for current accounts is provided by so-called "current account norms", namely current account values consistent with medium-term determinants of the saving-investment balance (e.g., Chinn and Prasad, 2004; Lee et al., 2008).

The box, below, presents details on the computation of the CAAB. Regarding the determination of the parameters linking the output gap and the absorption gap to the CAAB, a natural benchmark is provided by the shares of direct and indirect taxes. While direct taxes are linked to incomes and therefore to value added (GDP), the tax base of indirect taxes is more strongly correlated with absorption because indirect taxes are levied on consumption and imports. Sensitivity parameters determined in this way are used to estimate the automatic response of the budget to output and absorption gaps.

Both output and absorption gaps are assumed to be temporary as they both imply a deviation from fundamentals, and are therefore netted out when calculating the CAAB. The CAB and CAAB will evolve in parallel if output gaps move in line with absorption gaps and if there are no major fluctuations in indirect taxes.

6.3. RESULTS

Based on the formula in the Box, we calculated the CAAB indicator for the 27 EU countries. Results in table II.6.1, below, show that, although in most cases the two indicators present a similar picture and tend to evolve in parallel, in some cases the divergence is large. These cases correspond to those countries where the current account underwent periods of exceptionally large deficits or surpluses.

Table II.6.1: CABS and CAABS in EU countries

	CAAB						CAB					
	2005	2006	2007	2008	2009	2005-09	2005	2006	2007	2008	2009	2005-09
BE	-2.7	-0.2	-1.1	-2.2	-4.7	-2.2	-2.9	-0.4	-1.4	-2.0	-4.5	-2.3
BG	-1.1	-1.8	-5.6	-4.2	-1.3	-2.8	0.8	1.7	-1.5	0.0	-2.8	-0.4
CZ	-3.8	-4.1	-3.0	-4.1	-5.5	-4.1	-3.9	-4.0	-2.9	-4.5	-5.1	-4.1
DK	5.0	3.7	3.2	3.6	1.3	3.4	4.7	3.5	3.1	3.3	0.6	3.0
DE	-2.0	-1.3	0.0	-0.5	-1.2	-1.0	-2.7	-2.2	-1.2	-1.5	-1.8	-1.9
EE	-0.2	-1.7	-2.7	-4.7	0.8	-1.7	0.3	0.0	-0.7	-4.1	1.3	-0.6
IE	0.3	1.4	-2.4	-7.7	-9.7	-3.6	0.9	2.1	-1.6	-7.0	-11.4	-3.4
EL	-6.4	-4.9	-6.4	-9.8	-13.2	-8.2	-5.6	-4.7	-7.0	-9.6	-14.1	-8.2
ES	0.6	1.0	0.4	-5.1	-10.0	-2.6	1.0	1.6	1.2	-4.4	-9.6	-2.1
FR	-3.4	-3.0	-3.7	-4.1	-7.7	-4.4	-3.4	-3.0	-3.7	-3.7	-6.2	-4.0
IT	-4.5	-4.3	-2.9	-3.6	-3.7	-3.8	-4.6	-4.4	-3.0	-3.3	-3.3	-3.7
CY	-3.4	-2.7	0.2	-3.7	-6.2	-3.2	-2.2	-1.3	2.5	-0.4	-5.8	-1.4
LV	-2.6	-5.9	-7.3	-7.6	-4.9	-5.7	-1.5	-3.2	-4.5	-6.4	-6.3	-4.4
LT	-2.3	-3.2	-5.7	-7.5	-6.6	-5.0	-1.8	-2.1	-3.7	-5.7	-6.7	-4.0
LU	-0.1	0.2	1.1	1.1	-0.2	0.4	-0.3	0.1	1.1	2.0	1.2	0.8
HU	-8.9	-11.1	-6.3	-5.0	-1.1	-6.5	-8.7	-10.9	-6.4	-5.1	-2.2	-6.7
MT	-3.6	-4.0	-3.8	-6.4	-4.6	-4.5	-2.5	-2.5	-2.5	-4.9	-3.1	-3.1
NL	0.9	1.0	-0.5	-0.7	-3.2	-0.5	0.3	0.3	-1.0	-0.5	-3.6	-0.9
AT	-0.7	-1.5	-1.2	-1.1	-2.9	-1.5	-1.3	-1.9	-1.6	-1.7	-2.4	-1.8
PL	-3.5	-3.9	-3.0	-4.8	-5.8	-4.2	-3.9	-4.0	-2.8	-4.6	-6.9	-4.4
PT	-6.2	-4.4	-3.6	-3.7	-7.1	-5.0	-5.7	-3.7	-3.0	-2.9	-8.3	-4.7
RO	-3.1	-5.3	-6.4	-9.2	-7.5	-6.3	-2.2	-4.1	-4.7	-8.2	-7.8	-5.4
SI	-1.5	-2.4	-2.8	-4.9	-5.1	-3.3	-1.6	-2.6	-2.9	-4.8	-3.8	-3.1
SK	-3.4	-4.6	-4.2	-5.4	-7.0	-4.9	-2.5	-3.9	-3.7	-4.5	-6.4	-4.2
FI	3.4	3.4	3.6	3.0	-0.8	2.5	2.6	2.8	2.6	2.1	0.3	2.1
SE	2.3	2.2	3.8	3.9	1.7	2.8	1.0	0.3	1.6	1.4	1.9	1.3
UK	-3.9	-3.7	-3.9	-5.6	-10.2	-5.4	-4.0	-3.5	-3.9	-5.7	-9.7	-5.4

Source: Commission services.

Box II.6.1: Estimating cyclically and absorption-adjusted budget balances

The CAAB is calculated as the difference between the actual budget balance and two terms measuring the output gap and the absorption gap, respectively. Denoting by b , b^* and b^{**} the government balance, the CAB, and the CAAB, respectively, by y and y^* actual and potential output, by $ygap$ the output gap and by $agap$ the absorption gap, by a and a^* absorption and potential absorption, by ca^* the current account norm and by it the sum of net foreign income and net transfers, the following equations can be derived (some second-order terms are ignored for simplification):

$$\begin{aligned} (1) \quad & (b^*/y^*)_t = (b/y)_t - \lambda \, ygap_t \\ (2) \quad & (b^{**}/y^*)_t = (b/y)_t - \beta \, ygap_t - \gamma \, agap_t \\ (3) \quad & agap_t = [(a_t - a^*)/y^*], \\ (4) \quad & a^*_t = y^*_t - ca^*_t + it_t \end{aligned}$$

From equations (1) and (2) it is evident that the difference between the CAB and the CAAB originates from two sources: (i) the fact that the CAAB also subtracts also the impact of the absorption gap from the budget balance; (ii) the different sensitivity of the CAAB to the output gap (denoted by λ and β for the case of the CAB and the CAAB, respectively). With the CAAB approach, a part of the revenues is assumed to be linked to absorption rather than to output and parameters are set so as to avoid double counting. A natural benchmark for determining the sensitivity parameters to output, β , and absorption, γ , in equation (2) is to use the shares in GDP of, respectively direct and indirect taxes, so that $\beta = \lambda - \gamma$, where λ is the standard budgetary sensitivity used in EU budgetary surveillance and γ is the share of indirect taxes in GDP. This has the implication that:

$$(5) \quad (b^{**}/y^*)_t = (b^*/y^*)_t - \gamma(agap_t - ygap_t)$$

Most of the variables used for the computation of CAABs were obtained from the DG ECFIN AMECO database. Regarding the computation of current account norms, the approach followed is akin to that in Chinn and Prasad (2003) and Lee et al. (2008). Regressions of the current account/GDP ratios on a set of explanatory variables were carried out on pooled data from 60 industrial and emerging economies over the 1970–2009 period. To smooth out cyclical variations and address the issue of reverse causation, the data were transformed into time-averages over 4-year non-overlapping sub-periods. The estimated current account norms were obtained as the linear predictions from those estimated.

The explanatory factors, aimed at capturing the determinants of the balance between national savings and investment over the medium-to-long term, were chosen as follows:

- **General government budget balance/GDP ratio.** The higher the government budget balance surplus, the higher national savings and therefore the current account balance. Source: AMECO complemented by IMF, World Economic Outlook database.
- **Old-age dependency ratio** (the fraction of population older than 65 years over the working-age population, defined as those between 15 and 64 years old). Life-cycle consumption theory predicts that the higher the old-age dependency ratio, the lower the share of savings on GDP and the current account/GDP ratio. Source: AMECO, complemented by United Nations.
- **Real GDP per capita at purchasing power parity (PPP)** (ratio with respect to US). Countries with relatively high (low) per-capita GDP are more likely to lend (borrow) to (from) other countries, and to run, *ceteris paribus*, a higher current account surplus (deficit). Source: Penn World Tables (data beyond 2004 projected forward using GDP per-capita growth rates from AMECO).

Real GDP per capita growth. Countries characterised by relatively high (low) growth rates of GDP per capita are more likely to borrow (lend) from (to) other countries, and to run, *ceteris paribus*, lower

(Continued on the next page)

Box (continued)

current account surpluses (deficits). Source: AMECO complemented by World Bank, World Development Indicators.

- **Net foreign asset/GDP ratio** (value at the beginning of each 4-year sample sub-period). A high stock of net foreign assets implies, *ceterisparibus*, higher net investment income and therefore higher current account surpluses on GDP. Source: AMECO, complemented by IMF, Balance of Payments data.
- **Oil balance** (percentage difference between oil barrels per year produced and consumed). In light of the price rigidity of the demand for oil, a higher imbalance between oil consumption needs and production capacity translates into a higher current account deficit. Source: BP and US Energy Information Administration.

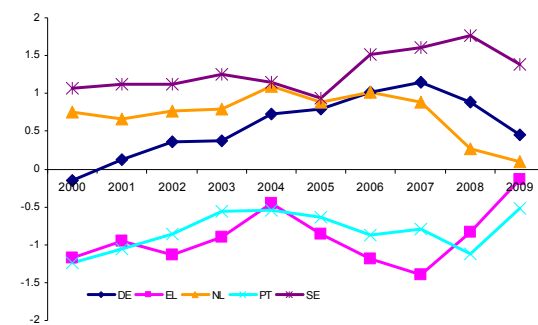
The estimated current account norms indicate that for relatively high income countries like Belgium, Germany and the Netherlands small deficits or surpluses are expected, while larger deficits are expected for relatively low income, catching up economies.

Graphs II.6.1 and II.6.2 illustrate the evolution in the difference between the CAAB and the CAB since 2000 in selected countries. The first graph depicts the case of selected Euro Area countries. It suggests that the underlying fiscal position at the outset of the crisis (2007–08) was significantly worse according to the CAAB than according to the CAB in Greece and Portugal, countries that were experiencing sizable current account deficits at that point in time. Symmetrically, in countries that were accumulating surpluses in the years before the crisis, like Germany, the Netherlands, and Sweden, the underlying budgetary position estimated by the CAAB appears stronger than that revealed by the CAB. This evidence suggests that an assessment of the underlying fiscal position based on the CAAB could have helped develop policies that were more consistent with a prudent development of external imbalances and which could have contributed to containing intra-Euro Area current account and competitiveness divergences.

Graph II.4.2 depicts the evolution of the CAAB and the CAB for selected New Member States: Bulgaria, the Baltic countries and Romania. In the past decade, all these countries underwent boom-bust dynamics fuelled by rapid financial integration and abundant capital inflows. Absorption grew at very high rates and current account deficits reached record values between 2007 and 2008, while the global crisis was accompanied by major current account reversals linked to capital outflows and major contractions

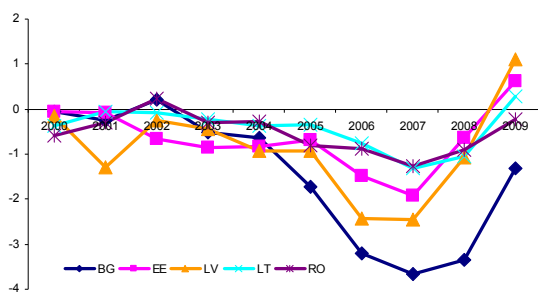
in absorption. During the boom years, the underlying fiscal position in these countries would have looked considerably less optimistic if judgement were based on the CAAB. In the case of Bulgaria the difference between the CAAB reached almost 4 percent of GDP; in the case of Latvia it reached about 2.5 percent. Such an assessment could have contributed to more prudent fiscal policies during the boom years.

Graph II.6.1: Difference between CAAB and CAB, selected euro-area countries



Source: Commission services

Graph II.6.2: Difference between CAAB and CAB for selected New Member States



Source: Commission services

6.4. CONCLUSION

Correcting budget balances for the impact of absorption booms and busts affecting the budget that are not netted out from conventional CAB indicators to be taken into account improves the measurement of the structural (underlying) budget position.

A meaningful indicator complementing conventional CAB measures in fiscal surveillance could be based on a notion of "absorption gap", building on the fact that current account balances cannot permanently deviate from values consistent with fundamentals. This section of the report develops the notion of a cyclically and absorption adjusted budget balance (CAAB) with the following desirable properties:

- it is based on sound foundations. Both the output gap and the absorption gap are calculated relative to well identified benchmarks (potential growth, and the current account norm);
- it is easy to compute and interpret;
- it addresses the issue of the fluctuating composition of tax bases, thus usefully complementing the standard CAB.

Overall, the CAB and the CAAB move in parallel. However, in countries with large deficits or surpluses in the current account, there can be substantial divergences between the two measures. This is evident in looking at the pre-crisis period. The CAAB of Member States with large current account deficits was in many cases more than 1 percentage point lower than the CAB. Conversely, in countries with large current account surpluses, the CAAB was considerably higher than the CAB.

As an instrument to calibrate the fiscal impulse, targeting the CAAB rather than the CAB can aid the containment of boom-bust dynamics and the reduction of large external imbalances via a more effective use of fiscal policy. However, it should be considered that the CAAB captures only the direct effect of the absorption booms and busts on the tax bases. Indirect effects through for example the inflation of nominal GDP through unsustainable wage and price increases are not captured. Part IV discusses the wider direct and indirect effects of boom and bust cycles and external imbalances on fiscal indicators.

Part III

Fiscal policy, debt reduction and growth after the crisis

SUMMARY

Since the onset of the economic and financial crisis, increased deficits, low, and even negative, economic growth and support measures for the financial sector have led to sharply rising government debt ratios. According to the Commission Spring forecasts, the government debt-to-GDP ratio is set to increase across the EU by 25 percentage points between 2007 and 2011. This is in line with increases during previous systemic financial crises and many EU countries have experienced comparable rises in debt in 70s, 80s or 90s. Section III.1 discusses the characteristics of previous episodes of debt increases and the consolidation episodes that followed them. It highlights the fact that, as the consolidations undertaken in the past were only partially successful in stemming or reversing the debt increases, the overall starting level of debt is now higher than during previous episodes, adding to the pressure on the public finances.

Moreover, debt is on course to continue increasing beyond 2011. Section III.2 presents illustrative partial equilibrium debt projections up to 2020 and considers the effect of various consolidation and economic scenarios on the trajectory of debt. Even with a phasing out of the stimulus measures, a cyclical recovery in growth bringing with it a rebound in tax revenues, debt ratios would continue rising in most EU countries reflecting the extent of the deterioration in the structural budgetary position, and the incipient impact of ageing. Sustained and sizeable consolidation will be necessary in most Member States to halt and reverse the ongoing increase in government debt. For some Member States, the size of the required consolidation is unprecedented.

The need to reduce debt levels centres around their negative effect on economic growth. These are discussed in section III.3, which also presents the results of simulations of the effect of higher deficits and debt using the European Commission's dynamic stochastic general equilibrium model QUEST III. Economic theory presents three main channels through which government debt can affect long term growth: (i) a crowding out effect on private investment, as national savings are reduced and interest rates increase; (ii) an increase in distortionary taxes which are needed to service the debt; (iii) an increase in the risk premia paid by governments which increase the burden that debt presents. In some cases, the risk premium on

sovereign debt may feed through to corporate and household debt. Whether, and to what extent, these mechanisms operate in a given economy will depend on both the structure of the economy and the behaviour of economic agents. For realistic life expectancies, the effect on interest rates through the savings channel appears negligible in overlapping generations models. This even holds if the model includes liquidity constrained agents, provided that savers are forward-looking. The effect on growth thus comes largely through higher distortionary taxes and risk premia. The composition of the tax increases matters. The QUEST III model finds that for a 10 percentage point increase in the debt-to-GDP ratio, there is no effect on long term growth if interest payments are financed by (non-distortionary) lump sum taxes, while taxing corporate profits leads to 1½% lower output in the long run. If financed by labour taxes, the negative GDP effect is around ½%, while VAT is the least costly of the distortionary taxes. If the debt increase leads to an increase in the risk premium, the GDP effect may be much higher, especially if the risk premium also affects the private sector. If the economy-wide risk premium is calibrated to increase by 3 basis points per percentage point increase in debt, output may be between 2 and 8 percentage points lower in the long run, depending on the tax instrument used. In the current context, anticipation of projected higher debt ratios with the associated higher future tax burdens depresses growth also in the short run. Credible permanent consolidation may thus benefit from positive anticipation effects in the short run that partly offset the direct negative demand effects.

Given the importance of reducing the debt level and returning to sustainable public finances in the coming years, past experience has much to teach us in terms of how to ensure that fiscal consolidations are successful. While past increases in the public debt-to-GDP ratio have often, although not always, triggered fiscal consolidations, these consolidation episodes have not necessarily led to significant reductions in debt levels. The success of fiscal consolidations in reducing the debt-to-GDP ratio depends not only on the improvement of the primary fiscal balances, but also inter alia on growth, inflation and interest rate developments.

In this context, the Commission Communication "Europe 2020 – A strategy for smart, sustainable and inclusive growth" sets out some key principles to raise growth potential as fiscal consolidation is implemented. In particular it stresses that the composition and quality of government expenditure matters: budgetary consolidation programmes should prioritise 'growth-enhancing items' such as education and skills, R&D and innovation and investment in networks. The revenue side of the budget also matters and particular attention should also be given to the quality of the revenue/tax system. Where taxes may have to rise, this should, where possible, be done in conjunction with making the tax systems more "growth-friendly". For example, raising taxes on labour, as has occurred in the past at great costs to jobs, should be avoided. Rather Member States should seek to shift the tax burden from labour to energy and environmental taxes as part of a "greening" of taxation systems. Fiscal consolidation and long-term financial sustainability will need to go hand in hand with important structural reforms, in particular of pension, health care, social protection and education systems. Public administration should use the situation as an opportunity to enhance efficiency and the quality of service. Public procurement policy must ensure the most efficient use of public funds and procurement markets must be kept open EU-wide.

Econometric and model-based analysis confirms the core elements of the EU 2020 "growth-friendly" strategy for consolidation. Section III.4 first examines the empirical literature on the determinants of successful fiscal consolidations. It then gathers descriptive evidence on the success of fiscal consolidation in financial crises and with high debt levels and provides econometric evidence gauging the effect of specific factors and conditions on the probability of successful debt reduction, based on EU27 and some non-EU OECD countries over 1970-2008.

Overall, the literature indicates that unfavourable economic conditions, specifically, high initial debt levels are probably more likely to lead to successful consolidations. Expenditure based consolidations have better track record of success than ones based on tax increases, while gradual consolidations tend to have higher success rates than cold shower ones. Some of these results are

likely due to introduction of accompanying structural changes, which are seen as important determinants of whether consolidations are successful or not.

The global and financial aspect of the recession argues against an early and simultaneous exit from fiscal support, while the high levels of debt add urgency to consolidating before the rise in risk premia threatens government solvency. Econometric evidence shows that starting the consolidation after the financial crisis and implementing it in a gradual way is more likely to yield success. However, for high-debt countries there is evidence that a "cold shower" consolidation might be a preferable, owing to the snowball effect of debt (possibly intensified by the reaction of interest rates to the level and change in debt).

The magnitude of the consolidations required across the EU means that it is likely that a combination of spending and tax measures will be necessary. In introducing tax increases, it is important that the distortionary effects of taxation on growth, investment and employment are kept to a minimum, while ensuring that tax policy is able to contribute to other goals of public policy. The empirical literature emphasizes the importance of the tax structure for growth, but the design of individual taxes has an important role to play as well. Section III.5 discusses the issues that policy makers will need to consider in planning any tax increases, within the context of different systems and preference across the EU Member States.

Section III.6 presents results of QUEST model simulations, to look at the effects that the forthcoming consolidations might have on growth. The simulations point to significant effects of growth, although the magnitude depends on the nature of the consolidations and the presence of credit constraints, monetary accommodation and the assumptions made about fiscal policy in the rest of the world. Overall, when looking at the consolidations, the results point to much smaller short-term multipliers than for the fiscal stimulus under the EERP, if the consolidation measures are credibly perceived to be permanent. For a consolidation that is evenly composed of revenue and expenditure measures, a one percent improvement in the budget balance would

immediately lower output, by approximately 0.4 percent.

Countries facing high risk premia face the lowest costs of fiscal exit. In terms of the type of measures, on the revenue-side, consolidations through an increase in VAT appear to be the least growth unfriendly with GDP exceeding the baseline. The long run positive GDP effect is also largest in this scenario. Increases in the corporate profit taxes have the smallest short-term multiplier, but the largest long-term costs as a result of large adjustment costs of capital. Of the expenditure instruments, the main difference is between productive and unproductive spending. Reductions in government investment are most detrimental in the model and show the largest GDP losses, both in short and in the long run. The output costs of consolidations through cuts in transfers and government consumption are small as they are not productive and only serve distributional purposes in the model simulations.

Finally, section III.7 looks in more detail at three economic financial crises from the last 20 years, to gain an idea of how the horizontal lessons relate to experiences in these country cases.

The examples considered all start in the early 1990s and cover Finland, Sweden and Japan. These countries experienced rapid credit expansion, resulting in the creation of a financial bubble, followed by a financial crisis brought on by severe financial and private sector imbalances. They implemented very different strategies in response to the crisis, with different outcomes in terms of growth, growth potential, budget balances and debt. While Finland and Sweden returned to growth rates similar to, or higher, than those they enjoyed before the crisis, Japan has experienced lower growth and seen debt increase steadily. A key element in the difference between the three countries, was the strong and decisive government action that the Finnish and Swedish governments took from the early days of the crisis, in contrast to the more stop-go fiscal interventions and the long delay in addressing structural issues in the financial and corporate sectors in Japan which were put off until the third wave of the recession. But also exchange rate depreciation played an important role in the economic recovery and fiscal consolidation in Sweden and Finland.

1. EXPERIENCES WITH PAST EPISODES OF FAST DEBT INCREASE

Nearly all EU countries are expected to experience sharp rises in their debt level in the coming years with those countries primarily concerned being also those most directly affected by the 2008/2009 financial crisis. According to the Commission Spring 2010 forecast, the increase in the debt to GDP ratio between 2007 and 2011 should equal 25 percentage points of GDP on average in the EU, a figure in line with past experiences of systemic financial crises, see Graph III.1.1 and Graph III.1.2. A specific feature of the debt evolution compared to past experiences, however, is that in today's crisis EU countries started from higher debt levels. The countries expected to experience the sharpest rise in public debt (i.e., Ireland, the UK, Spain or Latvia) are those most exposed to the boom and busts cycle, with expenditure trends displaying unsustainable paths. For more details see European Commission (2009).

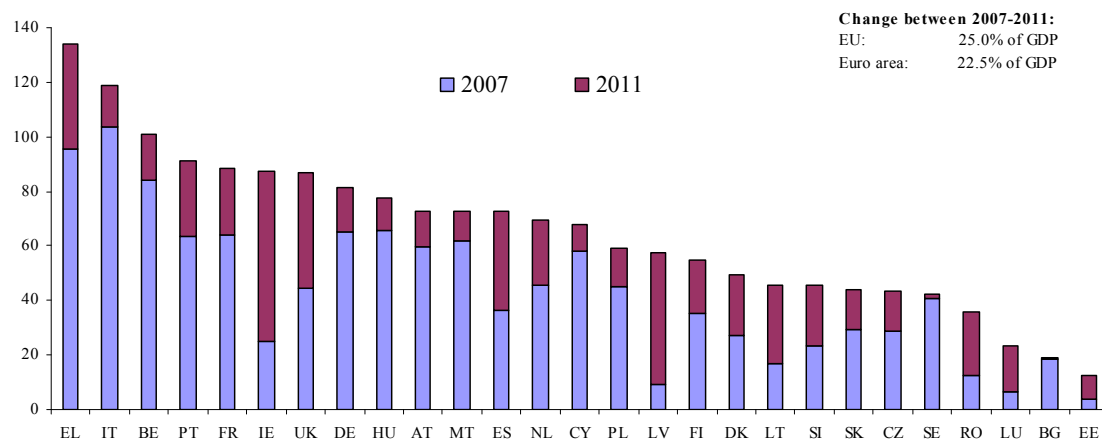
The magnitude of the debt increase foreseen during the 2007-2011 period is not unprecedented, however, as many EU countries experienced large debt rises in the wake of the two oil shocks in the 1970s and the 1980s. Graph III.1.3 illustrates this by plotting the evolution of the average debt to GDP ratio of countries having experienced major debt increases since 1970 (a major debt increase being defined here as an increase of at least 20 percentage points in the debt to GDP ratio over a period of five years, with this definition being chosen as it is close to the average EU-wide

increase in the current crisis). Compared to other large debt increase episodes, the current situation of the EU resembles that of Finland and Sweden during the 1990s, with pre-crisis period being preceded by a period of a stable or even slightly declining debt ratio, which can be explained by the favourable economic conditions that preceded the financial crises in both cases. Public debt to GDP ratios appear to rise very quickly in the aftermath of the eruption of a financial crisis (2008 for today's EU27 and 1991 for Sweden and Finland).⁽⁸¹⁾ By contrast, in previous non-financial crisis-related debt episodes, a increase in the debt ratio of a similar magnitude only occurred at a steadier pace over a much longer period of time.

More generally, since 1970 EU countries have experienced a growing number of large debt increase episodes, which have tended to start from higher levels of debt each time. Graph III.1.4 broadens the set of large debt increase episodes considered by defining large debt increase episodes by increases of at least 10 percentage points of GDP (against 20 percentage points in Graph III.1.3) over a (maximum) period of three

⁽⁸¹⁾ This result also corresponds to the econometric evidence presented in the European Commission (2009) showing that the bulk of the debt increase in the aftermath of a systemic financial crisis usually takes place during the first two years of such crisis. This also corresponds to the descriptive evidence reported in Reinhart and Rogoff (2008).

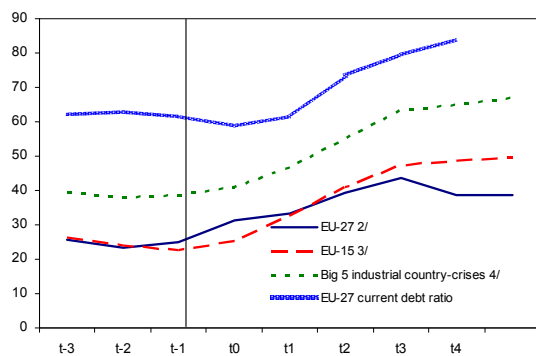
Graph III.1.1: Public debt in EU Member States, 2007-2011 (in % of GDP) 1/



Source: Commission services Spring 2010 forecast

years. This definition generally corresponds to the existing literature on large debt increases and will be used hereafter. Graph III.1.4 shows that the number of countries experiencing such large debt increases has tended to grow over time with the average starting debt level position also tending to rise. ⁽⁸²⁾

Graph III.1.2: Gross public debt crises episodes (% of GDP) during financial crises



1/ Weighted country averages. t0 = 2007 for EU-27 current debt ratio
2/ Includes financial crisis episodes in Czech Republic, Finland, Hungary, Latvia, Poland, Slovak Republic, Spain and Sweden. For new Member States data from 1991.
3/ Includes financial crisis episodes in Finland, Spain and Sweden.
4/ Includes financial crisis episodes in Finland, Norway, Sweden, Japan and Spain.
Source: Calculations based on IMF International Financial Statistics and AMECO (spring 2010 forecast)

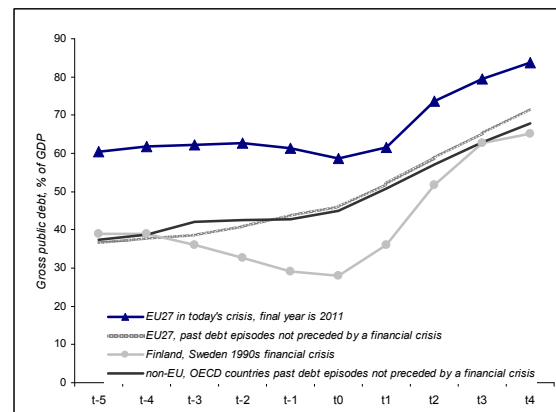
EU countries have usually relied on a variety of strategies to reduce their debt level in the aftermath of large debt increase episodes, either resorting to sharp consolidations, i.e. cold showers, or favouring more a gradual adjustment or even alternating between the two types of consolidation. The definition of a consolidation episode and the distinction between cold showers and gradual consolidation used here are the same as in the European Commission Public Finances Report, see European Commission (2007).

A fiscal consolidation is defined as an improvement in the cyclically adjusted primary balance (CAPB) of at least 1.5% taking place in one single year (cold shower) or taking place over three years (gradual consolidation) if each and every year the CAPB does not deteriorate by more than 0.5% of GDP. ⁽⁸³⁾ While the definition of a

⁽⁸²⁾ Ireland stands out as having entered the current crisis with very low debt to GDP ratio (i.e. 25.1% of GDP in 2007).
⁽⁸³⁾ Alternatively, the OECD defines the start of a fiscal consolidation episode as an improvement in the CAPB by

fiscal consolidation episode is quite homogenous across existing empirical studies, the success of fiscal consolidations can be gauged in different ways according to their impact on deficits and debt or on the growth performance, see Alesina and Ardagna (2009).

Graph III.1.3: Evolution of debt to GDP ratio during major debt increase episodes 1/



(1) Debt increase episodes are identified as corresponding to a minimum of a 20 percentage points of GDP increase in a maximum of five years. The year t0 corresponds to the first year marking the debt increase episode which in the current crisis corresponds to 2007. The last year in the current debt increase episode is 2011 (data taken from the Commission spring 2010 forecast) and the year t-5 is 2002 and is set in order to cover a period of 10 years. For the other debt increase episodes the last year, t+4, is defined as the one where the debt increase over five years (on a moving average basis) reached its maximum value. The years t0 and t-5 are then determined recursively to cover a time span of 10 years as for the current debt increase episode. The (unweighted) average value of the debt to GDP ratio for the following groups of countries (with time periods covered indicated in parentheses) are considered: EU, past large debt increases: Belgium (1974-1983), Denmark (1974-1984), France (1986-1995), Greece (1978-1987), Ireland (1975-1984), Italy (1975-1984 and 1985-1994) Malta (1990-1999), the Netherlands (1976-1985), Portugal (1975-1984), Spain (1976-1985 and 1987-1996), Sweden (1973-1982). Non-EU, OECD: Japan (1970-1979), Canada (1976-1985 and 1984-1993) and Iceland (1986-1993). Finland, Sweden 1990s financial crisis: Finland (1985-1994) Sweden (1985-1994)
Source: Commission services.

at least one percentage point of potential GDP in one year or in two consecutive years with at least a ½ percentage point improvement occurring in the first of the two years, see Guichard et al. (2007) and Ahrend et al. (2006). The fiscal consolidation continues as long as the CAPB improves. An interruption is allowed without terminating the episode as long as the deterioration of the CAPB does not exceed 0.3 percentage points of GDP and is more than offset in the following year (by an improvement of at least 0.5 percentage points of GDP). The consolidation episode stops if the CAPB stops increasing or if the CAPB improves by less than 0.2 percentage points of GDP in one year and then deteriorates. The consistency of the definition of fiscal consolidation episodes used here with the OECD one was checked. In most cases consolidation episodes are found to coincide. The correlation coefficient between the series is equal to 0.71.

Here the success of fiscal consolidations is assessed according to the level of debt following a fiscal consolidation episode as in Alesina and Perotti (1995). Accordingly, a fiscal consolidation is considered as successful if it brings down the public debt level by at least five percentage points of GDP in the three years following a consolidation episode.⁽⁸⁴⁾ Previous definition used in European Commission (2007) considered instead that a fiscal consolidation episode was successful if the consolidation effort was safeguarded in the subsequent years (i.e. whether the change in CAPB remained below a given threshold).⁽⁸⁵⁾ Both criteria (i.e. considered the post-consolidation episode debt or the CAPB level) have their pros and cons. By using the CAPB criterion one avoids classifying as successful consolidations episodes where the debt reduction is due to favourable, albeit non-policy related circumstances. At the same time, it cannot exclude that consolidations that were insufficient to stem the increase in debt are labelled as success. The debt criterion was preferred here in light of policy considerations. The global financial crisis has significantly affected EU countries' public finances with debt increasing very fast in most countries as evidenced above. The most immediate objective of policy makers in the current circumstances shall therefore be halting reversing the increase in public debt. Tensions in financial markets that have emerged since the end of 2008 have highlighted the risk of feedback loop between high and increasing debt and the cost of debt servicing and its possible ramification to the rest of the economy.

⁽⁸⁴⁾ With such definition, one-year consolidations (i.e. cold showers) are considered as full episodes while each year of a multi-year consolidations episodes (i.e. gradual consolidations) are considered as episodes on their own. Such definition was also used in Alesina and Ardagna (1998) and Alesina, Perotti and Tavares (1998). Alesina and Ardagna (2009) considered instead only one benchmark year for multi-year consolidation episodes. There is a priori no reason to consider that one definition is superior to the other as suggested by Alesina and Ardagna (2009) as results remain in general broadly similar in both cases.

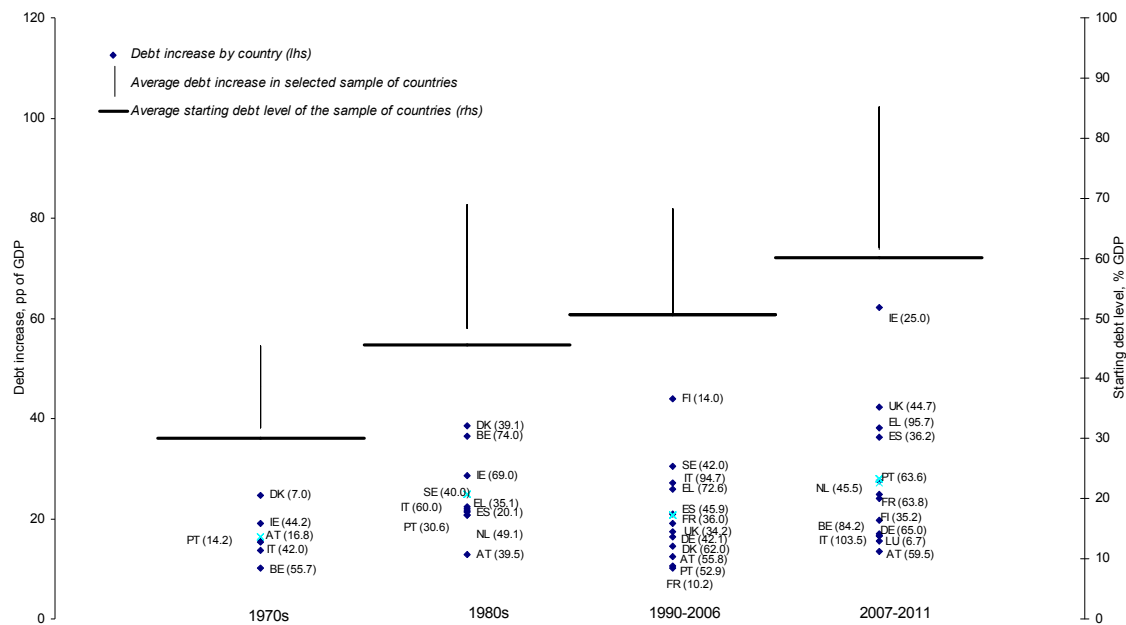
⁽⁸⁵⁾ More precisely, in the European Commission Public Finances Report 2007, a consolidation was labelled as successful if in the three years after the end of the consolidation episode the CAPB did not deteriorate by more than 0.75% if GDP in cumulated terms compared to the level recorded in the last year of the consolidation period, i.e., at least half of the overall minimum fiscal correction required to qualify as consolidation was safeguarded three years after.

Graph III.1.5 depicts the evolution of the debt to GDP ratio in the EU countries experiencing large debt increases, including an indication of the period in which such increases have occurred. Whether the consolidation was a cold shower or a gradual process is also shown.⁽⁸⁶⁾ As previously indicated, several countries have experienced large debt increases comparable in magnitude, and sometimes in speed, to the one foreseen in most countries for the period 2007-2011. This was the case in Denmark, Belgium and Ireland during the 1970s, Greece, Italy and Sweden during the 1980s and Finland and Sweden during the 1990s. In contrast, countries such as Germany, France and Portugal have tended to experience an almost continuous increase in the debt to GDP ratio since the 1970s with some rare episodes of stable or slightly declining debt levels. Large rises in the public debt to GDP ratio have often, although not always, triggered fiscal consolidations, while consolidation episodes have not necessarily led to significant reductions in debt levels. The case of France is particularly telling due to the quasi-absence of any consolidation; only one year of adjustment can be considered as a consolidation episode according to the definition used here. Some countries have also predominantly resorted to gradual adjustments (such as Ireland, Germany or Luxembourg) while others have tended to adopt cold shower strategies (such as Austria, Greece, Italy Portugal or Spain). Some consolidation episodes did not seem to have a significant impact on debt levels, notably Belgium in the 1980s and Greece in the 1980s and 1990s.

Fiscal consolidations appear to be insufficient to reduce debt levels significantly in themselves. Broad macroeconomic conditions play an important role in the success or failure of debt reduction. As Graph III.1.6 shows, significant reductions in debt that took place in most EU15 countries around the turn of the century, despite the fact that in many instances no fiscal consolidation was undertaken during that period.

⁽⁸⁶⁾ The definition of a consolidation episode and the distinction between cold showers and gradual consolidation used here are the same as the ones used in the Public Finances Report (2007, Part IV). A consolidation is defined as an improvement in the cyclically adjusted primary balance (CAPB) of at least 1.5 percentage points of GDP taking place in one single year (cold shower) or taking place over three years if each and every year the CAPB does not deteriorate by more than 0.5 percentage points of GDP (gradual consolidation).

Graph III.1.4: Moving up the ladder: debt increases and starting debt levels during major debt increases episodes in the EU15 since 1970 1/



(1) Only debt increase over a (maximum of) three-year period and at least equal to 10% of GDP are reported. Country-specific starting debt levels included in parentheses

Source: Commission services.

Conversely, the run-up to the EMU, from the adoption of the Maastricht Treaty (1991) to the year that was decisive for the first group of countries joining the single currency (1998), was dotted with episodes of consolidation, only in part successful. An additional feature of this period concerns the evolution of interest rates worldwide, with the 1990s being characterised by a significant fall in long-term interest rates.

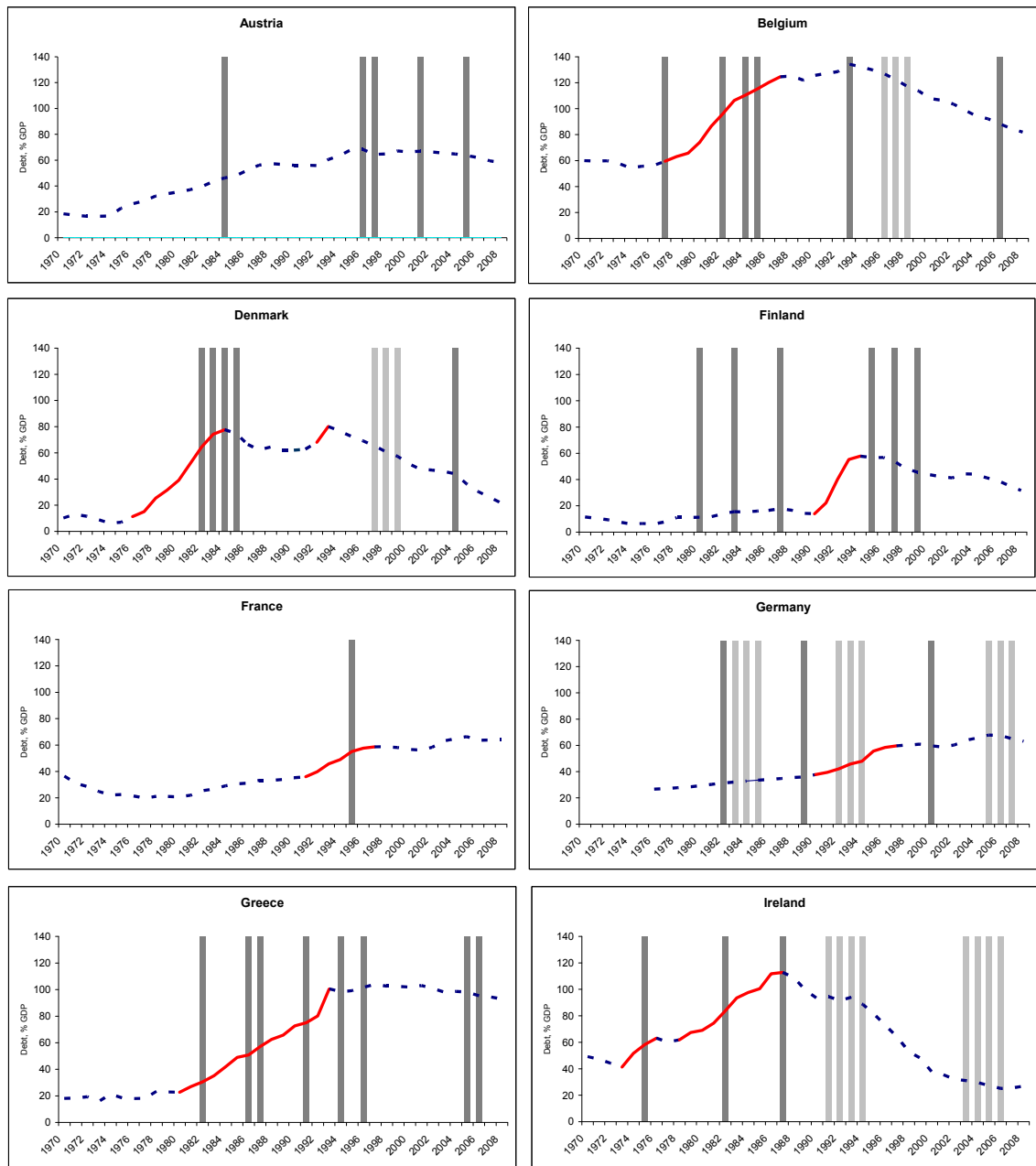
Generally speaking, the success of fiscal consolidations appears relatively limited and depends to some extent on the time span considered. Table III.1.1 provides an assessment of the degree of success of past consolidation episodes in the EU15, by decade, since 1970.⁽⁸⁷⁾ Fiscal consolidations succeed in only 1/3 of cases, with most successful consolidations episodes tending to occur in the 1990s and 2000s. As mentioned, this result can be explained at least partly by the general fall in interest rates across the EU during these periods. The second row of Table III.1.1 shows that consolidations following large debt increases tend to be less successful with a success rate of 24.1%, which could simply reflect

the fact that debt-reduction objectives are especially difficult to achieve against a sharp deterioration of the deficit and debt situation. Extending the time span following a consolidation episode to gauge the success or failure of fiscal consolidation from three to five years only marginally increases the success rate of consolidations as indicated by the fourth row of Table III.1.1 while extending the time span further, i.e., until 10 years after a fiscal consolidation, brings the success rate down again.

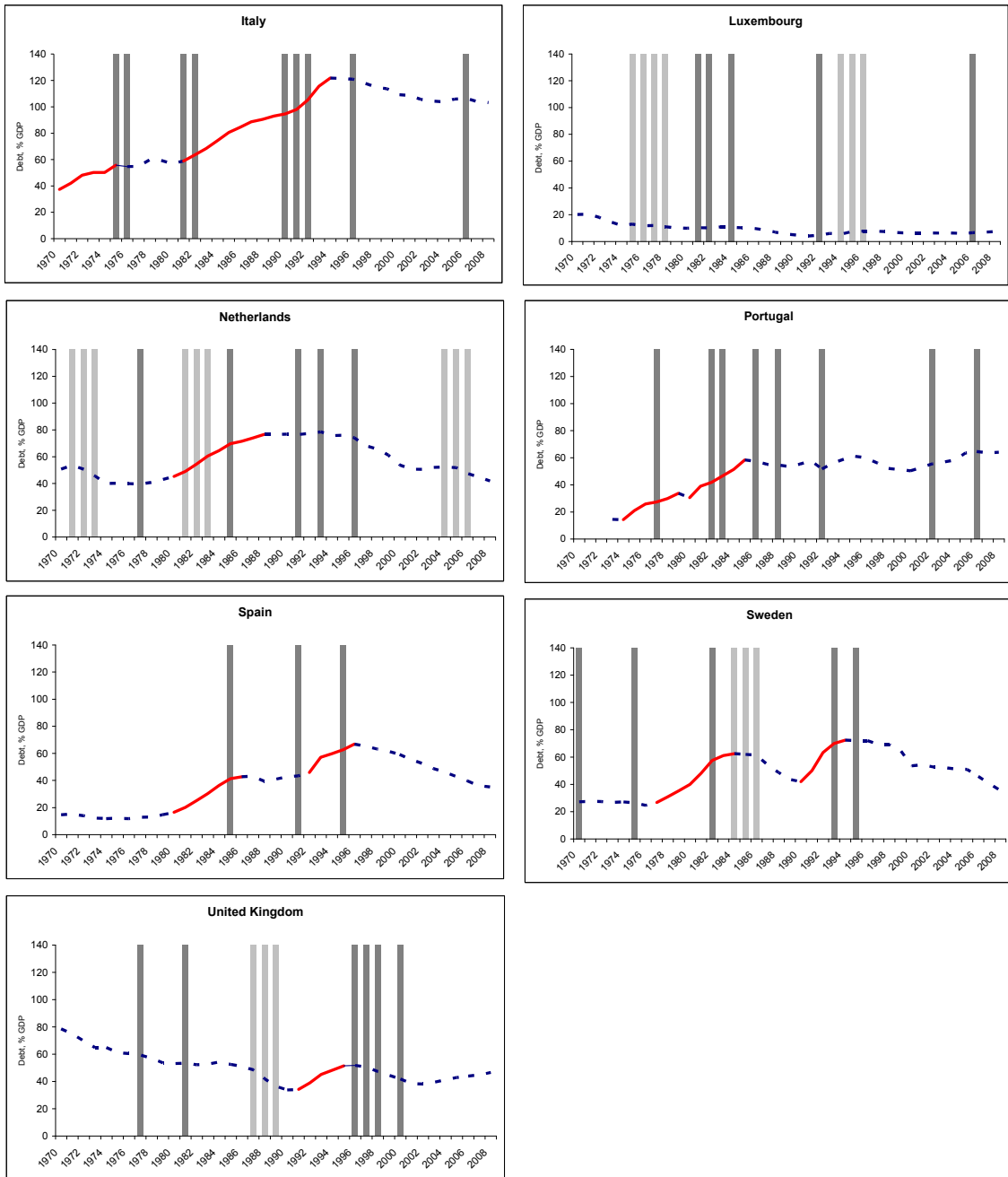
This might reflect the occurrence of successive debt increase episodes as illustrated by the country experiences depicted in Graph III.1.6.

⁽⁸⁷⁾ The recently acceded Member States are not considered here in order to get consistent country groups over time.

Graph III.1.5: Large debt increases and fiscal consolidation episodes in the EU, 1970-2008



Graph (continued)



(1) Large debt increase episodes are defined as debt increases at least equal to 10% of GDP over a maximum of three-year and are indicated by the segment in thick. The start and end of these debt episodes are extended to cover years for which debt growth was at least equal to 1%. A consolidation episode is defined as an improvement in the cyclically adjusted primary balance (CAPB) of at least 1.5% taking place in one single year (cold shower, represented by the black bars) or taking place over three successive years if each and every year the CAPB does not deteriorate by more than 0.5% of GDP (gradual consolidation, represented by the grey bars). Note that three-years gradual consolidations episodes can overlap and thus lead to gradual consolidation lasting more three years.

Source: Commission services.

Table III.1.2 reports results on the success rate of fiscal consolidations by splitting consolidation episodes into cold showers and gradual

consolidations. Overall, gradual consolidations tend to be more successful, a result also in line with the existing literature. See European

Table III.1.1: The success rate of fiscal consolidations under alternative success criteria

	1970s	1980s	1990s	2000s*	Overall
Success criterion based on Debt reduction (t+3)*	25 (16)	22.7 (44)	47.6 (42)	42.9 (14)	34.5 (116)
Success criterion based on Debt reduction during or following major debt increase periods (t+3)*	0 (5)	25.9 (27)	31.6 (19)	0 (3)	24.1 (54)
Success criterion based on Debt reduction during or following major debt increase periods (t+5)**	0 (5)	29.6 (27)	36.8 (19)	0 (2)	28.3 (53)
Success criterion based on Debt reduction during or following major debt increase periods (t+10)***	0 (5)	3.7 (27)	47.4 (19)	- (-)	19.6 (51)

(1) Concerns EU15 countries only. * Consolidations are defined as being successful if during the three years following a consolidation episode the debt to GDP ratio is lower by at least 5% relative to the level of debt in the last year of a consolidation episode. Last year of consolidation is 2005. ** Successful consolidations defined as in (*) but extending the post-consolidation period to 5 years. Last year of consolidation is 2003 *** Successful consolidations defined as in (*) but extending the post-consolidation period to 10 years. Last year of consolidation is 1998. Number of consolidation episodes considered in parentheses.

Source: Commission services.

Commission (2007) for more details.⁽⁸⁸⁾ It is worth noting, however, that the difference in the success rates between gradual consolidations and cold showers becomes much smaller when considering consolidations during or immediately after large debt increase episodes as indicated by the third and fourth rows of Table III.1.2.

While the success of fiscal consolidations seems at first sight limited, counter-factual analysis suggests that in the absence of fiscal consolidations, debt levels would have increased significantly more in the aftermath of large debt rises. The low success rate of fiscal consolidations documented earlier could simply reflect the fact that consolidations are more often undertaken after large debt increases and given high starting levels of debt.⁽⁸⁹⁾ Thus, in order to gauge the benefit of consolidations it is informative to take into account the initial debt level and to consider only countries that experienced large debt increases. Graph III.1.7 illustrates this by depicting the evolution of the (average) debt to GDP ratio in the aftermath of large debt increase episodes depending on whether or not a consolidation was carried out in the EU15 during the period 1970-2007. To abstract from the differences in the initial debt level, the debt to GDP ratio at the end of a debt increase episode is set equal to 100 in both cases. The graph shows that the post-crisis rise in the debt to GDP ratio is clearly more contained in cases where a fiscal consolidation was undertaken than in those where

this was not the case.⁽⁹⁰⁾ These results therefore suggest that consolidations, even if not successful in reducing the level debt, help contain the upward drift in debt compared to a no-consolidation scenario.

The previous results highlight that large debt increases have not always led to consolidation efforts by governments, and that when these efforts were made, they were not always successful in reducing debt. The causes and context of large debt increases episodes are relevant in explaining policy responses and their outcome.⁽⁹¹⁾ Section III.5 provides more insights on how economic conditions and policy actions might determine the chances of achieving successful fiscal consolidations in context of high debt level and systemic financial crises.

⁽⁹⁰⁾ When considering actual data underlying Graph 5, the debt to GDP ratio increase by 6.1% and 8.6% for the three and five year time horizon respectively in case of no consolidation and by 3.4% and 4.4% respectively in case a consolidation was undertaken in the aftermath of a major debt increase episode.

⁽⁹¹⁾ For instance, as noted by Boltho and Glyn (2006) a fundamental difference exists between the consolidation efforts put in place in the 1980s (following the successive crises of the 1970s) and during the 1990s. During the first period, the main concerns revolved around inflationary pressures and balance of payment problems following a period of rapid rise in public expenditure. During the latter period, concerns regarding long-term debt sustainability (together with the pressure exerted by rising real interest rates at the beginning of the 1990s) became prominent, with the additional feature in the EU context linked to the run-up to EMU.

⁽⁸⁸⁾ Gradual consolidation has also been implemented less often as shown by the figures in parentheses indicating the frequency of consolidation episodes.

⁽⁸⁹⁾ In the polar case, countries with initially low debt level and moderate debt increase undertaking consolidation are more likely to succeed.

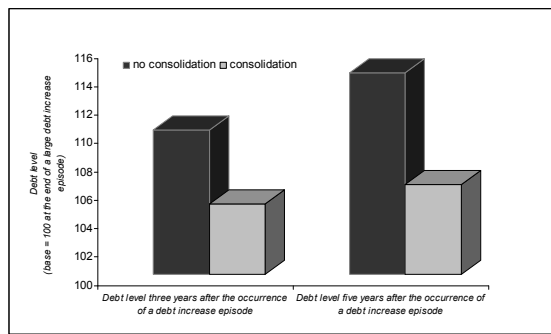
Table III.1.2: The success rate of fiscal consolidations: gradual consolidations vs. cold showers

	1970s	1980s	1990s	2000s*	Overall
Gradual consolidations	42.9 (7)	41.7 (12)	62.5 (16)	50 (6)	51.2 (41)
Cold showers	11.1 (9)	15.6 (32)	38.5 (26)	37.5 (8)	25.3 (75)
Gradual consolidations after large debt increases*	- (-)	50 (6)	0 (3)	0 (1)	30 (10)
Cold showers after large debt increases*	0 (5)	19 (21)	37.5 (16)	0 (2)	22.7 (44)

(1) Concerns EU15 countries only. * Consolidations are defined as being successful if during the three years following a consolidation episode the debt to GDP ratio is lower by at least 5% relative to the level of debt in the last year of a consolidation episode. Last year of consolidation is 2005. Number of consolidation episodes considered in parentheses.

Source: Commission services.

Graph III.1.6: Evolution of the debt to GDP ratio following a large debt increase episode



(1) Based on major debt increase episodes as reported in Table III.1.1

Source: Commission services.

2. ILLUSTRATIVE PROJECTIONS OF DEBT TRENDS AND CONSOLIDATION NEEDS

In most EU Member States, the gross government debt-to-GDP ratio is on a strongly increasing path. Moreover, the economic and budgetary effects of ageing populations will put further upward pressure on debt developments. The trend increase of the debt ratio depends largely on a set of key economic variables of which future developments are highly uncertain, including output growth, price developments, interest rates, and the primary balance.

This section presents projections for the gross government debt-to-GDP ratio up to 2020 derived as a mechanical extension of the data in the 2009-2010 updates of the Stability and Convergence programmes (SCPs, see Table I.3.3). It first illustrates the impact on the average EU and euro area debt-to-GDP ratio projected until 2020 of the full implementation of the budgetary plan in the SCPs. Then, it presents the medium-term projections at country level, including a breakdown of these projections that allows gauging the different contributions on the development of the debt ratio of: (i) the primary balance; (ii) age-related expenditure⁽⁹²⁾; and (iii) the snow-ball effect, i.e., the compounded impact on the debt ratio of interest expenditure and GDP growth.⁽⁹³⁾ Finally, it presents projections based on risk scenarios that depart from the programme baseline to take account of possible slippages in consolidation, lower GDP growth and higher real interest rates.

The figures presented in the section aim at provide an illustration of the magnitude of the risks and consolidation challenges ahead but should not be mistaken for forecasts: they are mechanical projections based on partial equilibrium scenarios and arbitrary assumptions.

2.1. DEBT PROJECTIONS UP TO 2020

The projections of the public finances in EU Member States illustrated in Section I.1 raise serious concerns due to the overall high government debt-to-GDP ratios compounded with high structural deficits, a slowdown in GDP growth and the expected rise in government expenditure on account of population ageing. There are also reasons to expect that the contribution of GDP growth to the decline of the debt ratios would be limited in the coming years, as the current economic and financial crisis could lead to lasting negative effects on potential growth.⁽⁹⁴⁾

Reflecting these concerns, this section presents projections for the gross government debt-to-GDP ratio up to 2020 which are based on the assumption that real GDP growth rates gradually recover to the medium-term potential, and tax ratios slowly return to 2007 level. The projections are derived on the basis of the assumptions described in Box III.2.1, using a partial equilibrium analysis that does not consider the effect of the public finances on growth. The projections explicitly include a progressive increase in age-related expenditure derived from projections agreed by Member States in the Ageing Working Group⁽⁹⁵⁾. As shown in Table III.2.1, the estimated increase projected for the EU is already sizeable by 2020 (1.3 pps. of GDP, 1.6 pps of GDP in the euro area), with significant variations across Member States.

⁽⁹²⁾ While the increase of age-related expenditures is part of the development of the primary balance, the effects are considered separately for reasons of clarity and transparency.

⁽⁹³⁾ The evolution of the debt ratio can be decomposed as follows:

$$\frac{D_t}{Y_t} = \frac{D_{t-1}}{Y_{t-1}} - \frac{PB_t}{Y_t} + \frac{D_{t-1}}{Y_{t-1}} \frac{i_t - y_t}{1 + y_t} + \frac{SF_t}{Y_t}$$

where t is a time subscript; D , PB , Y and SF are the stock of government debt, the primary balance (which includes age-related expenditure), nominal GDP and the stock-flow adjustment respectively, and i and y represent the average cost of debt and nominal GDP growth.

⁽⁹⁴⁾ See European Commission (2009) and European Commission (2009).

⁽⁹⁵⁾ Economic Policy Committee and European Commission (2009). For information on the projections on the budgetary cost of ageing see I.4.1.1.

Table III.2.1: Level and increases in projected age-related expenditure as a share of GDP

% of GDP	2011	2020	Change 2011-2020
BE	26.2	28.3	2.1
BG	17.1	16.3	-0.8
CZ	17.2	17.5	0.3
DK	20.3	21.7	1.4
DE	22.4	24.3	1.9
EE	15.5	15.1	-0.4
IE	19.6	23.7	4.1
EL	24.0	25.2	1.2
ES	20.9	22.9	2.0
FR	28.4	29.7	1.3
IT	24.5	25.6	1.1
CY	17.0	18.4	1.4
LV	13.1	14.0	0.9
LT	15.4	15.9	0.5
LU	19.9	22.2	2.2
HU	21.8	21.3	-0.5
MT	18.4	21.2	2.8
NL	18.9	20.6	1.7
AT	24.2	25.8	1.6
PL	17.7	16.9	-0.8
PT	24.9	26.1	1.1
RO	15.1	15.9	0.8
SI	20.5	24.4	3.9
SK	15.1	14.9	-0.2
FI	23.6	26.2	2.6
SE	24.0	25.3	1.3
UK	19.4	20.3	0.9
EA-16	24.0	25.5	1.6
EU-27	22.7	24.0	1.3

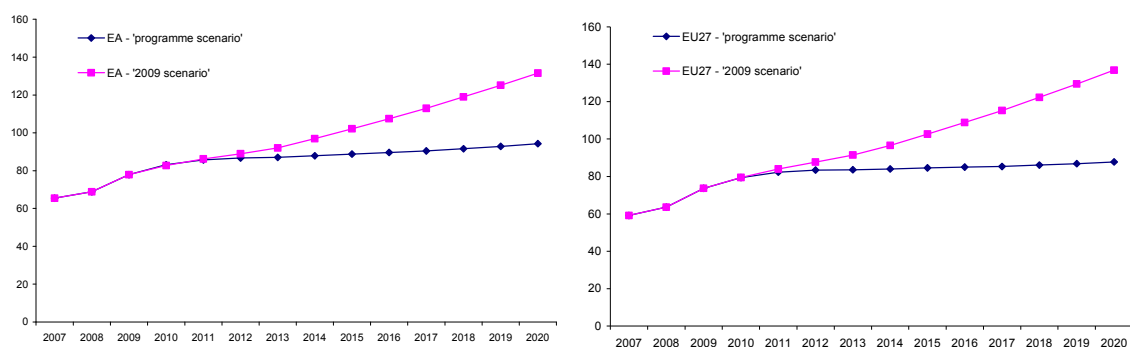
Source: Commission services.

Box III.2.1 includes an illustration of the five scenarios developed on the basis of the common assumptions. Graph III.2.1 presents projections of the average debt-to-GDP ratio in the EU and in the euro area based on two of these scenarios, namely the '2009 scenario' and the 'programme scenario'. These scenarios share the same macroeconomic setting (which implies an average real GDP growth of 1.9% in the EU and 1.8% of GDP in the euro

area over the 2011-2020 period) but differ with regard to the assumed development of the budgetary position. The '2009 scenario' extends the debt-to-GDP ratios on the basis of a no-policy-change assumption that takes the 2009 structural primary balance as a starting budgetary position. Instead, the 'programme scenario' assumes the achievement of the consolidation planned in the SCPs. For the EU and euro area aggregates, this corresponds to an average improvement in the structural primary balances by around 2½ pp. of GDP in 2012 with respect to 2010, which rises to 3½ pp. of GDP in 2013 with respect to 2010 for the programmes with a longer programme horizon.⁽⁹⁶⁾ Reflecting the extraordinary weakening of the budgetary position in response to the current economic crisis, in the '2009 scenario' the debt-to-GDP ratio would approach 140% of GDP in the EU in 2020, from the around 74% in 2009 estimated in the SCPs. According to the same scenario, the debt ratio is projected to increase somewhat less in the euro area, to around 130% of GDP in 2020, from the slightly higher starting position of about 78% in 2009. Remarkably, even in the 'programme scenario', the average debt-to-GDP ratio is projected to continue rising, to almost 90% of GDP in the EU and 95% in the euro area in 2020. I.e., the full implementation of the sizeable consolidation envisaged in the SCPs would still

⁽⁹⁶⁾ The projections take account of also of the consolidation planned beyond 2013 by the countries presenting programmes with a longer horizon.

Graph III.2.1: Medium-term projections for the average government debt-to-GDP ratio in the EU and in the euro area



Source: Commission services.

not be sufficient to stabilise the debt-to-GDP ratio in the medium-term. ⁽⁹⁷⁾

The 'programme scenario' assumes no change in policy further to the strategy presented in the SCPs. The projections therefore cannot be taken as foreshadowing future debt developments, which can be expected to be affected by additional future, as yet unspecified, consolidation measures beyond the programme horizon towards the achievement

of the medium-term objectives that Member States presented in the SCPs, in line with the requirements of the Stability and Growth Pact (see section I.3). Rather, the projections serve to give an indication of the magnitude of the adjustment needed, with the significant consolidation planned and a full cyclical recovery, including a rebound in tax revenue from its crisis-related lows, insufficient in many countries to prevent debt continuing rising.

⁽⁹⁷⁾ In the past budgetary outcomes revealed sizeable slippages from plans. A risk scenario assuming a lower consolidation is presented below.

Box III.2.1: Assumptions underlying the medium term projections for gross debt of the general government

In order to simulate the order of magnitude of the risks to potential output related to the economic crisis, the 2009 Ageing report ⁽¹⁾ presented a "Lost Decade" macroeconomic scenario that assumes that it will take until 2020 to get back to the long-term potential growth rates in the Ageing Working Group (AWG) baseline, which are based on the Commission services' spring 2008 forecast. The projections presented in Section III.2 are derived as mechanical extension of the data in the 2009-2010 updates of the SCPs built on an update of the "Lost Decade" macroeconomic scenario.

Notably, the assumptions common to all the projections in this section are:

- A progressive increase in age-related expenditure derived from the Lost Decade scenario. Over the projection period age-related expenditure increases, on average, by 1.6 pps of GDP in the euro area and by 1.3 pps of GDP in the EU as a whole;
- Convergence of the ratio of taxes to GDP to the pre-2007 level for countries with a projected tax ratio in 2011 in the Commission services' autumn 2009 forecast below its 2007 level (the increase in tax ratios is part of the no-policy change scenario and do not take account of consolidation plans in the SCPs. These are reflected in the changes in structural balances according to the assumptions in the different scenarios presented below). For countries with 2011 tax to GDP ratio above the pre-2007 level, it is assumed that the ratio remains constant till 2017. The cyclical component of tax revenues is added to the projected values on the basis of OECD elasticities;
- Zero stock-flow adjustment, which also implies no further financial purchases of assets/recapitalisations of financial institutions nor disposal of such assets.

Further assumptions underlying the different scenarios are:

2009 scenario

- No-policy-change assumption taking the 2009 structural primary balance estimated in the SCPs as a starting budgetary position;
- A potential GDP path based on the AWG "Lost Decade" scenario. The output gap in the Commission services' autumn 2009 forecast shrinks linearly so that it is completely eliminated in 2017 and becomes positive afterwards. It implies real GDP growth to average 1.9% in the EU and 1.8% of GDP in the euro area in the 2011-2020 period.
- Linear convergence of implicit interest rate in real terms from the current level to 3% (the value assumed for the purposes of the long-term sustainability of public finance assessment) in 2020.

Programme scenario

- Structural primary balance improvement as planned in the SCPs;
- A potential GDP path based on the AWG "Lost Decade" scenario. The output gap in the Commission services' autumn 2009 forecast shrinks linearly so that it is completely eliminated in 2017 and becomes positive afterwards. It implies real GDP growth in the EU to average 1.9% in the 2011-2020 period;

⁽¹⁾ Economic Policy Committee and European Commission (2009).

(Continued on the next page)

Box (continued)

- Linear convergence of implicit interest rate in real terms from the current level to 3% in 2020.

Risk scenario 1: Budgetary slippages

- Structural primary balance improvement is only half of the planned;
- A potential GDP path based on the AWG "Lost Decade" scenario. The output gap in the Commission services' autumn 2009 forecast shrinks linearly so that it is completely eliminated in 2017 and becomes positive afterwards. It implies real GDP growth in the EU to average 1.9% in the 2011-2020 period;
- Linear convergence of implicit interest rate in real terms from the current level to 3% in 2020.

Risk scenario 2: Low growth

- Structural primary balance improvement as planned in the SCPs;
- A potential GDP path based on the AWG "Lost Decade" scenario. The output gap in the Commission services' autumn 2009 forecast does not close. It implies real GDP growth in the EU to average 1.4% in the 2011-2020 period;
- Linear convergence of implicit interest rate in real terms from the current level to 3% in 2020.

Risk scenario 3: Risk premium ⁽¹⁾

- Structural primary balance improvement as planned in the SCPs;
- A potential GDP path based on the AWG "Lost Decade" scenario. The output gap in the Commission services' autumn 2009 forecast shrinks linearly so that it is completely eliminated in 2017 and becomes positive afterwards. It implies real GDP growth in the EU to average 1.9% in the 2011-2020 period;
- Linear convergence of implicit interest rate in real terms from the current level to 5% in 2020.

⁽¹⁾ The risk premium scenario may be a realistic risk scenario for some Member States, but not very plausible for others.

2.2. BREAKDOWN OF THE CONTRIBUTIONS TO THE DEBT PROJECTIONS

The projections at country level, based on the 'programme scenario' presented in Graph III.2.2, confirm that for a majority of Member States the budgetary strategy in the programmes would not be sufficient to put the debt ratio on a declining path in the medium term. Only for eight Member States (Bulgaria, Denmark, Estonia, Greece, Italy, Poland, Spain and Sweden) the shadowed area that pictures the projected developments in the debt ratios tapers or stabilises approaching 2020. In several countries (Belgium, Finland, Hungary, Ireland, Latvia, Malta, Slovenia, Slovakia, and the United Kingdom) the debt-to-GDP ratio is projected to slightly reduce during the next decade,

but it would start increasing again by 2020. The projections vary significantly across countries, reflecting differences in the starting points of government debt ratios and balances, planned consolidation and projected developments in macroeconomic variables and age-related expenditure. In particular, the charts in Graph III.2.2 single out the contribution to the projected developments of Member States' debt ratio of: (i) the assumed recovery in the tax ratios to the pre-2007 level; (ii) the structural primary balance projected in the last year covered by the SCPs; (iii) the projected direct budgetary impact of ageing; and (iv) the snow-ball effect, i.e., the compounded effect of interest expenditure and GDP growth.

For all countries the assumed recovery in the tax-to-GDP ratios has a debt-decreasing impact. While

in a number of Member States this impact is limited, in others it is very sizeable. E.g., the 2020 debt ratio in Sweden and Denmark is reduced by around 20 pps as a result of this assumption. Also for Spain, Ireland and the UK the impact amounts to 13 pps or more.

All Member States project their structural primary balances to improve over period covered by SCPs. In many cases, they would turn positive by the end of the programme horizon, with a consequent decreasing impact on the debt level. Accordingly, in Graph III.2.2, the line depicting how the debt ratio is projected to change in the years in view of the end-programme structural primary balance, further improved by the assumed recovery in the tax ratios, is normally the lower one and often presents a declining path. For instance, Greece and Italy plan structural primary surpluses in the order of 3½ of GDP, which, if sustained up to 2020, would translate in debt ratios in that year lower by more than 20 pps with respect to those projected on the basis of a mere recovery in tax ratios. By contrast, in some countries the structural primary balances are projected to remain in negative territory by the end of the period covered by the SCPs, with ensuing debt-increasing impact. This effect is particularly evident for the Czech Republic and the Netherlands, where maintaining up to 2020 the structural primary deficits planned in 2012, of around 1½% and 1% of GDP respectively, would increase the debt ratio by more than 15 pps.

Graph III.2.2 also shows that cost of ageing has a non-negligible contribution to the debt ratios over the next decade. Around 20 pps of the debt-to-GDP ratio projected in Ireland, Slovenia and Malta in 2020 are linked to age-related expenditure. In Spain, Belgium and Germany this figure is in the order of 10 pps. Only in a few countries age-related expenditure is projected to decrease by 2020, with a resulting debt-decreasing impact (see also Table III.2.1).

The overall debt ratios are determined by the effects described above compounded by debt-increasing impact of interest expenditure and the effect of changes in the denominator, i.e. GDP, which in normal times tend to lower the ratios. Under the assumptions described in the 'programme scenario' in Box III.2.1, notably closure of the output gap in 2017 and the

convergence of implicit interest rate to 3%, the combination of these effects is generally projected to increase the debt ratios. The impact is particularly sizeable in countries with a high stock of debt and/or low potential growth. In particular, in Italy it is projected at more than 10 pps. It is only slightly lower for Belgium and for the Netherlands. By contrast, the snowball effect is projected to slightly decrease the debt ratio in Slovakia.

2.3. IMPACT OF RISK SCENARIOS ON MEDIUM-TERM DEBT DEVELOPMENTS

Graph III.2.3 shows the projections for the debt ratios of Member States based on the three stylised risks scenarios presented in Box III.2.1 and compares them with the baseline represented by the projections according to the 'programme scenario' examined above. Assumptions underlying the risks scenario are not extreme.

The 'budgetary slippages' scenario is based on the hypothesis that the improvement in the structural primary balance is only half of the one planned in the SCPs. Indeed, in the past budgetary outcomes revealed sizeable slippages from plans, both in economic good times and bad times.⁽⁹⁸⁾ Even in this alternative scenario consolidation would still be significant, as the structural primary balances would improve by around 1¼ pp. of GDP in 2012 with respect to 2010 (1¾ pp. of GDP in 2013 with respect to 2010 in the Member States that submitted SCPs with a longer horizon).

Graph III.3.2 confirms that consolidation is key for debt developments; among the risks scenarios considered, for most countries the 'budgetary slippages' scenario is the one that would mostly affect debt developments. For some Member States this scenario does not appear to be an option: it would imply an explosive debt path, which in turn would call for immediate action. The projections are particularly unfavourable for Greece and Ireland, where even with an improvement of the structural primary balance of around 5 pps of GDP by 2013 and 4 pps of GDP by 2014, respectively, the debt ratio would be projected close to 160% and 140% of GDP in

⁽⁹⁸⁾ See European Commission (2007) and European Commission (2008).

2020. By contrast, in these countries the debt ratio would be curbed in the 'programme scenario'. For Romania, where consolidation in the 'programme scenario' is still insufficient to put the debt ratio on a declining path, a fiscal adjustment reduced by half (i.e. a reduction in the structural primary deficit of around 2½ pps of GDP in 2012 with respect to 2009) is projected to result in an increase in debt of around 90 pps of GDP in 2020 as compared to 2009, 60 pps higher than if the consolidation planned in the convergence programme is fully implemented. Also in other countries, budgetary slippages tend to have very sizeable implications for debt developments. Due to the underlying assumption that only half of planned consolidation would be achieved, the impact of the slippages also reflects the size of the consolidation planned in the SCPs. For Spain this scenario projects debt ratios in 2020 that exceed by more than 40 pps those computed according to the 'programme scenario'. For Lithuania, Latvia and the United Kingdom, the differences amount to more than 30 pps of GDP.

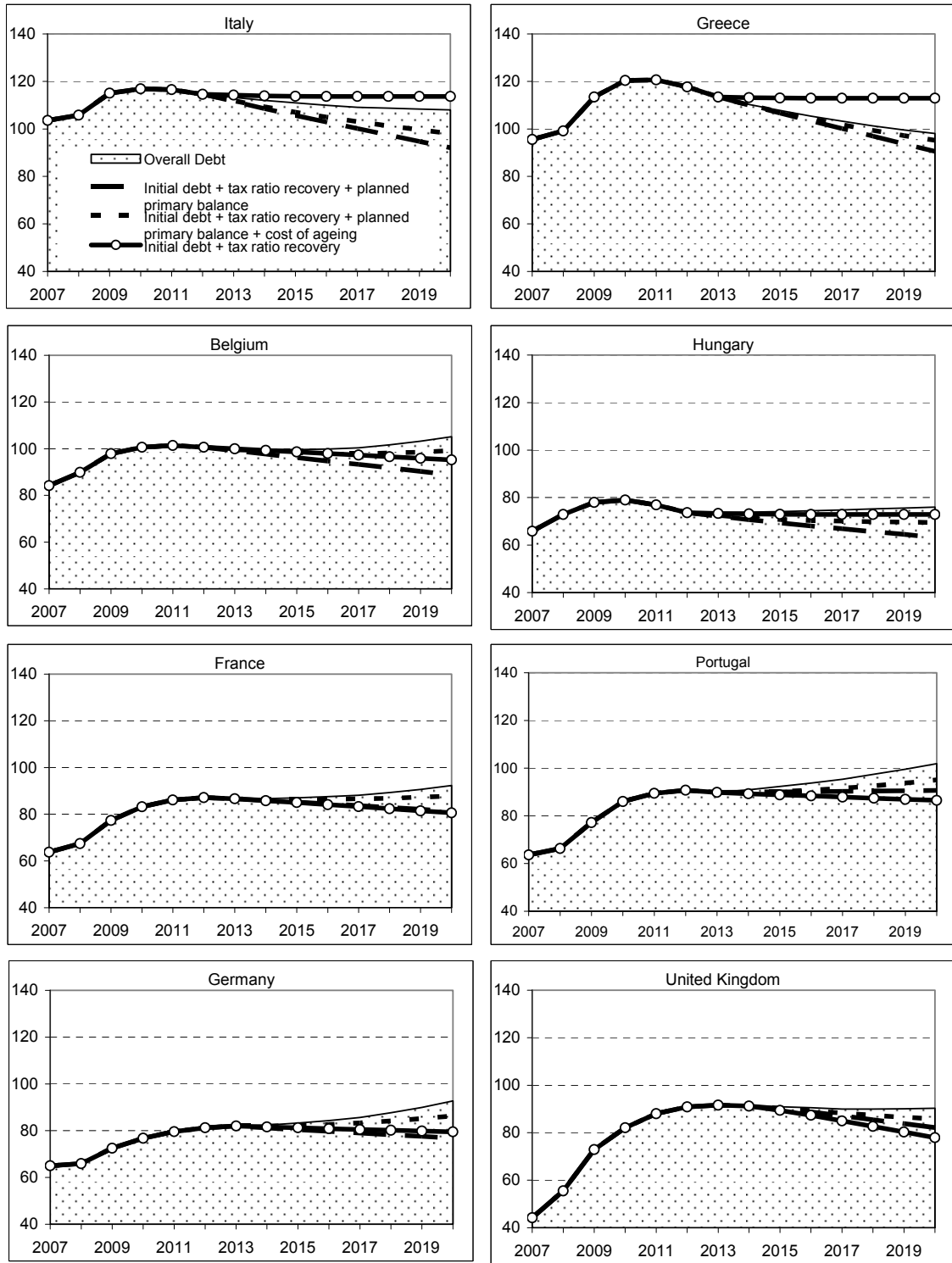
In the 'low growth' scenario, actual GDP growth equals the projections of potential GDP growth in the AWG 'Lost Decade' scenario. Also for this scenario the underlying assumptions are not excessively pessimistic: they imply an average real GDP growth of 1.4% in the EU and 1.3% in the euro area in the 2011-2020 period. This still compares favourably to an average growth rate in the EU27 and the EA16 of respectively 1.2% and 1.0% over the period 2000-2010. Other assumptions are as in the 'programme scenario', in particular, the structural primary balance is assumed to improve as planned in the SCPs. Only in Hungary, the debt ratios are projected to be more affected by the lower economic growth in this risk scenario than by the lower consolidation assumed in the 'budgetary slippages' scenario. In some Member States, the impact of the subdued real GDP growth assumed by this scenario would be substantial, particularly in Ireland, where a one point lower real GDP would increase the debt ratio by more than 30 pps of GDP in 2020. However, this remains still substantially lower than the projected impact of a reduction by half in the planned fiscal adjustment.

Finally, the projections in Graph III.3.2 also include a 'risk premium scenario' where the real interest rates converge to 5% in 2020, rather than to 3% as in the other scenarios. The risk premium scenario may be a realistic risk scenario for some Member States which in addition to higher risk premia may face period of low inflation, further adding to the increase in real interest rates. The differentiation in risk premia is evidenced by the rise in sovereign spreads for some countries. The high risk premia scenario is not very plausible for some other countries.

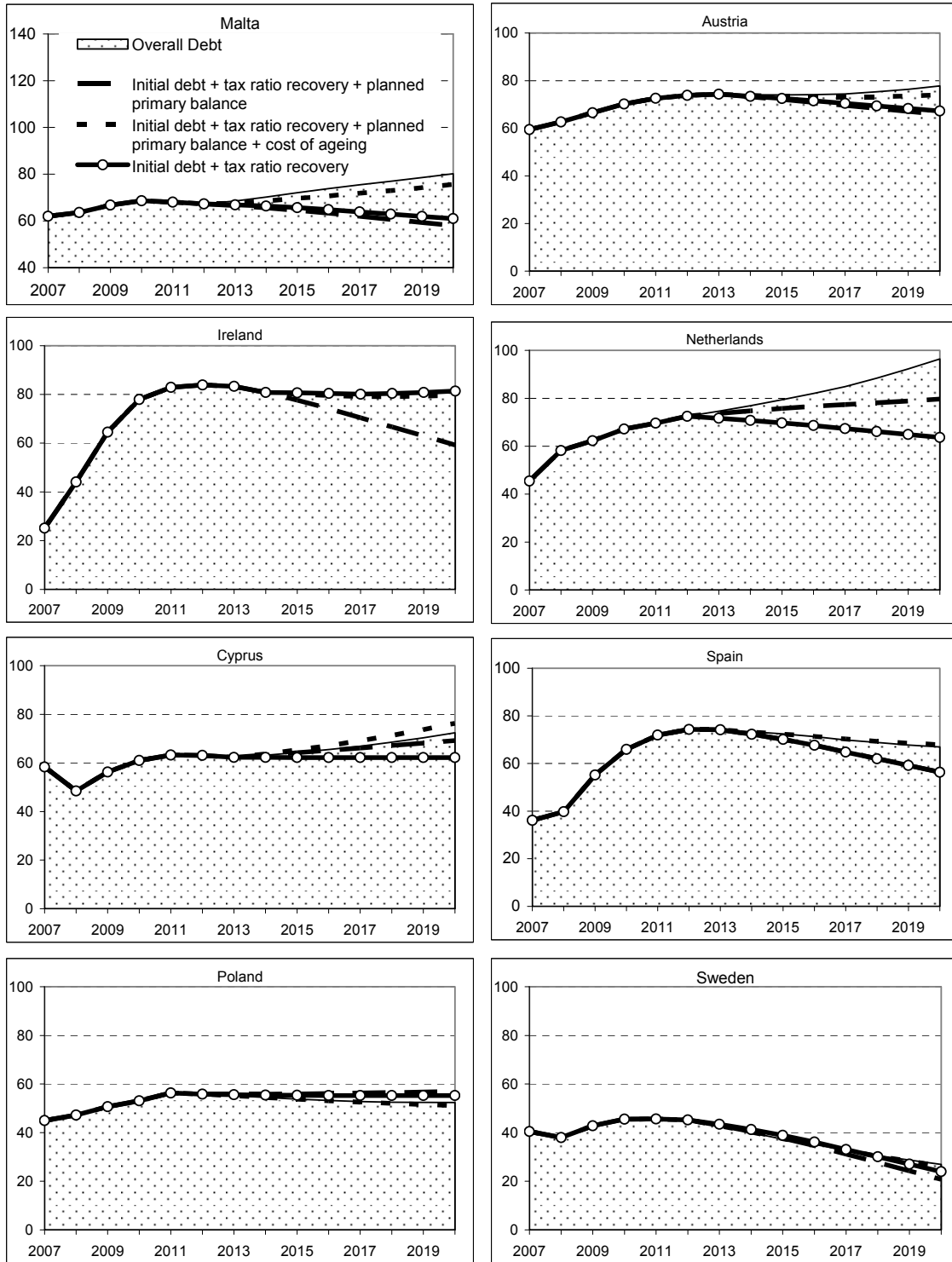
Countries with particularly high debt ratios can be faced with a consolidation more painful than under a baseline scenario if markets impose them a risk premium which can have strong implications on interest expenditure. In Italy and in Belgium, the 'risk premium' scenario entails the least favourable projections for the debt ratios compared to all other scenarios, including the 'budgetary slippage' scenario.⁽⁹⁹⁾ In both countries, it would lead the debt ratios exceeding 130% of GDP despite the full implementation of the projected consolidation. The impact on the 2020 debt ratios of a 2% rise in the interest rates is projected to exceed 20 pps of GDP also in the United Kingdom, Ireland, Hungary, Greece, and France.

⁽⁹⁹⁾ However, the impact of a rise in the interest rate also depends on its starting level, which makes the projections in this scenario appear particularly unfavourable for Member States where rates are lower and are less likely to be subject to the assumed increase, e.g., in the case of Germany.

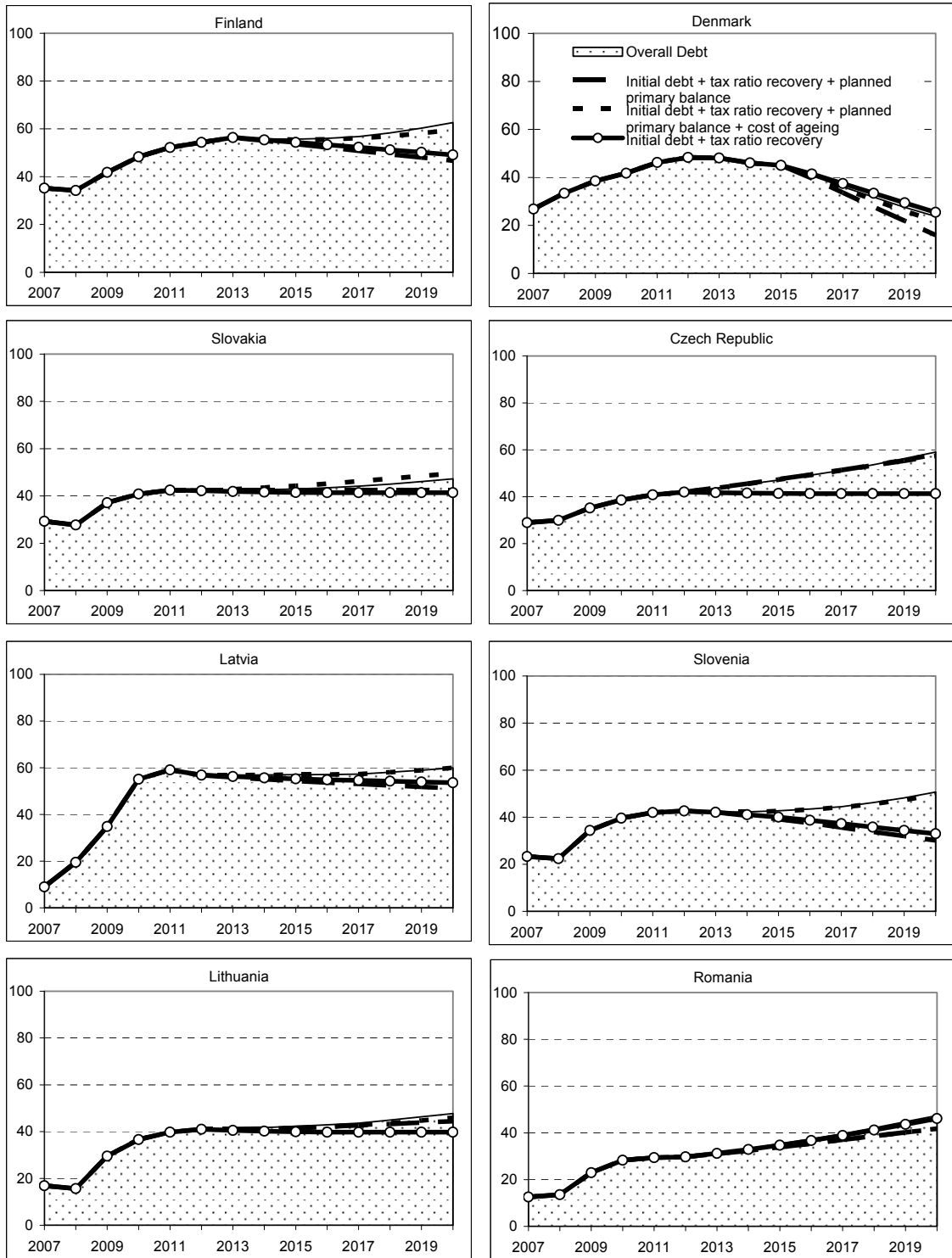
Graph III.2.2: Medium-term projections for the government debt-to-GDP ratio in the EU Member States assuming implementation of consolidation plans in the SCPs



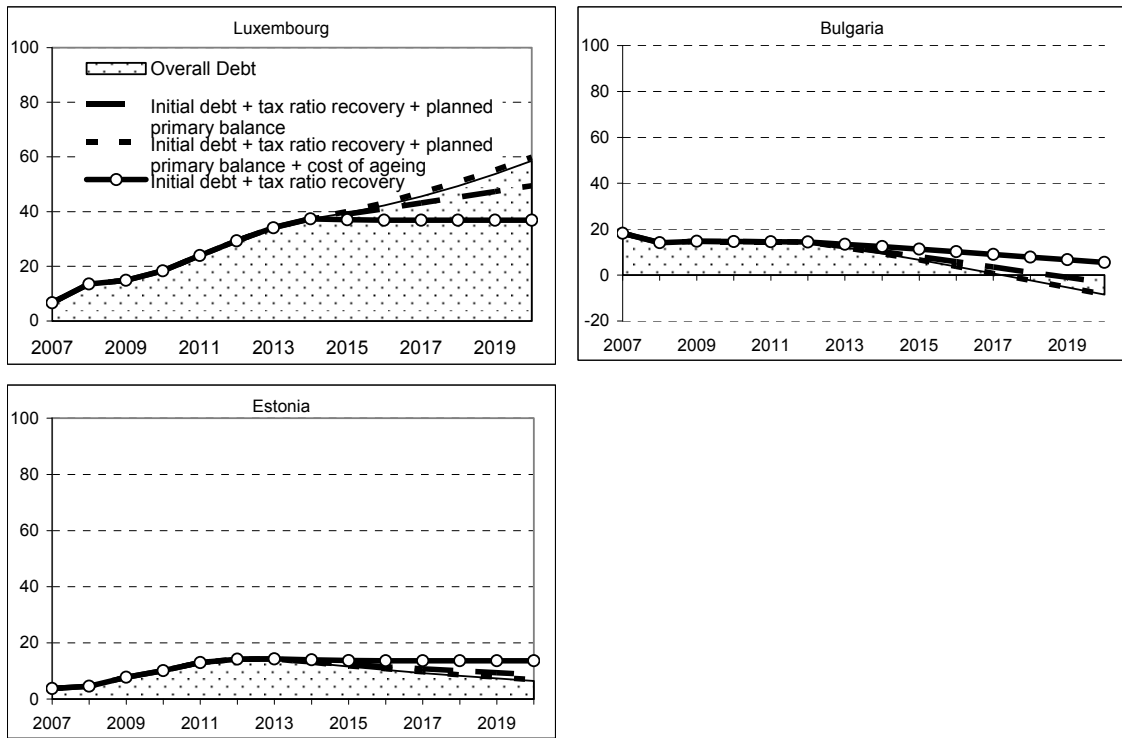
Graph (continued)



Graph (continued)

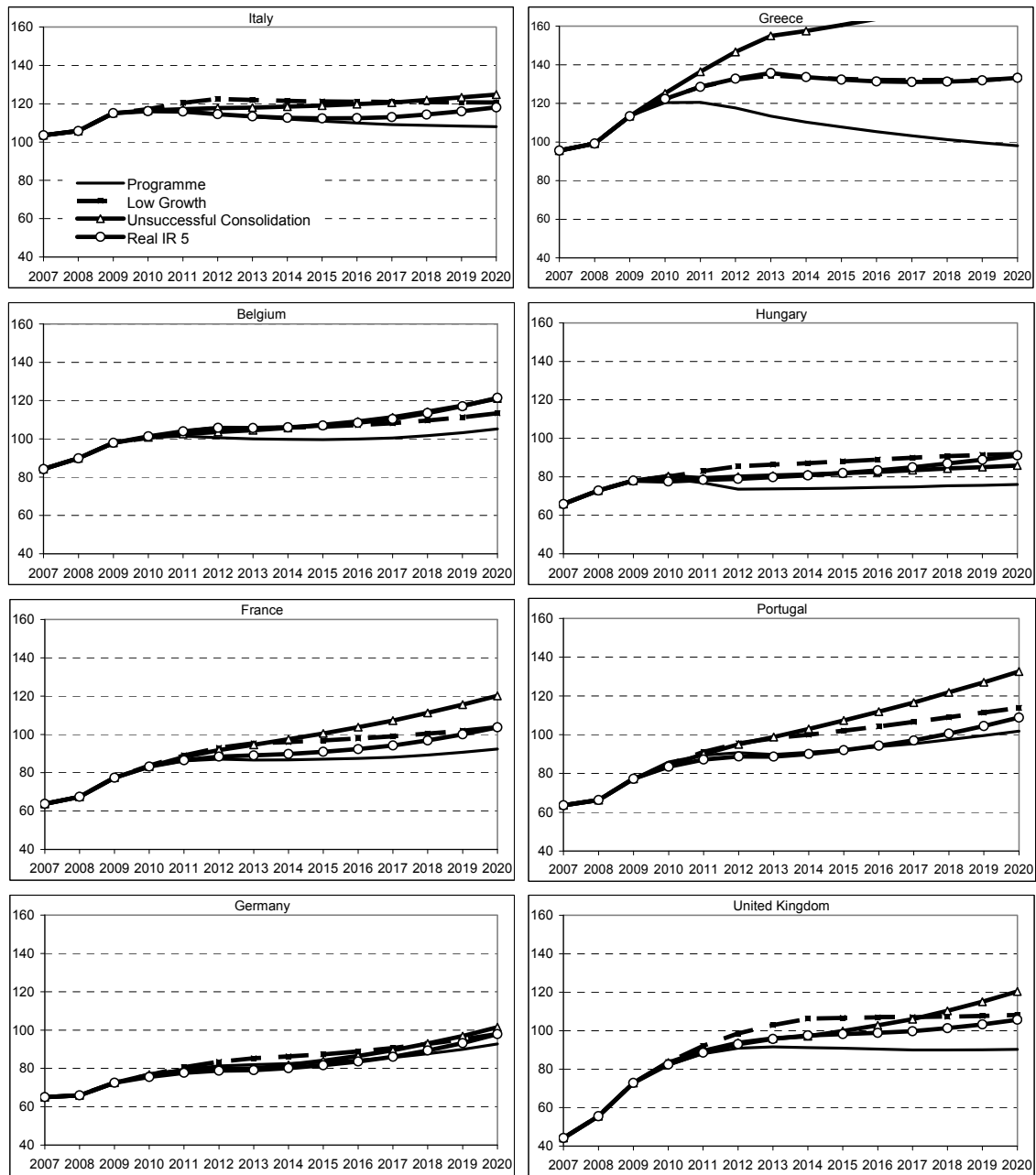


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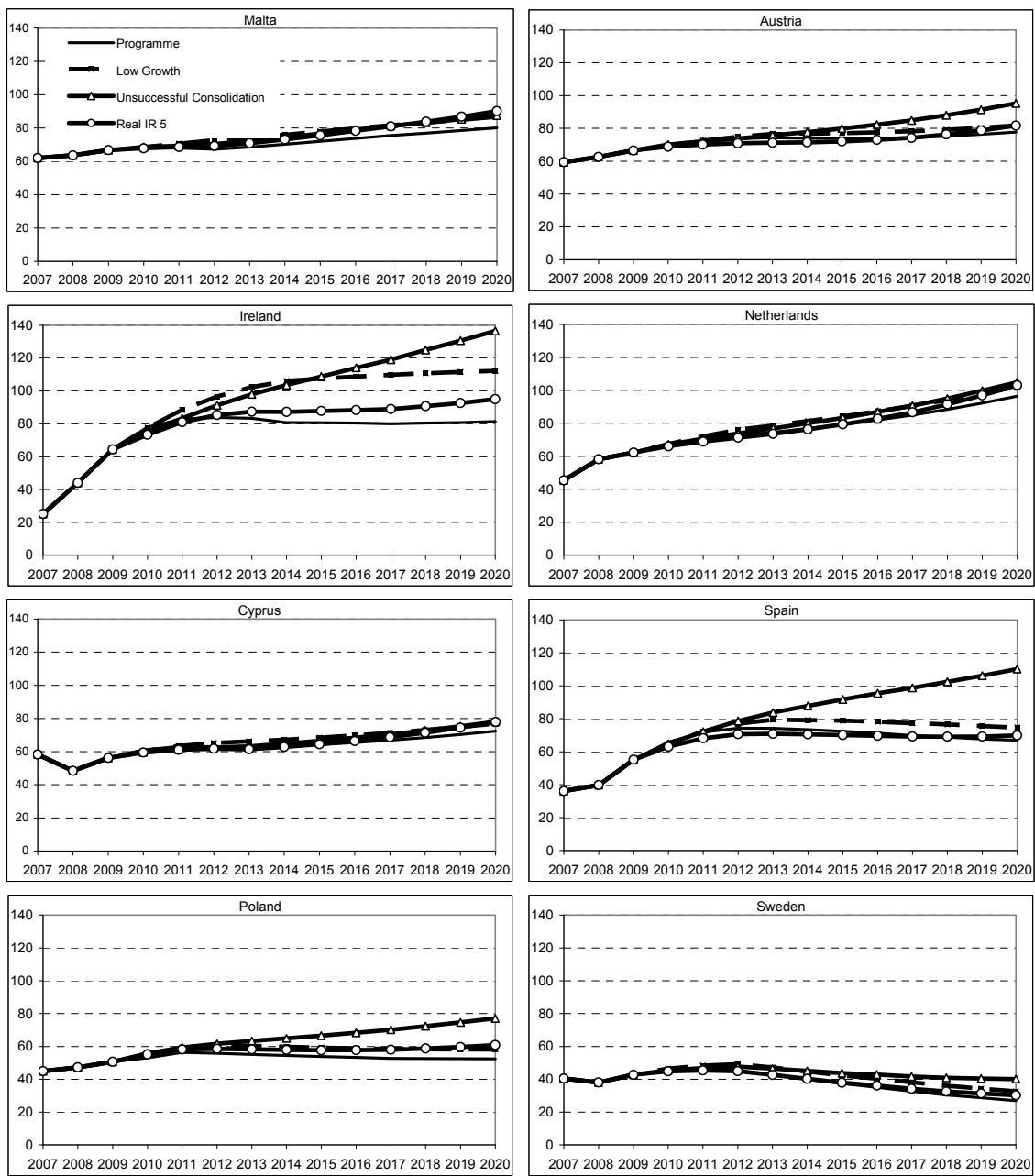


Source: Commission services.

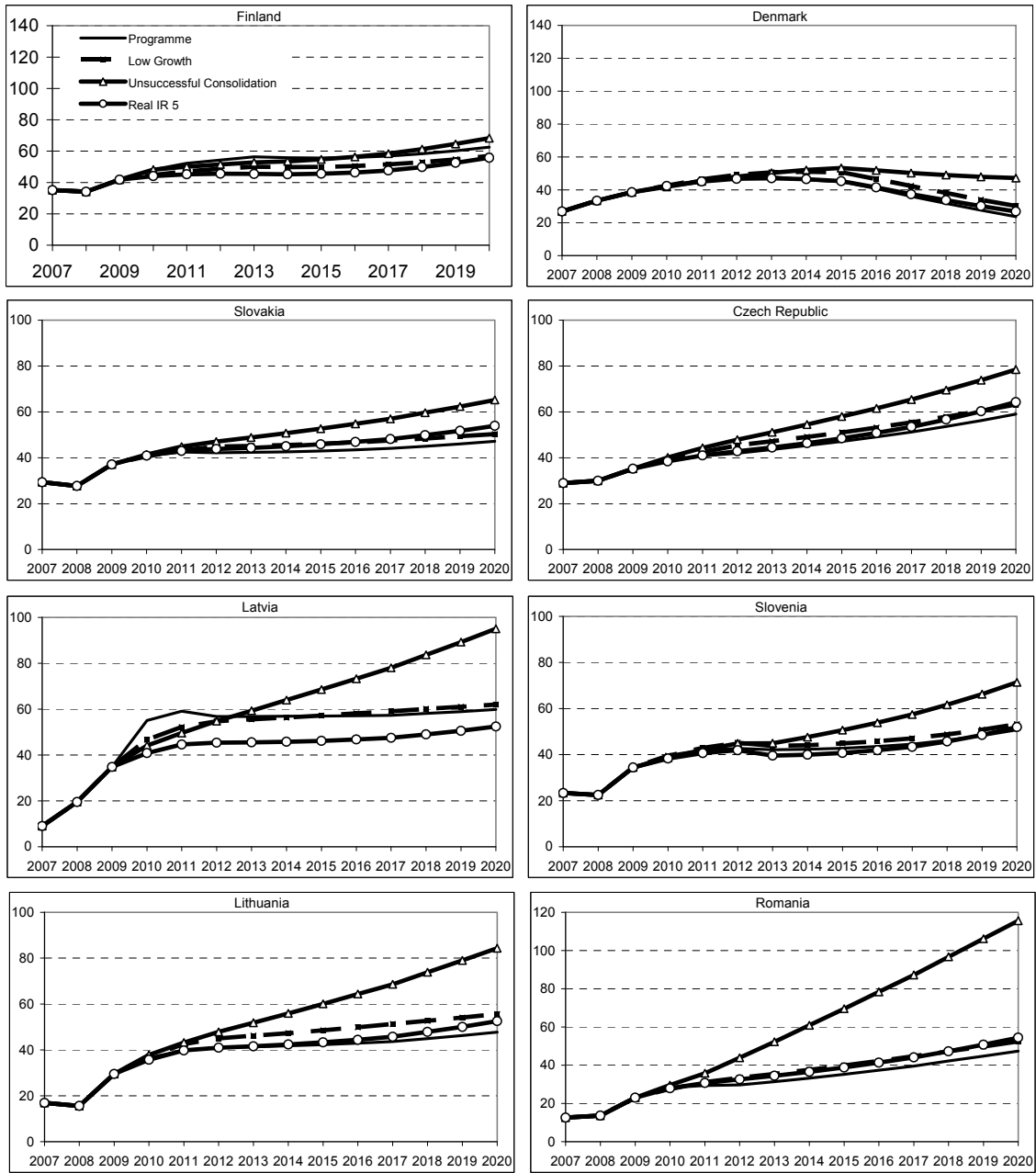
Graph III.2.3: Medium-term projections for the government debt-to-GDP ratio in the EU Member States with different risk scenarios



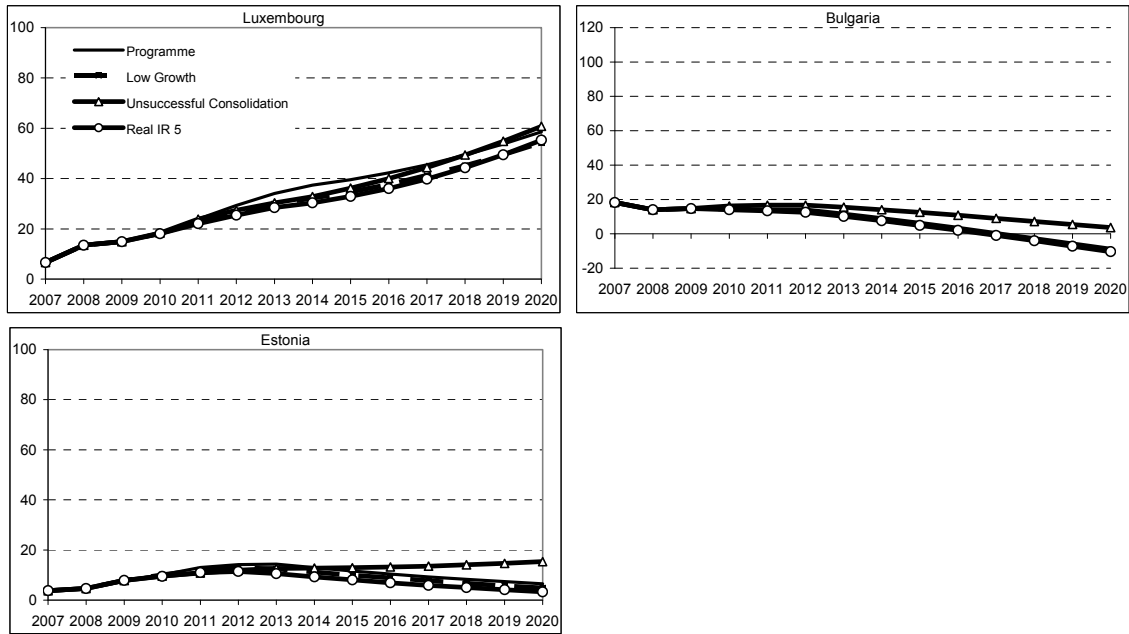
Graph (continued)



Graph (continued)



Graph (continued)



Source: Commission services.

3. OUTPUT EFFECTS OF HIGH DEBT LEVELS

Previous sections discussed the sharp rises in government debt and the magnitude of efforts needed to reduce this high stock of debt. Now we turn to the question of what impact high levels of government debt may have on economic activity. First, we give an overview of the theoretical and empirical literature that considers the effect of government debt on output or interest rates. This is followed by some illustrative evidence from model simulations of permanently higher deficits and debt with the European Commission's dynamic stochastic general equilibrium model QUEST III.

3.1. TRANSMISSION EXPLAINED BY THEORETICAL MODELS

The debate on the impact of public debt on output has resulted in a large body of theoretical and empirical literature.⁽¹⁰⁰⁾ There are three main channels through which government debt can affect long term growth. These are through the effect it can have on:

- national savings/interest rates
- distortionary taxes
- risk premia

Ceteris paribus, an increase in government debt reduces national savings, raises interest rates 'crowds-out' private investment, and reduces future output. This direct impact of raising the necessary funds to finance an increase in government debt can be illustrated with a simple loanable funds model⁽¹⁰¹⁾. An increase in government debt constitutes an outward shift in the demand-for-funds curve. Assuming for the moment that the supply of funds has not changed, this leads to a decrease in private borrowing and to an increase in yields. This leaves fewer resources for private capital accumulation, which in turn will reduce labour productivity and output.

However, if fiscal policy is Ricardian, any increase in government debt is matched by an equal

increase in savings. According to the Ricardian equivalence proposition government debt has no effect on aggregate savings, interest rates and private capital accumulation, as the private sector fully internalizes the public sector's budget constraint and saves to account for future taxes to finance the increased debt burden (Barro, 1974).

The Ricardian equivalence proposition assumes strict conditions. The most often debated assumptions are lump-sum or non-distortionary taxes, households planning on an infinite horizon (or the notion that generations are linked by bequests in such a way that they behave as if they were planning for the infinite future), and no liquidity constraints. Bernheim's (1987) comprehensive survey assesses the plausibility of all the crucial assumptions underlying the theory and contrasts them with the empirical evidence. He concludes that these conditions are unlikely to be met. The most cited reason for rejection of the Ricardian equivalence proposition is the assumption of lump-sum taxes. In the presence of distortionary taxes, Ricardian equivalence does not hold. Replacing the assumption of infinitely-lived consumers by finite horizons does however not appear to have a major impact. Even in an OLG model where households leave no bequests and, hence, do not take into account the increase in tax liabilities for future generations, for realistic life expectancies of over 50 years the effect on the interest rate and capital accumulation is negligible⁽¹⁰²⁾. This even holds if a share of households is liquidity constrained⁽¹⁰³⁾. Thus, although this conclusion could in theory be different in an overlapping generations framework where households leave no bequests to their

⁽¹⁰⁰⁾Comprehensive reviews include Bernheim (1987 and 1989) and Elmendorf and Mankiw (1998).

⁽¹⁰¹⁾For a consistent treatment of debt-financed government spending in the IS-LM framework see Silber (1970) or Blinder and Solow (1972).

⁽¹⁰²⁾See Kumhof and Laxton (2009). There is no difference in the interest rate response between a 50 year OLG model and an infinitely-lived-agent model and significant interest rate effects emerge from OLG models only with very short time horizons of 5 years or so. A 5 year life expectancy leads to the counterfactual implication that the marginal propensity to consume out of financial wealth is above 0.20, while empirical estimates suggest values in the range between 0.02 and 0.04 which is roughly in the range of models with planning horizons above 50 years.

⁽¹⁰³⁾Mankiw (2000) shows that what matters is that savers (even if they represent only a small share in the total population) have an infinite planning horizon. In the QUEST model which is applied in section III.3.3 only a fraction of households has an infinite planning horizon. Liquidity constrained households have a zero planning horizon and credit (or collateral) constrained households have an effective planning horizon of about 10 years.

descendents⁽¹⁰⁴⁾, for realistic life expectancies the effect on interest rates through the savings-channel is negligible and the effect on growth comes largely through higher risk premia and distortionary taxes to finance the increased interest expenditures.

3.2. THE EMPIRICAL EVIDENCE ON DEBT, GROWTH AND INTEREST RATES

There exists an extensive empirical literature on the macroeconomic effects of government deficits and debt. A few studies investigate the relationship between fiscal deficits and output directly, while most papers consider whether interest rates rise in response to an increase in government debt. If no increase in interest rates can be measured in response to an increase in debt, it would confirm Ricardian equivalence proposition. If a link between interest rates and debt can be established, the finding does not necessarily imply support for the conventional approach with crowding-out through the aggregate savings effect, as the increase in interest rates may be – at least partly – due to an increase in the risk premium and not necessarily from the savings channel.⁽¹⁰⁵⁾ Portfolio effects may affect the risk premia across sovereigns in case of efficient international financial markets or between sovereign and corporate spreads.⁽¹⁰⁶⁾

Box III.3.1 finds that the effect of increasing interest rates on government bond yields is significantly higher for high debt countries than for countries with average debt levels, which points to the importance of the risk premium-channel relative to the savings channel.

This finding is also supported by a much cited recent study by Reinhart and Rogoff (2010), which shows evidence of a link between growth and debt when debt-to-GDP levels are high. The authors use an extensive database of forty-four countries and about 200 years of observations. They find that the growth impact of government debt is negligible for levels of debt below a threshold of 90 percent of GDP, but above that threshold median growth rates fall by one percent, and average growth falls considerably more. It is not clear, however, whether the causality is unidirectional or whether this observation partly reflects the fact that countries with low growth are more likely to have encountered debt sustainability problems.⁽¹⁰⁷⁾

There is some empirical evidence which suggests that government debt is associated with an increase in real interest rates on government bonds, ranging from a 1 to 6 basis-point increase in interest rates on government bonds, for each 1 percentage point increase in the government debt to GDP ratio (see, for example, Laubach (2009)).⁽¹⁰⁸⁾ Engen and Hubbard (2004) obtain similar results when investigating the impact of government debt. There is no consensus on whether the estimated increase is confined to government bonds or whether it affects the general level of interest rates in the country in question. In countries that rely heavily on external financing of investment, an increase in government debt could lead to a general increase in the risk premium and raise interest rates for both government and private bonds.⁽¹⁰⁹⁾

The extensive literature has been more recently surveyed by Gale and Orszag (2003), who also point out that most studies tend to find a significant, positive link between fiscal deficits and debt and the long-term interest rate. However, they also find

⁽¹⁰⁴⁾ See for instance Blanchard (1984)

⁽¹⁰⁵⁾ The empirical studies that explicitly aim to test the Ricardian equivalence proposition seem at best unable to reject the proposition. For instance, while Evans (1988) and Ricker (1997) could not reject it, Evans (1993) and Lopez et al. (2000) find evidence against the hypothesis. On the other hand, Afonso (2008) focuses on EU countries and dismisses debt neutrality, while Reitschuler (2008), who tests the theory in 11 new member states, cannot reject the null in all countries.

⁽¹⁰⁶⁾ Evidence from the US suggests that an increase in government debt tends to reduce the spread between government and corporate bonds. Krishnamurthy and Vissing-Jorgensen (2007) show that an increase in the Treasury debt held by public leads to decline in the yield spread of AAA corporate debt over Treasuries.

⁽¹⁰⁷⁾ Another example of a study that investigates the relationship between fiscal deficits and output directly is Sawhney and DiPietro (1994) who, after controlling for a number of variables affecting growth, find no evidence that government debt would retard growth.

⁽¹⁰⁸⁾ Laubach aims to tackle the endogeneity problems (of higher interest rates also affecting debt and deficit dynamics and higher debt affecting fiscal policies) through taking into account the anticipated path of the fiscal variables as well.

⁽¹⁰⁹⁾ This can reflect, for example, increased currency risk or increased corporate default risk if large fiscal consolidation needs risk hampering economic activity (this assumes that taxes are distortionary). In a financial crisis, it can reflect the reduced capacity of the government to support the financial sector to avoid systemic crises.

that while about half of the studies found a predominantly positive and significant impact, about one-third concluded that the relationship was not significant. The authors claim that international capital flows significantly reduce the impact of budget deficits on interest rates as part of the increase demand for funds could be met with foreign capital. Hence, only part of the impact of government borrowing affects domestic interest rates. This explanation assumes an increased domestic demand for funds to be the reason for an interest rate increase and would be consistent with the crowding out channel through national savings. Two, recent studies examined this interplay of foreign capital markets and the effect of government deficits in a European context. Claeys et al. (2008) and Faini (2006) find significant spill-over effects and explain that debt-financed expansionary fiscal policy not only increases the sovereign interest rate spread vis-à-vis the rest of the region but would also raise the level of interest rates across the entire currency union. They also points out that in countries with a high debt-to-GDP ratio this harmful spill-over is even stronger.

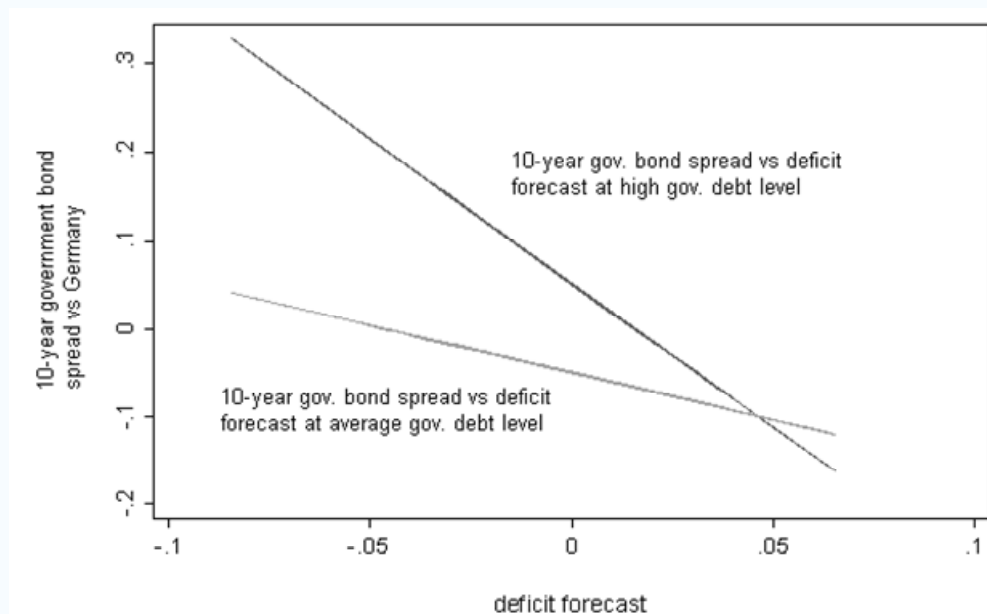
Note that possible negative effects of higher public debt on growth can be offset by the positive effects of debt-financed public expenditures, if this raises the economy's productive capacity. In this vein Tanzi and Zee (1997) advocate the accumulation of human capital, while Semmler et al. (2007) distinguish between different types of productive government spending and find that the government debt ratio could be stabilized as long as government investments are used in a growth-maximizing way. Greiner and Fincke (2009), by analysing an endogenous growth model, find that when real wages are sufficiently flexible in the long-run, the optimal government debt-to-GDP ratio is zero as the associated debt service distracts resources away from productive investment. However, when real wages are rigid, maintaining non-zero government debt can be beneficial, as the proceeds of the additional public investment in terms of higher employment and output can compensate for the interest burden.

Box III.3.1: The effect of deficits and debt on the sovereign risk premium

The main factors determining the risk premium on sovereign debt are: the perceived credit risk of this debt, the liquidity of the debt issuance, the degree of global risk aversion and the microstructure of the bond market. The level of debt, in turn, is also affected by these determinants, as the cost of financing debt affects the government's willingness to issue bonds and add to the stock of debt. These interactions make the relationship between the level of government debt and the sovereign interest rate complex ⁽¹⁾.

While a deteriorating domestic outlook for fiscal deficits and debt is associated with higher interest rates, there is also evidence that countries with high debt levels are more likely to experience increases in interest rates if debt increases further. An econometric analysis using data for euro-area countries over the period 2003q1-2009q2 suggests an interaction of debt and deficits in determining government bond yields. In particular, the impact of deteriorated fiscal balances on government bond yields appears significantly higher for high debt countries than for countries with average debt levels. Figure B.1 plots the estimated linear relationship between spreads and deficit for a given level of initial debt while controlling for a number of other determinants of interest rate spreads vs. Germany (such as liquidity conditions, and global risk aversion). It shows that the impact of higher deficit on the yield spread tends to increase significantly with a higher initial level of debt.

Figure B.1: The impact of budgetary balance on 10-year government bond spread at high and average debt levels



Source: Commission services

⁽¹⁾ This box draws heavily on Barrios, Iversen, Lewandowska and Setzer (2009), "Determinants of intra-euro area government bond spreads during the financial crisis" *European Economy, Economic Papers* 388, November 2009.

3.3. THE QUEST MODEL: OUTPUT EFFECTS OF PUBLIC DEBT

This section describes the output effects of higher government debt in the QUEST model, the European Commission's dynamic stochastic general equilibrium model. In the QUEST model, simulated either as an infinitely-lived-agent model or as an OLG model with 50 years of life expectancy, the savings channel of government debt is negligible.

The negative impact of debt on GDP results from the financing of deficits via distortionary taxes. Higher government debt implies higher interest payments requiring additional revenues to service this debt. If taxes are distortionary, this has a negative impact on potential GDP. How large these long run steady state effects are depends on how distortionary the taxes used to service the debt are.

The QUEST model also includes a risk premium term to government bonds rates that depends endogenously on debt levels. This sovereign risk premium is calibrated such that a 1 percentage point increase in the debt-to-GDP ratio leads to a 3 basis-point increase in government bond rates, roughly in the middle of the range estimated by Laubach (2009). If the risk premium is economy-wide rather than only affecting sovereign debt, long-term output effects can be very large.

Graph III.3.1 shows the long-term effects of a permanent 10 percentage point increase in the EU debt to GDP ratio in the QUEST model on potential output. It shows the effect on output that comes from increasing different taxes to service the higher debt. The taxes considered are lump-sum taxes, VAT, labour and corporate taxes. The exercise is undertaken with the default model setting, where the risk premium applies to sovereign bonds. For comparison the graph also shows GDP effects without a risk premium.

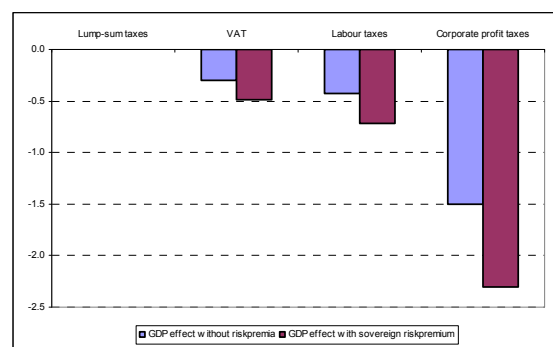
In all scenarios deficits are permanently increased, initially through reductions in taxes. Taxes then increase due to the higher debt servicing costs that result from the accumulation of debt. The initial tax reductions are reversed and in the long run taxes are higher. In the case of lump-sum taxes there is no long run GDP effect from higher debt,

but with distortionary taxes GDP is permanently lower.

The long run output effects are largest for corporate profit taxes, due to their effect on capital accumulation. The second largest output losses are under labour taxes, due to their distortionary impact on employment. The distortionary effects of labour taxes are larger than those of VAT. With a sovereign risk premium, debt servicing costs are higher and larger tax increases are required in the long run to keep the increase in debt at this 10 percentage point.

To illustrate the importance of the interest rate channel, Graph III.3.2 shows simulations where the risk premium not only applies to sovereign bonds, but also applies to the private sector. This shows the extent of crowding-out when an increase in debt would lead to an increased in economy-wide interest rates. This economy-wide risk premium is again calibrated at 3 basis points for a 1 percentage point increase in the debt-to-GDP ratio. In this scenario, the long run GDP effects are much larger. In this case the increase in debt leads to a large increase in the cost of capital, crowding out private capital and reducing potential output, even in the case of financing through lump-sum taxes.

Graph III.3.1: Output effects of permanent 10 percentage point increase in debt-to-GDP ratios with and without sovereign risk premium

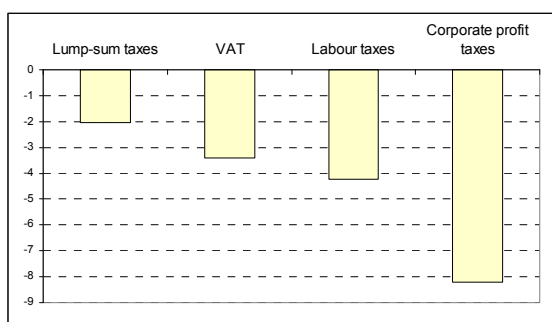


Source: Commission services.

To conclude, this section has illustrated the potentially significant long run GDP effects of higher debt. The channels identified in this section through which debt can affect output are through distortionary taxation for financing debt, sovereign risk premia and potentially an increase in

economy-wide interest rates. It is noteworthy that even in the case when there is no significant effect on interest rates, long-run crowding out can still be substantial, due to the size of the distortions caused by taxes. With an effect on economy-wide interest rates, the long run output losses of higher debt are much larger.

Graph III.3.2: **Output effects of a permanent 10 percentage point increase in debt-to-GDP ratios with economy-wide risk premium**



Source: Commission services.

4. DETERMINANTS OF SUCCESSFUL FISCAL CONSOLIDATIONS

Numerous empirical studies have looked at the issue of what determines successful fiscal consolidations. The effect of both the prevailing economic environment and the characteristics of the policy response have been studied. The main conclusions of the literature are summarised below.

Prevailing economic conditions can affect both the probability that a consolidation will be undertaken and the chances it has of success. European Commission (2007), Drazen and Grilli (1993) and Briotti (2004) find that consolidations are more likely to be undertaken when economic conditions have become unfavourable. Although consolidations should be easier to undertake in healthier economic conditions, it appears that it is easier to build the required political consensus under more difficult conditions: Kumar et al. (2007) reviews case-studies and suggests that this is indeed the case. However, some studies, such as Von Hagen and Strauch (2001) have found that favourable, rather than unfavourable, economic conditions are more likely to lead to consolidations. Moreover, the effect that the conditions in trading-partner countries have on the probability of success is also open to debate. While von Hagen and Strauch (2001) find that an unfavourable international economic outlook is more likely to lead to a successful consolidation, Alesina and Perotti (1995) and McDermott and Wescott (1996) find the opposite. Instead, they find that the possibilities of export-led growth increase the chances of a successful consolidation episode.

In terms of the policy responses there is a broad consensus that expenditure based consolidations have more chance of succeeding than ones that are primarily tax based, although recent research provides some interesting additions to the debate. Alesina and Perotti (1995) Alesina et al. (1998), Alesina and Ardagna (1998), von Hagen et al. (2002), Llera and Granados (2002), Lambertini and Tavares (2005) and European Commission (2007) all show the higher probability of success of expenditure-based consolidations. Focussing on cuts to primary expenditure, such as the government wage bill, generally enhances the probability success. However, the recent research

described in European Commission (2007) suggests that this relationship has become less valid in EU in countries. Instead, since the 1990s, successful consolidation episodes in the EU have been associated with cuts in transfers and non-wage government consumption.

The broad consensus that tax-based consolidations are less likely to be successful has also been qualified by the research presented in Tsibouris et al (2006). This paper shows that such consolidations can also prove to be effective where the starting tax to GDP ratio is low and where the implementation is policy changes are implemented gradually.

The speed of implementation and the accompanying structural policy changes are two important factors that are both linked with both the type of consolidation and may help determine its probability of success. In particular, one explanation of why expenditure based consolidations have tended to be more successful than tax based ones is that the former tend to be accompanied by structural reforms. These include cuts to public sector wages which can spill over to private sector wages, reductions in social security spending which can increase work incentives and improvements to public services' efficiency. Conversely, as Kumar et al. (2007) argue, tax-based consolidations have tended to be less successful as they were associated with a weak commitment to undertake structural reforms. Indeed, where such consolidations have proven successful they have tended to be accompanied by changes to the structure of the tax system which broaden tax bases, simplify the structure and reduce the tax burden on SMEs.

Gradual consolidations have also tended to be more successful than sudden, or "cold shower" ones according to European Commission (2007) and Kumar et al (2007). Again, the studies link this to the fact that during a gradual consolidation there tend to be accompanying structural reforms which aid the persistence of any improvements to the fiscal position and which tend to take time to deliver. Such gradual consolidations can take up to 10 years to deliver. Moreover, the existence or introduction of fiscal institutions or rules aiding

medium term budgeting is found to support the ability of governments to deliver lasting consolidations, as argued by European Commission (2007), Kumar et al (2007) and De Brun et al. (2008). The latter paper makes this case by focussing on the budgetary rules adopted by EU countries in the run-up to EMU.

Finally, monetary policy too can play a role. While Ahrend et al. (2006) find that accommodative monetary conditions at the start of a consolidation episode enhance the probability of its success, other papers such as von Hagen and Strauh (2001) and Lambertini and Tavares (2005) find no such influence. Nevertheless, Kumar et al (2007) consider monetary policy alongside other determinants to conclude that accommodative monetary policy is more likely to help achieve the political consensus to support successful consolidations.

Concerning the role of the exchange rate, Lambertini and Tavares (2005) reach inconclusive results as to whether real exchange rate depreciation improves the chances that a consolidation episode will succeed.

Against the background of this evidence on the determinants of successful fiscal consolidations, this section first considers the specificities of the current crisis by looking at what the existence of both a systemic financial crisis and high debt levels might mean for the type of consolidation that should be undertaken. Descriptive evidence building on the definitions of successful fiscal consolidations used in Section III.1 is also presented. Finally, the available information is brought together in an econometric analysis on the determinants of successful fiscal consolidations.

4.1. ACHIEVING SUCCESSFUL FISCAL CONSOLIDATIONS: WHAT IS SPECIFIC TO THE CURRENT DEBT INCREASE EPISODE?

Although the literature provides some guidance about the determinants of successful consolidations, applying the lessons learnt requires careful consideration of the particular characteristics of current situation. Two aspects of the current crisis are of key importance because they tend to pull the optimal policy response in opposite directions. The first element is that the

current crisis is one marked by a global financial crisis, leading to a protracted period of low growth. The second aspect is that the current crisis has come at a time when EU countries already have significant levels of government debt.

The fact that the depth and spread of economic and financial crisis has been so exceptional by recent standards means that ensuring a sustained recovery is of primary importance. Just as the European Economic Recovery Plan (EERP), and other support packages globally, has been credited with ensuring that the collapse in aggregate demand was limited, so there is a risk that a too rapid or strong tightening of fiscal policy may choke or severely hamper any burgeoning recovery. Instead, there is a need to ensure that contractionary fiscal policy does not lead to a relapse into recession. The presence of a financial as well as economic aspect to the crisis makes the situation more difficult⁽¹¹⁰⁾, as reduced access to credit adds an additional obstacle to economies' ability to restructure and grow. Moreover, as monetary policy has already effectively reached its zero bound in order to support the economy during the crisis, it is no longer in a position to offset the contractionary impact of any consolidation through a loosening. Finally the global nature of the crisis means that it is less likely that European countries can rely on export-led growth.

⁽¹¹⁰⁾In order to look at this aspect, the analysis presented later in this Section will follow the study by Laeven and Valencia (2008). Financial crisis episodes are considered and defined there as episodes during which a country's corporate and financial sectors face great difficulties repaying contracts on time, experience a large number of defaults, have a sharp increase in non-performing loans and when most of the banking system capital is exhausted. This section makes use of the Laeven and Valencia (2008) database to provide novel evidence on the incidence of financial crises on the success of fiscal consolidations. Since Laeven and Valencia only define the starting points of banking crises but not their length, this study uses the information provided in Demirgüç-Kunt and Detragiache (2005) and Reinhart and Rogoff (2008b) to define their length. In case of missing or conflicting information from those sources, the end of the crisis was determined as the year when domestic credit growth bottomed out. Accordingly, in absence of additional indications, the end of the banking crisis episode corresponds to the year in which the private credit-to-GDP ratio recovers. Since the credit-to-GDP ratio fall often occurs with a delay, a credit ratio increase after the start of the crisis does not mean that the episode will be classified as lasting one year only, unless the credit-to-GDP ratio grows continuously for at least three years without interruption. For more details on country-specific episodes with past financial crises, see European Commission (2009).

While the fragile situation of economic growth would point towards erring on the side of delaying consolidations, the presence of high levels of government debt adds to the urgency of consolidating. Both discretionary policy action (to support the financial sector and to support aggregate demand through the EERP) and the increase in deficits due to the operation of the automatic stabilisers has led to a significant increase in debt levels. According to the Commission 2010 Spring forecasts, debt is set to increase by 20.8 percentage points of GDP between 2007 and 2010 in the EU (18.7 pp in the Euro area). With a starting level of debt of 66.0% of GDP in Euro Area and 58.8% in EU27, and significantly higher for some Member States, this reduces the scope for Member States to continue running significant deficits which continue to add to this debt without the economy bearing significant consequences. In particular, delayed consolidations risk compromising future growth by raising risk premia and burdening the economy with higher taxes (than would occur with an earlier consolidation). The higher the starting level in a given Member State, the more pressure that the debt level will place on the need for a rapid and strong consolidation.

Considering that growth is crucial for sustainable consolidation and debt reduction, the Commission Communication "Europe 2020 – A strategy for smart, sustainable and inclusive growth" stresses that budgetary consolidation programmes should prioritise 'growth-enhancing items' such as education and skills, R&D and innovation and investment in networks. The revenue side of the budget also matters and particular attention should also be given to the quality of the revenue/tax system. Where taxes may have to rise, this should, where possible, be done in conjunction with making the tax systems more "growth-friendly". For example, raising taxes on labour, as has occurred in the past at great costs to jobs, should be avoided. Rather Member States should seek to shift the tax burden from labour to energy and environmental taxes as part of a "greening" of taxation systems. Fiscal consolidation and long-term financial sustainability will need to go hand in hand with important structural reforms, in particular of pension, health care, social protection and education systems. Public administration should use the situation as an opportunity to enhance efficiency and the quality of service.

Public procurement policy must ensure the most efficient use of public funds and procurement markets must be kept open EU-wide.

4.2. FISCAL CONSOLIDATION, FINANCIAL CRISES AND THE BUSINESS CYCLE: DESCRIPTIVE EVIDENCE

Before seeking to provide a comprehensive analysis of the determinants of successful fiscal consolidations, it is worth recalling the definitions and summarising the main features of the sample used. As in Part III.1, fiscal consolidations are defined in terms of the improvement in the cyclically adjusted primary balance (CAPB) and success is defined according to the ex-post debt level compared to the debt level the year prior the start of a consolidation episode. Accordingly, a fiscal consolidation occurs when the CAPB improves by at least 1.5% with such an increase taking place in one single year (cold shower) or over three years (gradual consolidation) if each and every year the CAPB does not deteriorate by more than 0.5% of GDP. A fiscal consolidation is considered as being successful if the public debt level is lower by at least five percentage points of GDP in the following three years.

Table III.4.1 provides evidence on the success of fiscal consolidations considering the EU27 countries together with selected non-EU OECD countries during the period 1970-2008 and including information on starting business cycle conditions.⁽¹¹⁾

The business cycle position is measured using the level and annual change in the output gap at the start of a fiscal consolidation episode: "*Expansion*" denotes years with a positive output gap level and a positive annual change, "*Recovery*" denotes years with a negative output gap level and positive annual change, "*Downturn*" years are those with a positive output gap level and negative annual change, while "*Protracted slowdown*" years have a

⁽¹¹⁾ Selected non-EU OECD countries include Australia, Canada, Japan, Mexico, Norway, Switzerland, Turkey and the US. Those countries were selected on the basis of data availability. The discrepancy between the total number of consolidation episodes reported in the first line and the consolidation episodes by business cycle categories reported in the 2nd to the 5th line is due to missing data on the output gap for Luxembourg

Table III.4.1: The success rate of fiscal consolidations and the business cycle: evidence for the EU and non-EU OECD countries 1970-2008

	EU15			EU27			Other non-EU OECD*		
	All consolidation episodes								
	All	Gradual	Cold showers	All	Gradual	Cold showers	All	Gradual	Cold showers
	34.5	51.2	25.3	33.7	47.7	27.1	29.3	22.7	38.7
	(116)	(41)	(75)	(160)	(53)	(107)	(75)	(44)	(31)
	Consolidation by business cycle position**								
Expansion	58	85.7	41.7	44.8	54.5	38.9	25	25	25
	(19)	(7)	(12)	(29)	(11)	(18)	(20)	(12)	(8)
Recovery	48.4	55.7	45.4	47.6	54.5	45.1	23.8	12.5	60
	(31)	(9)	(22)	(42)	(11)	(31)	(21)	(16)	(5)
Downturn	26.3	50	9.1	21.7	50	6.7	0	0	0
	(19)	(8)	(11)	(23)	(8)	(15)	(4)	(2)	(2)
Protracted slowdown	21.4	46.1	10.3	26.2	47.4	16.7	40	35.7	43.7
	(42)	(13)	(29)	(61)	(19)	(42)	(30)	(14)	(16)

* Includes Australia, Canada, Japan, Mexico, Norway, Switzerland, Turkey and the US. ** Business cycle position (as defined in Section 2) the first year of a consolidation episode. The business cycle position is measured using the level and annual change in the output gap at the start of a fiscal consolidation episode: "Expansion" denotes years with a positive output gap level and a positive annual change, "Recovery" denotes years with a negative output gap level and positive annual change, "Downturn" years are those with a positive output gap level and negative annual change, while "Protracted slowdown" years have a widening negative output gap level. The number of consolidation years are included in parentheses.

Source: Commission services.

widening negative output gap level. It must be noted that these variables include the endogenous effect of consolidation on cyclical conditions. For example, a large consolidation effort in the first year may widen an already negative output gap. This may lead to a bias in the results, when using these business cycle variables in the econometric estimation. However, the size of the bias is likely to be small, as it only applies to the first year of fiscal consolidation episodes, while the success of fiscal consolidations spanned over the three subsequent years.

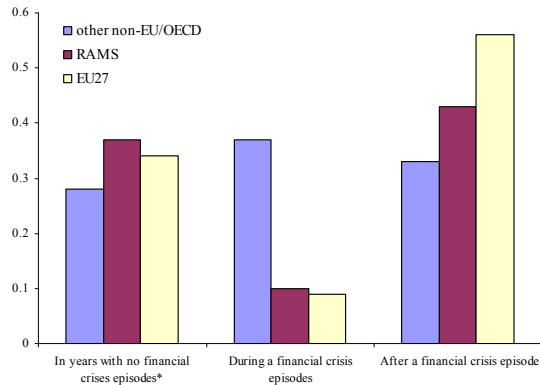
Consolidations are observed for the period 1970 to 2005, where 2005 is the last year for the observation of a consolidation episode and 2008 the last year for the observation a successful consolidation, respectively. Gradual consolidations appear to be generally more successful than cold showers in the EU, with success rates of 47.7% and 27.1% respectively. In non-EU OECD countries, however, gradual consolidations post a success rate of 27.7% against 38.7% for cold showers⁽¹¹²⁾. The success rate is also higher for consolidations starting during expansion and recovery phases, i.e. when cyclical conditions are

favourable, although, again, this result does not hold for non-EU OECD countries. For EU countries, cold showers consolidations seem particularly unlikely to succeed during periods of downturn or protracted slowdown with success rates of only 6.7% and 16.7%, respectively. However, the opposite seems to be the case for non-EU OECD countries, as reflected by a success rate of 43.7% for cold-shower consolidations in protracted downturns.

Before the 2008/2009 global financial crisis, EU countries had been relatively immune to systemic financial crises. Notable exceptions were Finland and Sweden during the 1991–94 period, Spain in the late 1970s and, more recently, a number of recently acceded Member States in the context of their transition to market economy. The evidence presented in Graph III.5.1 suggests that fiscal consolidations are more successful when undertaken after a financial crisis than during it. This result holds for EU countries in particular, while for non-EU OECD countries there is no clear indication that success in consolidating depends on whether a consolidation starts during or after the financial crisis. For the EU, success rates are about 56% for consolidations starting after a financial crisis, and only 9% for consolidations starting during a financial crisis, against a benchmark case of a 34% success rate for consolidations in the absence of financial crises.

⁽¹¹²⁾ This result could be explained on account of the fact that the non-EU OECD sample of countries includes both developed and emerging economies. Emerging economies usually have less leeway to run large budget deficits during recessions, as they face greater constraints regarding their foreign indebtedness and/or higher risk premia on public debt, and are therefore likely to undertake cold shower type of consolidations.

Graph III.4.1: The success rate of fiscal consolidation and financial crises episodes (% of consolidation episodes leading to a reduction of debt level by at least 5 pp GDP 3 years later)



Note: * years with no financial crisis episodes exclude both financial crisis and post (up to five years) financial crisis episodes

Source: Commission services.

4.3. THE DETERMINANTS OF SUCCESSFUL FISCAL CONSOLIDATIONS AND FINANCIAL CRISES: ECONOMETRIC EVIDENCE

Here, we present an econometric analysis of the determinants of success of fiscal consolidations including, in particular, the influence of systemic financial crises, the business cycle position and the starting debt level.

4.3.1. Econometric specification

The econometric analysis takes the form of probit estimates where the dependent variable is a dummy indicating whether a consolidation was successful or not, according to the criteria described earlier. Note that the success of a fiscal consolidation is only estimated where the decision to consolidate is observed. The results can therefore be considered as indicative of the determinants of successful fiscal consolidations conditional upon fiscal consolidation taking place. The explanatory variables are:

- The occurrence of a systemic financial crisis, measured by two dummy variables. The first dummy takes a value equal to one for a consolidation episode taking place during a financial crisis episode as defined in Section

III.5.1, and zero otherwise. The second dummy captures consolidations that start after a financial crisis, taking a value of one where the consolidation starts within 5 years of a crisis, and zero otherwise.

- The business cycle position, measured for the starting year of each consolidation episode by the value of the output gap as defined in Section III.5.1, captured by three dummy variables. These capture whether the consolidation starts during a downturn, a recovery or a protracted slowdown, with an expansion being the omitted category.
- The debt-to-GDP ratio in year $t-1$, with the year t being the starting year of a consolidation episode. ⁽¹¹³⁾
- The nature of fiscal consolidation, i.e., whether predominantly revenue or expenditure based, measured through the change between $t-1$ and $t+3$ of the cyclically adjusted primary expenditure as percentage of GDP, with t being the starting year of a consolidation episode. The change in the cyclically adjusted tax revenue as percentage of GDP is also considered, and equally defined over the period $t-1$ and $t+3$. This variable is considered separately from the cyclically adjusted expenditure variable due to co-linearity concerns.
- The strength of fiscal governance, measured for EU countries by a composite indicator based on information reported on the European Commission Fiscal Governance database; for non-EU OECD countries this reduces simply to whether or not the countries have a budget deficit rule in places based on information reported in Guichard et al. (2007).
- The influence of IMF assistance, measured by a dummy variable taking the value of one for a consolidation episode coinciding with an IMF

⁽¹¹³⁾ The role played by the starting debt level as determinant of successful fiscal consolidation provides a case of potential sample selection bias to the extent that the debt level is also likely to influence the choice of whether to consolidate or not. For a more detailed discussion of the sample selection bias in the context of fiscal consolidations, see Barrios et al. (2010).

balance-of-payments assistance programme, zero otherwise.

- Finally, the snowball effect of public debt, defined as an interaction term between the debt level in $t-1$ and the differential between the growth rate and the interest rate paid on public debt.⁽¹¹⁴⁾ The choice of a debt-based criterion as opposed to a primary balance criterion for defining consolidation success raises an issue of specification in relation to the definition of consolidation, which remains in terms of primary balance. Specifically, simple debt dynamics imply that the size of the consolidation necessary to achieve a reduction in debt is directly proportional to the level of debt with the factor of proportionality equal to the interest rate-growth rate differential with debt dynamics. The estimate of the determinants of successful consolidations controls for this debt scale factor by including the combined impact of growth and interest rate on debt accumulation (s.c. snowball effect) among the regressors.

4.3.2. Econometric results

The probit regression has been estimated for three groups of consolidations: all consolidations (column 1 and 2) cold shower consolidations (column 3) and gradual consolidations (column 4). Table III.6.2 provides the estimated marginal effect of each explanatory variable.⁽¹¹⁵⁾

The main results can be summarised as follows:

Fiscal consolidations starting during or shortly after a systemic financial crisis have significantly lower chances of success. Specifically, considering

the whole sample of consolidation episodes, fiscal consolidations starting during a financial crisis have on average 30.2% less chance of success and even if undertaken up to five years after the start of a financial crisis have a substantially lower probability of reducing public debt level (-24.4%). This result suggests that the impact of financial crises on the public finances, which is known to be both heavy and protracted (see Laeven and Valencia 2008, Reinhart and Rogoff, 2009 and European Commission, 2009) makes it more difficult for governments to curb rising public debt levels.

Cold-shower consolidations may be more successful in the aftermath of a financial crisis. The results for the sample of cold shower consolidations suggest that undertaking a cold shower consolidation in the aftermath of a financial crisis, i.e. presumably after the financial repair has been completed or well under way, may actually boost its chances of success, which, as discussed above, are generally lower than for gradual consolidations⁽¹¹⁶⁾.

Unfavourable cyclical conditions reduce the likelihood of success of a consolidation, especially for cold-shower consolidations. The results for the whole sample of consolidation episodes as well as for cold shower and gradual consolidations considered separately, suggest that a protracted slowdown reduces the probability of success by 20–30%. The negative effect of a simple downturn, however, is significant only for cold-shower consolidation. Nor does a recovery seem to make a significant positive difference to the success of consolidations.

Consolidations accompanied by a strong fiscal framework are more likely to succeed, especially if of the gradual kind. Specifically, the probability of succeed for countries undertaking consolidation

⁽¹¹⁴⁾More precisely, the snowball effect of public debt is measured by $\text{Debt/GDP}_{(t-1)} * (i_{(t)} - y_{(t)}) / (1 + y_{(t)})$, where i = interest rate and y is the nominal GDP growth in year t . The average value of this variable over the three-years following a consolidation episode is considered in order to match the criteria used to determine the success of a fiscal consolidation.

⁽¹¹⁵⁾Note that when considering explanatory dummy variables (i.e. as in the case of the fiscal governance variable) the estimated marginal effect can be interpreted directly as indicating the impact of a given variable on the probability to achieve a successful fiscal consolidation while for continuous variables such interpretation cannot be made directly and requires a prior transformation of the explanatory variable which are done only to illustrate certain specific results.

⁽¹¹⁶⁾In certain specifications the effect of some variables could not be estimated owing to 'perfect predictions', reflecting the small number of cases. For example, in the case of gradual consolidations (column 4) the coefficient on the financial crisis dummy cannot be estimated given that such gradual consolidations were undertaken in only four occasions (corresponding to the cases of the US in 1988 and 1989 and Latvia in 1996 and 1997) and were never successful. Overall the model predicts the probability of successful consolidation well, with a percentage of correct prediction above 0.7 in all specifications.

Table III.4.2: The determinants of successful fiscal consolidations, financial crises and the business cycle 1/

	(1)	(2)	(3)	(4)
	All consolidations	All consolidations	Cold showers	Gradual Consolidations 2/
	(1)	(2)	(3)	(4)
During financial crisis	-0.302*** (0.042)	-0.303*** (0.04)	-0.140*** (0.041)	-
Post financial crisis (up to 5 years after a financial crisis)		-0.244*** (0.06)	0.531** (0.223)	-
Debt	0.508*** (0.169)	0.605*** (0.138)	0.797*** (0.164)	1.764*** (0.367)
A cyclically adjusted expenditure	-0.043*** (0.012)	-0.053*** (0.013)	-0.023* (0.012)	-0.065 (0.043)
Downturn	-0.111 (0.106)	-0.112 (0.102)	-0.158*** (0.048)	-0.024 (0.261)
Recovery	-0.062 (0.101)	-0.093 (0.094)	-0.058 (0.085)	-0.158 (0.202)
Protracted slowdown	-0.193** (0.089)	-0.210** (0.087)	-0.282*** (0.086)	-0.354** (0.169)
Debt-stabilising primary balance (snowball effect of public debt)	-4.994*** (1.81)	-5.687*** (1.847)	-4.080*** (1.562)	-19.256** (7.561)
Fiscal governance	0.004 (0.089)	0.05 (0.087)	0.059 (0.098)	0.397** (0.189)
IMF programme	0.340* (0.176)	0.441** (0.174)	-0.009 (0.113)	
<i>Estimated probability of success</i>	0.27	0.26	0.27	0.42
<i>% of probability correctly predicted</i>	0.73	0.75	0.82	0.81
Observations	181	181	110	58

1/ Marginal effect using Probit estimations, dependent variable is a dummy variable taking value 1 when consolidation is successful and 0 when it fails. Success/failure are conditional on fiscal consolidation being undertaken. Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

2/ The coefficient on systemic financial crises variables could not be estimated due to low number of non-zero outcome for these variables
Source: Commission services.

with 'good' fiscal governance is close to 40% higher compared to countries undertaking similar consolidation but with 'bad' fiscal governance, and highly significant in the case of gradual consolidations. However, the advantage conferred by 'good' fiscal governance falls to 6% in the case of cold shower consolidations and is not significant.

A high level of debt increases the likelihood of a successful consolidation. Specifically, considering all consolidation episodes, a 25pp increase in the debt to GDP ratio implies an increase in the probability to achieve a successful consolidation by 12.7%.⁽¹¹⁷⁾ Note that this result obtains after controlling for the 'snowball effect' of debt. It suggests that higher debt puts pressure on governments to achieve more ambitious consolidations.

Expenditure based consolidations are more likely to succeed. Specifically, considering all consolidation episodes, a 5% decrease in cyclically

adjusted expenditure between t-1 and t+3 increases the likelihood of a consolidation episode succeeding by 26%. Considering separately cold shower and gradual consolidations, expenditure cuts are more conducive to success in the case of cold-shower than in that of gradual consolidations.

A separate analysis of the specific role of expenditure and revenue-based consolidations and their interaction with starting business cycle conditions has also been performed. The results are reported in Table III.5.3, where, to facilitate the reading, only the results concerning the interaction terms between the type of consolidation (i.e., expenditure versus revenue based) and the starting business cycle position are displayed (the other non-reported variables being the same as those in column 1 of Table III.5.2). Generally speaking, the advantage of expenditure-based consolidations is confirmed. Expenditure cuts seem to be especially effective when consolidations take place in years of protracted slowdown and when they are of cold-shower type. By contrast, they do not seem to make a significant difference to the success of gradual consolidations. As to revenue increases, they seem to lower the chances of successful consolidations, particularly in the case of protracted slowdowns.

⁽¹¹⁷⁾ This figure is simply obtained by multiplying the standard deviation of the debt variable for the estimation sample by the estimated marginal effect reported in Table III.5.2. All probabilities are estimated at the average values of the variables.

Table III.4.3: **The interaction between expenditure-cut/ tax increase-based consolidations and the starting business cycle position: evidence from probit estimations**

	Δ cyclically adjusted expenditure			Δ cyclically adjusted tax revenues		
	(1)	(2)	(3)	(4)	(5)	(6)
	<i>All consolidations</i>	<i>Cold showers</i>	<i>Gradual consolidations</i>	<i>All consolidations</i>	<i>Cold showers</i>	<i>Gradual consolidations</i>
Downturn	-0.003 (0.02)	0.028*** (0.011)	-0.101 (0.09)	0.013 (0.04)	0.015 (0.028)	0.032 (0.088)
Recovery	-0.045* (0.024)	-0.031* (0.017)	0.006 (0.101)	-0.021 (0.027)	-0.009 (0.019)	-0.198 (0.159)
Protracted slowdown	-0.054*** (0.02)	-0.055*** (0.018)	-0.033 (0.049)	-0.033** (0.014)	-0.030** (0.012)	-0.142* (0.077)

Notes: Results concern interaction between nature of consolidation (i.e. expenditure cut or tax increase) and the starting business cycle position. Marginal effect using Probit estimations, dependent variable is a dummy variable taking value 1 when consolidation is successful and 0 when it fails. Success/failure are conditional on fiscal consolidation being undertaken. Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. The other explanatory variables included in the regressions are those reported in column (1) of Table III.4.2.

Source: Commission services.

4.3.3. A closer look at the role played by the initial debt level and the snowball effect: inference for the current debt increase episode.

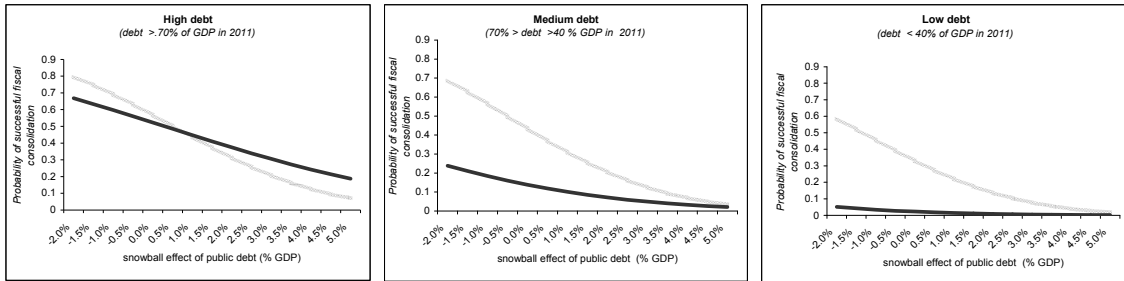
The level of debt has been shown to increase the probability of successful consolidations, after controlling for the mechanics of the snowball effect. This raises the primary balance required to halt the increase in debt in proportion with the level of debt, with the factor of proportionality being equal to the interest rate growth rate differential. Moreover, the estimated effects of debt on the probability of success, both directly and via the snowball effect, differ depending on whether the consolidation is gradual or cold shower. Specifically, the results presented in table III.4.2 showed that a 1 percentage point of GDP increase in the snowball effect reduces the probability of success of gradual consolidation by nearly 19%, while the corresponding reduction for a cold shower consolidation is 4%. Using these results, it is possible to estimate the probability of success of fiscal consolidations at different levels of debt for varying values of the snowball effect and holding other variables constant (at their average value).⁽¹¹⁸⁾ As illustrated in Graph III.4.2,

at high levels of debt, the size of the snowball effect is sufficient to render a cold-shower consolidation more likely to succeed than a gradual consolidation. Specifically, countries with starting debt of over 70% of GDP, a snowball effect of over 1% of GDP (i.e., an interest growth rate differential of 0.7 percentage points) renders cold-shower consolidations more likely to succeed than gradual consolidations. By contrast, at medium or low levels of debt, gradual consolidations dominate cold shower consolidations for all plausible values of the interest rate growth rate differential. Applying these results to the current levels of government debt in the EU suggests that the case for cold shower consolidations may be stronger than past experience would suggest. According to the Commission 2010 Spring forecasts, of the eleven Member States forecast to have debt above 70% of GDP in 2010, ten are also forecast to have snowball effects large enough for cold-shower consolidations to dominate gradual ones, on account of the influence of debt⁽¹¹⁹⁾.

⁽¹¹⁸⁾In other words, this exercise assumes that the parameters estimated were identical to the ones reported in Table III.5.2 although it only considers as explanatory variables the debt level, the three business cycle variables, the debt-stabilising primary balance and the fiscal governance variable in order to be able to compare the same model for cold shower and gradual consolidations. The range of values chosen for the debt-stabilising primary balance appear to correspond to the values observed for the countries included in the sample used to estimate results reported in Table 2.

⁽¹¹⁹⁾Belgium, Germany, Ireland, Greece, France, Italy, Hungary, Malta, Austria, Portugal and the UK have starting levels of debt of over 70% in 2010. Of these, all except the UK have a snowball effect of over 1% of GDP.

Graph III.4.2: The probability of success of gradual and cold shower fiscal consolidation depending on the level and snowball effect of public debt



Note: grey = gradual; black = cold shower
Source: Commission services.

5. TAX POLICY AND FISCAL CONSOLIDATION

5.1. INTRODUCTION

The discussion in chapter III.4 of this report concludes that consolidation from the spending side is in general more effective than revenue driven consolidation. The magnitude of the required consolidation after the crisis, however, suggests that increases in the tax burden may be inevitable in a number of countries. ⁽¹²⁰⁾ It is therefore important to consider which tax changes could yield these additional tax revenues, while bearing in mind the medium and long term consolidation needs as well as the long-run effects that different tax changes might have on the economy. A sustainable consolidation requires that the distortionary effects of taxation on growth, investment and employment are kept at a minimum, while ensuring that the tax system contributes to other policy goals effectively. To achieve this, both structure and the tax base for different taxes may need to be adjusted. Two other aspects, which will not be addressed here in detail, can help to increase government revenues and to consolidate the budget: innovative financing, that is public finance that is raised in new, non-traditional ways, as analysed in European Commission (2010x), and measures to improve tax compliance by improving the tax administration and by combating tax evasion.

Current tax systems are in many cases too complex. This is because they tend to develop in a piecemeal fashion, with exceptions and exemptions being added to address specific concerns as they arise, without adequate care being taken to ensure that they do not create conflicts with other objectives. Rather than adjusting tax systems at the margins in this way, fundamental reform lead to a better overall performance of the tax systems. The current economic downturn offers a unique opportunity to rethink tax systems, to restate the objectives of taxation, assess potential conflicts between different objectives, and to identify what makes good tax systems for the 21st century.

EU Member States exhibit large difference in terms of the level and structure of their taxes,

⁽¹²⁰⁾An analysis of the potential contribution of consolidation on the revenue side to overall consolidation in the G20 countries can be found in Cottarelli and Vinals (2009).

reflecting different social preferences and approaches to public service provision. On average in the EU27, the total tax-to-GDP ratio including social contributions stood at close to 40% in 2008, with individual Member States having ratios between less than 30% to close to 50%. The composition of total tax revenues in the three main tax categories direct taxes, indirect taxes and social contributions varies considerably between Member States, too, ⁽¹²¹⁾ with, e.g., the share of direct taxes in total taxation ranging from 20% to 60% in individual Member States. Despite significant difference between Member States, overall revenues are divided roughly equally between the three main tax categories (see Graph III.5.1). For the EU27 and the EA16 averages, these shares have been relatively stable in recent years. Graph III.5.1 also reflects the impact of the business cycle which has a strong effect in particular on direct tax revenues. ⁽¹²²⁾ As can be seen in Graph III.5.2, within the overall averages, the shares in several Member States have changed significantly in recent years. While part of these changes is probably of a cyclical nature, substantial changes reflect political decisions to change the tax system.

5.2. TAX LEVEL AND GROWTH

The link between taxation and growth has been the focus of a large number of studies. So far, these studies only provide partial evidence that the total level of taxation, as measured by the tax-to-GDP ratio, influences economic growth. ⁽¹²³⁾ The analysis is subject to many technical difficulties. In particular, the drag on growth from taxation is, in general, at least partly offset by the positive effects of government spending, which in turn depend on

⁽¹²¹⁾In the definition used here, indirect taxes are defined as taxes linked to production and imports whereas direct taxes are defined as current taxes on income and wealth plus capital taxes. See European Commission (2009a) for details.

⁽¹²²⁾See European Commission (2010a). For an analysis of the long-run trend in the 1970-1997 period, see European Commission (2000).

⁽¹²³⁾See for a review, European Commission (2008a) and Myles (2009). Several empirical studies do in fact find a negative relationship between the level of taxation (or other measures of the government size) and GDP growth but, as emphasised by Myles (2009), "...none of this analysis escapes the fundamental observation that the lack of structural modelling limits the interpretation of the estimated equations and leaves the causality issue unresolved."

the quality of government expenditure, a variable that is difficult to quantify and treat analytically and which may vary considerably across countries. This difficulty complicates considerably the task of estimating the pure effect of taxation on growth. ⁽¹²⁴⁾ Moreover, tax levels and growth are endogenous as not only can tax levels affect growth but growth can also affect the level of taxes collected. In addition to the work that looks at the tax-to-GDP ratio as a measure of the average tax burden in the economy, the literature also discusses the effect of high marginal tax rates on economic growth. It provides some empirical evidence that higher effective marginal tax rates and higher tax progressivity for a given share of tax revenues in GDP have a negative effect on growth. ⁽¹²⁵⁾ This work is, however, subject to difficulties in defining and calculating the overall effective marginal tax rate.

5.3. TAX STRUCTURE AND GROWTH

While the relationship between the overall level of tax and growth is uncertain, more is understood about how its components affect GDP per capita and its growth. In the current juncture, where it appears that tax increases are in many cases inevitable as part of the consolidation process, it is important to consider which taxes to raise. The structure of taxation matters particularly in the case of high tax-to-GDP ratios; these are more likely in the years to come. ⁽¹²⁶⁾ Taxes affect economic growth through the different components of growth: total factor productivity, the growth of the capital stock and the growth of labour supply. Tax policies that improve research and development, entrepreneurship and foreign direct investment enhance productivity growth. Tax policies that make work pay and promote human capital formation augment labour supply in the short and long term. Tax policies that encourage domestic and foreign investment as well as saving increase the capital base of the economy. These outcomes can be achieved in two ways: by either providing the right incentives within the

provisions of specific taxes or by shifting the tax structures in a desirable way. This applies regardless of whether total taxes need to be increased or not.

At a more macroeconomic level, studies ⁽¹²⁷⁾ have shown that taxes on income are usually associated with lower economic growth (and so lower steady-state GDP) and that property, consumption and environmental taxes are the least detrimental to growth. Personal income taxes ⁽¹²⁸⁾ and in particular corporate income taxes appear to be the most detrimental. Personal income and consumption taxes can both affect labour supply. Moreover, personal income taxes tend to have a progressive structure which has negative growth effects, while they also discourage saving by reducing the returns to saving. In addition, consumption taxes are less distortive than personal income taxes as they partly fall on accumulated assets, which are an inelastic tax base. Corporate income taxes have a negative impact on capital investment and productivity improvements. In terms of property taxes, recurrent taxes on immovable property are found to have the smallest effect on GDP per capita, with those levied on households having a less detrimental effect than those levied on companies. Environmental taxes can help to internalise external effects and do at the same time generate tax revenue. These results therefore suggest that possible future tax increases should focus on property taxes, consumption taxes and environmental taxes and should be accompanied by measures to increase labour participation, promote education and training and encourage investment. So far, there has only been a modest shift in the structure of taxation in this direction, with the share of environmental taxes having even decreased in recent years. ⁽¹²⁹⁾

⁽¹²⁴⁾ How public expenditure affects growth is looked at in more detail in the Commission report 'Public Finances in EMU 2008'.

⁽¹²⁵⁾ See, e.g., Padovano and Galli (2001, 2002), Koester and Kormendi (1989) and Mullen and Williams (1994). See also Myles (2009) for a critical review of the literature.

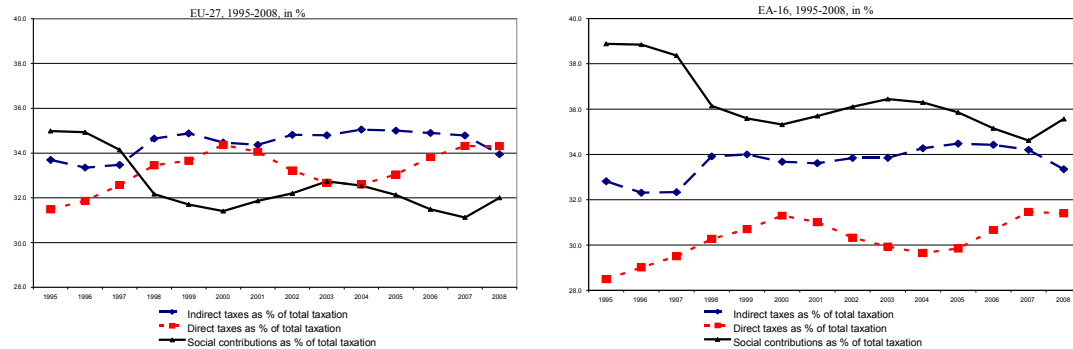
⁽¹²⁶⁾ See Agell et al. (1996).

⁽¹²⁷⁾ See, e.g. Johansson et al. (2008), Arnold (2008) and Myles (2009).

⁽¹²⁸⁾ In the literature social contributions paid by employees and employers as well as payroll taxes are usually included in this item.

⁽¹²⁹⁾ See European Commission (2009a, 2009b).

Graph III.5.1: Shares of indirect taxes, direct taxes and social contributions in overall tax revenues



Note: No data is available for Bulgaria for the 1995-1997 period.
Source: Commission services.

This could indicate that there exists significant potential for further reforms, although the slow progress could be a sign that change is likely to prove difficult to introduce. Possible constraints to such changes include conflicting interests such as diverging preferences in terms of redistribution, fairness aspects of the reforms, the desire to promote home-ownership, or the presence of alternative regulatory measures to achieve similar goals such as in environmental matters. It is also important to have an understanding of the quantitative importance of the different tax categories in overall revenues which can indicate potential limits to the proposed tax shifts. Whereas property and environmental taxes correspond to a relatively small share of overall tax revenues in the EU on average (making up around 4% and 6% of the total, respectively), the share of VAT and personal income taxes amounts to around one fifth each, with around 30% stemming from social contributions.⁽¹³⁰⁾ Differences in revenue shares are, however, substantial between EU Member States. This concerns in particular property taxes, whose share in overall tax revenues ranges from around 1% to more than 10% of total tax revenues for those Member States for which information is available.⁽¹³¹⁾

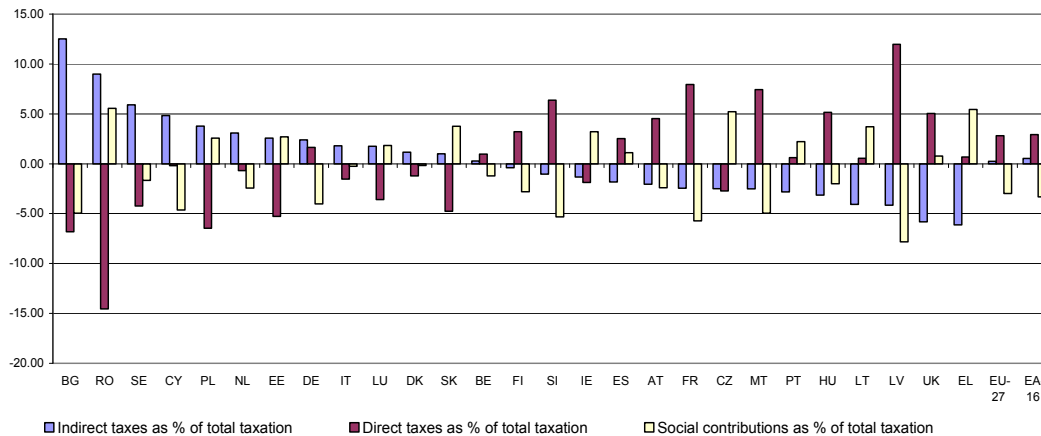
The relationships between individual taxes and growth described above are confirmed by calculations using the European Commission's Quest III model. This model distinguishes labour taxes, consumption taxes (VAT) and corporate profit taxes. As discussed in detail in Section III.6, a consolidation through an increase in VAT is the least unfavourable of all tax based consolidations and would lead to a larger increase in long-run GDP than a consolidation based on higher labour taxes. An increase in taxes on corporate profits would lead to a loss in long-run GDP.⁽¹³²⁾

When considering which taxes to change it is important to bear in mind both the short run and long run effects, which may differ and to take into account the economic situation. For example, Heady et al. (2009) point out that while cuts in corporate income tax rates have positive effects for long-run growth, these cuts are ineffective in the short run when companies make little or no profits as is currently often the case. In order to encourage investment in the short run, investment tax credits would be a better tool in the current circumstances.

⁽¹³⁰⁾The main other tax revenue categories are taxes on corporate income and excise duties and consumption taxes
⁽¹³¹⁾See OECD (2009).

⁽¹³²⁾This result is also in line with the calculations published in European Commission (2008a), which showed slightly positive effects from a tax shift from labour to consumption taxes.

Graph III.5.2: **Change in the share of indirect taxes, direct taxes and social contributions in overall tax revenues, 1995-2008, in percentage points**



* Bulgaria 1998-2008

Note: Member States are ordered by the change in the share of indirect taxes in total taxation.

Source: Commission services.

5.4. DESIGN OF INDIVIDUAL TAXES

The design of the individual taxes can be adapted, too, in order to reduce the distortionary effects of taxation on growth. For example, Li and Sarte (2004) find that tax progressivity in the personal income tax has a small but non-negligible negative impact on long-run growth, a result which was confirmed by later research (e.g. Johansson et al., 2008, and Heady et al., 2009). Tax progression and high top marginal personal income tax rates reduce productivity growth, especially in industries characterised by high entry rates of new firms. Of course, tax progressivity might be seen as desirable for other reasons, such as reasons of redistribution or because progressivity is linked to higher automatic stabilisation. Recent research, however, suggests that the loss in per capita GDP is too high to justify the relatively small stabilising effect. ⁽¹³³⁾ As regards VAT, a single rate VAT with only a few exemptions is considered preferable to a more complex structure, as it reduces distortions and facilitates compliance and tax administration. Assistance to low-income households, which is one of the key arguments often brought forward in favour of reduced VAT rates, can be provided at lower budgetary costs outside the VAT

system. ⁽¹³⁴⁾ In general there is a consensus in the literature to argue for broad bases and low tax rates. A move to cut inefficient reductions, exceptions or exemptions which are either not economically justified or display incentives not in line with their original aims could be beneficial for many countries and could reduce the size of the tax increases needed as part of the consolidation. However, careful analysis needs to be undertaken to ensure that changes do indeed enhance the operation of the tax system.

Tax reforms after the crisis could not only support growth, but could also address possible deficiencies and distortions of the current systems, some of which have appeared more clearly in the context of the current crisis and although not having caused the crisis, might have contributed to it. Several recent publications address this issue, e.g. IMF (2009a, 2009b), Hemmelgarn and Nicodème (2010), Keen et al. (2010). ⁽¹³⁵⁾ One key aspect is that tax systems are often biased towards debt financing which applies to both the corporate and the household sector. In the case of corporations, interest payments can be deducted from the corporate tax base in most Member States whereas the return to equity is not deductible. This

⁽¹³³⁾ See, e.g., IMF (2009c),

⁽¹³⁴⁾ See Heady et al. (2009) and IMF (2010).

⁽¹³⁵⁾ European Commission (2010b) will also address this issue in more detail.

creates a tax bias in favour of debt, which is likely to an insufficient capitalisation of companies. As concerns households, several Member States allow for mortgage interest deductibility or even the amortisation of mortgages for owner-occupied housing whereas imputed rents and in many countries capital gains for the principal residence are not taxed. While this favours home-ownership, it can potentially contribute to housing bubbles and promote a high indebtedness of households. Overall, higher indebtedness increases the vulnerability of the private sector to shocks. Solutions to these problems include the introduction of an allowance for corporate equity (ACE) or a comprehensive business income tax (CBIT).⁽¹³⁶⁾ In terms of housing taxation, the taxation of imputed rents and capital gains could be introduced in order to reduce the bias to invest in owner occupied housing, or alternatively the interest deductibility for owner occupied housing could be phased out gradually over a number of years.⁽¹³⁷⁾

The existing tax structure and the economic situation in the different Member State, will determine which changes in the tax structure and tax design can be expected to have the strongest impact on growth.⁽¹³⁸⁾ In planning changes, it is important to bear in mind the effect that these will have on the revenues of different levels of government as shifts in the tax structure might require adjustments in revenue sharing arrangements. Moreover, another crucial aspect of taxation is the effect it has on income inequality as in many cases there is likely to be a trade-off between growth and equity.

⁽¹³⁶⁾The ACE system provides a deductible allowance for corporate equity in the calculation of the taxable profits of corporations, whereas the CBIT allows no deduction of interest payments or the return on equity from taxable corporate earnings. Amongst the EU Member States, Belgium has recently introduced an ACE system (*déduction pour les intérêts notionnels*). See, e.g. de Mooij and Devereux (2009) for an analysis of the effects of potential ACE and CBIT reforms in the EU Member States.

⁽¹³⁷⁾A more detailed discussion of the possible adjustment of the taxation of owner occupied housing can be found in IMF (2009b).

⁽¹³⁸⁾IMF (2010) presents rough estimations for potential revenue increases of different types of taxes in the G-20 countries.

6. SIMULATIONS OF THE OUTPUT EFFECT OF FISCAL CONSOLIDATIONS

In response to the collapse in output following the financial crisis, the European Commission called for an EU wide framework of fiscal and structural measures to support aggregate demand and avoid a deeper recession, resulting in the European Economic Recovery Plan (EERP).⁽¹³⁹⁾ Despite earlier scepticism about the general effectiveness of fiscal policy as a stabilisation tool, the specific circumstances of the crisis created a strong case for fiscal stimulus measures. With an increased number of households facing credit constraints and with the zero lower bound on nominal interest rates having been reached, monetary policy was limited in its ability to provide stabilisation and could, instead, accommodate a fiscal stimulus. The presence of both credit constraints and very low interest rates increase the effectiveness of temporary fiscal stimulus measures and justify significant policy interventions.

However, the fiscal stimulus added to the underlying deterioration in fiscal positions which manifested itself when the crisis unfolded. In many countries credit and asset price booms had led to improvements in fiscal positions in recent years. The failure to fully account for the direct and indirect effect of strong asset prices on fiscal positions led to a distorted and overly optimistic picture of the underlying fiscal stance.⁽¹⁴⁰⁾ In addition, the ongoing negative effects of the financial crisis on potential growth put further pressure on fiscal positions and have led to widespread concern about the long-run sustainability of the public finances. Although the fiscal stimulus packages were not the main reason for the deterioration in the fiscal positions, there have been calls for an early exit from the stimulus measures. This section discusses some of the issues involved. It focuses first on the effects of the withdrawal of fiscal stimulus measures, and, second, on the effects of permanent fiscal consolidations that will be required to put public finances back on a sustainable path.

Fiscal stimulus measures and their withdrawal

Fiscal policy played an important role in supporting growth in the current crisis due to two main factors.⁽¹⁴¹⁾ First, the financial crisis led to a significant tightening of credit conditions and increased the share of credit constrained households. Second, with nominal interest rates at or near their zero lower bound, monetary policy was likely to be accommodative of the fiscal stimulus, rather than crowding it out – as would have been the case in normal times – through an increase in interest rates aimed at keeping inflation and inflation expectations in check.⁽¹⁴²⁾ However, while these two factors make fiscal multipliers larger, if they persist they would also make the cost of a withdrawal of the stimulus higher.

Table III.6.1 shows the QUEST model multipliers for fiscal stimuli in the EU, for the cases where the EU acts alone, and as part of a global stimulus. The results also represent the expected loss in output stemming from the withdrawal of these measures. As is clear from this table, the GDP effect depends on the instrument used, the presence of credit constraints, monetary accommodation and on whether the stimulus is regional or global.

In general, GDP effects are larger – and so the losses more severe in the case of withdrawal – for public spending measures, such as government consumption and investment, than for tax reductions and transfers to households. Temporarily increasing *investment subsidies* yields sizeable effects since it leads to a reallocation of investment spending into the period when the purchase of new equipment and structures is subsidised. *Government investment* yields a somewhat larger GDP multiplier than *purchases of goods and services*. An increase in *government wages* has a larger impact on GDP (but a smaller impact on private sector value-added). An increase in *government transfers* has a smaller multiplier, as it typically implies negative labour supply

⁽¹³⁹⁾ See also Box I.1.1 describing the EERP and the withdrawal of temporary measures in product and labour markets.

⁽¹⁴⁰⁾ See the Report on Public Finances 2009 for an analysis of the relation between fiscal policy, credit growth and property prices (European Commission (2009)).

⁽¹⁴¹⁾ Roeger, W. and J. in 't Veld (2009), "Fiscal Policy with Credit Constrained Households", *European Economy Economic Paper no.357*

⁽¹⁴²⁾ These two factors also mean that empirical reduced form studies are less relevant to gauge the effects of fiscal policy in the current situation as these studies assess the effects of fiscal stimulus in a normal situation.

Table III.6.1: Fiscal multipliers for temporary stimulus

	EU stimulus			Global stimulus		
	Without collat. constr.	With collat. constr.	With collat. constr. + mon. acc.	Without collat. constr.	With collat. constr.	With collat. constr. + mon. acc.
investment subsidies	1.52	1.59	2.04	2	2.11	2.63
government investment	0.89	0.91	1.08	1.04	1.08	1.24
government purchases	0.78	0.81	1.03	0.94	1	1.21
government wages	1.11	1.26	1.39	1.15	1.34	1.46
general transfers	0.2	0.41	0.53	0.24	0.51	0.62
transfers targetted to collateral constrained hh.	-	0.67	0.86	-	0.82	1.01
transfers targetted to liquidity constrained hh.	0.66	0.69	0.89	0.81	0.86	1.05
labour tax	0.22	0.44	0.55	0.26	0.53	0.64
consumption tax	0.4	0.48	0.65	0.49	0.59	0.76
property tax	0.01	0.12	0.18	0.01	0.16	0.21
corporate income tax	0.02	0.03	0.04	0.03	0.04	0.05

Note: Effect on EU GDP (% difference from baseline) for a temporary one year fiscal stimulus of 1% of (baseline) GDP.

Source: Commission services.

incentives. However, transfers targeted to liquidity constrained consumers provide a more powerful stimulus as these consumers have a larger marginal propensity to consume out of current net income. Temporary reductions in *value added and labour taxes* show smaller multipliers, which are nearly entirely generated by higher spending of the private sector. A temporary reduction in consumption taxes is more effective than a reduction in labour taxes as forward looking households also respond to this change in the intertemporal terms of trade⁽¹⁴³⁾. Temporary reductions in *housing tax* has little impact for Ricardian households, who smooth their spending, but a non-negligible impact for credit constrained households. Temporary *corporate tax* reductions would not yield positive short run GDP effects since firms calculate the tax burden from an investment project over its entire life cycle.

The presence of credit-constrained agents raises the multiplier as these agents have a larger marginal propensity to consume out of current net income. The multiplier increases especially for those fiscal measures which increase current income of households directly, such as labour taxes and transfers, while the increase is less strong for government consumption and investment. The reason for this is that credit constrained households not only have a higher marginal propensity to consume out of current

income but their spending is also highly sensitive to changes in real interest rates (see Roeger and in 't Veld (2009)). This is because the collateral constraint requires that spending must be adjusted to changes in interest payments. In other words, the interest rate exerts an income effect on spending of credit constrained households. For realistic magnitudes of indebtedness, the interest sensitivity exceeds the interest elasticity of spending of Ricardian households, substantially.

An important lesson from this is that it would be better if fiscal exit was only commenced after credit conditions have returned to pre-crisis levels. As long as credit conditions remain tight, and more households face a binding collateral constraint on their borrowing, the costs of a withdrawal of fiscal stimulus remain higher.

Fiscal policy multipliers are also enhanced by monetary accommodation for a fiscal stimulus which is likely to occur when interest rates are at, or close to, their zero lower bound. Under normal circumstances a fiscal stimulus would put upward pressure on inflation and give rise to an increase in interest rates. With monetary accommodation and nominal interest rates being held constant, higher inflation will lead to a decrease in real interest rates and this indirect monetary channel amplifies the GDP impact of the fiscal stimulus (see also Christiano et al. 2009, Erceg and Linde 2009). Under monetary accommodation, both spending and tax multipliers are considerably larger and this effect is amplified in the presence of credit constrained households.

⁽¹⁴³⁾Note that this assumes the VAT reduction is fully passed through into consumer prices. This intertemporal effect will be strongest in the period just before taxes are raised again (in $t+1$).

This also has important implications for the optimal timing of a withdrawal. As long as interest rates remain low, monetary policy is less likely to support a fiscal tightening by reducing interest rates. An early withdrawal of fiscal stimulus, while monetary policy remains at or close to the zero lower bound, risks a much sharper contraction in output than when the exit is delayed till monetary conditions allow room for accommodation.

Finally, there are also sizeable positive spill-over effects from fiscal stimuli. The effects of a joint fiscal stimulus (as in the final three columns in table III.6.1) are larger than when acting alone. In the current crisis there has been a global fiscal stimulus with large fiscal packages implemented in all G20 countries. If the fiscal stimuli are withdrawn at the same time, output losses are likely to be larger.

Summarising, these model multipliers show that just as the positive effects of a fiscal stimulus are larger than under normal conditions in the presence of credit constrained households and monetary policy at the zero lower bound, the cost of a withdrawal will also be larger if these conditions still hold. This shows the risks of a too early exit. It indicates that, if a country has sufficient fiscal space, delaying the fiscal exit until credit conditions have returned to normal and monetary policy is no longer constrained by the zero lower bound would importantly support output.

However, there are some additional observations to consider. First, it is important to be aware of the difference between a temporary fiscal stimulus and a permanent fiscal expansion. Unlike temporary fiscal stimuli, a permanent fiscal expansion (or one that is perceived as such) has a smaller multiplier and negative long run GDP effect (see section III.3). Second, a stimulus followed by a spending reversal⁽¹⁴⁴⁾ has a larger impact multiplier and a more positive medium-run GDP effect. A reversal in later periods has deflationary effects and the implied monetary policy response to this will be

⁽¹⁴⁴⁾ A spending reversal implies that the stimulus is not only withdrawn after a year, but the debt increase is reversed by a further temporary improvement in the budget balance.

felt early on. Also, the tax burden does not change.⁽¹⁴⁵⁾

Permanent fiscal consolidations

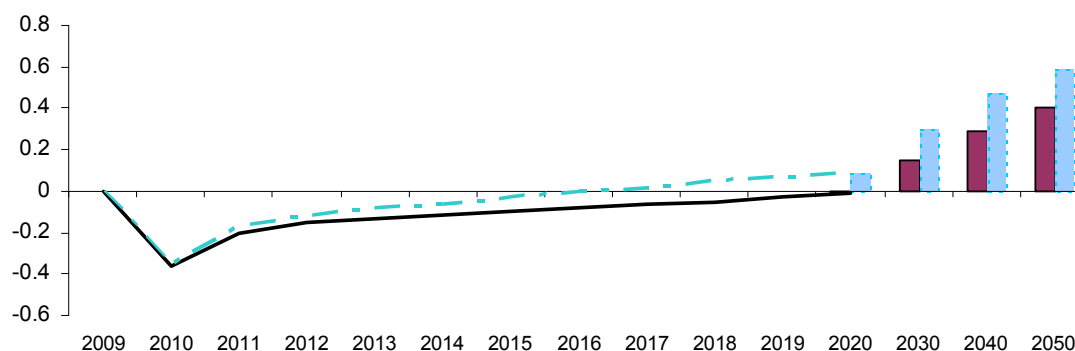
While the previous section suggested that extreme care should be taken when determining the timing of the stimulus withdrawal, it is clear that in the long run significant consolidation is required in most countries to bring the public finances to a sustainable path.

Fiscal consolidations of the magnitude suggested in the previous chapters are likely to have significant effects on output. This section describes some stylised scenarios of fiscal consolidations to illustrate the potential impact of permanent reductions in deficits. In these scenarios the deficit-to-GDP ratio is reduced by 1 percent of GDP. This is achieved through a permanent across-the-board adjustment in spending and taxes, roughly proportionally to their respective shares in government budget. Given the assumptions on the nominal growth rates in the model, this leads to a reduction in the debt-to-GDP ratio of approximately 25 percentage points in the long run. Lower debt implies lower interest payments and the additional fiscal space created by this can be utilised to reduce labour taxes. As this is a long-run scenario, we assume a standard monetary policy response with the central bank targeting inflation and the output gap according to a Taylor type rule. A sovereign risk premium is included in the model, calibrated such that a 1 percentage point reduction in the debt to GDP ratio reduces government bond rates by 3 basis points. In this scenario, with a reduction in the debt-to-GDP ratio converging towards 25 percentage points, long run government bond rates are 75 basis points lower. This is in line with the estimates reported in Laubach (2009), who finds an increase in interest rates on government bonds of between 2 to 6 basis points following a 1 percentage point increase in the government debt to GDP ratio.⁽¹⁴⁶⁾ Note that

⁽¹⁴⁵⁾ Corsetti et al. ("Debt consolidation and fiscal stabilization", AEA Papers and Proceedings, 2010 forthcoming) make a similar point. They also show that with the ZLB constraint binding, the reversal must not come too early on the recovery path, or at least it must be suitably gradual.

⁽¹⁴⁶⁾ Note that analysis does not take account of non-linearity in the relationship between debt levels and risk premia. For very high debt countries, risk premia effects could be much larger. See also the discussion in Section III.3.2 and Box III.3.1.

Graph III.6.1: GDP effects of fiscal consolidation



Note: without (solid line and red bars) and with (dashed and blue bars) sovereign risk premium (3bp for 1% increase in debt to GDP ratio)
Source: Commission services.

this risk premium is applied to government bonds and does not affect the general level of interest rates in the economy ⁽¹⁴⁷⁾.

Graph III.6.1 and Table III.6.2 illustrate the model's dynamic transition between the short run and the long run for this fiscal consolidation. The composition of the consolidation is divided 50–50 between expenditure and revenue ⁽¹⁴⁸⁾. The reduction in spending and increase in tax immediately lowers output, by approximately 0.4 percent. Both private consumption and investment are negatively affected. But the multiplier is lower than for temporary changes in fiscal instruments, as the permanent nature of the fiscal consolidation is fully credible and leads to anticipation of a lower tax burden in the future. As the government deficit is permanently reduced by 1 percentage point of GDP, the stock of outstanding debt gradually declines, and the costs of servicing this

debt also fall. This creates additional fiscal space to gradually reduce labour income taxes, offsetting the initial increase in taxes that was part of the consolidation package. In the medium and long run, labour taxes are actually reduced relative to the no-consolidation baseline, and this boosts employment and output. In the case of a sovereign risk premium, there is an additional effect on interest rates. The decline in debt reduces the interest rate the government has to pay on its debt, creating more space for future tax reductions. The impact multiplier is similar but in the medium run the GDP gains become somewhat stronger. After 10 years, output is back to baseline level in the case without a risk premium, while it is slightly above baseline (+0.1 percent) in the case with sovereign risk premia.

⁽¹⁴⁷⁾ Some recent evidence for the US suggests that an increase in government debt reduces primarily the spread between government and corporate bonds. Krishnamurthy and Vissing-Jorgensen (2007) show that an increase in Treasury debt held by public leads to a decline in the yield spread of AAA corporate debt over Treasuries. It may well be that for countries which rely heavily on foreign financing of investment, rising government debt could lead to a general increase in the country risk premium and increase interest rates for both government and private bonds. The premium may be particularly large if currency risk is increased.

⁽¹⁴⁸⁾ To be precise, the consolidation consists of cuts on the expenditure side in transfers and government consumption of 0.2 percentage points and in government investment of 0.1 percentage points, and increases on the revenue side of 0.2 percentage points in labour taxes and VAT, and 0.1 percentage points in corporate profit taxes.

Table III.6.2: Fiscal consolidation: permanent reduction of the deficit to GDP ratio by 1% of GDP

Consolidation 1% of GDP	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2030	2040	2050
GDP_PCER	-0.36	-0.2	-0.15	-0.13	-0.12	-0.1	-0.08	-0.06	-0.05	-0.03	-0.01	0.15	0.29	0.4
EMPLOYMENT_PCER	-0.29	-0.17	-0.1	-0.06	-0.02	0.02	0.05	0.09	0.12	0.15	0.18	0.43	0.6	0.73
CONSUMPTION_PCER	-0.37	-0.02	0.09	0.14	0.18	0.22	0.27	0.31	0.35	0.39	0.43	0.77	1.04	1.23
INVESTMENT_PCER	-0.23	-0.34	-0.36	-0.36	-0.35	-0.33	-0.31	-0.29	-0.27	-0.26	-0.24	-0.12	-0.04	0.01
RPREMB_ER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TL_ER	0.52	0.18	0.03	-0.08	-0.19	-0.29	-0.39	-0.48	-0.57	-0.66	-0.74	-1.43	-1.94	-2.32
UNEMPL.RATE_ER	0.19	0.11	0.07	0.04	0.01	-0.01	-0.03	-0.06	-0.08	-0.1	-0.12	-0.28	-0.4	-0.48
GOV.DEBT.GDP_ER	-0.4	-1.44	-2.38	-3.26	-4.11	-4.93	-5.72	-6.48	-7.22	-7.92	-8.61	-14.27	-18.27	-21.07
GOV.BALANCE.GDP_ER	1	0.99	1	1	1	1	1	1	1	1	1	1	1	1
CURRENT.ACC.GDP_ER	0.16	0.12	0.11	0.11	0.1	0.1	0.1	0.09	0.09	0.08	0.08	0.05	0.03	0.02
Consolidation with sovereign risk premia	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2030	2040	2050
GDP_PCER	-0.35	-0.17	-0.12	-0.08	-0.06	-0.03	0	0.02	0.05	0.07	0.09	0.3	0.47	0.59
EMPLOYMENT_PCER	-0.28	-0.15	-0.06	-0.01	0.04	0.08	0.13	0.17	0.21	0.25	0.28	0.57	0.76	0.9
CONSUMPTION_PCER	-0.38	-0.02	0.1	0.18	0.24	0.3	0.35	0.41	0.46	0.51	0.56	0.99	1.29	1.51
INVESTMENT_PCER	-0.19	-0.26	-0.27	-0.26	-0.24	-0.21	-0.19	-0.16	-0.14	-0.12	-0.1	0.04	0.13	0.18
RPREMB_ER	-0.02	-0.05	-0.07	-0.1	-0.12	-0.15	-0.17	-0.19	-0.21	-0.23	-0.25	-0.42	-0.54	-0.62
TL_ER	0.5	0.12	-0.07	-0.21	-0.35	-0.48	-0.6	-0.71	-0.82	-0.93	-1.02	-1.83	-2.41	-2.82
UNEMPL.RATE_ER	0.18	0.1	0.04	0.01	-0.03	-0.06	-0.08	-0.11	-0.14	-0.16	-0.19	-0.37	-0.5	-0.59
GOV.DEBT.GDP_ER	-0.41	-1.45	-2.38	-3.27	-4.11	-4.93	-5.72	-6.48	-7.21	-7.92	-8.6	-14.27	-18.28	-21.1
GOV.BALANCE.GDP_ER	1	0.99	1	1	1	1	1	1	1	1	1	1	1	1
CURRENT.ACC.GDP_ER	0.17	0.13	0.12	0.12	0.11	0.11	0.1	0.1	0.09	0.09	0.09	0.05	0.03	0.02

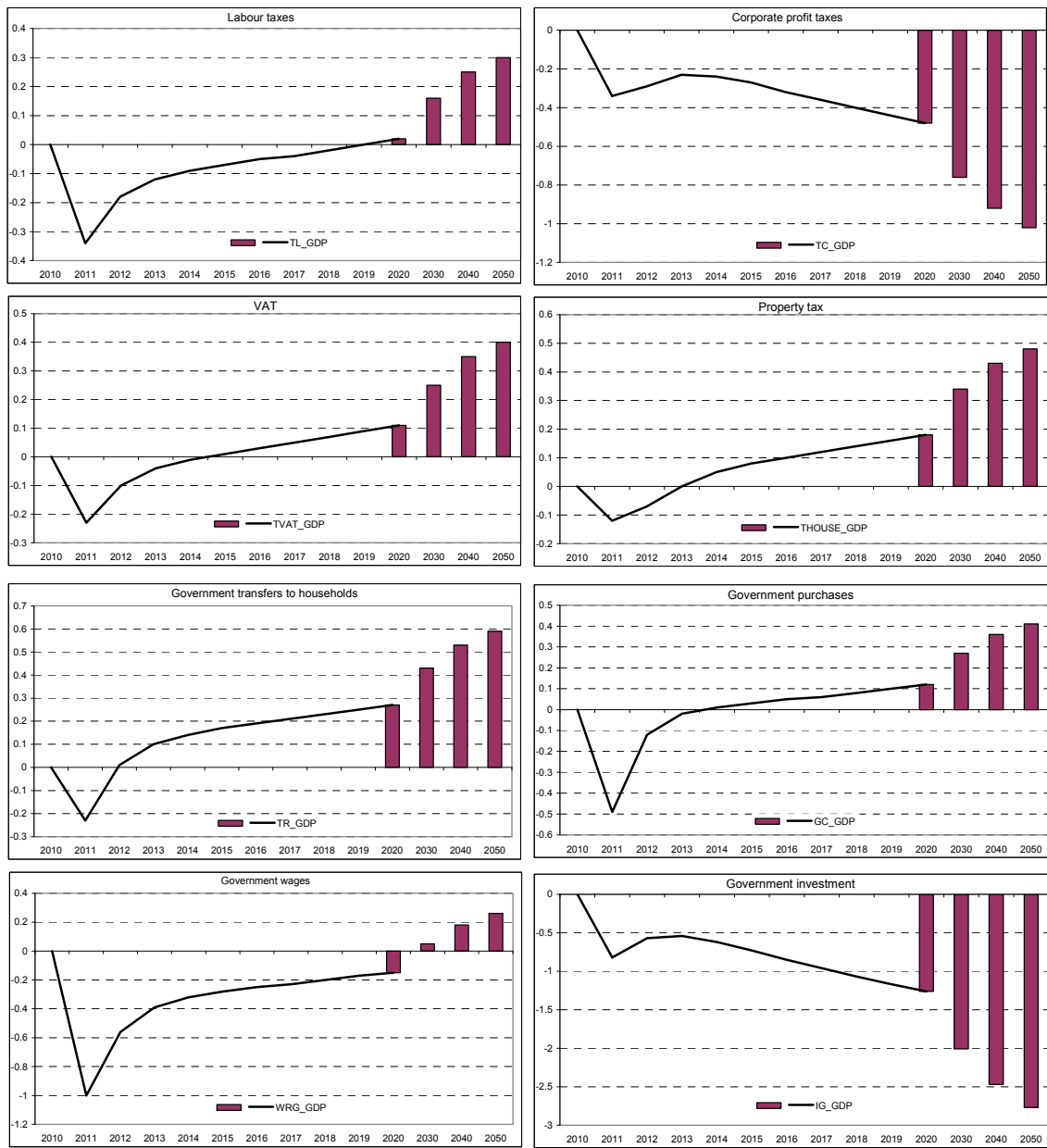
Source: Commission services

Effects of fiscal consolidation by composition

The impact of fiscal consolidations on growth depends on the composition. Graph III.6.2 shows the effects for individual instruments on the revenue and expenditure side. All scenarios correspond to reductions in the government deficit-to-GDP ratio by 1 percentage point as illustrated in Graph III.6.3. It is achieved by an adjustment in the respective instrument that equals 1% of (baseline) GDP ex ante, in combination with a targeting rule for labour taxes that aims for this new lower target in the deficit. In the short run, labour taxes only compensate for the working of the automatic stabilisers and are raised so that the ex-post improvement in government balances is equal to 1 percentage point of GDP. The improvement in government balances eventually leads to a gradual decumulation of government debt, and the debt-to-GDP ratio declines by around 8 percentage points after 10 years and by around 20 percentage points after 50 years. With lower debt interest payments there is space for tax reductions, and these raise employment and boost GDP in the medium and long run.

On the expenditure side, the main difference is between productive and unproductive spending. Reductions in government investment (productive) are most detrimental in the model and show the largest GDP losses, both in short and in the long run. Transfers are unproductive in the model and only serve distributional purposes. Reducing such transfers - and lowering distortionary labour taxes in the medium/long run - leads rapidly to positive output effects in the model. However, it is probably not realistic to consider a 1 percentage point of GDP reduction in transfers, as this would represent a large real cut for spending, compromising their political and social aims. Government purchases are unproductive spending, a reduction in which has no significant output costs when compensated by cuts in labour taxes in the medium/long run. Lowering government wages has a direct impact on GDP as defined by the national accounts. But this is gradually more than offset by increases in private sector GDP which is boosted by the reduction in government debt.

Graph III.6.2: GDP impacts of permanent fiscal consolidations

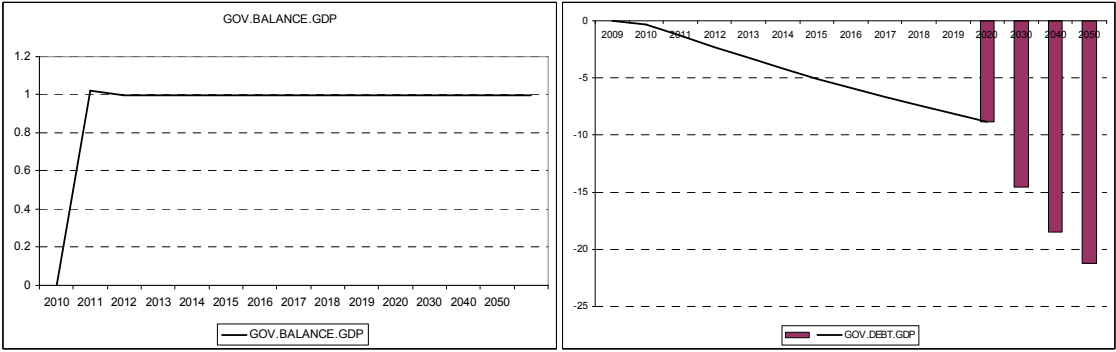


Source: Commission services.

Short term effects of tax increases depend partly on adjustment costs in capital and labour. An increase in corporate profit tax has, with relatively high adjustment costs on capital, a relatively small short term impact but GDP losses build up over following years as investment is depressed and the capital stock declines. It has the largest long run GDP loss of all tax based consolidations. In contrast, a consolidation through labour taxes

yields an initial GDP loss, but in the long run labour taxes can be reduced due to the fiscal space that comes available as a result of the reduction in government debt, and GDP eventually turns positive. Taxes on consumption (VAT and other consumption taxes) and taxes on housing property have smaller short term impacts. GDP falls by 0.2-0.1 percent below base but gradually recovers and becomes positive after 3-4 years.

Graph III.6.3: Permanent fiscal consolidations: government balance and debt to GDP ratios



Source: Commission services.

Box III.6.1: The QUEST III model

Model simulations are conducted to gauge the impact of fiscal policy on economic activity, using the QUEST III model. QUEST III is the global macroeconomic model which Directorate-General Economic and Financial Affairs uses for macroeconomic policy analysis and research. QUEST III belongs to the class of New-Keynesian Dynamic Stochastic General Equilibrium (DSGE) models that are now widely used by international institutions and central banks and that have become the workhorse of modern macroeconomic modelling. These models have rigorous microeconomic foundations that are derived from utility and profit optimisation and include frictions in goods, labour and financial markets. With empirically plausible estimation and calibration they are able to fit the main features of the macroeconomic time series. The QUEST III model has been estimated on euro area and US data using Bayesian estimation methods (Ratto et al., 2009, 2010). Different model versions of the QUEST III model have been constructed, each with a specific focus and regional and sectoral disaggregation, to deal with the wide range of policy issues in DG ECFIN. ⁽¹⁾

The model version used in this section is described in Roeger and in 't Veld (2009, 2010). It distinguishes tradable and non-tradable goods sectors as well as housing. The household sector consists of Ricardian households, who have full access to financial markets and can smooth their consumption, liquidity-constrained households who do not engage in financial markets but simply consume their entire labour (and transfer) income at each date, and a third group of households that are credit- (or collateral)-constrained, in the fashion of Kiyotaki and Moore (1997). This third group can smooth consumption over time but faces a collateral constraint on their borrowing from Ricardian households, depended on the nominal value of their housing wealth. Adding collateral constrained households to the model adds important transmission channels of the financial crisis into the real economy through higher risk premia and credit rationing for households and firms. By disaggregating households into credit constrained and a non-constrained group, we can examine the importance of tighter credit constraints on the effectiveness of discretionary fiscal policy. The presence of credit constrained households raises the marginal propensity to consume out of current net income and makes fiscal policy shocks that directly impact on households' purchasing power a more powerful tool for short run stabilisation. It also reinforces the effects from monetary accommodation as credit-constrained consumers react even more strongly to a fall in real interest rates which occurs when the zero lower bound on nominal interest rates is binding.

Each firm produces a variety of the domestic good which is an imperfect substitute for varieties produced by other firms. Because of imperfect substitutability, firms are monopolistically competitive in the goods market and face a demand function for goods. Domestic firms in the tradable sector sell consumption goods and services to private domestic and foreign households and the domestic and foreign government, and they sell investment and intermediate goods to other domestic and foreign firms. The non-tradable sector sells consumption goods and services only to domestic households and the domestic government and they sell investment and intermediate goods only to domestic firms. Preferences for varieties of tradable and non-tradable goods can differ resulting in different mark ups for the tradable and non-tradable sector. The monetary authority follows a Taylor type rule when not constrained by the lower zero bound on nominal interest rates, while fiscal policy provides automatic stabilisation through unemployment benefits.

⁽¹⁾ See also: http://ec.europa.eu/economy_finance/research/macroeconomic_models_en.htm

7. CASE STUDIES

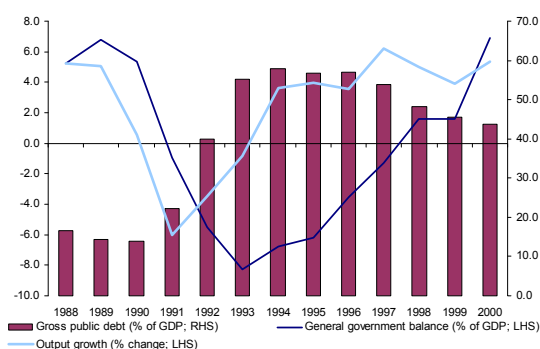
This section looks in more detail at three financial crises from the last 20 years, to extract lessons concerning recovery from crises. The examples considered all start in the early 1990s. They cover the record of Finland, Sweden and Japan. All three countries were hit by balance sheet crises, following strong booms in the 1980s. The booms were all characterised by overinvestment, too much lending and asset price growth, leading to recessions where strong negative wealth effects affected consumption, savings, investment and growth due to the severe imbalances in the financial and private sectors. While Finland and Sweden were able to deal with their balance sheet crises via strong government action, in particular with regard to resolution of problems in the banking sector, for Japan this was not the case.

The success or failure of the government support measures and the consolidation strategies is looked at in terms of both fiscal aggregates and the trajectory of real output in the years after the crisis started. Figure 1 shows that the paths of potential and actual output have been different in these three cases, with Japan facing a permanent drop in real actual and potential growth, Finland facing a permanent drop in the level that was not recovered, but returning to pre-crisis growth and Sweden making up for the crisis by faster growth in the short-term, leading to unchanged potential growth trajectories over the medium term. This section aims to shed some light about what explains these different performances in order to gain lessons that are applicable to the current economic situation.

7.1. FINLAND

Following a boom in the late 1980s, Finland experienced an economic and financial crisis in 1991–94. As shown in Graph III.7.1, real output growth fell from over 5% per year in 1988 and 1989 to -6.0% in 1991, before attaining positive growth again in 1994. By the end of the 1990s, Finland was growing by 4 to 6% per year and estimates of increase of potential and trend growth were higher than before the onset of the crisis.

Graph III.7.1: Key public finance variables, Finland 1988-2000

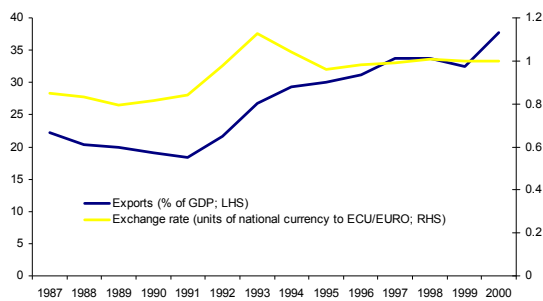


Source: Commission services.

The Finnish experience in the early 1990s displays classic characteristics of an economic and banking crisis. It was preceded by high output growth with rapid expansions in credit alongside high asset price growth, caused by deregulation in the financial markets which brought significant capital inflows from abroad (Jonung and Hagberg 2005). A move to tighter monetary (and to some extent fiscal) policy in 1990 to defend a fixed exchange rate that was under threat led to a sharp increase in interest rates. As Table III.7.1 shows, real short-term interest rates increased from just over 2% in 1988 to over 10% in 3 years. A financial crisis erupted. The economic situation was further undermined by the collapse in trade with the Soviet Union due to the political upheaval this country was undergoing. As the peg to the ECU became unsustainable, a devaluation took place in late 1991 followed by a full floating of the exchange rate in September 1992 (Jonung and Hagberg 2005).

A move to floating exchange rates and the ensuing depreciation and eventually to subsequent inflation targeting has largely been credited with the recovery. Graph III.7.2, below shows the improvement in exports that begun in 1992 with the depreciation of the exchange rate. Further, in 1992 and 1993 wages were frozen in Finland, and overall between 1991 and 1994 real wages were falling. The move to credible inflation targeting enabled wage agreements that reduced nominal wage inflation and improved the competitiveness of Finnish goods, aiding the revival in exports that proved crucial to the recovery and subsequent strength of the Finnish economy.

Graph III.7.2: Exports and the exchange rate, Finland 1987-2000



Source: Commission services.

Prior to the financial crisis, the government had been running a budget surplus in excess of 5 percentage points of GDP. By 1993, this had turned to a deficit in excess of 8 percentage points of GDP, while the budget did not return to surplus before 1998. By 2000, the budget was showing a surplus of over 7 percent of GDP.

The effect of the crisis on public debt was even stronger, due to substantial bank support measures in the form of capital injections also adding to the debt. Overall, Laeven and Valencia (2008) estimate that the fiscal costs of the measures to support the financial system corresponded to 11.1 percentage points of GDP net within 5 years of the start of the crisis – although taking a longer timeframe would result in a lower estimate of the net costs as some of the gross outlays were recouped later. Starting from a debt level of 14% of GDP in 1991, government debt peaked at nearly 60% of GDP in 1994 and remained nearly 30 percentage points of GDP higher some 10 years after the start of the crisis.

The effect of the crisis on the public finances is similar to the early story that we are seeing in a number of European countries in the current crisis. The deterioration in the budget balance with the onset of the crisis was considerable, whether measured in absolute or in cyclically adjusted terms. The inability of cyclical adjustment to properly estimate the underlying strength of the economy in the years prior to the crisis, not least due to the effect of substantial increases in asset prices, was a factor in allowing the economy to overheat and in the deterioration in the budget balance being larger than estimated by the elasticities used to assess the magnitude of the automatic stabilisers (Jonung, Kiander and Vartia

2008). As a result, when the crisis was underway, there was insufficient fiscal space to introduce measures to fully support the economy when output was retrenching.

Despite negative growth, Finland started consolidating early in the recession. Some measures were introduced already in 1991, when a new government took office. From 1992 several austerity packages were introduced⁽¹⁴⁹⁾. By the end of 1995, this resulted in annual budget savings corresponding to 6 percent of GDP compared to initially projected expenditure levels. Further consolidation was undertaken under the next government which took office in 1995, with the added incentive of joining the single currency. Additional measures were also introduced in the year 2000, further strengthening the budgetary position.

Spending measures

The immediate impact of the austerity package was on spending. Although real total spending increased in the early 1990s, there were nominal and real cuts to significant components (see table III.7.2). A series of central government spending freezes and limits on local expenditure were introduced, with varying levels of success (Mutikainen 1998, OECD 1996). While total spending increased by 15% in nominal terms between 1991 and 1994, public investment, health and education spending were cut – largely due to the pressure put on the municipality budget (OECD 1998). In real terms, health spending was cut by 7.5% over 4 years, education spending by 7.9%, while, partly within this total, investment spending was cut by 20.2%.

Changes to the social benefits system too resulted in both nominal and real cuts in social transfers in kind despite the severity of the recession. These cuts were deemed necessary due to the explosion in unemployment, which placed stress on a social security system designed to support a small proportion of the population for a limited amount of time. Counterbalancing this effect, there was a very large increase of 14.4% a year in nominal

⁽¹⁴⁹⁾ Cyclically adjusted measures show a deterioration in the underlying primary balance every year until 1993 and then a further deterioration in 1995, despite these consolidation measures, possibly due to the interaction with the unwinding of the credit boom.

Table III.7.1: Overview of Finnish economy before, during and after the 1990s crisis

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
General government balance	5.3	6.8	5.4	-1.0	-5.5	-8.3	-6.7	-6.2	-3.5	-1.3	1.6	1.6	6.9
CA balance	4.0	3.9	3.0	0.2	-2.4	-4.8	-4.3	-4.8	-2.7	-1.8	0.6	0.8	5.6
effect of cycle	1.3	2.9	2.3	-1.2	-3.1	-3.5	-2.4	-1.4	-0.8	0.5	1.0	0.8	1.3
Primary balance	6.8	8.2	6.7	0.9	-2.9	-3.9	-2.6	-2.2	0.6	2.9	5.1	4.6	9.7
CA primary balance	5.6	5.3	4.4	2.1	0.2	-0.4	-0.2	-0.8	1.5	2.4	4.1	3.8	8.4
Gross public debt	16.7	14.4	14.0	22.2	40.0	55.3	57.8	56.7	56.9	53.8	48.2	45.5	43.8
public expenditure	46.4	44.4	47.9	56.7	62.3	64.7	63.7	61.5	59.9	56.2	52.6	51.5	48.3
of which: interest	1.6	1.4	1.4	1.9	2.5	4.4	4.1	3.9	4.2	4.2	3.5	3.0	2.8
public consumption	20.3	20.0	21.7	24.7	25.3	24.2	23.5	22.8	23.2	22.3	21.5	21.2	20.3
social benefits	13.7	13.3	14.6	18.2	22.2	23.7	23.7	21.9	21.3	19.7	18.2	17.7	16.2
public investment	3.6	3.1	3.5	3.7	3.5	2.8	3.0	2.7	2.8	3.1	2.9	2.8	2.5
total revenues	51.6	51.2	53.3	55.8	56.8	56.4	56.9	55.3	56.4	55.0	54.2	53.1	55.2
of which: direct taxes	16.9	16.6	17.3	17.4	16.5	15.6	17.2	17.3	18.9	18.4	18.8	18.5	21.1
indirect taxes	15.8	15.6	14.9	15.0	14.8	14.5	14.6	13.5	13.7	14.3	14.0	14.0	13.5
social security contributions	11.2	11.3	12.6	13.4	14.4	14.9	15.8	14.7	14.2	13.3	13.0	12.9	12.1
Discretionary policy (based on CA data)	2.1	-0.2	-0.9	-2.3	-1.9	-0.6	0.2	-0.6	2.3	0.9	1.7	-0.3	4.6
Unemployment	4.2	3.1	3.2	6.6	11.7	16.3	16.6	15.4	14.6	12.7	11.4	10.2	9.8
Earnings (year on year change, employees)	10.6	11.9	9.2	0.3	-5.5	-5.5	1.8	6.3	4.2	5.4	7.5	4.7	6.2
Output growth	5.2	5.1	0.5	-6.0	-3.5	-0.8	3.6	4.0	3.6	6.2	5.0	3.9	5.3
potential GDP	2.1	2.0	1.4	0.3	-0.1	-0.1	1.1	2.1	2.6	3.7	4.1	4.3	4.0
output gap relative to potential	2.6	6.0	4.6	-2.2	-5.8	-6.6	-4.3	-2.6	-1.5	0.9	1.9	1.6	2.6
trend output growth	1.9	1.6	1.4	1.2	1.3	1.5	1.9	2.3	2.7	3.1	3.3	3.4	3.4
GDP deflator annual change	7.6	6.4	5.5	1.5	0.9	1.9	1.6	4.5	-0.4	2.0	3.4	0.9	2.6
CPI inflation	5.1	6.6	6.1	4.1	2.6	2.1	1.1	1.0	0.6	1.2	1.4	1.2	3.4
Real interest rates	2.2	5.8	8.1	11.4	12.2	5.7	3.6	1.2	4.0	1.2	0.1	2.0	1.7

Source: Commission services.

Table III.7.2: Average annual increases in spending - crisis years and recovery

	Share of 1991 expenditure	Nominal annual change		Real annual change	
		1991-94	1994-2000	1991-94	1994-2000
Total spending	100.0	4.9	2.2	3.3	0.0
Health	11.7	-1.1	5.5	-2.5	3.3
Education	12.6	-1.2	4.7	-2.7	2.5
Social transfers in kind 2/	27.8	-1.8	4.9	-3.3	2.7
Social transfers other than in kind 3/	32.1	14.4	1.4	8.6	-1.7
General public services & economic affairs	24.3	7.8	0.8	6.2	-1.4
Public investment	6.4	-5.8	4.1	-7.2	1.9

1) The variables health, education and general public services and economic affairs are based on COFOG-classification, while social transfers and public investments are from National Accounts. These variables could be partly overlapping, implying that the individual variable's share of total expenditure add up to more than 100%.

2) Social transfers in kind consist of individual goods and services provided as transfers in kind to individual households by government units.

3) Social transfers other than in kind comprise social assistant benefits in cash (i.e. children allowance, welfare affairs and services), social security benefits in cash, private funded social benefits and unfounded employee social benefits.

Source: Commission services.

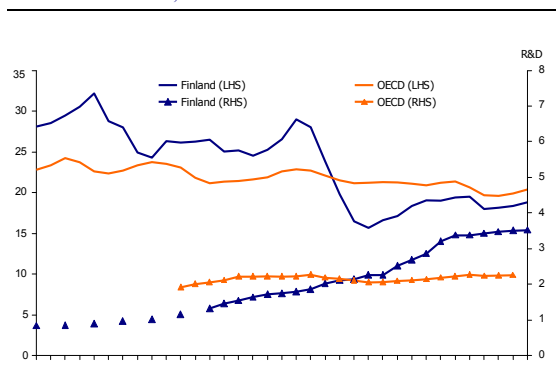
terms on other social spending which includes services (such as labour market programmes and retraining), resulting in increasing overall social support. In all items that saw spending cuts, spending grew again once growth turned positive. From 1994 on, overall growth in spending stayed constant in real terms (and therefore fell as a share of GDP) but spending on education, health and investment grew in real terms, taking up an increasing share of the budget.

The delivery of services was also changed, with medium-term economic planning being introduced, along with the concept of management by results. The system of central government grants to the municipalities was reformed so that the grants more closely resembled lump sums and were based on objective criteria rather than the costs of production. A restructuring of central and local government was also undertaken to remove duplicate functions and enhance efficiency and

effectiveness. The costs and levels of employment in central government were cut in 1994 and 1995 as part of this efficiency drive. The crisis also led to the introduction of expenditure ceilings for central government, although these were marked by limited effectiveness in the years shortly after the crisis.

Through both the crisis and the years after, public R&D expenditure, which had already started to grow markedly at the end of the 1980s, was not only maintained at strong levels but was increased while other spending was cut. Furthermore, active decisions were made to direct it towards potential growth areas in the economy (OECD economic survey 1998, Ylä-Anttila & Palmberg 2007). Arguably, the transformation of the Finnish economy towards high-technology exports is a prime example of a Schumpeterian creative destruction success story. By maintaining the emphasis on R&D as a promoter of growth, Finland was able to emerge from the crisis with a rejuvenated production structure. Spending on R&D as a share of GDP increased every year from the onset of the crisis until the year 2000, when it had reached 3.3% of GDP, from a starting point of 1.8% in 1990. The emphasis of R&D on the growth sector of ICT paid off as the structure of the economy focused increasingly on high new technology (Jonung, Kiander and Vartia 2008). As Graph III.7.3 shows, R&D expenditure as a share of GDP increased both in absolute terms and relative to other OECD countries, while Finland moved away from traditional high capital investment.

Graph III.7.3: Gross fixed capital formation (left hand axis) and R&D expenditure (right hand axis) as a share of GDP, Finland and OECD



Source: OECD

Revenue measures

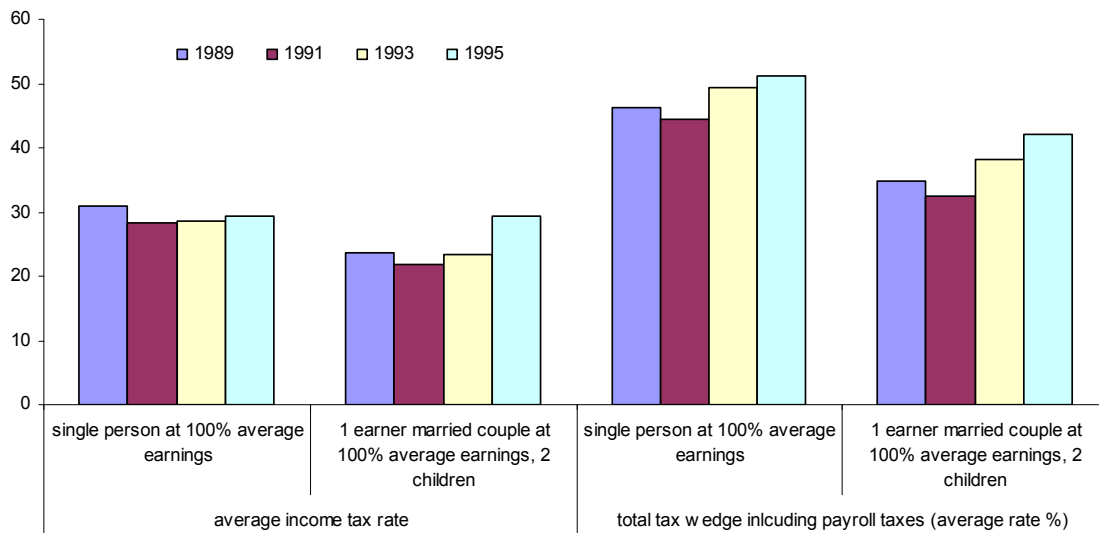
At the same time as the moderation in spending, income taxes, payroll taxes and consumption taxes were increased. This tightening of policy was able to keep revenues high despite the devastating effect of the recession on the underlying economy. Graph III.7.4 shows that the average tax wedge on earners at 100% of average wages increased over the years of the recession so that by 1995 it was considerably higher than in 1989, despite falling wages. Over the medium term, this set the scene for a return to fiscal sustainability once the output gap closed and the economy returned to a healthier position, although it meant that Finland remained a high tax economy.

The Finnish recession came at a time when a programme of rationalisation of the tax system was underway, in an attempt to improve the incentives and enhance the neutrality of the tax system to encourage growth. Much of this had to be put on hold given the priority of ensuring sustainability. A new flat tax of 25 percent for profits and capital income was implemented in Finland in 1993 replacing the old system with high nominal marginal tax rates and relatively low effective tax rates.

As a result of changes introduced both in the crisis and in the years after, labour incomes and private consumption were taxed more heavily by the end of the 1990s than before. Post-recession government were therefore able to concentrate more on reducing taxes on labour and improving work incentives. 1997 and 1998 saw a range of measures on the tax and benefit side, with the system of taxes, benefits and incomes-related day care fees being reformed so that the effective marginal tax rates of the unemployed and low-income households decreased. In addition there were cuts in social benefits, transfers to municipalities, subsidies, wages and capital spending. Part of the aim was to reduce the cost of social security by increasing the incentives to work which had become a problem, especially given the high proportion of people claiming social security⁽¹⁵⁰⁾. In practice this policy led to targeted tax cuts to low-wage workers and to the freezing of income support benefits such as unemployment

⁽¹⁵⁰⁾ In 1994, the replacement rate for an unemployed couple with 2 children able to earn the average wage was 75%, rising to 98% if they were long-term unemployed.

Graph III.7.4: Average income tax rates and total tax wedge by type of earner 1989-1995



Source: Commission services.

benefits and basic income support. Overall, throughout the 1990s, the thrust of the policy measures was in a growth enhancing direction in terms of the composition of the changes and after the end of the crisis the government was able to focus on this aspect more.

Overview

The success of the Finnish consolidation lies in the fact that despite serious consolidation measures and cuts in spending, Finland was able to reach high levels of growth in the aftermath of the crisis with real GDP growing by 4.7% per year on average between 1994 and 2000. This occurred despite the fact that fiscal policy was pro-cyclical during the crisis and that some productive spending was cut. A partial explanation is that the expenditure cuts led, at least in some instances, to reductions in long-term interest rates – so there were indications of some non-Keynesian effects.

The rapid recovery was clearly supported by a substantial improvement in competitiveness. This stemmed initially from a 30 per cent effective depreciation of the currency and from the wage freezes introduced during the crisis. In the following years, moderate wage developments were secured in the context of comprehensive wage policy agreements.

The Finnish economy is credited with having undergone a process of fundamental restructuring where firms closed and more efficient ones were opened (Jonung, Kiander and Vartia 2008, Maliranta 2001), while the tax system was changed to improve its incentive structure and neutrality. Productivity improved markedly due to investment in machinery and equipment, while investment (both public and private) in R&D, training and education contributed to the process (OECD 1996). There was an emphasis on high-level technical education and strong support for higher education overall.

The years of the recovery might also point to some of the elements of success of the Finnish economy. After 1994, strong growth was accompanied by further consolidation measures with expenditure remaining constant in real terms and falling as a share of GDP. The strong acceleration in GDP occurred in the years 1997 with the first few years of the upswing being key to reorganising the public sector and creating the basis for a successful economy.

7.2. SWEDEN

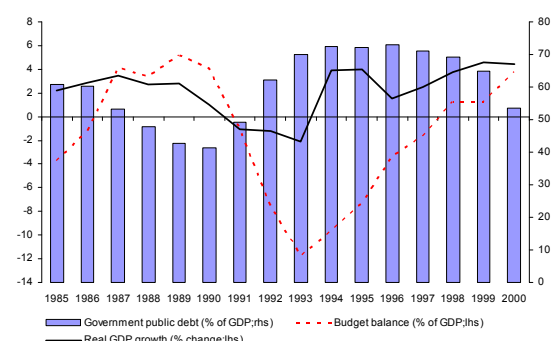
In the early 1990s, Sweden faced a deep financial crisis – very similar to the Finnish one. GDP fell,

the budget deficit rocketed to double digits and government debt soared by more than 10 percentage points of GDP in just one year (see Graph III.7.5). As growth returned, Sweden imposed a consolidation programme for the period 1995-1998, leading to the government budget balance returning to surplus in 1998 from a deficit of over 10 percent of GDP in 1993 and in addition a stabilisation of debt.

Sweden removed the remaining domestic credit regulations in 1985. This resulted in a vast increase in credit volume in the late 80s. A tax system that favoured borrowing instead of saving fuelled the demand for credit ⁽¹⁵¹⁾. Much of the credit expansion fed into property and equity markets, contributing to the creation of a financial bubble ⁽¹⁵²⁾.

In the boom period in the late 1980s, both private- and public consumption and transfers to households were increased. Thus, despite the strong upswing, "no marked tightening of fiscal policy took place during this period" ⁽¹⁵³⁾. Strong domestic demand pushed the unemployment rate down to a level below 2%, putting upward pressure on wages. High domestic inflation together with the high wage growth worsened the competitiveness of Swedish export sector and also competition from imports into the domestic market increased. The boom was also supported by an international upturn. During this period, government finances improved rapidly and the debt-to-GDP ratio declined.

Graph III.7.5: Key public finance variables, Sweden 1985-2000



Source: Commission services.

Output growth came to a sudden stop in 1990, and turned negative for three consecutive years. The main driving force behind the recession, according to Jonung et al. (2008), was a strong upturn in the real after-tax interest rate. There were several factors behind the real interest rate increase. The German reunification pushed up interest rates in Europe, and Sweden (which had a fixed exchange rate regime in the early 1990s) had to increase interest rates as well. Sweden also carried out a tax-reform in 1990/91 that favoured savings and worsened the condition for borrowing. Falling inflation in the beginning of the 1990s did also contribute to rising real interest rates.

Another reason for the recession was a downturn in the global economy and international trade. The export sector, which already had lost competitiveness during the boom-period, suffered from decreasing demand for their products.

Also domestic demand fell and unemployment increased sharply ⁽¹⁵⁴⁾. In addition, higher real interest rate contributed to a banking crisis, forcing the government to intervene to prevent a systematic crisis. This intervention, combined with growing unemployment and falling output deteriorated public finances.

As a consequence of the difficulties in the economy, the krona came under speculative pressure, forcing the Riksbank to abandon the peg of the krona in November 1992 and allow the

⁽¹⁵¹⁾ Anderson and Viotti, 1999.

⁽¹⁵²⁾ Jonung, Kiander and Varita, 2008.

⁽¹⁵³⁾ Government bill to the Parliament 2000/01:100 Annex 5, p8.

⁽¹⁵⁴⁾ The unemployment rate increased from 1.7% in 1990 to 9.1% in 1993.

krona to float and subsequently to depreciate ⁽¹⁵⁵⁾. The competitiveness of Swedish export sector improved, contributing to a sharp upswing in industrial production. The economy started to recover in 1993, but domestic demand was still weak and unemployment high.

After a general election in Sweden in autumn 1994 a new government took office. It put forward a consolidation programme that aimed to stabilise the central government debt to GDP ratio by 1998 at latest ⁽¹⁵⁶⁾. The programme was imposed stepwise from 1995, and comprised specific measures that were estimated to permanently improve the cyclically adjusted balance by about 7.5% of GDP ⁽¹⁵⁷⁾. In 1995, the budget policy ambitions were increased. Central government debt in percent of GDP was now to be stabilised by 1996, while the public finances were to be in balance by 1998. In addition, the public sector deficit should be no more than 3% of GDP in 1997 (to fulfil the deficit criteria for participation in the EU monetary union). In order to control the development of the consolidation programme, the government carried out half-yearly reviews of budget prospects.

The design of the consolidation programme was based on three basic principles ⁽¹⁵⁸⁾:

- It should have a swift effect on central government debt, but at the same time distribute the effect over several years to ensure that the demand was not too hard hit.
- Those with high income should contribute most.
- Public activity (i.e. education, health care and social services) was prioritised above transfers to households.

Reform of the budgetary framework was another important part of the consolidation programme. The parliamentary period was extended from three to four years, to allow government time to carry out its priorities. In the Parliament, the Standing Fiscal Committee was strengthened at the expense of other committees. In addition was Ministry of Finance's coordinating role versus the other ministries reinforced ⁽¹⁵⁹⁾. Sweden also imposed a three-year nominal ceiling on all central government expenditures (including investments and entitlement programs) except interest payments on government debt. The expenditure on the old-age pension system presented outside the central government budget was included under the ceiling. The ceiling was part of a general strategy to introduce top-down budgeting ⁽¹⁶⁰⁾. Furthermore, Sweden decided in 1997 to introduce a long-term surplus target as of 1999.

⁽¹⁵⁵⁾ By the end of 1992, the krona had depreciated by about 15% in relation to the ECU.

⁽¹⁵⁶⁾ Government bill 2000/01:100 Annex 5, p28.

⁽¹⁵⁷⁾ In 1996 the Consolidation programme was extended to 8 % of GDP.

⁽¹⁵⁸⁾ Government bill to Parliament 2000/01:100 Annex 5, p27.

⁽¹⁵⁹⁾ OECD, 1999.

⁽¹⁶⁰⁾ In 1997 the Parliament started making decisions on the budget in two steps. First, the Parliament decide on the overall budget space and divides expenditure into 27 expenditure areas. Then, Parliamentary committees consider the expenditures in each area, before the Parliament makes the final decision on the various appropriations.

Table III.7.3: Average annual percentage change in general government expenditure and revenue 1985-1998

	1985-1990*			1990-1994*			1994-1998**		
	Nominal	Real***	%-point of GDP	Nominal	Real***	%-point of GDP	Nominal	Real***	%-point of GDP
Total expenditure	8.0	1.0	-0.88	6.7	2.6	1.65	0.3	-1.3	-2.68
OW Interest	-1.3	-7.7	-0.65	11.4	7.2	0.38	-3.0	-4.6	-0.40
Consumption	9.0	2.0	-0.14	2.8	-1.0	-0.23	3.8	2.1	-0.22
Social benefits	10.8	3.7	0.20	9.1	5.0	1.04	0.3	-1.3	-0.84
Investments	4.2	-2.5	-0.13	8.7	4.6	0.11	-2.0	-3.6	-0.23
Total revenue	10.8	3.7	0.63	0.8	-3.0	-1.69	4.4	2.7	-0.11
OW Direct taxes	11.9	4.7	0.44	0.5	-3.3	-0.67	6.0	4.2	0.26
Indirect taxes	10.4	3.3	0.11	-0.5	-4.3	-0.62	5.9	4.2	0.20
Social contributions	11.8	4.6	0.27	1.0	-2.8	-0.37	5.4	3.7	0.10

* Former definition, ** ESA 1995, *** GDP deflator

Source: Commission services.

Spending measures

In a study of recent fiscal consolidations Kumar et al. (2007) show that expenditure measures put forward in the Swedish consolidation programme included a reduction in pension and welfare spending (including unemployment benefits), and cuts across a broad range of spending programs. In real terms, expenditure on social benefits was slashed on average by 1.3% annually from 1994 to 1998 (see Table III.7.3, which shows the change in general government variables), while public investment was cut by an annual average of 3.6%. Interest payments were also significantly reduced, partly as a result of the successful budget consolidation, and partly a result of strong market confidence that monetary policy would be able to achieve its price stability objectives reducing currency risk⁽¹⁶¹⁾. Overall, total nominal expenditure was almost unchanged in the years 1994 to 1998, and down by an annual average of 1.3% in real terms. Measured as percent of GDP, the general government's total expenditure decreased by 11 percentage points, from 70% to 59%, between 1994 and 1998 (see Table III.7.4).

Revenue measures

Kumar et al. (2007) also show that the revenue reinforcements in the consolidation programme were mainly increases in social security fees, full taxation of dividends and capital gains and increases in personal income tax rates. As can be seen from Table III.7.3, the government income from social contributions and taxes increased on

average by respectively 3.7% and 4.2% in real terms per year between 1994 and 1998. However, strong economic growth would have been responsible for at least some of the increase in tax revenues⁽¹⁶²⁾. Even though total real revenue increased on average by 2.7% annually in this period, revenue in per cent of GDP was slightly down from 1994 to 1998. This can be explained by the strong growth in GDP⁽¹⁶³⁾.

Overview

In the real economy, the floating of the exchanges rate in November 1992 had a very positive impact on exports. There was an effective depreciation of over 20%, which strongly boosted exports. Real income from exports increased by 62% in the period from 1993 to 1998. This amounted to an average growth of 10% per year, and was the main force behind the GDP growth in the consolidation period. Fuelled by improved profitability, lower interest rate and gradually rising utilisation of capacity, business investment also increased over that period⁽¹⁶⁴⁾. However, the development in the labour market was lagging behind. In 1998 the unemployment rate was still above 8%.

In a survey on Sweden, the OECD (1999) compares the expected effect of the convergence programme in 1998 submitted to the European Union in mid-1995, with actual outcome in 1998 (see Table III.7.5). Outcomes were much better than anticipated. The revenue-to-GDP ratio was

⁽¹⁶¹⁾ Nominal long term interest rate (yearly average) differential relative to Germany decreased from 3.5 percentage points in 1995 to 0.4 percentage points in 1998.

⁽¹⁶²⁾ In addition has Swedish Government pointed out that tax receipts in 1998 can, partly, be regarded as temporarily high (Government bill 1997/98:1, p9).

⁽¹⁶³⁾ Average annual growth in real GDP from 1994 to 1998 amounted to 2.9% per year.

⁽¹⁶⁴⁾ Government bill to Parliament 1997/98:1, p5.

Table III.7.4: Key indicators in Sweden 1986-1998 /1

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
General government balance /1	-1.2	4.0	3.3	5.0	3.9	-1.0	-7.2	-11.2	-9.1	-7.4	-3.2	-1.5	1.1
CA balance /1	-1.3	3.1	2.0	3.4	2.9	-0.6	-5.5	-7.8	-6.8	-6.1	-1.5	0.0	2.1
Effect of cycle /1	0.1	0.9	1.3	1.6	1.1	-0.5	-1.7	-3.3	-2.2	-1.3	-1.7	-1.6	-1.0
Primary balance /1	5.8	10.1	8.5	10.1	8.6	3.7	-2.2	-5.5	-2.9	-2.0	2.1	3.6	5.8
CA primary balance /1	5.7	9.2	7.3	8.4	7.6	4.2	-0.5	-2.2	-0.6	-0.7	3.8	5.2	6.8
gross public debt	60.4	53.3	47.7	42.8	41.2	49.2	62.2	69.9	72.4	72.2	73.0	71.0	69.1
public expenditure /1	59.6	55.8	55.9	56.1	57.0	58.2	63.6	71.7	69.6	65.1	63.0	60.9	58.8
OW Interest /1	7.0	6.1	5.2	5.0	4.7	4.8	5.0	5.7	6.2	5.3	5.4	5.2	4.6
public consumption /1	25.9	25.1	24.4	24.5	25.7	25.3	25.9	28.8	27.8	26.6	27.3	26.7	27.0
Social benefits /1	17.9	18.1	18.8	18.6	18.7	19.8	21.8	22.2	21.7	20.1	19.3	18.5	18.3
public investment /1	2.5	2.4	2.2	2.3	2.3	2.1	2.5	3.7	4.0	3.8	3.4	3.0	3.1
Total revenue /1	58.4	59.8	59.2	61.1	61.0	57.2	56.4	60.5	60.5	57.8	59.7	59.3	60.1
OW Direct taxes /1	20.5	22.4	22.8	23.6	22.0	18.5	19.0	19.1	20.0	19.6	20.6	21.1	21.0
Indirect taxes /1	15.8	16.3	15.4	15.2	16.1	16.5	15.1	16.6	16.0	15.3	15.8	16.0	16.8
Social contribution /1	13.4	12.9	13.2	14.2	14.6	14.3	13.7	13.0	13.1	12.8	13.8	13.6	13.6
Discretionary policy /1	0.9	3.4	-1.9	1.1	-0.8	-3.4	-4.6	-1.7	1.5	-0.1	4.5	1.4	1.6
Unemployment rate	2.7	2.2	1.8	1.6	1.7	3.1	5.6	9.1	9.4	8.8	9.6	9.9	8.2
earning (year on year change; employees)	9.0	9.6	8.2	9.2	12.8	10.6	5.2	-1.3	-1.8	4.8	4.3	6.4	3.4
Export	33.3	32.8	32.5	32.3	30.5	28.3	28.2	32.8	36.2	39.8	38.6	42.1	43.1
output growth	2.9	3.5	2.7	2.8	1.0	-1.1	-1.2	-2.1	3.9	4.0	1.5	2.5	3.8
potential GDP	1.9	2.1	2.1	2.2	2.0	1.4	1.1	0.9	1.9	2.3	2.1	2.2	2.7
output gap relative to potential	0.1	1.5	2.1	2.7	1.7	-0.8	-3.0	-5.8	-3.9	-2.3	-3.0	-2.7	-1.7
trend output growth	2.0	1.9	1.8	1.6	1.5	1.5	1.5	1.6	1.8	2.0	2.3	2.5	2.7
GDP deflator (annual change)	6.5	4.9	6.3	8.0	8.7	9.0	1.0	3.2	2.7	3.7	0.9	1.5	0.6
CPI inflation	4.2	4.2	5.8	6.5	10.5	9.3	2.3	4.6	2.2	2.5	0.5	0.5	-0.1
real interest rate (short term)	3.1	4.6	3.7	3.4	4.6	2.6	12.3	5.3	4.9	5.0	5.1	2.8	3.8

/1 Former definition in the years 1986-1992; ESA1995 as of 1993

Source: Commission services.

expected to increase almost 2%, while the actual increase in revenue was roughly 5% of GDP. Total expenditures fell by the expected amount, as a result of reduced interest payment offsetting a lower than expected decline in household transfers and public consumption and investments. In total, about 60% of the budget improvement in 1998 stemmed from cuts in the expenditure-to-GDP ratio while 40% stemmed from increases in the revenue ratio.

General government debt fell from 72% of GDP in 1994 to 69% of GDP in 1998, while the budget went from a deficit of 9.1% of GDP to a surplus of 1.1% over the same period. This improvement was due to both the consolidation efforts and the effect of a return to strong growth on the public finances, which in part was due to low interest rates and the depreciation of the krona and achieved despite the strong consolidation efforts.

Consolidation on the revenue side was done through progressive taxation, in line with the stated aims of the consolidation programme, with

evidence that "the fifth of households which have the highest economic standard contribute with over 43% of the total budget reinforcements while the fifth with the lowest economic standard contributed with 11%" ⁽¹⁶⁵⁾.

Table III.7.5: Contributions to budget consolidation (% of GDP)/1

	Convergence Programme	Actual outcome
Revenue	1.9	4.9
Taxes	1.9	6.3
Capital income	-0.1	-1.5
Other income	0.2	0.1
Expenditure	-7.6	-7.6
Households transfers	-4.8	-3.3
Other transfers	-0.8	-1
Interest payments	1.1	-1.1
Consumption and investments	-3.1	-2.2
Net lending	9.5	12.5
Net primary balance	10.8	12.9

/1 Cumulative change 1994-1998 as measured in the convergence programme and in the 1999 spring bill

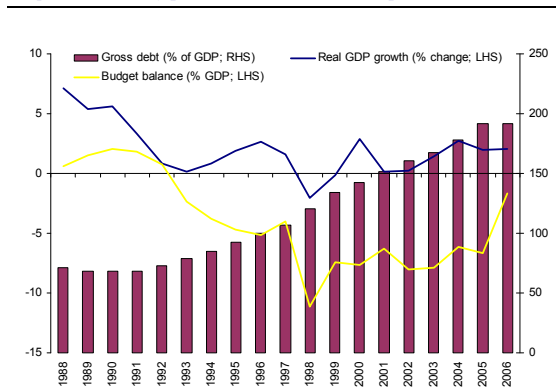
Source: OECD Economic Surveys: Sweden 1999.

⁽¹⁶⁵⁾ Government Bill 2000/01 Annex 5, p28.

7.3. JAPAN

Starting in 1991-1992, Japan entered a period of sluggish growth. Between 1975 and 1991 real growth averaged 4.5% per year, while between 1991 and 2005 this annual average fell to 1.1%, as Graph III.7.6 shows. In 1993, the budget balance became negative, reaching a deficit of 5% of GDP in 1995-1997, before plunging to over 11% of GDP in 1998. For most of the early 2000s, it displayed a deficit of about 7-8%, with some improvement coming just before the current crisis. As a result, gross debt has risen from just under 70% of GDP in 1991 to around 190% in 2006, before the impact of the current crisis.

Graph III.7.6: Key public finance variables, Japan 1988-2006



Source: Commission services.

The Japanese experience can be seen as a series of 3 recessions in a row, and a combination of economic and banking crises. In 1990, following some 15 years of strong output growth the stock market bubble burst. Over the 1980s, Japan had experienced the greatest asset price boom of any country post-war. The real estate bubble burst a year later, starting a relatively slow but long-lasting and severe decline in real estate prices. A failure to fully resolve weaknesses in the banking sector during the 1991-93 recession allowed the banking sector to limp on in a state of fundamental weakness and left the economy vulnerable to further downturns. A full banking crisis erupted in 1997 when several financial institutions failed. The result was a credit crunch in 1997-1998. In the third wave, 2001-2003, the banking sector was again central to the problems that emerged with the economy, necessitating yet another policy programme to restore the banking sector by writing off debts (OECD 2001). It was only at this

stage that serious policy measures were taken and were coupled with regulatory reform.

The overall result of the delays in restructuring the banking system was particularly high costs. According to Laeven and Valencia (2008), the net cost 5 years after the start of the 1997 crisis amounted to 13.9% of GDP. A longer term perspective presented in Spilimbergo et al (2008) estimates this net cost to be much lower at 5.3% of GDP 11 years after the start of crisis, showing that Japan was able to recoup the costs of its support measures over the medium term. Nevertheless, in comparison with other countries, the burden to the government was particularly high.

The 1991-93 crisis started as an asset price bust. Declining consumer confidence led to output falling dramatically while the overall situation was worsened by the weak financial shape of Japanese companies. By 1994-95 there were some modest signs of improvement on the back of rising consumption and exports, it still only grew by less than 1%.

Monetary authorities responded to the recession with cuts in the overnight discount rate from 6% 1991 to below 2% by 1994; the overnight rate has not risen above 1% since 1995. In addition, monetary injections were used to provide additional liquidity to the market in an attempt to stem deflationary pressures. In terms of fiscal policy, between 1992 and 1995 the government introduced 7 stimulus packages. As Table III.7.7 shows, by 1996 this had contributed to a loosening equal to around 6 percentage points of GDP, based on the cyclically adjusted primary balance figures. During the same period, real growth in GDP amounted to 6.5 percentage points of 1991 GDP, indicating that it is this fiscal loosening that was primarily responsible for any growth in the economy. 1995 saw an acceleration of growth which returned to 2.6% in 1996 fuelling optimism about the end of the recession, as private demand picked up. In 1997, however, the eruption of the Asian crisis, a strong contraction in fiscal policy and the failure of several key financial institutions pushed the Japanese economy firmly into recession with negative growth in both 1998 and 1999, before staging a short recovery and falling back into recession in 2001-2003 with the bursting of the ICT bubble which had been a key growth area for the Japanese economy in 1999 and 2000

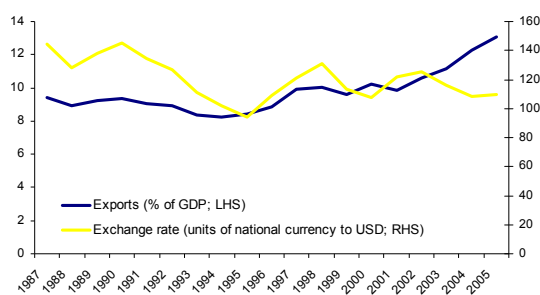
Table III.7.6: Overview of the Japanese economy before, during and after the crisis (% of GDP)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
General government balance	0.6	1.5	2.0	1.8	0.8	-2.4	-3.8	-4.7	-5.1	-4.0	-11.2	-7.4	-7.6	-6.3	-8.0	-7.9	-6.2	-6.7	-1.6
CA balance	1.2	1.3	1.0	0.9	-0.2	-2.7	-3.7	-4.6	-5.4	-4.5	-10.6	-6.4	-7.2	-5.6	-7.1	-7.1	-5.9	-6.8	-2.1
effect of cycle	-0.6	0.2	1.0	0.9	1.0	0.3	-0.1	-0.1	0.2	0.4	-0.6	-1.0	-0.5	-0.7	-0.9	-0.8	-0.3	0.1	0.5
Primary balance	4.5	5.2	5.7	5.3	4.3	1.1	-0.4	-1.3	-1.6	-0.6	-7.7	-3.9	-4.3	-3.1	-5.0	-5.2	-3.6	-4.3	0.8
CA primary balance	3.0	2.8	2.3	1.9	0.9	-1.6	-3.1	-3.9	-4.2	-3.3	-4.1	-5.1	-5.7	-4.3	-5.7	-5.6	-4.4	-5.2	-1.9
Gross public debt	71.4	68.3	68.4	68.1	72.5	78.5	84.6	92.5	100.3	107.1	120.1	133.8	142.1	151.7	160.9	167.2	178.1	191.6	191.3
public expenditure	31.7	30.5	31.1	30.2	31.8	33.6	34.1	35.0	36.7	35.7	42.5	38.6	39.0	38.6	38.8	38.4	37.0	38.4	36.2
OW interest	4.1	3.9	3.8	3.7	3.6	3.6	3.6	3.7	3.5	3.4	3.5	3.5	3.3	3.2	3.0	2.7	2.5	2.4	2.4
public consumption	9.0	8.8	8.8	8.8	9.0	9.3	9.4	9.6	15.3	15.3	15.9	16.5	16.9	17.5	18.0	18.1	18.0	18.1	17.9
social benefits	7.4	7.1	7.3	6.9	7.2	7.6	8.0	8.5	8.7	8.8	9.5	10.0	10.1	10.5	11.1	11.2	11.2	11.3	11.5
public investment	4.9	4.8	4.8	4.9	5.4	6.2	6.3	6.1	6.3	5.7	5.5	5.9	5.1	5.1	4.8	4.3	3.9	3.6	3.3
total revenues	32.9	32.8	33.8	33.6	33.1	32.1	31.9	31.9	31.6	31.7	31.3	31.2	31.4	32.2	30.8	30.5	30.9	31.7	34.5
OW direct taxes	12.8	13.0	13.2	13.3	12.5	11.3	10.3	9.7	9.8	9.8	8.6	8.3	8.8	9.3	8.0	7.6	7.6	8.3	9.1
indirect taxes	7.9	7.5	7.9	7.3	7.8	7.5	7.6	7.8	8.0	7.9	8.5	8.6	8.6	8.6	8.4	8.4	8.3	8.5	8.6
social security contributions	7.8	7.8	8.1	8.3	8.4	8.6	8.8	9.3	9.5	9.7	9.9	10.0	10.0	10.4	10.5	10.9	10.4	10.6	10.8
Discretionary policy (based on CA data)		-0.2	-0.5	-0.4	-1.0	-2.5	-1.5	-0.8	-0.3	0.9	-0.8	-1.0	-0.6	1.4	-1.4	0.1	1.2	-0.8	3.3
total since 1992					-1.0	-3.5	-5.0	-5.8	-6.1	-5.2	-6.0	-7.0	-7.6	-6.2	-7.6	-7.5	-6.3	-7.1	-3.8
Unemployment	2.3	2.3	2.1	2.1	2.2	2.5	2.9	3.1	3.4	3.4	4.1	4.7	4.7	5.0	5.4	5.3	4.7	4.4	4.1
Earnings (year on year change, employees)	6.1	7.5	8.4	7.4	2.6	2.3	1.8	1.7	1.6	2.0	-2.0	-1.6	0.6	-1.2	-2.5	-1.9	-0.1	1.4	1.8
Output growth	7.1	5.4	5.6	3.3	0.8	0.2	0.9	1.9	2.6	1.6	-2.0	-0.1	2.9	0.2	0.3	1.4	2.7	1.9	2.0
potential GDP	4.3	4.1	3.7	3.3	2.7	2.1	1.8	1.8	1.5	1.3	0.9	0.8	0.7	0.8	0.6	0.8	0.9	0.8	0.7
output gap relative to potential	0.9	2.0	3.9	3.9	2.0	0.0	-0.8	-0.8	0.3	0.6	-2.3	-3.3	-1.2	-1.8	-2.1	-1.5	0.3	1.5	2.8
trend output growth	4.1	3.8	3.5	3.1	2.7	2.3	1.9	1.6	1.4	1.2	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.7	0.6
GDP deflator annual change	0.3	2.2	2.3	2.6	1.6	0.4	0.1	-0.5	-0.6	0.5	0.0	-1.3	-1.7	-1.2	-1.5	-1.6	-1.1	-1.2	-0.9
CPI inflation	0.7	2.2	3.1	3.4	1.6	1.3	0.6	0.0	0.1	1.8	0.6	-0.3	-0.7	-0.7	-0.9	-0.3	0.0	-0.3	0.3
Real interest rates	3.6	3.1	5.4	4.7	2.8	2.6	2.2	1.7	1.2	0.1	0.7	1.5	2.0	1.4	1.7	1.7	1.1	1.3	1.2

Source: OECD, Commission services.

(OECD 2001). Nevertheless, as Graph III.7.7 shows, export growth has been key to the recovery from the end of the first wave of recession on, despite the fact that overall the exchange rate has remained strong compared with its level at the onset of the first wave of recession.

Graph III.7.7: Exports and the exchange rate, Japan 1987-2005



Source: Commission services.

The Japanese governments launched a series of fiscal packages throughout the 3 waves of recession. Table III.7.7 sets out their magnitude and composition. The efficacy of these packages, the appropriateness of the measures and the timing of the expansions and contractions has been called into question. Through the use of successive short-term support package, which included a series of temporary measures, the Japanese governments were criticised for creating uncertainty and failing to increase confidence in an economy that was in great need of some, while nevertheless presiding over very significant increases in debt.

A recurrent criticism of Japanese policy involves the tightening that occurred in 1997, just as the recovery was showing tentative signs of starting. It is argued that this recovery was too weak to support the retrenchment and this was in part responsible for tipping Japan back into recession. Given that the retrenchment involved a pre-announced increase in consumption taxes from 3 to 5%, it is arguable that the tentative recovery itself was driven by fiscal policy boosting private

demand and that the underlying fundamentals of the economy were significantly weaker than the data for 1996 showed at the time (OECD 1998). This explanation, which is disputed by those who point to the importance of the Asian crisis in the downturn, is consistent with view that a lack of consumer confidence and deflation were acting a break on demand – the stronger consumer inflation in 1997, caused in part by the increase in consumption taxes, would have been anticipated and fuelled increased spending in 1996 through a substitution effect. The assessment at the time was based on concern about the unsustainability of the fiscal position, particularly given the ageing of the population which was already beginning.

Moreover, in 1997 the government had just introduced a Fiscal Structural Reform Act which set out the means for consolidating the public finances, including an aim to reach a 3% surplus by 2005 and introducing caps on government expenditure. This Act lasted for 2 financial years before being suspended in 1998. As a result of this Act and of the structure of the Japanese budgets which necessitates the use of a supplementary budget to institute any deviations to borrowing or spending limits even when caused by the cycle, fiscal policy continued to be undertaken on a stop-start basis. It took until April 1998 before more fiscal measures could be implemented once the recession set in, thus reversing the tightening that had been introduced with the Fiscal Structural Reform Act. As was the case during previous support packages, the support focused temporary income tax cuts and an increase in the expenditure budget for social infrastructure (OECD 2001).

For the 3rd wave of the recession, following the election of a new government in 2001, Japan set deficit targets to be met over the medium term, although the worsening economic situation and ongoing doubts about the weakness of the underlying fundamentals of the economy meant that progress, especially on the tax side, was slow. By 2006, however, reductions in deficit through cuts in investment spending, the reversal of the temporary tax cuts and increases in social security contributions to help deal with population ageing were apparent as the public finances strengthened. Nevertheless, the legacy of 15 years of weakness was a public debt of some 190% of GDP, requiring much more consolidation before it could stabilise and begin to fall.

All 3 waves of the Japanese recession were characterised by low business confidence, due to the weak position of Japanese companies, and arguably, by weak consumer confidence as well. From after the first wave, deflation added to this problem, while concern about the sustainability of the public finances (both in the short-term and due to population ageing, over the longer term) and the solvency of the banking system arguably contributed to a reticence amongst Japanese consumers and businesses to increase demand, thus contributing to the downturn.

Spending measures

The spending measures introduced in the support packages rested heavily on traditional infrastructure projects, as can be seen in Table III.7.7. The projects typically lacked significant social returns and resulted in little impetus for sustained growth. Between 1991 and 1995, public investment spending increased from 4.9% of GDP to 6.1%, before beginning to fall until the 1998 supplementary budget increased it again in 1999. Thereafter, public investment spending fell gradually as attempts to consolidate focussed, in part, on this part of the budget which fell to 3.3% of GDP by 2006.

At the time of the first recession, public investment in Japan was roughly twice the OECD average and centred on construction projects that supported an already bloated construction sector. By increasing to support this sector the Japanese government have been criticised for not providing optimal support to the economy, but rather impeding the necessary restructuring and rationalisation of a sector in need of reform (European Commission 2009). Moreover, while investment is important for long-term growth, it is not the most timely way of supporting an economy in recession as it typically takes time for projects to be implemented thus delaying support. By increasing investment in the support packages but cutting it during the consolidation phase, Japan arguably did the opposite of what would provide the most impetus to its economy over the medium term.

A significant part of the spending increases was introduced through local government, which had responsibility for significant parts of the budget. Due to the limited control that central government had over the spending of local governments, this

Table III.7.7: Fiscal measures introduced on a project cost basis (% of GDP)

	Total	Social infrastructure investment				Tax cuts	Other
		General public works	Building and equipment	Public works by local govts.	Total		
28-Aug-92	2.2	0.7	0.1	0.4	1.3	0.0	0.9
13-Apr-93	2.7	0.8	0.2	0.5	1.6	0.0	1.1
16-Sep-93	1.3	0.2	0.0	0.1	0.4	0.0	0.9
08-Feb-94	3.1	0.7	0.1	0.1	0.9	1.2	1.0
14-Apr-95	0.9	0.0	0.0	0.0	0.2	0.0	0.7
20-Sep-95	2.6	0.8	0.2	0.2	1.3	0.0	1.3
24-Apr-98	3.3	0.9	0.3	0.3	1.5	0.9	0.9
16-Nov-98	4.7	1.1	0.4	0.0	1.6	1.2	1.9
11-Nov-99	3.6	0.9	0.3	0.0	1.4	0.0	2.3
19-Oct-00	2.2	0.5	na	0.0	1.0	0.0	1.2
16-Nov-01	0.2	0.0	0.0	0.0	0.1	0.0	0.1
01-Feb-02	0.5	0.0	0.0	0.5	0.5	0.0	0.0
30-Jan-03	0.7	0.3	na	0.2	0.6	0.0	0.2
Total	28.2	7.0	1.7	2.2	12.5	3.3	12.4

Source: OECD.

has led many to question whether the plans set out in the economic packages were indeed implemented. Posen (1998) argues that a central part of the Japanese approach to supporting the economy involved planned spending increases that were never implemented due to the inability of central government to impose spending conditions directly on local government resulting in less support and stabilisation than the announcements by the Japanese government would imply.

Revenue measures

On the revenue side, the measures introduced in the economic packages were consistently and explicitly temporary. In a situation of ongoing low consumer confidence a series of temporary measures did not seem appropriate to stimulate demand (Ihori et al. (2003)), particularly given the historical high savings rate of Japanese taxpayers at the time.

Faced with both weak demand and increasing concern about an ageing society, the Japanese government engaged in a substantial tax reform in 1994 and subsequent increases in social security contributions and healthcare charges to prepare for an ageing population.

Within the constraints imposed by the worsening economic situation Japan was able to reduce the national corporate income tax by 3 percentage

points in 1998 and local corporate enterprise tax by 1 percentage point, bringing down some of the taxes on business which had previously been amongst the highest in the OECD. From 2000 on, a series of reforms were also imposed on social security contributions as the necessity to deal with population ageing became more pressing, while the temporary tax cuts that had been introduced in a series of packages began to be withdrawn.

Overview

The failure to resolve the structural problems in the banking sector undoubtedly led to problems in the economy dragging out for longer than was necessary. Rather than forcing a restructuring the authorities kept insolvent institutions afloat either by not imposing transparency requirements, or by merging them forcibly with healthy institutions. As a result, this too allowed inefficient firms to continue to exist through the provision of cheap loans and default forgiveness, delaying any necessary restructuring in the economy and resulting in a suboptimal allocation of resources to more productive firms/industries.

Japan's recessions and fiscal policy during that period are inextricably linked to the high savings rate in the country. A high propensity to save has arguably made fiscal expansions less expansionary than they would have been, while the keeping interest rates low due to the high demand for

Japanese bonds. This high propensity to save has been linked to low levels of social protection leading to self-insurance, alongside a realisation amongst taxpayers that population ageing has both fiscal and personal consequences in terms of making adequate provision for retirement.

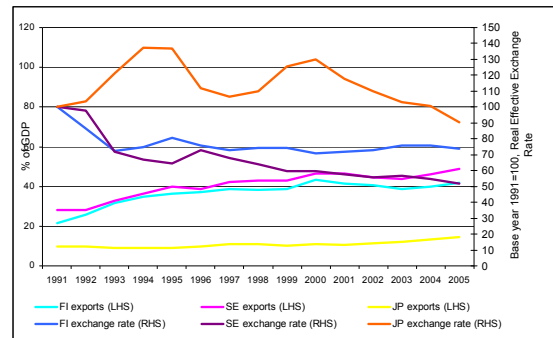
7.4. KEY LESSONS

All 3 cases considered in this section deal with economic and banking crises following credit and asset price booms. These booms were not adequately recognised at the time when they were happening and nor was their effect on the public finances understood. Cyclically adjusted balances underestimated the extent to which revenues were boosted by the boom, leading a sharp drop in budget balances with the onset of the crisis.

The differing experiences of the 3 countries show that the amount of time needed for budget balances to return to surplus can be very variable. While Sweden and Finland returned to surplus before the end of the 90s, for Japan this has still not yet been achieved. Also, Sweden and Finland had similar time horizons of around 7 years until they were able to return to surplus despite different circumstances – Finland started consolidating earlier and was also faced with a deeper recession.

In Finland's case, the low starting rate of debt (below 20% of GDP at the start of the crisis) allowed some respite from the deficit problems that emerged once the crisis hit. This meant that despite interest spending increasing sharply at the start of the crisis, it still remained at manageable levels and did not lead to the snowballing of debt. Nevertheless, debt 10 years after the crisis was more than double its level at the start. Sweden too had levels of debt (around 40% of GDP just before the start of the crisis) that allowed it some leeway in its public finances and in this case too debt ended up nearly 30 percentage points of GDP higher at the end of the decade. In Japan's case, the higher starting debt created less pressure than it might have done under other circumstances due to the willingness of Japanese savers to keep on buying Japanese bonds, thus stopping the debt financing costs from exploding as debt exceeded 100% of GDP and started to approach 200%.

Graph III.7.8: Finland, Sweden and Japan exchange rates and export shares



Source: Commission services.

In all 3 cases, the increase in exports played an important role in the recoveries. A weakening of their currencies was important for growth as it coincided with an increase in exports – as can be seen in graph III.7.8⁽¹⁶⁶⁾. In Japan's case, the evolution of the exchange rate did not contribute to increasing exports, although these did pick up after the recovery starting in 2003.

Finally, the importance of adequately dealing with the problems in the banking sector can be seen by contrasting the ongoing problems seen in Japan with the experiences of the two Nordic countries. By not addressing the underlying issues that first plunged Japan into recession for over 10 years, banking crises were able to return prolonging the difficulties faced by the Japanese economies.

⁽¹⁶⁶⁾ The graph shows the Real Effective Exchange Rate. For a further discussion on the role of exchange rates see section IV.4.

Part IV

Fiscal policy and external imbalances

SUMMARY

Alongside the stability offered by the single currency, the financial and economic crisis has drawn attention to the macroeconomic imbalances that have developed within the euro area. Over the last ten years, significant divergences in the external economic performance of the Member States have built up and this carries contingent economic and budgetary costs. Recently acceded EU Member States and peripheral euro area Member States saw booming domestic demand and fast credit expansion, with domestic prices increasing significantly. This resulted in large increases in unit labour costs and an appreciation of the real exchange rate, while other countries experienced slow domestic demand growth and falls in their domestic prices vis-à-vis EU and euro area competitors. The onset of the crisis and the shrinking of credit that went with it triggered the unwinding of external imbalances; as private demand fell abruptly, fiscal borrowing replaced private borrowing. This has brought into focus the consequences of external imbalances and the interrelation between the two key challenges of winding them down and reversing the increases in government debt ratios. The ongoing experience of the crisis can provide new evidence and a better understanding on the debate on adjustment, overheating and overcooling in the monetary union, and the role of fiscal policy.

Section IV.1 describes the budgetary and macroeconomic developments in the run-up to the crisis. It highlights how rising current account deficits and deteriorating competitiveness went hand-in-hand with – at least on an ex-post basis – loose budgetary policies as countries with booming domestic demand typically enjoyed strong revenue growth, which was channelled into government spending. To the extent that the deteriorating current accounts and appreciating real exchange rates point to a potentially unsustainable growth pattern and inflated nominal GDP, future external imbalances can act as warning for budgetary risks that are not captured by standard indicators used for budgetary surveillance. The existence of imbalances is therefore reason for concern at the current juncture, as post-boom periods involving a correction in the current account and competitiveness imbalances tend to be particularly costly from a growth and budgetary perspective.

Given the links between current account and budgetary imbalances, there is case for considering

whether fiscal policy can contribute significantly to the prevention of external imbalances. Section IV.2 reviews the economic literature on the relationship between the current account and fiscal policy. It finds that the evidence on the impact of fiscal policy on external imbalances is inconclusive. Most studies consider the effects of budget deficits and government debt on aggregate demand. According to the Keynesian approach, where fiscal deficits are assumed to result in higher domestic, the accompanying increase in imports leads to the so-called twin deficits. The literature finds some, albeit limited, support for this effect.

In contrast according to the Ricardian approach, as the private sector adjusts its future expectations of income in the light of rising public debt and the attending debt burden and increases its savings accordingly, both output and the current account balance are unaffected by fiscal policy. There is some evidence in favour of the Ricardian approach too, in the literature, qualified by the prevalence of liquidity constraints faced by private agents. However, alongside the overall inconclusive evidence of these macro studies, it is worth bearing in mind the possible effect of macro and micro transmissions channels whereby fiscal policy can affect investment and savings decisions despite the fiscal stance being neutral. A thorough analysis of non-conventional macro and microeconomic transmission channels is required to expose the full effect of the public finances on external imbalances.

Section IV.3 considers the possibility of using synthetic indicators reflecting fiscal and macrofinancial risks in EU countries as a tool for fiscal surveillance. Three composite indicators are considered, summarising information on budgetary risk indicators, macro-financial risk indicators and short-term budgetary adjustment rigidity, respectively. The current value of the indicators, which measure the position of each country relative to the others, as well as their evolution over time relative to base-year values are then used to provide a guide to the types of adjustment that might be or might have been appropriate. In particular, used retrospectively, they show that the countries that have seen the greatest deterioration in their public finances since the onset of the crisis displayed high and rising macro-financial risks in the years prior to its onset, while the countries exhibiting the smallest budgetary deterioration

displayed falling macro-financial risks over the same period. While these indications are suggestive, it should be borne in mind that as they follow from the aggregation of the information included in the indicators, they do not dispense from an examination of the underlying economic dynamics.

The Commission Communication of 12 May 2010, entitled '*Reinforcing economic policy coordination*' recognises the need to expand economic surveillance and deepen the analysis beyond the budgetary dimension to address other macroeconomic imbalances, including competitiveness developments and underlying structural challenges in order to prevent the occurrence of severe imbalances within the euro area. The surveillance will include a scoreboard that will indicate the need for action. It would encompass a relevant set of indicators and reflect, inter alia, developments in current accounts, net foreign asset positions, productivity, unit labour costs, employment, and real effective exchange rates, as well as public debt and private sector credit and asset prices. It would appear particularly important to detect asset price booms and excessive credit growth at an early stage to avert costly corrections of fiscal and external imbalances at a later stage. This analysis would form the basis for the formulation of the recommendations for preventive or corrective measures in the Member State(s) concerned.

The coming years will see governments undertake consolidations at a time when external imbalances will have to be corrected. The effects on output - through large multipliers affecting domestic demand and revenues - may be sizeable owing to credit and liquidity constraints. At the same time, very low nominal growth would make servicing of accumulated liabilities very difficult. Debt dynamics depend on the difference between interest rates and growth. In times of competitiveness adjustment of overvalued real exchange rates, real growth will be low and real interest rates high as relative prices adjust, resulting in a high snowball effect, especially if debt itself is high.

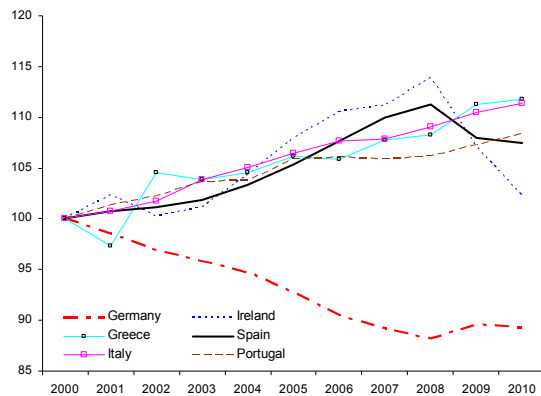
Section IV.4 considers the role that changes in the real exchange rate and the size of external imbalances have played in the success of past consolidation episodes. The (quantitative) analysis is based on the data and definitions used assessing the determinants of successful consolidations in Part III. Overall, the analysis suggests that while exchange depreciations/devaluations are sometimes associated with successful fiscal consolidations, this is by no means a regularity. At the same time, there is evidence for successful fiscal consolidations to be preceded by improvements in the external position. Moreover, containment of the government wage bill is confirmed as instrumental to successful consolidations, in line with the hypothesis on the importance of microeconomic channels of adjustment.

The experience of a selection of countries is examined in section IV.5. Particularly illustrative is the case of Ireland, which experienced a long boom including very high domestic demand in the run-up to the crisis. High public expenditure growth and favourable treatment of housing appear to have been instrumental to the build-up of imbalances. An appreciation of the real exchange rate weakened the competitive position in the run-up to the crisis, while apparently healthy public finances were heavily reliant on revenues linked to domestic demand. With the onset of the crisis, growth turned strongly negative and the government balance exhibited a double digit deficit. Looking forward, it is important to ascertain the effect that government's consolidation plans might have on the country's competitiveness position.

1. EXTERNAL IMBALANCES SIGNALING UNDERLYING BUDGETARY IMBALANCES

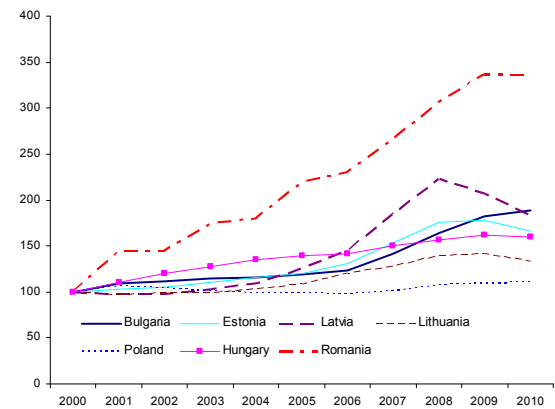
EU Member States have experienced significant divergence in their external economic performance. ⁽¹⁶⁷⁾ This trend has been particularly evident for competitive positions as measured by price, wage and real effective exchange rate indicators. Recently acceded and peripheral euro-area Member States saw thriving domestic demand and credit booms, with domestic prices increasing significantly. At the same time, others experienced slow domestic demand growth and falls in their domestic prices vis-à-vis EU and euro-area competitors (Graphs IV.1.1 and IV.1.2 show developments of nominal unit labour costs). The dispersion of current account balances increased steadily from the mid-1990s, reaching an all-time high in 2008, just before the start of the crisis.

Graph IV.1.1: Nominal unit labour costs– selected euro-area countries (2000=100)



Source: Commission services.

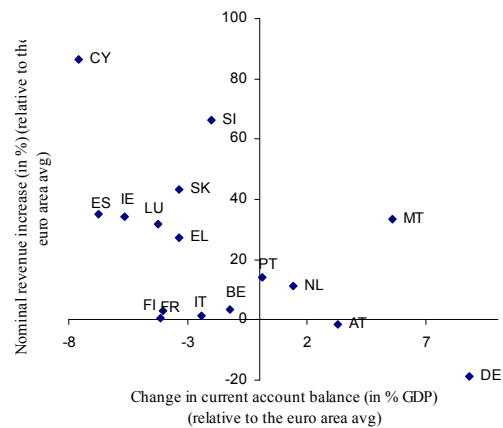
Graph IV.1.2: Nominal unit labour costs– selected non-euro-area countries (2000=100)



Source: Commission services.

To the extent that they point to a potentially unsustainable growth pattern and inflated nominal GDP, external imbalances may signal future budgetary risks not captured by standard indicators used for budgetary surveillance. In the early years of EMU, high revenue growth has generally been accompanied by deteriorating current account balances and competitiveness, while improving current account balances and competitiveness have been associated with low nominal revenue growth. Graphs IV.1.3 and Graph IV.1.4 illustrate these features for euro-area countries.

Graph IV.1.3: Changes in (i) the current account (relative to EU16 average) and versus changes in nominal revenues (relative to EU16 average) in EMU (2000 – 2007)



Source: Commission services.

⁽¹⁶⁷⁾ European Commission (2010c) provides a comprehensive assessment of the external performance of euro-area Member States since the launch of the euro and reviews possible policy responses.

Both the high level of output growth and its composition, which was tilted towards highly taxed components such as domestic consumption and investment in housing, induced high government revenue growth in a number of countries. A rising share of the tax base increase was due to temporary and unsustainable factors, as aggregate demand consistently exceeded output and prices and wages increased at the cost of deteriorating competitiveness. Domestic asset price developments, in particular housing prices, also contributed to windfall revenues and were in some cases promoted by favourable tax treatment, though with large differences across countries.⁽¹⁶⁸⁾ The high revenue growth was generally matched by consistently high nominal growth of government spending. Thus, windfalls stemming from high price and wage inflation and booming domestic demand were spent. To the extent that increases in expenditures more and more reflected revenues that turned out to be temporary, contingent budgetary risks built up.⁽¹⁶⁹⁾

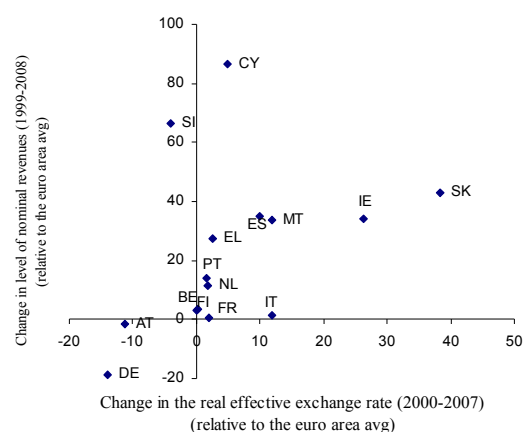
The existing literature is relatively scant on the effects of unwinding of macroeconomic imbalances on budgetary developments over the medium term. Studies tend to suggest, however, that post-boom periods which are accompanied by the correction of current account and competitiveness imbalances may be particularly

⁽¹⁶⁸⁾ See for instance European Commission (2009) showing the importance of domestic credit growth for government finances European Commission (2006) found that large revenue growth was to some extent related to the effect of entry into the euro area, which in some of the Member States led to a large decline in the exchange risk premium feeding credit growth and noted that "This effect of growth composition, high wage and price growth and booming asset prices on nominal revenue growth cannot be continued forever as the accompanying deterioration of the current account balances and the appreciation of the real effective exchange rate need to come to an end. At some point in time, expenditure growth rates will need to be adjusted downward."

⁽¹⁶⁹⁾ Countries that experienced a long period of high growth and inflation tended to spend revenue windfalls, as potential growth and estimates of structural revenue levels tended to be overestimated. Ex-post downward revisions in potential growth estimates put continuous downward pressure on the measured structural budget balance, as growth declined towards and below its 'true' potential. The assumptions made about the length of cycles in the filtering of cyclical effects from structural effects affect the size and risk of such measurement errors. See Langedijk and Larch (2010) for an assessment of the effect of different smoothing parameters for potential output filtering on ex-post revisions of cyclically-adjusted budget balance estimates.

costly from a growth and budgetary perspective.⁽¹⁷⁰⁾

Graph IV.1.4: Changes in the real effective exchange rate (relative to EU16 average) versus changes in nominal revenues (relative to EU16 average) in EMU (2000 – 2007)



Source: Commission services.

Increased uncertainty and the sudden increase of risk aversion in international capital markets during the crisis forced a rapid unwinding of imbalances. Capital inflows reversed and credit growth tumbled, reinforcing the sharp contraction in private consumption and investment due to the revision of growth prospects. As a result, imports contracted more than exports and the current account deficits were reduced.

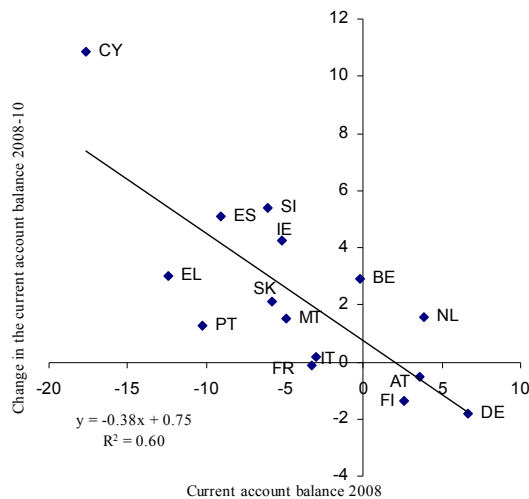
The level of current account imbalances in 2008 and their change in the period 2008-2010 are highly correlated as current account imbalances are being halved, on average (Graph IV.1.5 and IV.1.6). The adjustment is characterised by sharp contractions in domestic demand. The contribution of domestic demand to growth in 2008-10 is particularly negative in countries that had large current account deficits in 2008 (Graph IV.1.7 and IV.1.8).⁽¹⁷¹⁾ Countries outside the euro-area with that saw a sharp reversal of capital flows had particularly negative contributions of domestic demand to GDP growth over that period (the Baltic states and Bulgaria). In the euro area, domestic demand dropped sharply in Ireland and Spain, and to a lesser extent in Greece.

⁽¹⁷⁰⁾ See e.g. Corsetti et al. (1999) and Mussa (2005)

⁽¹⁷¹⁾ The rebalancing comes at a high cost in terms of underutilisation of labour and capital. See QREA I-2009.

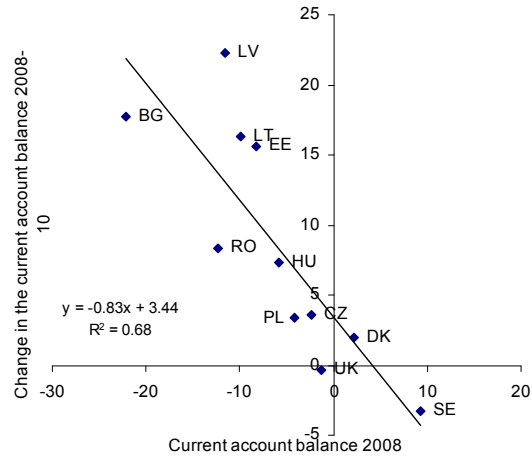
However, the convergence in current accounts is taking place with only limited rebalancing in price competitiveness. In some countries, austerity packages included sizeable cuts in public wages, and private sector wages and prices are also adjusting. Such adjustment occurred in particular in Ireland and the three Baltic states. In other countries, the fast increase in unit labour costs has come to a halt, but reversal has not set in (Graph IV.1.1).

Graph IV.1.5: Level of the current account balance in 2008 vs changes in the current account balance 2008-10 – euro-area Member States



Source: Commission services.

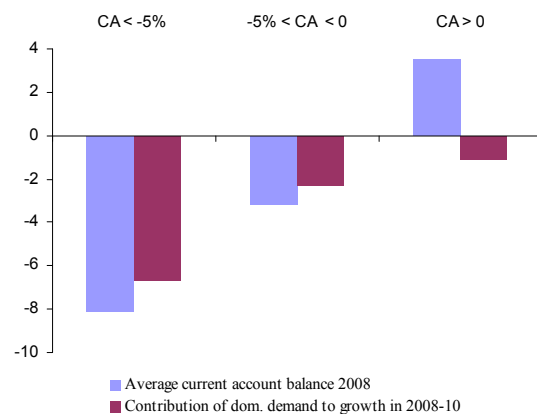
Graph IV.1.6: Level of the current account balance in 2008 vs changes in the current account balance 2008-10 – non-euro-area Member States



Source: Commission services.

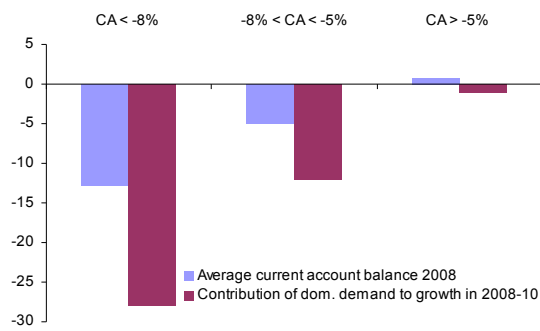
In the face of collapsing private spending, government expenditure remained stable or was increased through discretionary spending, resulting in very large budget deficits in the context of falling government revenue. Increases in public debt effectively replaced those in private debt.

Graph IV.1.7: Current account balance in 2008 and cumulative domestic demand contribution to growth 2008-10 – euro-area Member States



Source: Commission services.

Graph IV.1.8: **Current account balance in 2008 and cumulative domestic demand contribution to growth 2008-10 - non-euro-area Member States**



Note: The grouping differs from graph IV.1.7 to allow an evenly distributed grouping as current account deficits tend to be much larger in non-euro area countries.

Source: Commission services

The speed and the economic and budgetary costs of the adjustment of imbalances will depend both on the degree of price and wage flexibility and on the ease with which resources can be reallocated across sectors in different countries. Adjusting to the external imbalances will not only involve cuts in production costs and prices. There is also a need for a reallocation of demand and productive resources between the non-tradable and the tradable sector and for changes in relative prices between these two sectors. To the extent that price and wage adjustment is hampered by nominal and real wage rigidities and product prices do not react to demand signals, the adjustment process will be stretched and may eventually be achieved at a permanently lower level of output and higher level of structural unemployment.⁽¹⁷²⁾

Fiscal consolidation is particularly difficult in times of low nominal growth in a context of nominal rigidities. Moreover, the effects on output - through large multipliers affecting domestic demand and revenues - may be sizeable owing to credit and liquidity constraints. At the same time, very low nominal growth would make servicing of accumulated liabilities very difficult. Debt dynamics depend on the difference between interest rates and growth. In times of competitiveness adjustment of overvalued real exchange rates, real growth will be low and real interest rates high as relative prices adjust, resulting in a high snowball effect, especially if debt itself is high.⁽¹⁷³⁾

⁽¹⁷³⁾ These effects on the debt-to-GDP ratio can also be disentangled as follows. First, the numerator, nominal debt is affected by the impact of adjustment dynamics on the structural and nominal budget balance (and thus net lending) as discussed above. Second, the denominator, nominal GDP deviates from potential (nominal) GDP and will need to adjust down, as both real GDP and the price level are above their potential. The deviation of prices from the equilibrium price level is reflected by the overvaluation of the real exchange rate. The downward adjustment process reduces the denominator and increases the nominator, leading to a higher debt to GDP ratio when imbalances have been unwound. In fact the direct effect of downward real exchange rate adjustment on public finances can be considered similar to the nominal depreciation of a currency in a country with largely foreign denominated debt. Instantaneous adjustment of the imbalances would lead to an increase of the debt-level to that level. In the case of an immediate price adjustment there would not, however, be an effect of adjustment through lost output.

⁽¹⁷²⁾ In the extreme case of fully flexible price and wage adjustment, there are no output costs to competitiveness adjustments. See Deroose et al. (2004).

2. LITERATURE REVIEW ON THE RELATION BETWEEN THE CURRENT ACCOUNT BALANCE AND GOVERNMENT FISCAL BALANCES

From a policy perspective, studying the relationship between the government's fiscal balances and the current account balance is crucial to assessing whether fiscal policies could help resolve external imbalances or contain the build-up of excessive current account imbalances. Most studies that have examined the impact of fiscal policy on external imbalances have approached the issue by focussing on the effects of budget balances and government debt ratios on aggregate demand. The evidence is inconclusive.

The conventional wisdom that fiscal deficits drive current account imbalances relates to the accounting identity between domestic savings, investment and the trade balance⁽¹⁷⁴⁾. If, according to this Keynesian view, fiscal expansions imply lower domestic saving, this translates into a current account deficit. If a fiscal expansion stimulates private consumption, private investment and the propensity to import, it supports the so-called twin deficit hypothesis.

Many studies have found evidence of the twin deficit hypothesis, although the magnitude of the correlation differs. In most of them the link is found to be affected by the level of development of the country, its trade openness and the economic cycle. The twin deficits hypothesis is often tested via the relationship between fiscal policy and the real equilibrium exchange rate (REER), on the basis that a fiscal expansion/consolidation would induce REER appreciation/depreciation that in turn should further negatively/positively affect the current account balance. Kumhof and Laxton (2009) and Beestma and others (2008) find significant supportive evidence for the twin deficit hypothesis. With respect to REER response to fiscal expansion, Beestma and others (2008) and Benetrix and Lane (2009) find evidence of REER appreciation, in contrast with the findings of Monacelli and Perotti (2007) which point to REER depreciation.

A second set of studies focuses on inter-temporal consumption preferences and the role of expectations. Under the hypothesis that Ricardian equivalence holds, a fall in public saving would be offset by the increase in private saving, leaving output and the current account balance unchanged. This result depends on the share of liquidity constrained agents present in the economy and on households' perceptions of future fiscal policy. In particular, Kim and Roubini (2008) and Nickel and Vansteenkiste (2008) find evidence supporting of Ricardian equivalence.

In looking at the determinants of current account developments, several studies find fiscal policy to have a negligible role compared to other factors such as productivity and output shocks. The weak impact of macro-fiscal policy on the current account balance is also emphasized in recent studies of the developments in Greece, Ireland and Spain. In particular Bitzis and others (2008) and Cardoso and Domenech (2008) find that current account deficits were mainly driven by private investment and capital inflows coupled with competitiveness lags, while current uncertainty and precautionary saving account for the more recent reversal of current account trends.

Overall, the key issue appears to be the extent to which changes in the fiscal stance are offset by private sector decisions, as households and firms discount the future changes in taxes and expenditures that will be necessary for the government to respect the inter-temporal budget constraint.

⁽¹⁷⁴⁾ $(X-M) = (S-I) + (T-G)$. According to this identity current account (X-M) is equal to the government budget balance (T-G) plus the difference between private domestic saving and private investment (S-I).

Table IV.2.1: Overview of literature on the relation between fiscal policy and the current account balance

Twin Convergence (Twin Deficit Hypothesis)				
Policy implications:	Fiscal consolidation can help close the gap between saving and investment in order to achieve a reduction in the current account deficit. In countries facing external imbalances, fiscal expansion may accentuate external troubles.			
Reference	Data, Sample and Methodology	Fiscal Variables	Main channels and determinants	Long-run effects
Abbas Hagbe Fatas Mauro and Velloso (2009)	VAR, panel data (95-07) for 124 countries	+ gov.consumption (1% of GDP in real terms)	CA balance deterioration is caused by higher imports and stronger demand. The relationship is stronger in countries more open with respect to trade and financial transactions. There is a slower effect in advanced economies compared to developing countries (0,2 vs 0,3 of fiscal consumption increase). Large Changes in CA position are found to be weakly correlated with fiscal policy shocks.	More persistent effects in emerging countries and in economies above potential probably due to higher share of liquidity constrained agents and a larger demand for imports.
Kumhof and Laxton (2009)	macro-simulation models calibrated on US and on a general small economy.	1 dollar tax-cut	Fiscal stimuli produce a rise in the saving-investment gap triggered by an increase in private consumption. The hypothesis of households' ricardian behaviour is rejected. In the short run fiscal stimuli raises the current account deficit by 0.5 dollar.	From 0.75 to 1 dollar of fiscal deterioration turns in CA deficits for US and small open economy respectively [explain better]
Benetrix and Lane (2009)	VAR, EMU 11 (except LU)	+ gov.spending (different sources)	Gov.spending leads to increasing demand in the non-tradeable sector leading to REER appreciation and a loss in competitiveness for tradeables. Among government spending, public investment is found to have the strongest impact on C.A. and REER appreciation.	Maximum C.A. reaction after 2 years from the fiscal shock. REER changes persist longer.
Beetsma Roel Giulodori and Klaasen (2008)	EU 14, VAR data 1970-2004	+ gov.spending (1% of GDP)	Current Account deterioration is due to rises in output triggered by government spending. Income effect leading to higher imports plays a key role. Trade balance deteriorates by 0.5 % of GDP after 1 year and 0.8 percent of GDP after 2 years.	REER appreciation appears with some delay but persists longer. It is likely to be due to increases in wages.
Monacelli and Perotti (2007)	VAR, UK,USA,CAN,AUS data 1973/74-01	+ government spending (1% of GDP in real terms)	Fiscal expansions drive higher consumption and trade balance deterioration in AUS and UK (0.6% of GDP) and to a lesser extent in CAN. In US the trade balance effect is much smaller. When government spending is deflated on the basis on its own deflator trade balance improves. REER tends to depreciate in all countries except CAN.	US trade balance goes back almost immediately to trend and in the long term shows an improvement.
Kennedy and Slok (2005)	panel regressions, 14 OECD countries data 1982-2003	budget balance (1% increase)	Budget balance deterioration is found to be coupled with current account deficit via saving-investment channels.	The paper analyses the role of how structural reforms affect the current account position. Labour market reforms are expected to improve the current account balance through devaluation . Product market reforms and financial market reforms are expected to negatively affect the current account by increasing imports and investment respectively. Empirical tests confirm the theoretical framework although the coefficients are not always significant and the impact is rather limited.
Mohammadi (2004)	panel regression, 63 countries data 1975-98	government spending (1% of GDP)	Saving-investment gap translates into higher current account deficit. Weaker effect for developed countries (0-0.26). Higher effect if gov.spending is bond financed (0.22-0.50 in advanced countries). Symmetrical movement between budget balance and current account.	

Similar results: Nomandin (1999) Debelle Faruqee (1996) Baxter (1995) Andersen (1990) Roubini (1988) Bernheim (1988)

(Continued on the next page)

Table (continued)

Twin Divergence: Ricardian Equivalence as main driver				
Policy implications:	Fiscal policy has no impact on the Current Account deficit, particularly in the long-run. Relying on fiscal consolidation to reduce external imbalances is misleading. Nevertheless, in case of concerns over the country's external position fiscal consolidation may be welcomed to induce REER devaluation and to restore investors' confidence in order to avoid massive capital flight.			
Reference	Data, Sample and Methodology	Fiscal Variables	Main channels and determinants	Long-run effects
Kim and Roubini (2008)	VAR, US	budget balance (1 % of GDP increase)	Concerns over long-term debt sustainability following fiscal expansions lead to higher interest rates. This causes investment crowding-out and to some extent higher saving, explained by partial Ricardian behaviour. The results is a small C.A surplus. On the exchange rate side a budget deficit drives nominal and real depreciation caused by the fall in private consumption and output. Nevertheless with respect to a general assessment of fiscal policy impact, twin divergences are found to be largely due to output shocks rather than fiscal shocks.	
Nickel and Vansteenkiste (2008)	panel regression controlled for different government debt thresholds, 22 Industrial countries, data 1981-07	budget balance	Government debt influences private sector expectations (behaviour exhibits Ricardian effects). Fiscal stimulus translates in significant (0.61) C.A. deficits in low debt countries (debt < 40% of GDP) where concerns over debt sustainability are lower; small C.A. deficits (0.15) are expected in medium debt countries (44%<debt<90%), while in high debt countries (debt > 86%) fiscal expansion leads to current account surpluses (-0.2) by crowding out investment and by increasing households' saving rate.	
Obstfeld and Rogoff (1996)	New Open Economy Macroeconomics Model (Inter-temporal Model)	+ government spending	Following higher government expenditure, Ricardian behaviour induces households to decrease consumption against the backdrop of expected future tax hikes. Falls in public saving are offset by increases in private saving. Since the demand for money is assumed to depend on private consumption, a fall in consumption leads to a depreciation of the nominal exchange rate, as well as of the real exchange rate as prices are assumed to be sticky. Only small current account deficits can be expected in the short-run following fiscal expansions.	No effect on CA
Similar Results:	Ahmed (1987)			
Twin Divergence: Limited role both for the fiscal balance and Ricardian equivalence (especially in the long-run)				
Policy implications:	The causes of external imbalances have to be found in the medium-term interlinkages between different variables, other than fiscal policy which has negligible direct impact on the external position. Its indirect role in affecting some of the determinants of current account variation cannot be excluded.			
Reference	Data, Sample and Methodology	Fiscal Variables	Main channels and determinants	Long-run effects
Ahearne, Schmitz and Von Hagen (2009).	OLS regression, EU15	budget balance	Budget balances have a limited role in the current EU external imbalances. A rise in the fiscal balance by one percent of GDP raises the trade balance with respect to the euro area countries only by 0.04 percent of GDP. Even for Portugal, where fiscal balance amounted to -5.4 percent of GDP in 2005, at most half a percentage point of total trade deficit of 12.5 percent was explained by the budget deficit.	Financial market integration and lower risk premia following the Euro introduction have stimulated capital inflows in economies with relatively lower capital endowments leading to CA deficit.
Cardoso and Domenech (2008) Preliminary	DGE Model Small Open Economy	+ gov. consumption (1% of GDP) + public Investment, (1% of GDP) - labour taxes(1% of GDP)	Private saving changes are only partially due to fiscal policy shocks. Ricardian equivalence holds only partially. Nevertheless even including a larger share of non-Ricardian consumers, no evidence of substantial C.A. deterioration is found. In the model the share of the private saving decrease is almost totally offset by the decrease in private investment due to asset price dynamics (Tobin's q).	C.A. development is better explained by output shocks, uncertainty, investment decision, precautionary saving.
Bitzis Paleologos and Papazoglou (2008).	VAR analysis, Greece data 1995-06	budget balance	Oil prices and freight costs are important determinants in the short-term. Budget Balance has just limited impact. Nevertheless fiscal consolidation is considered important in addressing the competitiveness problem because it may lead to REER depreciation.	C.A. deficits can be explained by several factors. IEMU accession made the problem of price competitiveness worse since inflation has been persistently above euro area average. Furthermore REER appreciation has been amplified by the decrease in risk premia following EMU which has driven large investment inflows into the Greek economy. The consequent high internal demand has also driven increases in imports.

(Continued on the next page)

Table (continued)

Bussière Fratzcher and Muller (2005)	panel regression, 21 OECD countries data 1960-03	- cyclically adjusted primary balance (1% of GDP)	Productivity shocks rather than budget balance are found to be the main channel affecting investment and C.A. Productivity shocks lead to C.A. deficit by increasing the inflows of foreign investment and by raising the share of imports through the income effect. Short-term effect of budget balance may not be excluded depending on composition of fiscal shocks .	Primary balance found to have a very limited role in C.A. deterioration.
Similar studies emphasising no link between the budget deficit and C.A.: Erger Guerrieri and Gust (2005) Gruber and Kamin (2005) Kalhid and Guan (1999) Dewald and Ulan (1990)				
No clear findings over twin divergence/convergence depending on countries' state of development, openness, type of government				
Reference	Data, Sample and Methodology	Fiscal Variables	Main channels and determinants	Long-run effects
Corsetti and Muller (2006)	VAR, AUS, CAN, US, UK data 1980-06	+ government spending (1% of GDP) + budget deficit (1% of GDP)	For economies that are not very open to trade and for shocks that are not too persistent, fiscal expansions have no effect on the C.A. and could even induce a trade surplus by crowding out domestic investment. In more open economies the rise in domestic sector prices attracts more investment. UK, CAN (open economy) show trade balance deterioration by 0.5 and 0.17. No deterioration for US and AUS (relatively closed economy)	
Cavallo (2005)	two countries general equilibrium model	+ government expenditures in goods, gov expenditures in non-traded labour services	Expenditure in non-tradeable labour services has a limited impact on the trade balance. Since over time gov. spending has been found to be increasingly concentrated on the non-tradeable sector the overall effect of gov.consumption has a small effect on the C.A. deficit	
Chinn and Prasad (2000)	OLS regression panel, set of industrial and developing countries, 1971-95 data	budget balance (1% increase in budget balance)	Saving and investment gap is the main determinant. Fiscal consolidation leads to C.A. improvement by reducing this gap. Nevertheless such a relationship is not always significant for industrial countries. In the latter the initial stock of Net Foreign Assets is positively correlated with the C.A. Balance.	

(1) On 26 November 2009, the European Commission organised a conference on 'External Imbalances and Public Finances'. The presentations and papers mirrored the existing literature in that they did not provide conclusive evidence on either the short or long-run relationship between fiscal policy and current account imbalances, although a wide range of models and possible effects were presented leading a rich debate. The complexity of interlinkages between fiscal policy, saving and investment, and the difficulties to capture it with conventional econometric and model based analyses, was stressed in the panel discussion.

Source: Commission services.

There are, however, macro- and microeconomic transmission channels of fiscal policy to saving and investment imbalances that are not evident from analyses limited to budget balances and debt developments. Fiscal policies can affect savings and investment behaviour despite being neutral with respect to the deficit and debt. A thorough analysis of non-conventional macroeconomic and microeconomic transmission channels is required to expose the full effect of the public finances on external imbalances.

As regards macro transmission channels that are not captured, inflation dynamics and revenue windfalls due to credit booms may play a non-negligible role. As government revenue windfalls – such as those stemming from the credit bubble – are spent, the budget balance remains unaffected while aggregate demand and output are stimulated. This is because the short-term multiplier effect of

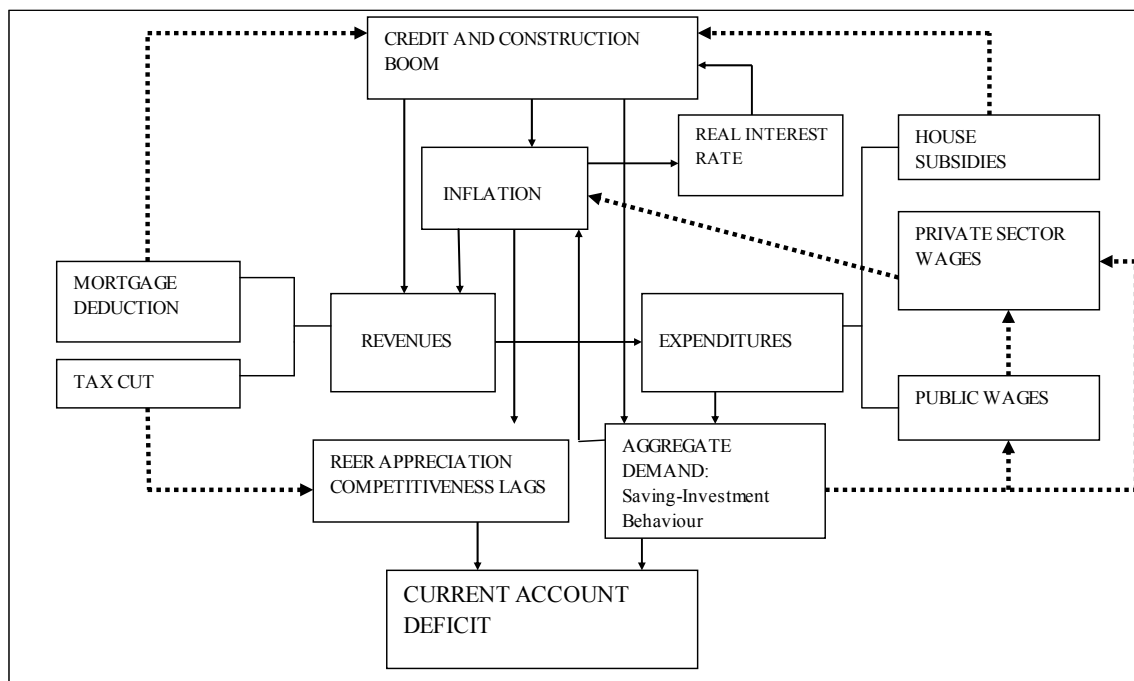
government spending is greater than that of an equivalent increase in taxation.⁽¹⁷⁵⁾ ⁽¹⁷⁶⁾

The increase in aggregate demand may lead to higher inflation and wage growth. High inflation reduces the real interest rate and raises nominal GDP directly, leading to lower debt and deficit ratios while the underlying and unobservable fiscal position deteriorates with competitiveness imbalances. The low real interest rates also feed the credit boom, providing further windfall revenues and inflationary pressures, reinforcing the

⁽¹⁷⁵⁾ Government expenditure has a direct impact on aggregate demand while only a proportion of the increase in revenues actually affects aggregate demand (as the private sector also saves). When consumers are Ricardian, the existence of liquidity and credit constrained households adds to the expansionary effect of a permanent increase in spending.

⁽¹⁷⁶⁾ Criticism of the balanced budget multiplier theorem mainly regards the distortionary effect of tax increases on consumption and investment demand of private agents. However, in the case at hand, the revenue increases are generally not accompanied by tax increases but can be characterised as windfall gains.

Graph IV.2.1: Fiscal policy and current account balances: macro and micro linkages



Note: Dotted lines represent micro-channels.
Source: Commission services.

dynamics. The reverse dynamics occur when low wage and price inflation and revenue shortfalls lead to deteriorating budget balances, requiring additional consolidation measures.⁽¹⁷⁷⁾

Further, micro effects and incentives on the revenue and expenditure side that affect private sector savings and investment behaviour are not typically captured by studies on the impact of fiscal policy on external imbalances. For example, increases in public wages and employment may contribute to private sector wage developments and may feed credit booms (mortgages and house prices) and inflation. Housing subsidies, as well as tax measures (e.g. mortgage deductibility) contribute to the transmission of fiscal policy to credit and construction booms, wealth effects and saving and investment behaviour. In turn these affect inflation and windfall revenues through

corporate profits and housing revenues, feeding a virtuous or vicious cycle.

The ongoing reversal in countries with the largest imbalances provides scope for further analysis on the full set of transmission channels by which fiscal policy affects the build-up and unwinding of current account imbalances.

⁽¹⁷⁷⁾ Deroose et al. (2004), "Reviewing adjustment dynamics in EMU: from overheating to overcooling" use an illustrative model of adjustment dynamics to show that the interaction between real exchange rate adjustment and real interest rate developments may contribute to periods of overheating and overcooling during which output might be either above or below long-run potential for an extended period, leading to external imbalances.

3. MACRO-FINANCIAL AND (CONTINGENT) FISCAL RISKS - AN ANALYSIS WITH COMPOSITE INDICATORS

In the previous sections, the complex linkages between budgetary and broader macroeconomic developments were discussed with particular focus on external imbalances, suggesting that large macroeconomic imbalances reflect contingent budgetary risks. Fiscal policy and fiscal surveillance requirements need to be differentiated across countries by gathering more information on fiscal risks and vulnerabilities. The set of possible indicators is very wide. This section proposes new synthetic indicators reflecting fiscal and macro-financial risks in the EU countries.⁽¹⁷⁸⁾ These indicators are then used to assess developments in macro-financial and fiscal risk in EU Member States over the past decade.

3.1. SELECTING AND GROUPING RISK INDICATORS

We identify three groups of indicators (Table IV.3.1):

(i) Budgetary risk indicators reflect risks related to actual and projected sovereign financing needs. The indicators include the level of government debt, government debt-to-GDP falling due over a 24-month horizon, the implicit interest rate on sovereign debt (to capture the history of the country as a sovereign debt issuer) and the gap to the primary balance that would lead to debt converging to 60% GDP by 2020. ⁽¹⁷⁹⁾

(ii) Macro-financial risk indicators reflect risks which, if they materialized, would put pressure on the fiscal position and imply a sudden increase in fiscal financing needs. They stem from financial sector exposure, as well as external and domestic macroeconomic imbalances. The effects can be direct on revenues, expenditures and debt or indirect through denominator effects. The list of indicators includes external debt falling due over a 24-month horizon, the current account balance, credit to the private sector, a competitiveness index. The share of construction in GDP is added as an indicator of a housing boom, inflated

measurement of potential GDP and structural adjustment needs. The level of GDP per capita is used as a proxy of potential growth and catching up (low GDP level is here considered as a risk-reducing factor).

(iii) Indicators measuring short-term budgetary adjustment rigidity reflect the difficulties to raise revenues or cut expenditures, or to cover financing needs by using liquid assets. Countries with a high revenue-to-GDP ratio relative to their level of development, a large share of non-discretionary spending in total spending, sharply increasing expenditures in the medium run due to ageing populations, poor institutions and governance and with fewer liquid government assets, can be expected to face more difficulties mobilising resources when needed and have a larger risk of not meeting required budgetary adjustment plans.

The indicators are selected from a much larger group of potential indicators. To the extent possible, overlap has been minimised as many indicators reflect similar risks. Indicators that were considered but not included are, inter alia, headline budget balance (captured by primary balance and interest expenditures), cyclically adjusted budget balance, absorption-adjusted budget balance (captured by current account), tax volatility and risk of shortfalls based on historical ratios (largely covered by current account, construction to GDP), revenue share from corporate and housing taxes (deviation from moving average), interest expenditure to government revenue, potential growth (proxied by GDP/capita considering procyclicality of potential growth indicators), inflation (as it gives mixed signals: high inflation may point to overheating pressures and loss of competitiveness on the one hand, but also helps reducing debt/GDP if it stems from undervaluation), indicators of labour market and wage flexibility; deviation of the REER (captured by current account); reserve coverage of short-term foreign currency debt (data limitations and mixed signals as euro area countries have no reserves but may have large foreign currency debt in the financial sector balance sheets), foreign currency public debt to GDP (data limitations), sectoral diversity or specialisation, distance to the medium-term budgetary objective, deviation from the debt

⁽¹⁷⁸⁾ The work presented here builds on the work presented in European Commission (2009).

⁽¹⁷⁹⁾ Contingent liabilities, e.g. related to the financial sector, have not been included since they are better reflected in the macro-financial risk indicators.

Table IV.3.1: List of indicators of budgetary risk, macro-financial risk and budgetary adjustment rigidity

	Rationale
Budgetary risk indicators	
Public debt/GDP	Default risk; market saturation; crowding out
Implicit interest rate on gov. debt	History as a sovereign debt issuer
Maturing debt/GDP, in year t and t+1	Short term borrowing needs
Primary balance gap to 60% debt by 2020	Short term borrowing needs; debt prospects
Macro-financial risk indicators	Rationale
Current account /GDP	Proxy for REER and excess demand (revenues)
Private sector credit indicator	Balance sheet risks for the private sector
Maturing external debt/GDP in t and t+1	Exposure to capital account crisis
Construction to GDP	Risk of inflated potential growth, credit bubble
Global competitiveness index	Attractiveness of foreign capital
GDP/capita	Proxy for catching up potential
Short term budgetary adjustment rigidity	Rationale
Revenues/GDP (adjusted for GDP/capita)	Margin for tax increases
Expenditure inflexibility (composition) (1)	Ability to rapidly cut expenditure
Increase in cost of ageing by 2015 /GDP	Short term pressure on expenditure
Liquid government assets/GDP (2)	Readily available financing in case of stress
Fiscal governance indicator (3)	Ability to set and meet budgetary targets
Institutions indicator (4)	Reform and consolidation implementation risks

(1) I.e. transfers other than in kind and interest expenditures over total expenditures; (2) i.e. general government currency and deposits to GDP; (3) Composite indicator taken from Public Finance Report 2009 based on 5 subindices (expenditure rules, MTBFs, budgetary procedures, public procurement transparency and transparency of government policy); (4) Subindex on institutions in the WEF global competitiveness index, based on subindices corresponding, inter alia, to property rights, diversion of public funds, public trust of politicians, judicial independence, favoritism in decisions of government officials, wastefulness of government spending, burden of government regulation, efficiency of legal framework, transparency of government policymaking, reliability of policy services and strength of auditing.

Source: Commission services.

stabilising primary balance, parallel economy index, economic freedom index, net external debt, net government debt, government financial assets in addition to liquid assets, contingent liabilities to the non-financial sector (covered by indicators of private sector credit and maturing external debt), track record in meeting budgetary plans. Indicators of long-term (i.e., beyond 2020) risks due to ageing are not included, since they do not reflect short- to medium-term sovereign financing needs but signal the need to reform age-related entitlements.

A number of elements must be kept in mind when interpreting results and drawing policy conclusions. To a certain extent, the indicators reflect different risks for euro-area versus non-euro-area countries, or for highly developed countries versus catching-up economies. Also, the macro-financial indicator includes both risks related to competitiveness and real imbalances, and risks related to the leverage in the economy and financial sector exposure. Identification of the policy action to address the underlying source of risk will require a careful analysis of the reason behind a high value of the risk indicator.

3.2. DEVELOPING COMPOSITE RISK INDICATORS

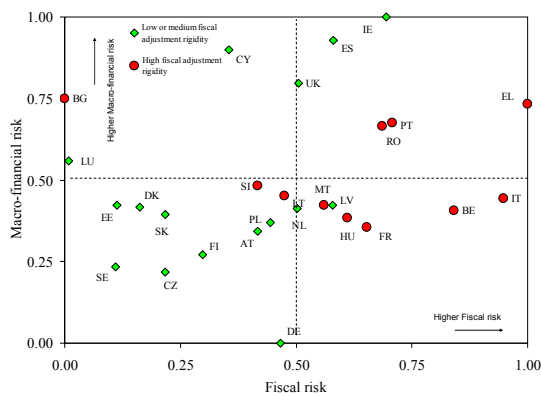
To summarize information, we calculate composite indicators. The broadening of fiscal surveillance implies taking into account a very large amount of information – for the present exercise, and for only one year, over 400 data series are considered. Composite indicators are very useful to summarise such abundant information and help making a first screening of country risks. They also facilitate comparisons across countries: assessing relative positions based on two or maximum three dimensions is easier than on an undefined number of possible indicators. The exercise is, however, subject to criticisms. By selecting a set of indicators and excluding others and by aggregating different types of risks in composite indicators, some information is lost. Simplifying assumptions have to be made on the relative importance of the different risk indicators. In absence of a strong theoretical base regarding the weights of each indicator, each indicator is given equal weight in the composite indicator.

Two simple scoring approaches have been used as described in Box IV.3.1. ⁽¹⁸⁰⁾ Since the results obtained do not differ significantly between the two approaches, only those from the first, main approach are presented below. ⁽¹⁸¹⁾

3.3. STATIC ANALYSIS

Graph IV.3.1 shows the indicator values for EU countries in a 4-quadrants scatter plot, where the NE quadrant represent the group of countries combining high fiscal and macro-financial vulnerabilities. The countries with the lowest values on budgetary adjustment rigidity are signalled with red dots. ⁽¹⁸²⁾

Graph IV.3.1: Indicators of macro-financial and fiscal risk for EU Member States (2010)



Source: Commission services.

These country groupings and relative risk assessments provide a useful reference for fiscal policy and fiscal surveillance, in particular as

regards (i) the time profile of consolidation, (ii) the composition of measures, in particular when faced with external imbalances and competitiveness challenges and (iii) the need for reforms and strengthening of budgetary frameworks and institutions in countries with risks of limited budgetary adjustment capacity. Countries with a high score on fiscal risks, especially if combined with high macro-financial risks, would need strongly frontloaded consolidation. The type of measures should take account of macroeconomic risks and imbalances. Countries with high indicators of macroeconomic risks stemming from competitiveness challenges are subject to deflationary pressures, relatively high real interest rates and low nominal GDP growth. Fiscal consolidation and debt reduction is particularly challenging in this context. These countries should generally endeavour avoiding measures that further deteriorate their competitiveness (e.g. large increases in taxes on production, profits and labour), risking heightening macroeconomic risks. The credibility of consolidation plans of countries with poor indicators of the short-term capacity to react to budgetary stress should be considered with particular care. The risk of not meeting consolidation plans is particularly high in countries with large consolidation needs in combination with relatively poor institutions and governance, and limited room for cutting expenditure or raising taxes. In these countries, credibility of consolidation commitments requires the backing of specific measures and realistic assumptions. Budgetary reforms and strong fiscal frameworks are required to meet consolidation needs over the medium term.

⁽¹⁸⁰⁾ In a third approach, double weight was given to selected indicators which seemed particularly relevant. Within indicators of fiscal risks, debt and short-term debt were given a double weight. In the macro-financial dimension, the current account and short-term external debt had a double weight. Regarding budget flexibility, double weights were on the revenue ratio and expenditure flexibility indicators. As the results were not significantly different, they are not presented here.

⁽¹⁸¹⁾ The contribution of the individual indicators to the composite risk indicator using the main approach is presented in the Annex to this section.

⁽¹⁸²⁾ All scores are relative to the EU average, implying that even low risk scores based on the 2010 data still imply a relatively high risk in historical perspective, especially as regards fiscal risks. Section IV.3.4 presents time-varying indices allowing a dynamic analysis placing risks in historical perspective.

Box IV.3.1: Methodology and robustness of composite indicators

1. MAIN APPROACH

For each sub-indicator we first calculate standard scores by subtracting the cross-country arithmetic mean and dividing it by the cross-country standard deviation. With $x_{i,j}$ the raw value (for indicator i and country j) to be standardized, the standard score $z_{i,j}$ is calculated as follows: $z_{i,j} = \frac{x_{i,j} - \mu_i}{\sigma_i}$, with μ_i and σ_i

the cross-country mean and standard deviation for indicator i . The composite indicator Z_j for country j is then calculated by taking the simple arithmetic average of its standardised scores: $Z_j = \frac{1}{n} \sum_{i=1}^n z_{i,j}$. The

values are then normalised for presentational purposes to fit between 0 and 1 using the following formula: $\bar{Z}_j = \frac{Z_j - \min_j(Z_j)}{\max_j(Z_j) - \min_j(Z_j)}$. We calculate composite indicators for each of the three chosen sub-dimensions

(fiscal risk, macro-financial risk and rigidities in the budget).

2. RANKINGS APPROACH

In an alternative approach, which is used as a robustness check, countries are simply ranked according to each indicator. While for the standard approach $x_{i,j}$ reflects the raw values of the variables, for the rankings approach, they are transformed using a function *Rank* that simply returns the rank of a value within a set of numbers. Initial variables are displayed in such a way that the country with the best performance gets 1 point, and the worst 27 points. The rank scores $r_{i,j}$ are then calculated as follows: $r_{i,j} = Rank(x_{i,j})$. As in the main approach, the composite indicator is then calculated as the arithmetic average of the rank scores: $Z_j = \frac{1}{n} \sum_{i=1}^n r_{i,j}$. The values are then normalised (for presentational purposes) to fit

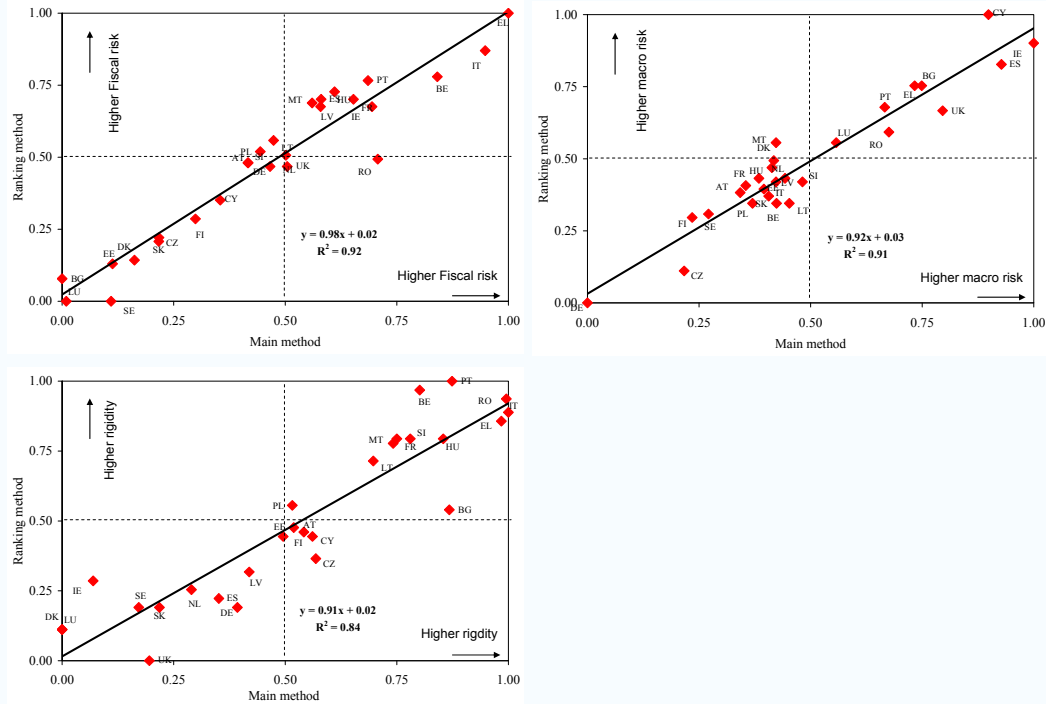
between 0 and 1 using the following formula: $\bar{Z}_j = \frac{Z_j - \min_j(Z_j)}{\max_j(Z_j) - \min_j(Z_j)}$.

The results are rather robust to the scoring methodology. The correlation coefficients of the indicator values calculated with the two methods varies between 0.84 and 0.91 for the three different indicators (Graph 1).

(Continued on the next page)

Box (continued)

Graph 1: **Methodology robustness check - correlation between fiscal risk, macro risk, and budgetary rigidity composite indicator using main approach and ranking approach (2010)**



Source: Commission services.

3.4. DYNAMIC ANALYSIS OF MACRO-FINANCIAL AND FISCAL RISK

Section 3.3 presented risk indicators for the year 2010. Below, time-varying risk indicators are calculated. This allows moving from a concept of relative risk where each country is assessed relatively to the other countries in a single year to a concept of risk where each country is assessed relative to its score in a base year.

Specifically, the above-described approach is adjusted, calculating risk relative to EU average values in 2000. ⁽¹⁸³⁾

⁽¹⁸³⁾ For each sub-indicator we first calculate standard scores by subtracting the cross-country arithmetic mean in the year 2000 and dividing it by the cross-country standard deviation in the year 2000. With $x_{i,j,k}$ the raw value (for

We calculate these time-varying composite indicators for two of the sub-dimensions: fiscal risk and macro-financial risk.

indicator i , country j and year k) to be standardized, the standard score $z_{i,j,k}$ is calculated as follows:

$$z_{i,j,k} = \frac{x_{i,j,k} - \mu_{i,2000}}{\sigma_{i,2000}}, \text{ with } \mu_{i,2000} \text{ and } \sigma_{i,2000}$$

the cross-country mean and standard deviation for indicator i in the year 2000. The composite indicator $Z_{j,k}$ for country j in the year k is then calculated by taking the simple arithmetic average of its components:

$$Z_{j,k} = \frac{1}{n} \sum_{i=1}^n z_{i,j,k}$$

The values are then normalised for presentational purposes to fit between 0 and 1 using the following formula:

$$\bar{Z}_{j,k} = \frac{Z_{j,k} - \min_{j,k}(Z_{j,k})}{\max_{j,k}(Z_{j,k}) - \min_{j,k}(Z_{j,k})}$$

The maturing-debt-to-GDP ratio has been dropped from the fiscal risk indicators due to limited availability of historical time series. Also, an indicator of global risk aversion is added to the macro-financial risk composite indicator (the iTraxx).⁽¹⁸⁴⁾ The iTraxx takes the same value for all countries in a single year. Therefore, the addition of the iTraxx makes no difference for the static indicator as the methodology calculated risks relative to the EU average.

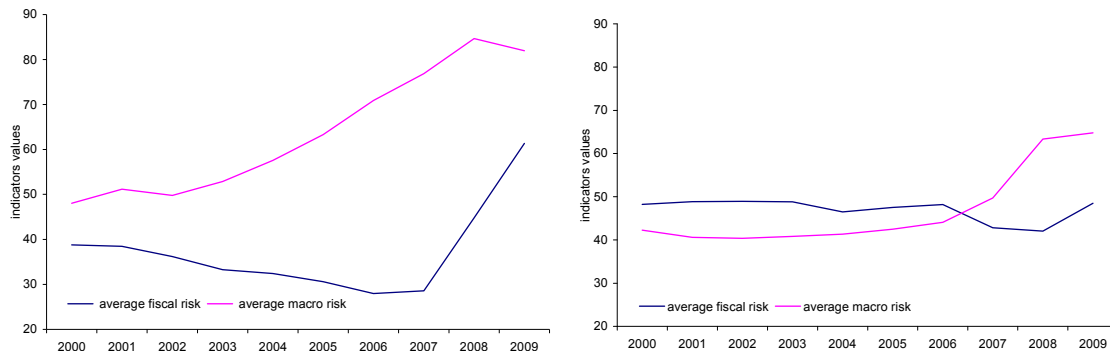
Plotting the development of the fiscal and macro-financial risk indicator over time provides some interesting insights. Graph IV.3.2 plots the 5 EU countries with the largest increase in the fiscal risk indicator between 2007 and 2009 (Ireland, Greece, Spain, Romania and Latvia). It shows that in these countries, macro risk gradually built up starting from 2002-03, reaching very high levels at the time of the crisis. Over the same period, apparent fiscal risk reduced in most of them. The case of Greece stands out in that the level of fiscal risk pre-existing to the crisis was high and was not reduced during the build-up of macro-financial imbalances that are typically conducive to a transient improvement in the fiscal position. When the shock of the global financial crisis hit, the Greek economy found itself at the intersection of the two fold lines exposed by the crisis, namely macroeconomic and fiscal imbalances.

A similar graph for the countries with the lowest increase in fiscal risks in 2007-09 (Hungary, Bulgaria, Cyprus, Italy and Germany) shows that these on average did not experience a similar increase in the macro-financial risk indicator nor a decrease in the fiscal risk indicator in the run-up to the crisis. The increase in macrofinancial risk after 2007 in all countries is largely due to the increase in global risk aversion. Without it, the macrofinancial risks in the high risk countries reduced considerably as external imbalances adjust.

The picture is very similar when only considering euro-area countries (Graph IV.3.3). For countries with the highest increase in the fiscal risk indicator in 2007-09 (Ireland, Greece, Spain, Luxemburg and Slovenia), macro-financial risk increased sharply and consistently since 2002. For countries with the lowest increase in the fiscal risk indicator in 2007-09 (France, Portugal, Austria, Italy and Germany), macro-financial risk even decreased on average between 2001 and 2006. The Annex to this section shows the developments of the fiscal and macrofinancial risk indicators for the individual countries.

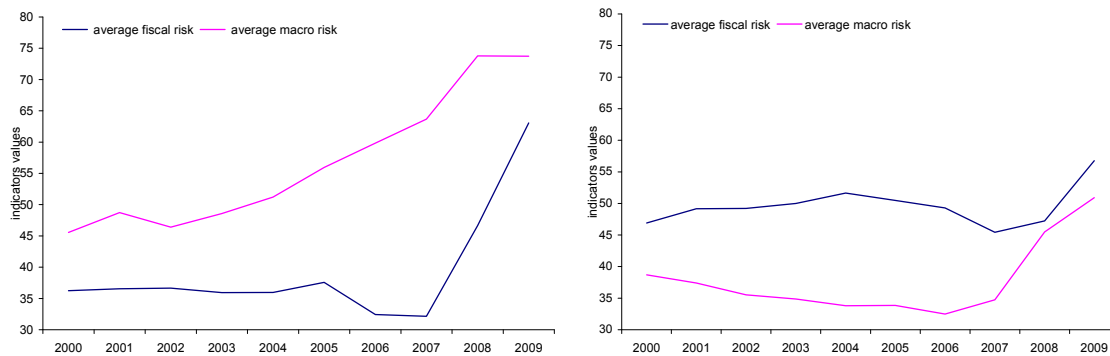
⁽¹⁸⁴⁾ iTraxx is the brand name for the family of credit default swap index products covering regions of Europe, Australia, Japan and non-Japan Asia. They form a large sector of the overall credit derivative market. The indices are constructed on a set of rules with the overriding criterion being that of liquidity of the underlying Credit Default Swaps (CDS). The iTraxx suite of indices are owned, managed, compiled and published by International Index Company (IIC), which also licenses market makers. Credit Default Swap indices allow an investor to transfer credit risk in a more efficient manner than using groups of single CDSs. The most widely traded of the indices is the iTraxx Europe index composed of the most liquid 125 CDS referencing European investment grade credits, subject to certain sector rules as determined by the IIC and also as determined by the SEC.

Graph IV.3.2: Development of average macro risk of the five EU countries with the highest (left) and lowest (right) increase in fiscal risk over 2007-09



Source: Commission services

Graph IV.3.3: Development of average macro risk of the five euro-area countries with the highest (left) and lowest (right) increase in fiscal risk over 2007-09



Source: Commission services.

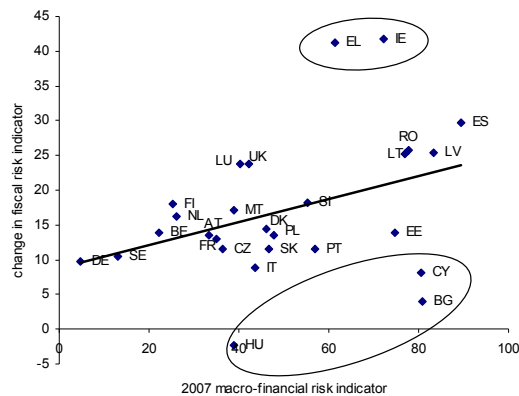
Plotting the change in the fiscal risk between 2007 and 2009 for all countries versus the level of the macro-financial risk indicator shows a positive correlation (Graph IV.3.8). It also shows two groups of apparent outliers. In Ireland and Greece fiscal risks increased much more than would be expected on the basis of the fiscal-macro-financial risk correlation. In the case of Ireland, the budgetary deterioration started relatively early, as the housing bubble had already burst in 2007 (see section IV.5.1) and expenditure growth remained high at first. In the case of Greece, as already noted, also the starting level of fiscal risk was already high, owing in particular to the persistently high level of government debt. A second group of countries on the bottom of the Graph showed a much more limited increase in the fiscal risk indicator than could be expected on the basis of the level of the macro-financial risk indicator

(Bulgaria, Cyprus and Hungary). These countries undertook significant consolidation measures and adjusted the budget to the revenue shortfalls at an early stage.

The contingent fiscal risks that are reflected in the macro-financial risk indicator are even more obvious when linking it to the development of nominal revenue growth. In all countries, the rate of annual nominal revenue growth declined in 2007-2010 when compared to 2004-2007. Graph IV.3.9 however shows a strong correlation between the size of the drop in revenue growth and the macro-financial risk indicator. In particular, for all countries with a macro-financial risk indicator in excess of 60 in 2007, the drop in revenue growth accounted to more than 10 percentage points, while for none of the countries with a macro-financial risk indicator below 60, the drop

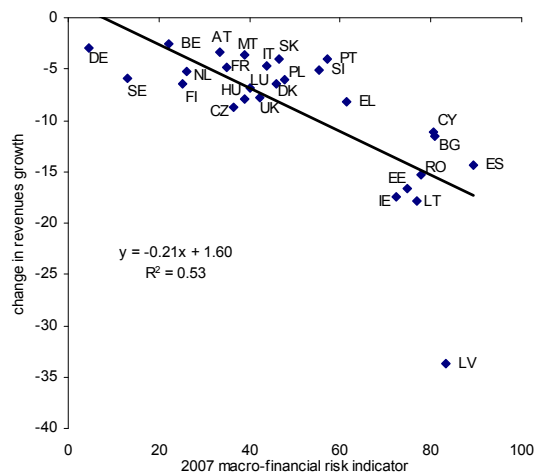
in nominal revenues exceeded 10 percentage points.

Graph IV.3.4: 2007 macro-financial risk indicator versus change in fiscal risk indicator over the period 2007-09



Source: Commission services.

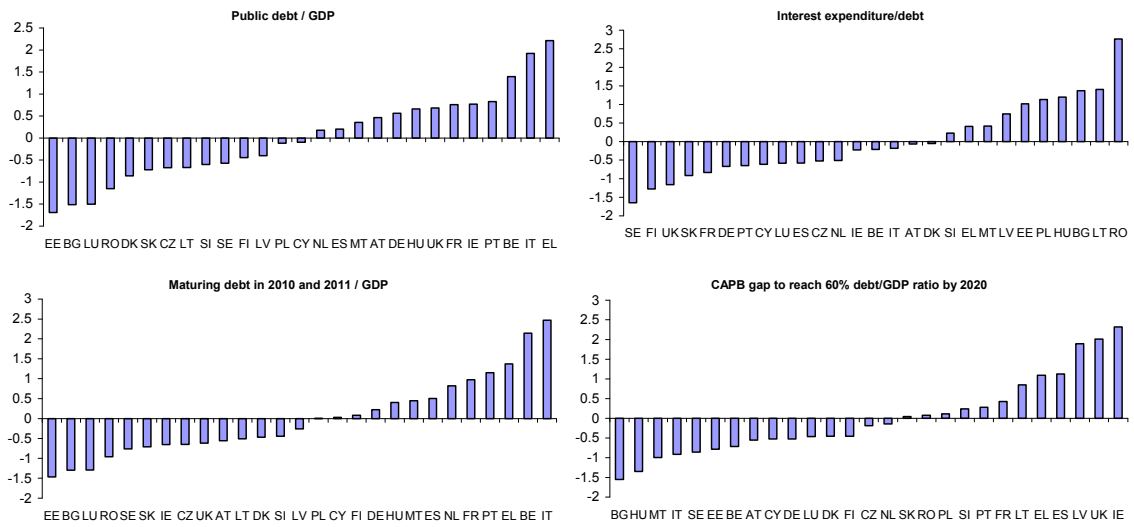
Graph IV.3.5: Change in average revenues growth between period 2004-07 and 2007-10 versus the 2007 macro-financial risk indicator



Source: Commission services.

The Commission Communication of 12 May 2010, entitled *'Reinforcing economic policy coordination'* recognises the need to expand economic surveillance and deepen the analysis beyond the budgetary dimension to address other macroeconomic imbalances, including competitiveness developments and underlying structural challenges in order to prevent the occurrence of severe imbalances within the euro area. The surveillance will include a scoreboard that will indicate the need for action. The scoreboard would encompass a relevant set of indicators and reflect, inter alia, developments in current accounts, net foreign asset positions, productivity, unit labour costs, employment, and real effective exchange rates, as well as public debt and private sector credit and asset prices. It would appear particularly important to detect asset price booms and excessive credit growth at an early stage to avert costly corrections of fiscal and external imbalances at a later stage. This analysis would form the basis for the formulation of the recommendations for preventive or corrective measures in the Member State(s) concerned.

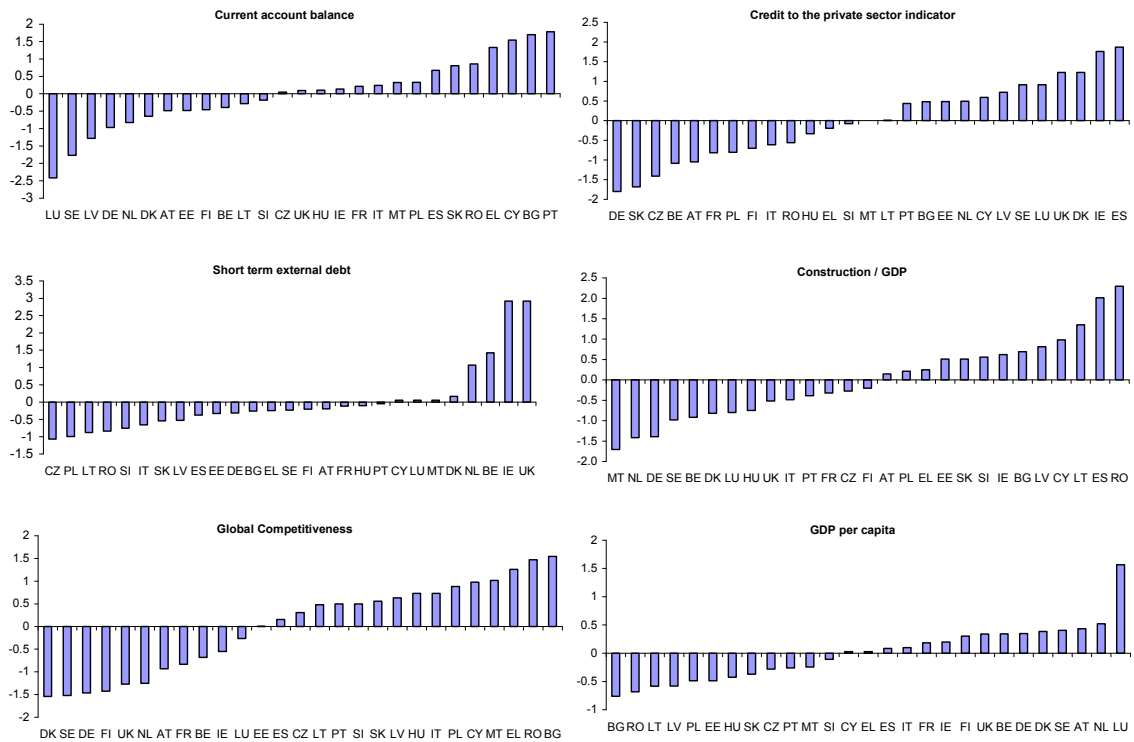
Graph IV.3.6: Contribution of components to the aggregate indicator



Note: A positive value implies that the risk related to the indicator component exceeds that of the EU average. The size of the indicator depends on the size of the deviation from the EU average in relation to the standard deviation of all EU countries. The composite indicator is the average of the contributions of all components.

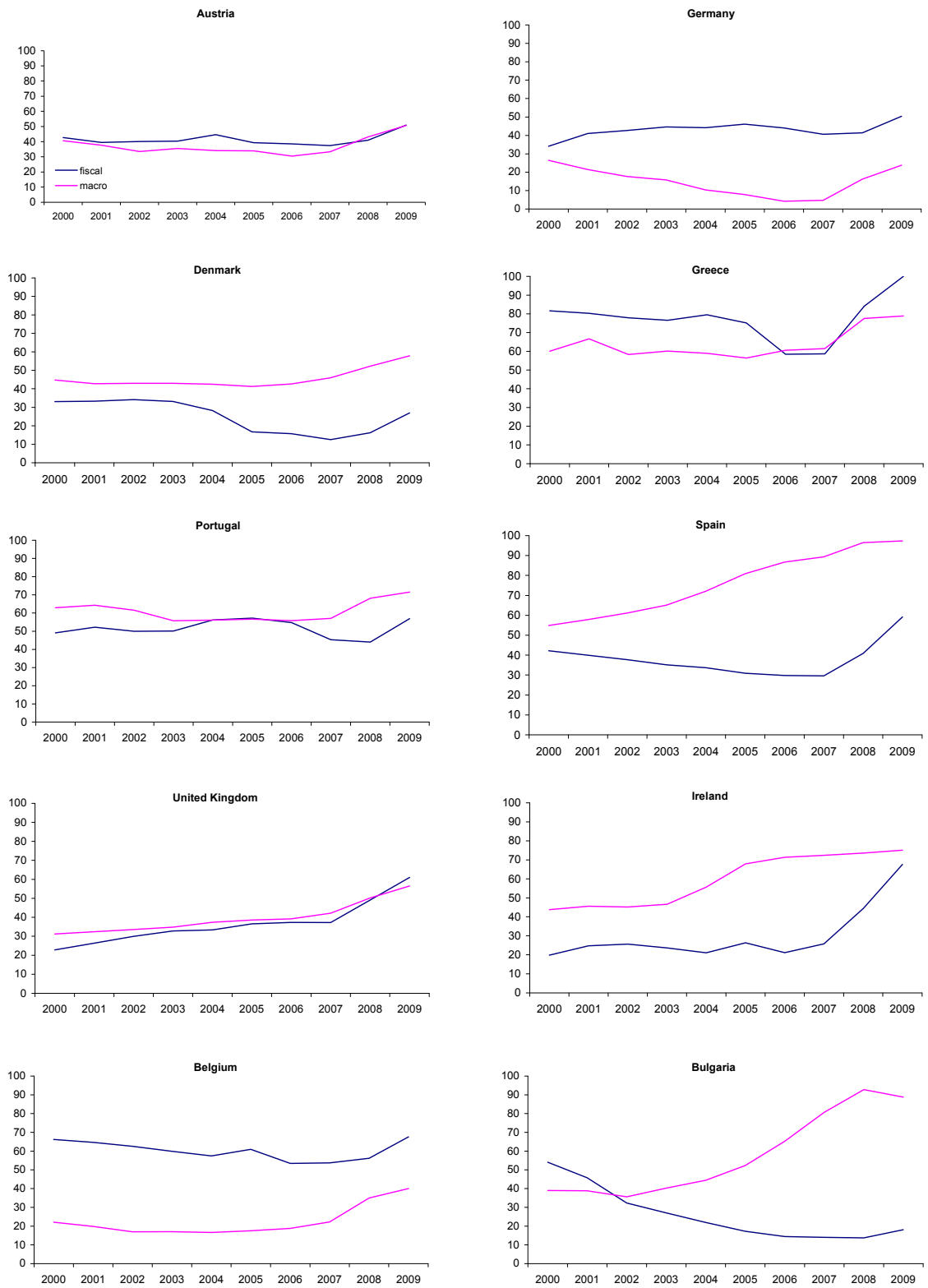
Source: Commission services.

Graph IV.3.7: Contribution of components to the composite macrofinancial risk indicator (main approach)

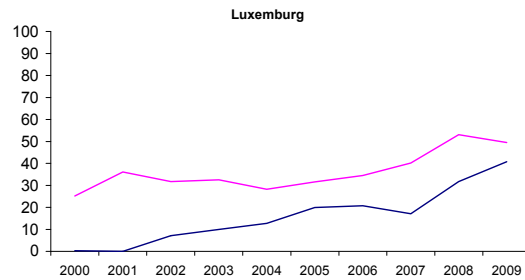
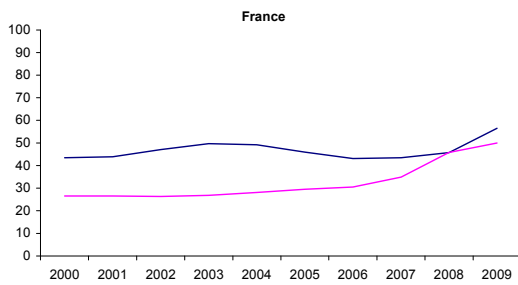
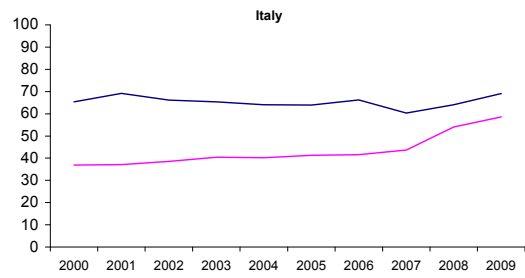
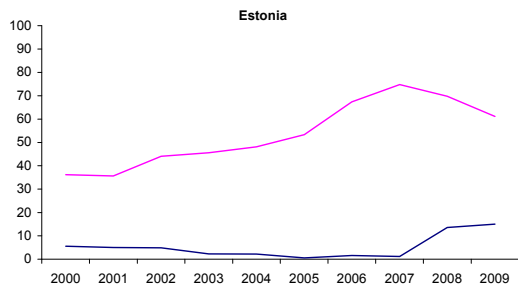
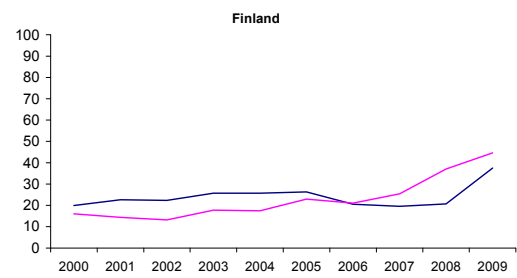
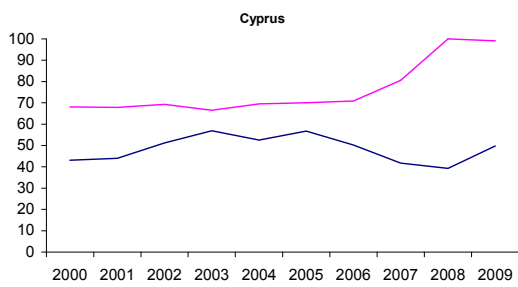
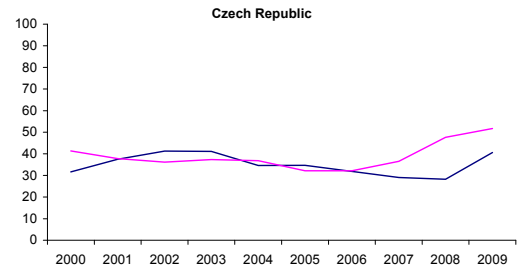
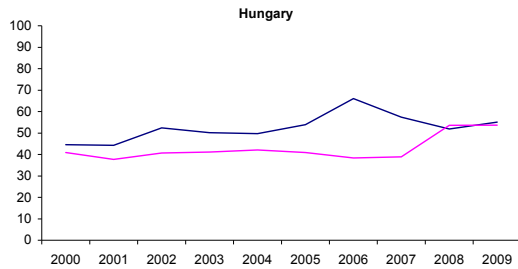


Note: A positive value implies that the risk related to the indicator component exceeds that of the EU average. The size of the indicator depends on the size of the deviation from the EU average in relation to the standard deviation of all EU countries. The composite indicator is the average of the contributions of all components
Source: Commission services.

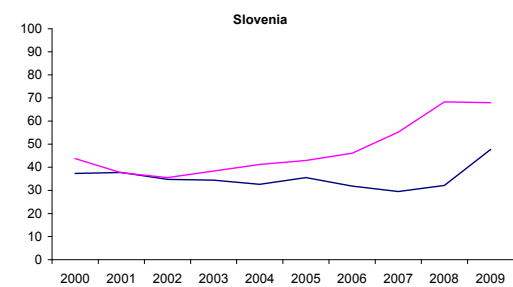
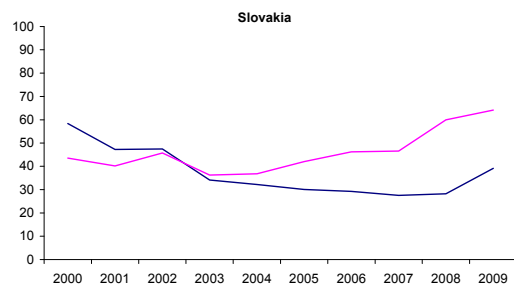
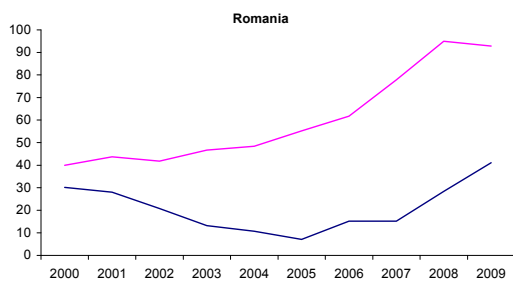
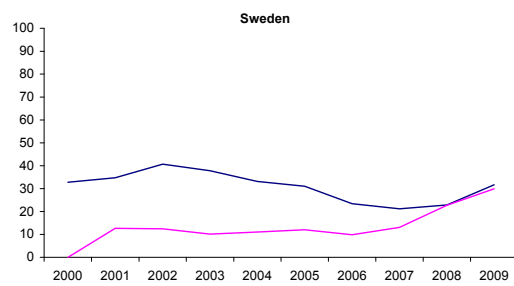
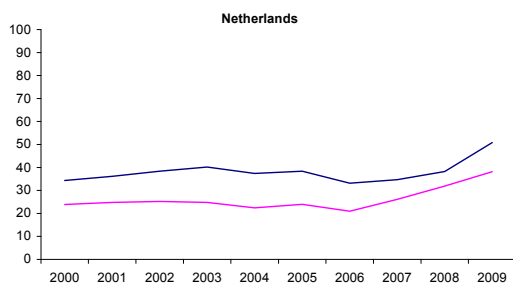
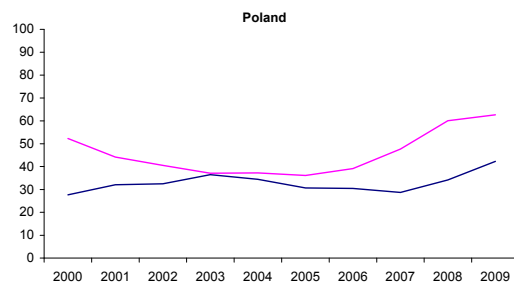
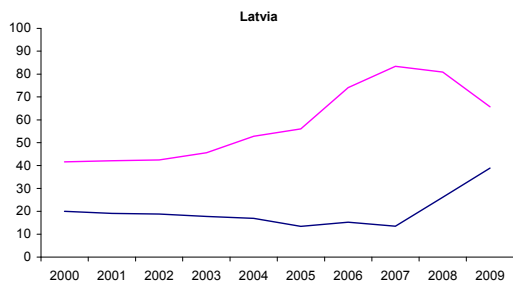
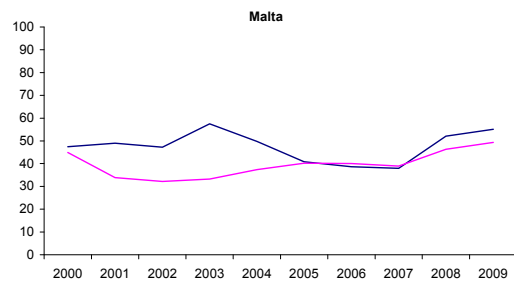
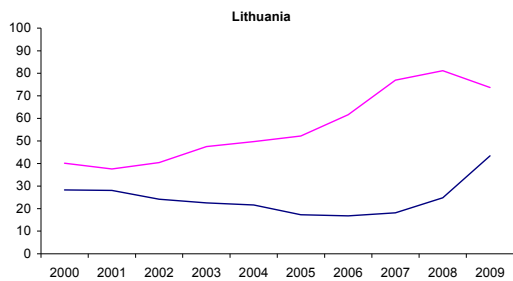
Graph IV.3.8: Development of the composite fiscal and macro-financial risk indicators in EU Member States (2000-2009)



Graph (continued)



Graph (Continued)



Source: Commission services

4. EXTERNAL IMBALANCES AND THE SUCCESS OF FISCAL CONSOLIDATIONS

The run-up to the global financial crisis of 2008/2009 was characterised by a sharp widening of current account imbalances in the EU (in particular in the euro area) together with growing divergence in real exchange rates, see in particular European Commission (2009). The fact that fiscal consolidations in the aftermath of the global financial crisis of 2008/2009 will take place in a context of unwinding of macroeconomic imbalances will make it even more challenging as many countries will face the dual challenge of reducing debt levels and restoring external competitiveness.

The recent EU experience has shown that expansionary fiscal policies might affect current account balances through macroeconomic and microeconomic channels, see Section IV.2. On the macroeconomic side, windfall-led public expenditure tends to increase overall aggregate demand and nurture inflation dynamics leading to deterioration in current account balances. On the microeconomic side, fiscal policy decisions regarding public employment and wages might affect relative prices and real exchange rates and tax incentives might feed excessive credit growth. The situation of some EU countries at the onset of this crisis was in particular characterised by sustained wage increase, swift real exchange rate appreciation and much deteriorated competitiveness positions. Fiscal consolidation strategies thus need to contribute to correcting such imbalances as these are likely to affect the pace of the economic recovery and thus the ability to contain rising public deficit and debt levels.

As discussed in Section III.4, public expenditure cuts can have favourable consequences on the supply side of the economy, especially those spending reductions accompanied by reforms increasing labour supply and/or lowering unit labour cost. Cuts in public wages can also spill over to wage formation in the private sector and thus indirectly alleviate governments' budgets by improving external competitiveness through real depreciation, see Lane and Perotti (2003) and Alesina et al. (2002). By contrast, fiscal consolidations increasing tax pressure on wages could have the adverse effect of reducing both take-home pay and employment, depressing

domestic demand and slowing down economic growth.⁽¹⁸⁵⁾

Recent empirical studies also pointed to a significant influence of public spending on price and exchange rates dynamics which may have an indirect bearing on current account adjustment.⁽¹⁸⁶⁾ In particular, recent evidence in the case of Ireland shows that an increase in governments' wages spending may lead to short-run appreciation in real exchange rates (see Bénétrix and Lane, 2009) and can also have long-run effects on external competitiveness (see Galstyan and Lane, 2009). Governments' wages spending may also have wider consequences on a country's competitiveness through its impact on labour market outcome. For instance, Pérez and Sánchez (2010), considering the cases of Germany, France, Italy and Spain show that public sector wages tend to exert upward pressure on private wages in these countries either directionally by leading private sector wage dynamics (France and Italy) or through positive feedback process between public and private wages (Germany and Spain). Exchange rate adjustments have also often been seen as being necessary for conducting successful fiscal consolidations. While the evidence regarding the incidence of the composition fiscal retrenchment (in particular concerning expenditure and wage contention) on the success of fiscal consolidation abounds (see in particular Section III.5), only a handful of papers have so far provided evidence on fiscal consolidation and exchange rates suggesting that the effect of exchange rate developments (including both nominal and real) on the success of fiscal consolidations albeit significant is relatively small, see in particular Lambertini and Tavares (2005) and Hjelm (2002).⁽¹⁸⁷⁾

⁽¹⁸⁵⁾ The final impact of wage-related taxes would, however, depend very much on national labour market institutions and wage bargaining processes, see Boltho and Glyn (2006).

⁽¹⁸⁶⁾ Government public spending may also have an impact on other variables which may also affect a country's competitive position, such as private investment or profit, see in particular Alesina et al. (2002). These other aspects are not considered in this section, however.

⁽¹⁸⁷⁾ Other authors have also found that that real exchange rate depreciation favours the start and continuation of fiscal consolidation episodes but fail to find evidence that real

This section analyses the role played by real exchange rate variation and current account imbalances for the success of past fiscal consolidation episodes building on the analysis carried out in Section III.5. A fiscal consolidation is defined as an improvement in the cyclically adjusted primary balance (CAPB) of at least 1.5% taking place in one single year or taking place over three years if, in addition, each and every year the CAPB does not deteriorate by more than 0.5% of GDP. A fiscal consolidation is in turn considered as successful if it lowers the public debt level by at least five percentage points of GDP in the three years following a consolidation episode.⁽¹⁸⁸⁾ The experience of EU countries and a set of non-EU OECD countries are considered over the period 1970-2008.

4.1. EXTERNAL IMBALANCES, EXCHANGE RATE VARIATION AND FISCAL CONSOLIDATIONS: DESCRIPTIVE EVIDENCE

A look at past evidence indicates that while exchange rate depreciations are sometimes associated with successful fiscal consolidations, the relationship is far from close. This is illustrated in Graph IV.3.1 plotting the evolution of the annual change in the real and nominal effective exchange rate.⁽¹⁸⁹⁾ In turn this suggests that, for exchange rate depreciations to contribute to successful fiscal consolidation, inflationary pressures need to be contained so that external competitiveness is effectively improved.

Graph IV.3.1 includes, among others, evidence for Ireland and Denmark. These two countries that are often referred to as having achieved successful fiscal consolidations in the wake of large exchange rate devaluations during the 1980s and early 1990s, see Giavazzi and Pagano (1990). Importantly, in both these countries the real and nominal exchange rates moved closely enough

during these periods reflecting the fact that the nominal exchange rate depreciation did not translate into significant inflationary pressures. Two other prominent examples of successful fiscal consolidations accompanied by exchange rate depreciations/devaluations are Finland and Sweden during their respective financial crises in the 1990s, see in particular European Commission (2009). Here again, a close correlation between real and nominal exchange rate suggest that in both cases upward inflationary pressures were relatively contained. The ensuing export-led recoveries helped achieving successful fiscal consolidations in both cases. Last but not least, these countries also achieved high quality of public spending contributing to boost potential growth.⁽¹⁹⁰⁾

Other episodes of fiscal consolidations illustrate how the association between exchange rate devaluation/depreciation and the success of fiscal consolidations is by no means automatic. For instance, the Irish fiscal consolidation episode that took place in the early 1980s did not appear to be successful in reducing public debt levels, while such consolidation was preceded by a depreciation of the nominal exchange rate. The ensuing appreciation in the real exchange rate suggests in this case that inflationary pressures eventually cancelled out the expected positive effect of the exchange rate depreciation. Another case in point is Greece which has sometimes been considered an example of how the absence of the exchange rate adjustment was especially damaging for peripheral EU countries in the current juncture.⁽¹⁹¹⁾ Greece has in the past undertaken several fiscal consolidations, however these were rarely successful. In particular the large depreciation of the Drachma in the early 1980s did not lead to a successful fiscal consolidation in the subsequent years. Here also an explanation for this can be found in the fact that the nominal exchange rate devaluation eventually resulted in real exchange rates appreciation due to inflationary pressures.

exchange rate depreciation favour debt reduction significantly, see Ahrend et al. (2006).

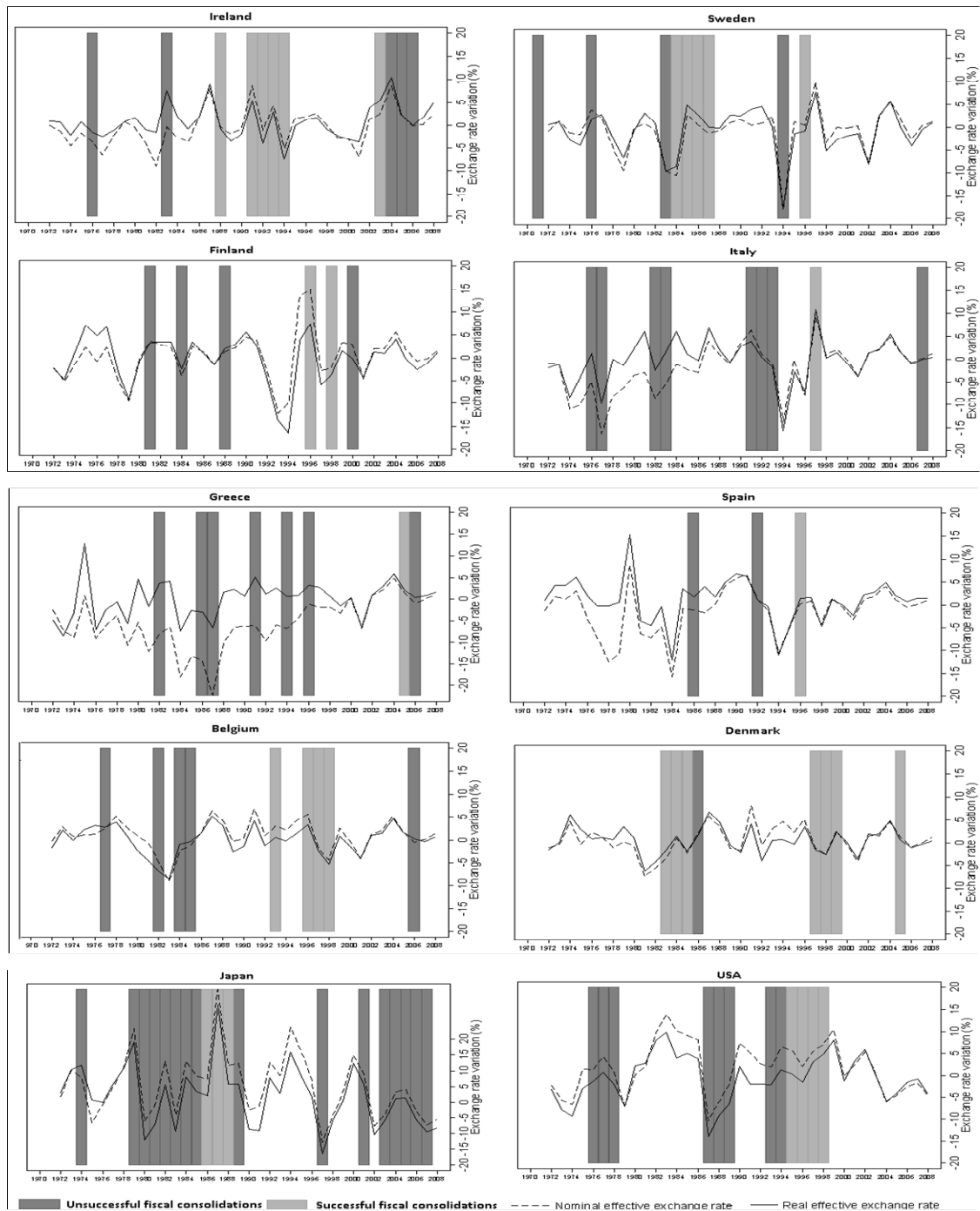
⁽¹⁸⁸⁾ Alternative definitions of fiscal consolidation and of their success are of course possible. The pros and cons of such definitions are discussed in Section III.5.

⁽¹⁸⁹⁾ The exchange rates figures reported in Graph IV.3.1 are based weighted average of bilateral exchange rates with main trading partners. Source: OECD

⁽¹⁹⁰⁾ See in particular Gylfason et al. (2010) and Barrios and Schaechter (2009).

⁽¹⁹¹⁾ See Feldstein, (2010).

Graph IV.4.1: Successful and unsuccessful consolidations and real and nominal exchange rates in a selected sample of countries



(1) The real effective exchange rate is based on cpi differential.
Source: Commission services and OECD.

The cases of non-EU OECD economies also illustrate that the relationship between exchange rate depreciation/devaluation and the success of fiscal consolidation may occasionally be the

opposite of what one would expect. For instance, Graph IV.4.1 shows that, in the case of Japan in the second half of the 1980s, successful fiscal consolidations were preceded by or coincided with

sharp exchange rate appreciations contrary to the received idea that depreciations are needed to smooth the negative impact of fiscal consolidations. The other non-EU economy considered here is the US: in this country the sharp devaluation of the dollar in the mid-1980s (both nominal and real) was not sufficient to achieve successful fiscal consolidation in the following years. On the contrary, successful fiscal consolidations in the second half of the 1990s were accompanied by real and nominal exchange rate appreciation.

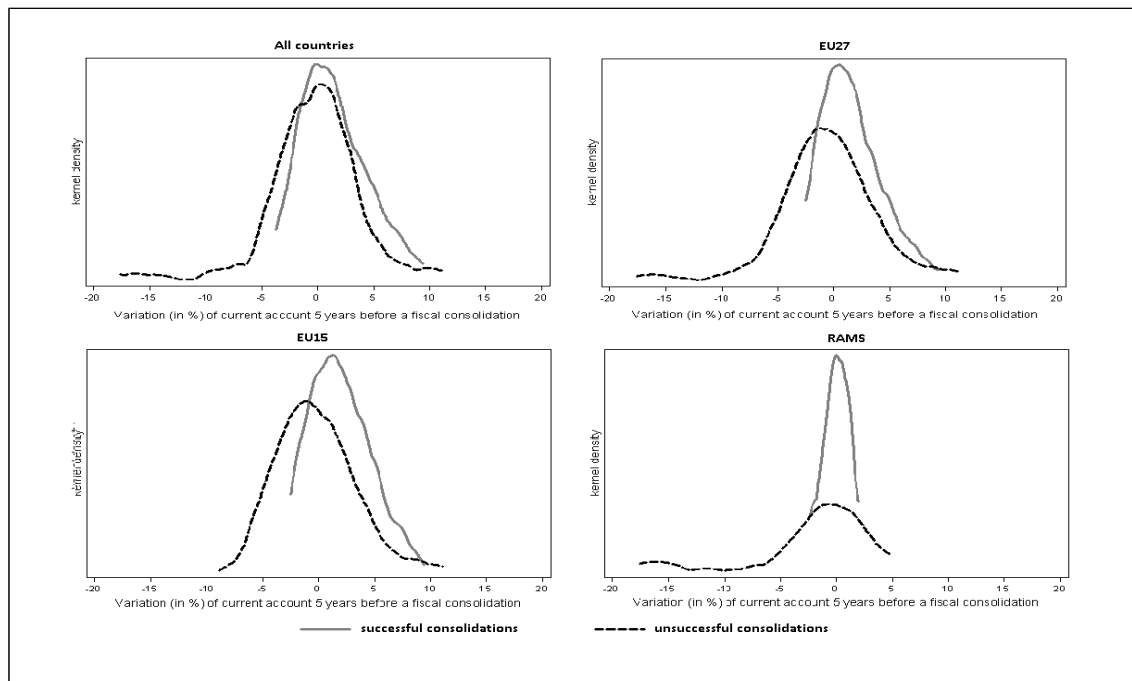
The evidence shown in Graph IV.4.1 suggests that a depreciation of the real exchange rate needs not be necessarily associated with successful fiscal consolidations. In fact, in order to better understand the link between exchange rate depreciations and the outcome of fiscal consolidations it is necessary to consider also the context under which these depreciations take place. For example a country may run a large current account deficit stemming from buoyant internal demand and low interest rates during a relatively long period of time. These evolutions may lead to REER appreciation and high levels of private debt while the level of public debt might remain stable or even tend to decline. In such context, a severe adverse macroeconomic shock may lead to a significant reduction in economic activity, higher interest rates, and/or to sharp private deleveraging process kicking this country into recession obliging the country to undertake fiscal consolidation plans. While a rapid depreciation of the REER would help improve the external balance and positively contribute to the growth recovery, domestic demand may remain depressed not only due to the fiscal consolidation, but also due to prices and wages deflation and the high level of private debt. Thus at the time when public finances need to be consolidated, the high level of private debt may push the private sector to consolidate too, further reducing economic growth and possibly counteracting the direct positive impacts of the REER depreciation on the outcome of fiscal consolidation. Generally speaking, therefore, an analysis of the link between external imbalances and the success fiscal consolidations must also take consider the role played by current account dynamics. Graph IV.3.2 provides descriptive evidence on this: a kernel plot density curves (equivalent to histograms represented over a continuous space) trace the frequency of

successful and unsuccessful fiscal consolidations against past current account dynamics (represented on the x-axis by the change in the current account five years before a fiscal consolidation episode starts). ⁽¹⁹²⁾ Evidence for all countries in the sample included in the top left diagram (i.e. EU27 + OECD no EU countries) suggests that, while in general and expectedly both successful and unsuccessful fiscal consolidations are more frequently distributed around small values, there is a tendency for successful consolidations to be associated with positive past current account changes relative to unsuccessful fiscal consolidations. Evidence for the EU27 and the EU15 in the top right and bottom left diagrams provides more conclusive evidence suggesting that unsuccessful fiscal consolidations tend to be preceded by substantial deterioration in current account positions while successful fiscal consolidations episodes tend to be preceded by improvement in the current account. The evidence is more nuanced for recently acceded Member States reflecting the fact that these countries have tended to run current account deficits linked to their catching up process since the mid-1990s onward, especially so since their accession to the EU.

Overall, the evidence presented for the relationship between exchange rate depreciation/devaluation and successful fiscal consolidations is mixed. Countries undertaking fiscal consolidations following a period of growing current account deficits tended to experience more difficulties in achieving success. The following section considers these questions in more depth using econometric estimations.

⁽¹⁹²⁾ Change in the current account over five years (instead of shorter time period) is considered to capture the structural nature of a change in the current account position.

Graph IV.4.2: Past current account variations and the success of fiscal consolidations: evidence using Kernel density graphs



Notes: Past current account variations represent change in percentage points of the current account imbalances between $t-5$ and $t-1$ with t being the year a fiscal consolidation episode is started.

Source: Commission services.

4.2. EXTERNAL IMBALANCES, REAL EXCHANGE RATES AND THE SUCCESS OF FISCAL CONSOLIDATIONS: RESULTS FROM PROBIT ESTIMATIONS

Several econometric tests have been performed using probit estimation of the determinants of successful fiscal consolidations. As in Section III.4, the dependent variable is a dummy indicating whether a country's fiscal consolidation undertaken in a given year t was successful or not in reducing the level of debt in year $t+3$. The explanatory variables of interest are the annual changes in the nominal and real effective exchange rates in year $t-1$ and the change (in percentage of GDP) in the current account between year $t-5$ and year $t-1$ to reflect current account dynamics at the onset of fiscal consolidation episode. The other control variables are the same as those used in Section III.4.⁽¹⁹³⁾

⁽¹⁹³⁾The other control variables include a measure of the business cycle position (measured using the level and annual change in the output gap at the start of a fiscal

Results of probit estimations for the EU and the sample of non-EU OECD countries over the period 1970-2008 are reported in Table IV.3.1. Estimations reported in Columns 1 and 2 of Table IV.3.1 show that even controlling for relevant variables the exchange rate depreciations, measured respectively by the effective nominal exchange rate (NEER) and the real effective exchange rate (REER) do not exert a significant influence on the probability of success of a fiscal consolidation, thus confirming that the link between exchange rate depreciation and the success of fiscal consolidations is not automatic.⁽¹⁹⁴⁾ Column 3 includes a variable

consolidation episode), a variable indicating the nature of fiscal consolidation (measured by the change between $t-1$ and $t+3$ of the cyclically adjusted primary expenditure as percentage of GDP), the level of debt in $t-1$ and the snowball effect of public debt between t and $t+3$, and an indicator on the quality of fiscal governance. More details on the definition and sources used for these variables are provided in Section III.4.

⁽¹⁹⁴⁾The REER used in the econometric estimations reported in Table IV.4.1 is measured using unit labour cost differentials (source: OECD). The use of REER based on

measuring past current account changes. This estimation shows that countries starting off from more favourable positions are also more likely to achieve debt reduction. This result in turn confirms that the sheer size of current account imbalances at the onset of a fiscal consolidation episode can have a strong bearing on the outcome of fiscal retrenchments.

The inconclusive result concerning the effect of exchange rate depreciation/devaluation could reflect the fact that exchange rate realignments alone are not sufficient and/or that other policy changes are better suited to contributing to successful fiscal consolidations through wage and price adjustment.⁽¹⁹⁵⁾ A more direct way to measure the impact of fiscal policy changes on countries' competitiveness is to use instead measures of public expenditure with a distinction between wages and non-wages government expenditure as in Lane and Perotti (2003). As suggested earlier, such changes might facilitate consolidation through export-led recovery directly, by reducing the government wage bill, and also indirectly by spilling to private sector wages formation mechanisms improving external competitiveness.

Column 4 includes two additional explanatory variables measuring the change between the years t and $t-1$ (i.e. the year t indicating the first year of a fiscal consolidation episode) in the composition of public expenditure splitted into wage and non-wage components.⁽¹⁹⁶⁾ This additional estimation

cpi differential as in Graph IV.4.1 did not yield qualitatively different results.

⁽¹⁹⁵⁾ The absence of significant result on the exchange rate variable is also not in line with the limited evidence in the empirical literature, see for instance Hjelm (2002) and Lambertini and Tavares, (2005). However it must be noted that the criteria used here to define successful fiscal consolidations is different to the one used in the existing literature which is based on the cyclically adjusted primary balance and/or other macroeconomic variables. Furthermore, most empirical analysis advocating the relevance of exchange rate devaluation/depreciation for fiscal consolidation usually make use of more basic statistical association (e.g. based on correlation coefficients) or case-study analysis concerning small open economies (e.g. Alesina and Perotti, 1997).

⁽¹⁹⁶⁾ In order to avoid multi-colinearity the variable measuring the change in the total public expenditure adjusted for the business cycle included in Column 1-3 is removed from Columns 4-6. The changes in the composition of public expenditure are measured by the first difference in the logarithm of the variables expressed in constant prices

shows that a reduction in government wage spending significantly increases the likelihood of achieving a successful fiscal consolidation while a reduction in non-wage public spending also exert similar effect although not significantly so.

The role played by fiscal consolidations containing or reducing public wages expenditure would become relatively more important in the absence of nominal exchange rate adjustment, i.e., in fixed (or pegged) exchange rate regimes as external competitiveness cannot be restored via nominal exchange rate adjustment. Columns 6 and 7 provide evidence on this by including interaction terms between a variable indicating the type of exchange rate regime a country follows during a fiscal consolidation episode (i.e. either fixed or variable exchange rate) and the two variables reflecting the composition of fiscal adjustment used in Column 4 (i.e. either wages or non-wage expenditure). Two alternative definitions of the exchange rate regimes are used: Column 5 includes results using the IMF classification of exchange rate regimes, while Column 6 provides result based on the exchange rate regime classification proposed by Reinhart and Rogoff (2004).⁽¹⁹⁷⁾ In both cases, the influence of the change in government wage spending appears to be larger for countries in fixed-exchange rate regimes, although the significance of this result varies slightly depending on the definition of

(source: OECD). The first year of a fiscal consolidation episode is used in order to reflect the fact that, in order for wages and other public expenditure cuts to promote an export-led recovery these changes must take place relatively quickly during a consolidation episode (in order to spread to the rest of the economy). The latter was confirmed by the insignificance of non-reported results obtained considering wage and non-wage public expenditure changes over longer time spans.

⁽¹⁹⁷⁾ The IMF classification has sometimes been questioned in the literature as it relies on self-reported country information on exchange rate arrangements which may differ from practice where dual exchange rate markets might better reflect monetary policy and inflation dynamics and/or where *de jure* pegged exchange rate might *de facto* translate into flexible ones (e.g. as in the case of the EU in the early 1990s). Reinhart and Rogoff (2004) propose instead a taxonomy based on a broad variety of statistics measuring exchange rate volatility matched to official arrangements and chronologies of exchange rate intervention to derive a "natural" grouping of exchange rates regimes taking into account of differences between announced exchange rate regime and real ones (derived from the statistics) and thus relying on market-determined rather than official exchange rate regime.

Table IV.4.1: External imbalances and the success of fiscal consolidations: result from probit estimations 1/

	(1)	(2)	(3)	(4)	(5)	(6)
Debt	0.486*** (0.163)	0.508*** (0.164)	0.419** (0.163)	0.209 (0.181)	0.179 (0.175)	0.193 (0.180)
Δ cyclically adjusted expenditure	-0.041*** (0.012)	-0.045*** (0.012)	-0.037*** (0.013)			
Downturn	-0.109 (0.109)	-0.098 (0.114)	-0.064 (0.128)	-0.091 (0.121)	-0.167** (0.083)	-0.13 (0.113)
Recovery	-0.027 (0.104)	-0.026 (0.104)	-0.037 (0.108)	-0.091 (0.107)	-0.077 (0.098)	-0.118 (0.107)
Protracted slowdown	-0.159* (0.090)	-0.168* (0.090)	-0.15 (0.096)	-0.225** (0.094)	-0.262*** (0.085)	-0.253*** (0.095)
Debt-stabilising primary balance (snowball effect of public debt)	-5.812*** (1.893)	-5.602*** (1.787)	-5.078*** (1.937)	-6.600*** (2.518)	-7.620*** (2.609)	-7.381*** (2.598)
Fiscal governance	0.036 (0.090)	0.025 (0.092)	0.063 (0.094)	-0.122 (0.095)	-0.141* (0.079)	-0.142 (0.092)
Δ Nominal exchange rate (t-1, t-2)	-0.001 (0.001)					
Δ Real exchange rate (t-1, t-2)		0.005 (0.004)				
Δ Current account change (t-1,t-5)			0.024** (0.011)	0.039*** (0.014)	0.037*** (0.013)	0.035** (0.014)
Δ Gov. wage spending				-3.713*** (1.116)		
Δ Government non-wage spending				-0.44 (0.649)		
Δ Gov. wage spending * Fixers – IMF definition					-8.175*** (1.929)	
Δ Gov. wage spending * Non-fixers – IMF definition					-0.619 (1.362)	
Δ Government non-wage spending * Fixers – IMF definition					1.729 (1.550)	
Δ Government non-wage spending * Non-fixers - IMF definition					-0.834 (0.867)	
Δ Gov. wage spending * Fixers - Reinhart-Rogoff(2004)						-5.803* (3.273)
Δ Gov. wage spending * Non-fixer - Reinhart-Rogoff(2004)						-3.635*** (1.135)
Δ Government non-wage spending * Fixers - Reinhart-Rogoff(2004)						-0.089 (2.458)
Δ Government non-wage spending * Non-fixer - Reinhart-Rogoff(2004)						-0.388 (0.617)
Estimated probability of success	0.283	0.287	0.3	0.28	0.21	0.27
% of probability correctly predicted	0.72	0.71	0.68	0.70	0.74	0.71
Observations	181	179	170	143	143	143

1/ The IMF and Reinhart-Rogoff (2004) definitions and data on fixed and flexible exchange rate regimes can be found in Reinhart, C. and Rogoff, K. S. (2004), "The modern history of exchange rate arrangements: a reinterpretation", Quarterly Journal of Economics Vol. CXIX (1): 1-48 and <http://terpconnect.umd.edu/~creinhar/Papers.html>. The symbol Δ stands for annual variation in percentage unless otherwise indicated.

Source: Commission services.

exchange rate regime used. This result would tend to confirm that fiscal consolidation strategies based on public expenditure cuts and, in particular, on public wages reduction and/or containment are more likely to succeed in countries where exchange rates are fixed because these countries cannot resort to exchange rate devaluations to promote export-led recoveries.

5. CASE STUDIES - FISCAL POLICY AND EXTERNAL IMBALANCE

An examination of experiences in some selected EU countries provides insights in the role that macroeconomic fiscal policy and microeconomic incentives have played in the building-up of competitiveness imbalances and their winding down. Below, the role of inflation dynamics, growth composition, asset price booms and bust, revenue windfalls, nominal expenditure growth and micro-fiscal incentives are discussed in the cases of Spain, Germany, Ireland and Estonia.

5.1. SPAIN

5.1.1. Housing-sector-related effects and fiscal incentives in Spain

Since the mid-1990s, Spain has been growing at an average rate of 3¼% per year. Such an exceptionally long expansionary period of the Spanish economy was driven by a succession of credit-led impulses, demographic shocks and adjustment processes. Among them, and as in some other Member States, nominal interest rates converged rapidly toward the low levels of core countries, such as Germany, France or the Netherlands, on the back of the macroeconomic-stability policy framework put in place by Spain in order to ensure euro adoption.

The combination of low real interest rates and dynamic demography resulted into a significant raise in the indebtedness of households and firms and stimulated a large asset boom, especially housing. A sharp increase in house price came hand in hand with an unprecedented increase in the number of new dwellings built each year. While the number of new residences had hovered at around one quarter of a million between the mid-1970s and the mid-1990s, the figure rose to three quarters of a million by 2006. Equity markets also boomed in Spain during the last decade. The index of the Spanish stock exchange market (IBEX 35) increased by 380% from around 3500 points in 1995 to above 12000 points in 2006. The comparison with the evolution in the other large members of the euro area provides more prominence to the magnitude of the asset boom in Spain.

The asset boom in Spain resulted in a change in the GDP composition towards investment in dwellings, whereas, corporate profits soared. Within this context, the total tax burden rose from 32¼% of GDP in 1995 to above 37% in 2007 without relying on significant tax increases. In contrast, the tax burden has remained broadly unchanged in the euro area at around 40%. Interestingly, the increase in the tax burden took place in spite of the direct tax reforms of 1999 and 2003, which aimed at reducing the tax burden on personal incomes. Although this period has also seen discretionary increases in some indirect taxes, especially excise duties, these were not large enough to compensate for the reduction in revenues associated to direct tax cuts.

Over the same period, 1995-2007, the Spanish economy recorded a steady appreciation of the real effective exchange rate. This resulted from persistent and positive inflation and wage differentials with the euro area, combined with an also persistent but negative productivity differential. A strong domestic demand and structural factors, especially rigidities in some utilities and services markets, were at the origin of a inflation differential of the Spanish economy vis-à-vis the euro area of above 1 pp. per year on average. In line with this inflation differential, the positive wage gap with the euro area attained ¾ pp per year on average, while productivity recorded a negative gap close to 1%. These developments were due to a relative specialisation of the Spanish economy in low-to-medium technology sectors, mainly reflecting a high weight of construction and tourism activities. In terms of nominal unit labour costs vis-à-vis the euro area, the Spanish real exchange rate has appreciated by more than 10% since 1995.

The combination of the steady appreciation of the real effective exchange rate, the reduction of the risk premia and an increase in population were supportive of a demand-based growth model that was highly rich in taxes. In effect, while exports, which have low tax content, were not growing as fast as the whole economy, private consumption and the boom in the housing market pushed indirect taxes up. Moreover, the economic boom raised profits, especially those linked to real state

Table IV.5.1: Key macroeconomic and budgetary indicators - Spain

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GDP, % change	4.5	4.7	5.0	3.6	2.7	3.1	3.3	3.6	4.0	3.6	0.9	-3.6
HICP, % change	1.8	2.2	3.5	2.8	3.6	3.1	3.1	3.4	3.6	2.8	4.1	-0.3
External balance, % of GDP	-1.1	-2.7	-4.0	-4.3	-3.8	-4.0	-5.9	-7.5	-9.0	-10.0	-9.5	-5.1
Trade balance, % of GDP	-0.2	-1.9	-3.1	-2.5	-2.1	-2.4	-4.0	-5.3	-6.4	-6.8	-5.9	-2.1
Balance of primary income, % of GDP	-1.0	-0.9	-0.8	-1.6	-1.5	-1.2	-1.3	-1.4	-1.7	-2.3	-2.6	-1.9
Net foreign assets, % of GDP	-32.0	-33.2	-32.5	-35.1	-39.2	-43.9	-52.7	-56.7	-66.8	-77.5	-79.3	
Government balance, % of GDP	-3.2	-1.4	-1.0	-0.7	-0.5	-0.2	-0.4	1.0	2.0	1.9	-4.1	-11.2
Government revenue, % change	5.9	9.2	7.8	7.6	8.4	6.7	8.4	10.5	11.1	8.8	-7.0	-9.4
Government expenditure, % change	5.6	4.4	6.6	6.7	7.8	6.0	8.8	6.8	8.2	9.2	8.3	8.0
Structural balance, % of GDP						-0.1	0.6	1.0	1.6	1.2	-4.1	-8.9
Government debt, % of GDP	64.1	62.3	59.3	55.5	52.5	48.7	46.2	43.0	39.6	36.2	39.7	53.2

Source: Commission services.

and financial operations, and consequently revenues from corporate taxes.

Research in this area⁽¹⁹⁸⁾ has shown that the economic expansion in Spain was accompanied by important composition effects, which disappeared with the burst of the asset boom. Overall, econometric analyses have indicated that about 75% of the increase in tax revenues observed between 1995 and 2006 were of a transitory nature. The move away from the highly tax-rich growth composition associated with the burst of the asset boom has, indeed, led to a permanent reduction of tax elasticities. The implementation of unfunded tax cuts and expenditure increases in the period 1995-2007, especially those more difficult to revert in bad times, does not appear to have taken account of such transitory composition effects. Indeed, the empirical research shows that, in the presence of asset booms, and, more generally, when the composition of main tax bases change significantly, tax elasticities with respect to standard bases can lead to misleading conclusions of developments in government receipts. In the case of Spain and given the context of significant composition biases, the use of standard tax elasticities for fiscal surveillance purposes might have led to an overestimation of structural revenues and, concomitantly, to an incorrect assessment of the fiscal stance. This is relevant in the Economic and Monetary Union because the likelihood of occurrence of asset booms may be relatively high when the monetary-policy stance is not consistent with the country's inflation.

Fiscal policy might have also contributed to raising household indebtedness and to feeding the large housing boom in Spain. The fiscal treatment of housing in Spain favoured the purchase of housing at the expense of other alternative investments.

⁽¹⁹⁸⁾ Martínez-Mongay, and al. (2007)

Research analysis⁽¹⁹⁹⁾ has shown that, between 1986 y 2004, the overall net effect of fiscal treatment of housing purchase translated into a positive incentive to increase housing demand, especially in the case of purchases of owner-occupied houses. Specifically, fiscal measures included a deduction from personal income tax for the purchase of the primary residence and a reduction in tax liability for payment of both capital and interest. Moreover, the Autonomous Communities (regional governments) have progressively added in recent years other deductions, albeit less important, for home purchases. In addition, the supply of owner-occupied social housing provided a significant subsidy for low-rent households, which remained unaltered once the dwelling had been granted, in spite of a positive evolution of household incomes. Fiscal policy has also shown a persistent bias in favour of the purchase of housing at the expense of rented housing, notably after some tax reforms in 1999. This bias has been more significant for high-revenue households and high marginal tax rates, due to the very low taxable implicit incomes.

5.2. GERMANY

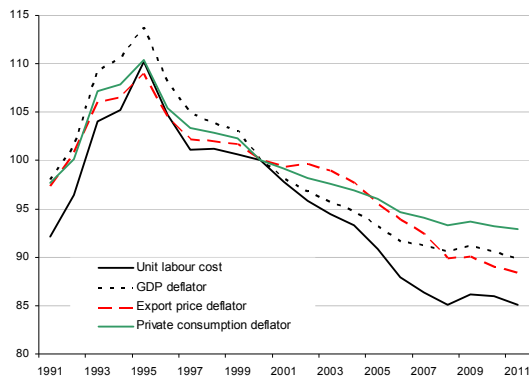
5.2.1. Competitiveness, current account surplus and net external lending

Since the early 2000s, increasing demand for capital goods from catching-up economies and the improved price competitiveness fed the largely export-based growth of the German economy. Depressed inflation and wage growth vis-à-vis euro competitors allowed a reversal of the real effective exchange rate appreciation that had occurred following unification. (Graph IV.5.1).

⁽¹⁹⁹⁾ García-Vaquero and Martínez (2005)

High export growth and gains in competitiveness have not been translated into higher growth of household disposable income, domestic demand and imports, thus leading to the accumulation of high current account surpluses. The current account surplus widened considerably, peaking at 8% of GDP in 2007, in particular due to the strong expansion of merchandise trade with the balance on services remaining slightly negative. Looking at sectoral savings-investment balances, the rising current account surplus was largely matched by falling public sector net borrowing, as well as increased private household savings as wage moderation and high unemployment held back growth in real disposable income. Also higher corporate sector lending contributed to the improving current account as corporate balance sheets were strengthened (Graph IV.5.2). Overall, weak domestic demand reflected low private consumption, the continuing correction of overinvestment in housing after the re-unification-induced construction boom and weak corporate investment. According to its high savings-investment ratio, Germany became a net lender among the larger EU Member States.

Graph IV.5.1: Real effective exchange rate versus the rest of the euro area (2000=100)

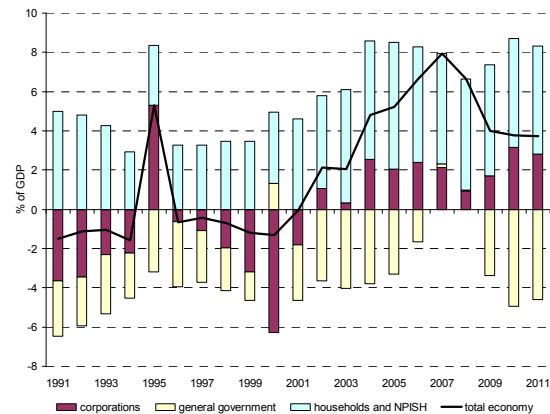


Source: Commission services and German Bundesbank.

The collapse of world trade in the course of the financial and economic crisis slashed Germany's exports by around 14% in 2009. Competitiveness based on unit labour cost worsened temporarily as a result of the adverse effect on productivity arising from the slump in growth and the limited reaction of employment levels to the crisis due to labour hoarding and working time reductions (Graph IV.5.1). In the aftermath of the crisis, the

German export sector is expected to benefit from the recovery of global trade especially in emerging market economies. However, given the need for household and corporate balance sheet repair in some of its traditional trading partners, German exports are unlikely to propel output growth in the near future. Hence, the German economy will be faced with considerable adjustment needs, including a re-allocation of resources from sectors with current over-capacity and a shift between tradable and non-tradable sectors, putting increasing demands on the flexibility of product and factor markets.

Graph IV.5.2: Net lending (+) / borrowing (-) (% of GDP) /1



1/ Not including unification-related debt and asset undertakings by the federal government in 1995 of 116.3 bn EUR

Source: Commission services, German Bundesbank.

5.2.2. Fiscal policy and adjustment of economic imbalances

After a surplus in 2000, when one-off revenues from the auction of UMTS licences were realised, the German general government position relapsed into a deficit until 2007 (Table IV.5.2). The deficit widened until 2003 mainly on the back of the economic downturn in the early 2000s and a three-step reduction of income tax rates (1999, 2000 and 2001). General government net borrowing decreased considerably since 2004 leading to a small surplus in 2007 and a balanced budget in 2008. The improvement in the structural balance between 2004 and 2008 came on the back of virtual nominal expenditure freeze during the consolidation process required under the Stability and Growth Pact (SGP). Expenditure growth throughout this period fell clearly below GDP

Table IV.5.2: Key macroeconomic and budgetary indicators - Germany

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GDP, % change	2.0	2.0	3.2	1.2	0.0	-0.2	1.2	0.8	3.2	2.5	1.3	-5.0
HICP, % change	0.6	0.6	1.4	1.9	1.4	1.0	1.8	1.9	1.8	2.3	2.8	0.2
External balance, % of GDP	-0.7	-1.2	-1.3	0.0	2.1	2.1	4.8	5.2	6.6	7.9	6.6	5.0
Trade balance, % of GDP	1.4	0.9	0.4	2.0	4.6	4.0	5.1	5.3	5.7	7.1	6.2	4.6
Balance of primary income, % of GDP	-1.0	-1.1	-0.9	-1.0	-1.2	-0.7	1.0	1.2	2.1	2.0	1.7	1.8
Net foreign assets, % of GDP	2.9	0.2	1.3	-2.7	3.5	4.3	0.1	-11.4	-15.5	-16.7	-18.2	
Government balance, % of GDP	-2.2	-1.5	1.3	-2.8	-3.7	-4.0	-3.8	-3.3	-1.6	0.2	0.0	-3.3
Government revenue, % change	2.9	4.1	2.2	-1.3	0.7	0.9	-0.5	1.9	4.2	4.8	2.5	-2.3
Government expenditure, % change	1.9	2.4	-3.8	8.0	2.6	1.8	-0.8	0.9	0.4	0.6	2.8	5.0
Structural balance, % of GDP						-3.4	-3.4	-2.8	-2.1	-1.1	-1.2	-1.5
Government debt, % of GDP	60.3	60.9	59.7	58.8	60.4	63.9	65.7	68.0	67.6	65.0	66.0	73.2

Source: Commission services.

growth⁽²⁰⁰⁾. After an initial drop of almost 1 pp. in nominal terms in 2004, public spending grew less than $\frac{3}{4}$ pp. on average in 2004-2007. This could be attributed to substantial cuts in public investment and subsidies in 2004-2005, moderate public sector wage increases and favourable labour market developments. Revenues picked up, fuelled by the increased standard VAT rate (2007) and high profit-related tax receipts, despite tax relief introduced with the corporate tax reform in 2008⁽²⁰¹⁾.

A direct causal link between net lending of the public sector and the external balance is difficult to establish. However, the 3% of GDP consolidation in the nominal general government balance between 2004 and 2007 went hand in hand with an additional increase in the current account surplus of a similar magnitude.

Fiscal policy measures may have played a role in influencing private sector savings and investment behaviour in Germany. Two major tax reforms are of particular importance: the stepwise changes in income and corporate tax rates of the early 2000s and the 2007 increase in the standard VAT rate.

In particular, the 2001 tax reform has indirectly contributed to the increase in the current account surplus by affecting companies' financing and investment decisions. First, with the reduction of the corporate tax rate for both retained and distributed profits to a uniform rate of 25% in 2001 and the replacement of the full imputation

system with a 'half-income system' in 2002⁽²⁰²⁾, the tax advantages of distributing rather than retaining corporate profits were lowered⁽²⁰³⁾. Second, investment incentives were negatively affected by the measures taken to counter-finance tax relief: the declining-balance depreciation rate for movable assets was reduced and the depreciation rate for company buildings was cut. It is difficult to ascertain the importance of these changes in explaining the increase in corporate savings and the simultaneous drop in investments observed in the first half of the 2000s. Other, potentially more important factors were at play at the same time. On the one hand, wage moderation boosted corporate profits and contributed decisively to the increase in gross savings of the corporate sector. On the other hand, domestic investments were curtailed on the back of higher capital exports to countries experiencing asset booms and as a result of extensive off-shoring and outsourcing activities of German firms to take advantage of the benefits offered by globalisation and to restore competitiveness.

The 2007 increase in the VAT rate (from 16% to 19%) affected consumption decisions, but its impact cannot be clearly disentangled from the effects of other factors at play: continuous wage restraint (also in the public sector), strong acceleration in inflation and temporary consumption-dampening effects of the expiry of

⁽²⁰⁰⁾ With the exception of 2008 when spending went up due to, *inter alia*, one-off measures related to bank rescue operations and higher outlays for retirement benefits due to *ad hoc* changes in the pension adjustment formula.

⁽²⁰¹⁾ The corporate tax rate was cut from 25% to 15% and the local trade tax rate from 5% to 3.5% of profits.

⁽²⁰²⁾ Under this system only half of the distributed profits of a corporation are included in the shareholder's personal income tax base and it is no longer necessary to credit the corporation tax paid by the company against the shareholder's income tax.

⁽²⁰³⁾ The reform led to a unique effect in 2001 when companies had an incentive to distribute accumulated retentions to shareholders in order to benefit from a retroactive reduced rate on distributed profits. Although the company tax reform intended net tax relief, the unexpected strong response to this measure (tax refund) resulted in large revenue losses.

the favourable depreciation rules. It appears, however, that the consumption of products on which VAT were raised had first risen and then fallen in response to the measure, reflecting the advance purchases of durable goods before the 2007 VAT rate increase and the subsequent adjustment of the consumers' behaviour⁽²⁰⁴⁾. Moreover, the increase in the standard VAT rate allowed financing a cut in the rate of contributions to the statutory unemployment insurance scheme, which reduced the relatively heavy burden of social security contributions on labour, trimming thus further down the unit labour costs.

As a consequence of the crisis, net external lending has fallen by 4 pp. and is expected to stabilise at just below 4% of GDP in 2010 and 2011 (Graph 2). This matches higher public sector net borrowing, while the net lending position of the corporate sector is likely to increase after the initial drop in 2008 and the net lending position of the households is set to remain roughly unchanged. The general government budget moved from a balanced position in 2008 into a deficit of 3.3% of GDP in 2009, driven by automatic stabilisers and fiscal stimulus and financial market stabilisation measures undertaken in response to the downturn. The deficit is projected to widen further to 5% of GDP in 2010 and is likely to fall to 4¾% of GDP in 2011 due to expiry of certain stimulus measures and slightly improved macroeconomic environment. Given the national constitutional commitment towards fiscal consolidation from 2011 onwards⁽²⁰⁵⁾ and the EDP requirements⁽²⁰⁶⁾, Germany will have to pursue a substantial fiscal adjustment in the aftermath of the crisis⁽²⁰⁷⁾.

⁽²⁰⁴⁾ The VAT rate increase was announced more than one year in advance, thus the private households had time to adjust their expenditure plans.

⁽²⁰⁵⁾ The new constitutional budgetary rule, prescribes a structural deficit ceiling of 0.35% of GDP for the Federal government from 2016 onwards and balanced structural budgets for the *Länder* as of 2020.

⁽²⁰⁶⁾ See Council Recommendations to Germany of the 2 Dec. 2009, available at: http://ec.europa.eu/economy_finance/sgp/pdf/30_edps/104-07_council/2009-12-02_de_126-7_council_en.pdf

⁽²⁰⁷⁾ According to the most recent update of the German stability programme (2009-2013), in order to correct the excessive deficit by 2013, the government envisages an expenditure-based consolidation path with an average annual fiscal effort of almost ¾% of GDP in 2011-2013.

5.3. IRELAND

5.3.1. Housing boom fuelled external imbalances

In the late 1980s Ireland started a rapid catching-up process, built on an FDI- and export-led strategy⁽²⁰⁸⁾, and supported by strong fiscal consolidation, structural reforms and a low corporate tax rate. The competitive position was strengthened by the tripartite social partnership process fostering wage moderation in return for a lighter income tax burden and enhanced welfare and labour market policies as well as by nominal depreciation of the national currency in the run-up to euro area entry.

From the early 2000s domestic demand took over as the main driver of continued strong economic growth. The domestically-driven expansion was sustained by particularly buoyant housing demand going beyond what could be expected on the basis of fundamentals⁽²⁰⁹⁾. The boom in demand produced higher price and wage inflation and tight labour market conditions, which were only partly relieved by increasing migration inflows. The latter, in turn, reinforced housing demand and fed the overgrowing building industry. Overinvestment in non-productive housing led to a marked decline in productivity growth, which, together with the appreciation of the euro since 2002, weakened Ireland's competitive position⁽²¹⁰⁾. However, Ireland's export performance

⁽²⁰⁸⁾ The 1990s saw significant FDI inflows from the US, while the UK maintained its strong presence in the Irish economy. In particular, major pharmaceutical and IT companies set up their operations in Ireland to serve the European and global markets. Later FDI inflows originated from euro area countries, and concerned the financial services sector (Honohan and Walsh, 2002).

⁽²⁰⁹⁾ The housing boom, which peaked in 2006, was fuelled by a relatively young and growing population, rapid income growth, low (and at times negative) real interest rates and easier access to credit - owing to financial liberalisation and interest rate convergence in the run-up to EMU - as well as a favourable property-related tax regime. However, these factors alone cannot fully explain the increase in the annual supply of new housing by 11% on average over the period 2000-2006, which went hand in hand with an average rise in new house prices by 11% and in residential mortgage lending by 25%. This led to an oversized construction industry, which in 2006 represented 13.3% of total employment (as against 8.2% for the euro area).

⁽²¹⁰⁾ The real effective exchange rate based on unit labour costs appreciated by more than 40% between 2000 and 2008 relative to EU member states and other major industrial countries.

remained rather dynamic, largely because the relatively capital-intensive multinational companies, which account for the bulk of Irish exports, suffered less than the more labour-intensive indigenous sectors from declining competitiveness⁽²¹¹⁾. The external balance, which had recorded surpluses for most of the 1990s, moved close to balance and remained there until 2004. Only thereafter were the excess of especially housing-related investment over savings together with competitive losses reflected in an increasing external deficit, which peaked at 5.3% of GDP in 2007.

From the late 1990s and until 2007, the general government balance was generally in surplus. The improvement in the structural balance between 2003 and 2006 was due to the very significant windfall revenues produced by the housing boom and tax-rich economic activity more generally,⁽²¹²⁾ whereas expenditure growth throughout this period exceeded that of nominal GDP⁽²¹³⁾. It was particularly buoyant in the areas of social transfers, the public sector wage bill and public investment. Overall, despite improvements in the structural balance, fiscal policy was insufficiently *leaning against the wind* and fed into deteriorating competitiveness.

Looking at fiscal policy from a more micro-economic perspective, a favourable tax treatment of housing is likely to have contributed to the expansion of the housing market. The tax system in Ireland is strongly biased towards home

ownership as compared to most other EU countries. Households are allowed a tax deduction on mortgage interest payments, while there is no tax on property values or imputed rent and only limited taxation of capital gains on residential property.⁽²¹⁴⁾ In the late 1990s and early 2000s, there were some attempts to curb the incipient housing bubble through taxation policy, but most of the measures put in place were reversed and the property-related tax regime was even further relaxed in later years. Probably the clearest policy measure to dampen demand in the 2000s was the introduction of the five-year special saving incentive accounts in 2001 to encourage household savings,⁽²¹⁵⁾ but it was only recently, after the bursting of the housing bubble, that significant steps in the right direction have started to be taken. Fiscal incentives, including the low corporate tax rate, likely also played a role in attracting financial services FDI, which in turn contributed to the rapid growth of the financial services sector in Ireland⁽²¹⁶⁾.

5.3.2. Policy response and relative price adjustments should help rebalance growth

With the correction of the housing market after its 2006 peak, a sharp domestic adjustment started, which has since spread to the wider economy. Given the very high degree of openness and the weight of the financial sector in the economy, the adjustment has been greatly amplified by the global economic and financial crisis. Irish real GDP fell by nearly 10% in 2008-09. Employment saw a broad-based cumulative decline in 2008-09 by over 9%, with construction most badly hit (-40%), while prices measured by the HICP fell by 1.7% and nominal wages by an estimated near 2% in 2009. Sharp sustained falls in house prices point to some adjustment of relative prices taking place. According to the Commission services' spring 2010 forecast, economic activity will decline further in 2010, by 0.9%, before returning to growth in 2011. This outlook assumes a

⁽²¹¹⁾ Many of the usual macroeconomic data for Ireland should be interpreted with caution for two reasons. First, while economic growth is usually measured in terms of GDP, GNI is probably a more appropriate measure for the Irish economy and living standards. The difference between GDP and GNI is net factor income, which is significantly negative in Ireland because of profit repatriations by multinationals. Irish GNI is about 15% smaller than GDP. Second, some sectors with a marked presence of multinational companies are likely to be characterised by transfer pricing, attracted by Ireland's low tax rate on corporate profits. This distorts (i.e. exaggerates) standard measures of profits, output, productivity etc. (see Honohan and Walsh (2002)).

⁽²¹²⁾ Taxes directly related to property are estimated to have increased by 2¼ percentage points of GDP between 2002 and 2006 (Public Finance in EMU - 2008). Also other tax categories were boosted by the overall tax-rich composition of growth as an indirect effect of the property market cycle.

⁽²¹³⁾ The gap was even bigger vis-à-vis the growth rate of potential GDP augmented with the ECB's inflation benchmark, which can be seen as a rate consistent with preserving competitiveness.

⁽²¹⁴⁾ See IMF, 2004 and Rae and van den Noord, 2006.

⁽²¹⁵⁾ This government-sponsored scheme accumulated savings amounting to some 9% of GDP, the yields of which included a government-funded top-up and were paid out in 2006-07, thus stimulating economic activity in those years.

⁽²¹⁶⁾ In 2008, the share of financial intermediation services in nominal GVA was 10.2% in Ireland, more than double the share in the EA16.

Table IV.5.3: Key macroeconomic and budgetary indicators - Ireland

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GDP, % change	8.4	10.7	9.4	5.7	6.5	4.4	4.6	6.2	5.4	6	-3	-7.1
HICP, % change	2.1	2.5	5.3	4	4.7	4	2.3	2.2	2.7	2.9	3.1	-1.7
External balance, % of GDP	1.7	0.8	0.7	0.1	0	0.9	0.1	-3.2	-4	-5.3	-5.2	-2.9
Trade balance, % of GDP	11.6	13.9	13.5	15.6	17.2	16.1	15	11.9	9.9	10.2	10.4	17.2
Balance of primary income, % of GDP	-11.3	-13.9	-13.8	-15.5	-17	-14.5	-14.4	-14.3	-13	-14.4	-14.2	-18.8
Net foreign assets, % of GDP	25.8	50.5	-8	-15.3	-18	-20.1	-18	-24.7	-5.3	-19.5	-58.4	
Government balance, % of GDP	2.3	2.6	4.8	0.9	-0.3	0.4	1.4	1.7	3	0.2	-7.2	-11.9
Government revenue, % change	11.5	15	14.1	5.5	8.1	8.7	10.9	10.1	14.7	5.2	-8.4	-11.3
Government expenditure, % change	8.7	13.8	6.5	18.3	12.2	6.4	7.7	9.4	10.7	13.7	11.1	-1
Structural balance, % of GDP						-0.3	0.9	1.1	2	-1.6	-7	-9.4
Government debt, % of GDP	53.6	48.5	37.8	35.6	32.2	31	29.7	27.6	25	25.1	44.1	65.4

Source: Commission services.

continuation of the rebalancing of the domestic economy already underway in the form of sectoral and relative price adjustments.

As regards Ireland's external position, the external deficit nearly halved to 2.9% of GDP in 2009 from its peak of 5.3% of GDP in 2007, with a further improvement projected for 2010-11 in the Commission services' spring 2010 forecast. However, the improvement in 2008-2009 was mainly driven by the strong decline in imports, reflecting the broad-based collapse of domestic demand, coupled with the more moderate reduction of exports. The ongoing changes in relative prices and incomes are contributing to making the needed adjustment more lasting.

The Irish general government balance has seen a drastic deterioration since the onset of the crisis, from a broadly balanced position in 2007 to a double-digit deficit ratio in 2009. The fiscal deterioration has occurred in spite of the authorities' significant consolidation efforts since mid-2008, with a net deficit-reducing effect of around 4% of GDP in 2009 and again in 2010. This is due to the collapse in revenues in the aftermath of the bursting of the housing market bubble, the wider recession and the difficulties to quickly bring expenditure in line with revenue developments, also in view of the increase in social spending and debt-servicing costs. The Commission services' spring 2010 forecast expects the consolidation measures to stabilise underlying budgetary trends in 2010. The bulk (around two thirds) of the consolidation efforts undertaken so far is made up by expenditure reduction. Going forward, it is not yet clear to what extent the authorities' medium-term consolidation strategy towards a deficit of 3% of GDP by 2014 presented in the December 2009 stability programme

update⁽²¹⁷⁾ will be based on further current expenditure reductions, but a significant contribution seems likely. At the same time, measures to broaden the narrow Irish tax base are envisaged. These notably include the introduction of a property tax, which would reduce the bias of the tax system towards home ownership and thereby help to limit risks to competitiveness from property bubbles in the future.

Empirically, an expenditure-based consolidation strategy tends to be more successful in securing a lasting improvement in the public finances and regaining market confidence than tax-based consolidation.⁽²¹⁸⁾ There is also some evidence based on Irish data suggesting that expenditure retrenchment can help to sustain and regain competitiveness by bringing about real depreciation. However, the composition of the adjustment matters. Consolidation focussed on current expenditure, especially compensation of employees, is most clearly correlated with real exchange rate depreciation, with more mixed results for public investment.⁽²¹⁹⁾ The expenditure-

⁽²¹⁷⁾ For details refer to the assessment of the December 2009 stability programme available at http://ec.europa.eu/economy_finance/sgp/convergence/programmes/2009-10_en.htm.

⁽²¹⁸⁾ See e.g. European Commission (2007), part IV.

⁽²¹⁹⁾ In a VAR analysis, Bénétrix and Lane (2009) find evidence that a discretionary negative shock to government spending is associated with real depreciation in the short run. Evidence that such effects could extend beyond the short term are found by Galstyan and Lane (2009). Regarding the composition, Bénétrix and Lane (2009) find that decreases in wage consumption and investment generate real exchange rate depreciation, while the evidence is more mixed for public non-wage consumption. Galstyan and Lane (2009) find that decreases in the relative level of government consumption are associated with depreciation of the CPI-based real exchange rate and a decrease in the relative price of non-tradables, while a decrease in the long-run level of relative government investment would have the opposite effect.

reducing measures implemented so far in Ireland are more or less evenly spread across the public sector wage bill, public investment and other current spending. While public investment remains at a high level in a EU perspective (over 4½% of GDP in 2009-10), its containment will require a careful prioritisation of projects with a view to avoiding possible adverse effects on economic activity, including on competitiveness via productivity.

The evidence thus suggests that the ongoing expenditure-based fiscal consolidation efforts and the broadening of the tax base have a role to play in strengthening Irish competitiveness in the short to medium run, which should in turn help bring about a further durable reduction of the external imbalances.

Finally, a more lasting improvement in the external balance will crucially have to be supported by adequate structural policies aimed at regaining competitiveness and rebalancing growth. Supporting the sectoral reallocation of labour from the non-tradable (e.g. construction) to the tradable sector will involve the re- and up-skilling of the newly-unemployed, while productivity-enhancing measures and adequate wage policies will also be important for the return to sustainable growth.

5.4. ESTONIA

5.4.1. A real estate boom fuelled external imbalances

Estonia's economic transition from a planned to a market economy started from a very low level of GDP per capita and productivity. After reaping early benefits from bold reform and stabilisation efforts by the mid-1990s, Estonia suffered a temporary setback in the wake of the 1998 Russian crisis. However, growth quickly resumed as of 2000 and large financial inflows (both credit and FDIs), largely resulting from Estonia's financial integration into the EU banking system, helped the country to rapidly converge towards the EU average.

Soon after EU accession and till 2007, low or even negative real interest rates and the increasing financial integration with the EU promoted credit growth, imported capital. This, compounded by

optimistic expectations about future income reflecting strong wage increases, resulted in a credit boom and bullish investment activity, with capital formation concentrating in financial and real-estate sectors ⁽²²⁰⁾, and exuberant consumption. As a result, GDP growth exceeded its potential, leading to accelerating inflation, in particular in housing and construction ⁽²²¹⁾, as well as to widening external deficits. Real wage growth exceeded labour productivity growth, while performance of the tradable sectors became inadequate to finance the surge in imports and ensure the external sustainability of the economy as a whole. A loss of profitability and competitiveness hurt in particular low-skilled and labour-intensive sectors, including where Estonia's export volumes had considerably expanded in previous years (e.g. in "machinery" related to subcontracting arrangements with foreign companies).

The strong GDP growth rates and the particular composition of growth led to large increases in government revenues, making it difficult to identify the underlying situation of the general government budgets. Estonia's budgetary framework contributed to a relatively solid track record and an accumulation of sizeable financial assets: over the 2002-2007 period, the general government balance was indeed in surplus, with a peak at the time of the real estate bubble. However, the fiscal rule could not prevent a surge in spending in the cyclical upturn, notably through ad hoc supplementary budgets. Windfalls stemming from higher prices and higher incomes were partly spent, with spending particularly buoyant in the areas of public investment, the public sector wage bill and social transfers. The structural balance progressively turned negative, pointing to an expansionary fiscal policy in good times and adding to the overheating of the whole economy. In the downturn, when windfall revenue disappeared, this led to a rapidly worsening fiscal balance. With hindsight, and based on the different view on potential growth formed now after the crisis, it is evident that the strength of the fiscal position was overestimated and that further tightening would have benefitted simultaneously the government balance and the stability of the economy.

⁽²²⁰⁾ See e.g. World Bank (2007).

⁽²²¹⁾ See e.g. Brixiova and al. (2009) or Lamine (2009).

Table IV.5.4: Key macroeconomic and budgetary indicators - Estonia

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GDP, % change	6.7	-0.3	10.0	7.5	7.9	7.6	7.2	9.4	10.0	7.2	-3.6	-14.1
HICP, % change	8.8	3.1	3.9	5.6	3.6	1.4	3.0	4.1	4.4	6.7	10.6	0.2
Wages (gross monthly), % change			10.5	12.3	11.5	9.4	8.4	10.8	16.5	20.5	13.9	-4.6
Wages in public administration and defence, % change			10.0	10.7	12.7	8.7	8.2	9.5	13.7	24.6	16.1	-7.3
External balance, % of GDP	-8.6	-4.3	-4.9	-4.9	-10.1	-10.6	-10.6	-9.2	-14.7	-16.8	-8.4	7.4
Current account balance, % of GDP	-8.6	-4.3	-5.4	-5.2	-10.6	-11.3	-11.3	-10.0	-16.9	-17.8	-9.4	4.6
Trade balance, % of GDP	-9.7	-4.5	-3.3	-2.1	-7.0	-7.4	-7.0	-6.4	-12.1	-11.7	-4.3	5.9
Balance of primary income, % of GDP	-1.5	-1.8	-3.6	-4.5	-4.4	-5.3	-5.3	-4.1	-5.2	-6.8	-6.3	-2.9
Net foreign assets, % of GDP	-36.6	-51.7	-48.2	-48.3	-54.1	-65.9	-86.5	-85.2	-74.6	-74.3	-75.3	-81.8
General government balance, % of GDP	-0.7	-3.5	-0.2	-0.1	0.3	1.7	1.6	1.6	2.3	2.6	-2.8	-1.7
General government revenue, % change	9.3	1.4	12.5	9.5	15.7	13.5	8.5	14.1	21.9	21.8	2.0	0.6
General government expenditure, % change	17.7	9.1	3.4	9.0	14.6	9.1	8.4	14.1	19.7	20.8	17.9	-2.0
Structural balance, % of GDP						1.2	2.0	0.4	-0.9	-1.0	-4.4	-2.5
Government debt, % of GDP	5.5	6.0	5.1	4.8	5.7	5.6	5.0	4.6	4.5	3.8	4.6	6.5

Source: Commission services, Bank of Estonia/Eesti Pank, Statistics Estonia.

Looking at fiscal policy from a more micro-economic angle, measures aimed at promoting economic stability were also insufficient. Despite some efforts⁽²²²⁾ to rein in the excessive credit boom, existing institutions did not succeed in preventing the emergence of a bubble. In particular, while in 2003 a decision was made to limit the deductibility of mortgage interest payments⁽²²³⁾, real estate taxation remained globally underdeveloped.⁽²²⁴⁾ The favourable taxation framework, both for reinvested profits and real estate, likely contributed to the unfolding of the real estate bubble⁽²²⁵⁾. Overall, tax revenue appeared insufficiently diversified and policies more directed at fostering growth, than at stabilizing the economy.

⁽²²²⁾ Estonia's currency regime (currency board arrangement - CBA) leaves little room for discretionary monetary policy. However, there is scope for prudential supervisory measures: in 2005, the central bank raised the risk weighting on housing loans used for calculating capital adequacy from 50 to 100%. In September 2006, the bank raised the mandatory reserve requirements for banks from 13 to 15%. Regulations of this stringency were established nowhere else in the EU.

⁽²²³⁾ Deduction of interest rates on housing loans has not yet been abandoned. Still, it was decided at the end of 2003 to reduce the maximum limit for all deductions from taxable annual income from 100,000 to 50,000 kroons. In 2008, deductions were worth around 1% of GDP.

⁽²²⁴⁾ Real estate activity is encouraged through several fiscal provisions or absence of provisions: tax deductibility of mortgage interest payments (in 2008, still 1% of GDP), housing loan guarantees provided by the Credit and export Guarantee Fund, property tax limited to land, with the last update of the land asset value dating back to 2001, absence of imputed rental income for owner-occupied buildings, non-taxation of capital gains from selling certain residential property, the absence of corporate tax on reinvested profits which offers the possibility of tax exemption for capital gains and renting profits.

⁽²²⁵⁾ See Brixiova et al. (2009), Lamine (2010) and OECD (2009).

5.4.2. Policy response and relative price adjustments help rebalance growth

In 2007, growing imbalances appeared unsustainable, prompting the bursting of the real estate bubble, with interest rates rising and credit conditions tightening. The reversal of the unsustainably buoyant domestic demand resulted in a sharp output contraction in the sectors that contributed previously to the high growth rates, particularly in construction, financial intermediation and retail trade. However, the adjustment rapidly spread to the wider economy, as the openness and small size of the country amplified the impact of the global crisis. Real GDP growth sharply declined from an annual average of 8.9% in 2005-2007 down to a total contraction of nearly 18% in 2008-09. Employment fell by 9.2% in 2009, while wage growth turned negative (-4.6%), pulling consumer price inflation into negative territory in summer 2009. After this sharp correction, the economy is currently expected to revert to growth in 2010 and more significantly in 2011. This outlook assumes a continuation of the ongoing rebalancing towards tradable activities as well as of the relative price adjustments.

A collapse in imports induced a considerable narrowing of the merchandise trade deficit: in 2008, the external deficit halved (from -16.8% of GDP in 2007) and, in 2009, reverted to a surplus, which is likely to persist in 2010-11. Despite resilient surpluses in exports of services, the improvement is to a large extent cyclical. It was indeed driven by a strong decline in imports, reflecting the broad-based collapse of domestic

demand and a more moderate reduction in exports. When domestic demand growth eventually resumes, the initial overshooting of the fall in imports will likely disappear, and the current account balance is likely to return to deficit. Efforts to improve competitiveness and productivity should contribute to preventing excessive imbalances re-emerging. ⁽²²⁶⁾

While Estonia's general government balance deteriorated in the course of the crisis, the authorities successfully managed to limit the headline general government deficits to 2.8% in 2008 and 1.7% of GDP in 2009. This was achieved through huge pro-cyclical consolidation efforts since mid-2008⁽²²⁷⁾, accounting for more than 9% of GDP in 2009⁽²²⁸⁾ and 4% in 2010. In parallel, sizeable fiscal reserves accumulated in surplus years allowed limiting public borrowing. According to the 2010 update of the Convergence Programme, the deficit ratio should be only slightly higher in 2010 before diminishing in 2011 and reverting to surpluses by 2013. However, the budgetary outcomes are still subject to the uncertain macroeconomic environment and, with respect to 2010, the reliance on some volatile revenue items.

Even without any cut in public expenditure, the deep recession would have led to a large cyclical reversal in the external balance. Nevertheless, through changes in relative prices and incomes, the huge fiscal consolidation efforts have contributed to improving the competitiveness position. In particular, the consolidation efforts undertaken so far have been focused on expenditure reduction (two-thirds of the total effort), most of them with a lasting impact. Estonia's experience also suggests that expenditure restraint, in particular focused on the public sector wage bill and other current spending, can actually bring about real exchange rate depreciation, securing thereby the necessary recovery in cost-competitiveness. ⁽²²⁹⁾ Conversely,

public investment remains at a high level (over 6% of GDP in 2009), but with a careful prioritisation of projects to ensure productive investment (in infrastructure, education and R&D) and co-financing from EU funds. In parallel, a frontloading and redesigning of the latter has made possible a stimulus package consisting of lending support to enterprises (including exporting enterprises ⁽²³⁰⁾) and increased amounts devoted to active labour market policies (extending a pre-existing wage subsidy scheme).

Estonia's general government debt burden will remain the lowest in the EU in the coming years, due to the efforts to limit the crisis budget deficits to 3% of GDP, as well as to revert to a balanced budget as soon as the crisis is over. Moreover, jointly with the perspective of euro adoption, sound budgetary policies make the country attractive to long-term investment, which in turn should foster technological progress and higher-value exports. This in turn could attract foreign capital and may deteriorate the current account balance. The prudent fiscal policy has been one of the major elements of macroeconomic policy differentiating Estonia from its Baltic neighbours during the last decade, improving the prospects of euro adoption.

Looking forward, in the absence of an independent monetary policy, fiscal policy needs to take account of possible overheating risks and external imbalances. Another real estate bubble cannot be excluded in the longer term, when a new cohort of borrowers will arrive on the market: the average real interest rate might start declining as euro adoption becomes increasingly factored into market rates. At that time, extending the tax base to more stability-oriented revenue sources may reinforce the predictability of government incomes and surpluses in excess of MTO in the long run. Removing the tax deductibility of mortgage interest payments as well as reinforcing real estate taxation could be among the policy options to

⁽²²⁶⁾ See Lamine (2010).

⁽²²⁷⁾ Nevertheless, in 2008, while revenue already collapsed, nominal expenditure growth was still at 18%.

⁽²²⁸⁾ 9% of discretionary cuts compared to the policies in place before that.

⁽²²⁹⁾ With respect to revenue, a reduction in the total tax wedge on labour could however contribute to further improving competitiveness: the flat personal and corporate income tax rate was reduced from 26% in 2005 to 21% in 2008. However, in the downturn, several increases in the contribution rates to the unemployment insurance fund

appeared necessary, increasing thereby the total tax wedge on labour. The latter is now high by OECD standards (notably social contributions) and constitutes vulnerability in a weak labour market as well as a potential hindrance to competitiveness.

⁽²³⁰⁾ In addition, a law establishing a state-owned insurance company aiming exclusively at supporting exporting companies was adopted in late 2009: the company should be operational since February 2010.

prevent real estate boom/bust from recurring, as well as a crowding-out effect from harming corporate financing. At the same time, measures to prevent a re-emergence of excessive consumer credit or to contain consumption, may be useful.

Finally, when GDP growth has resumed, the need to avoid temptations to ease fiscal policy will reinforce the case for institutionalising good practices. Therefore, in the future, more formal expenditure ceilings and/or revenue rules and strengthened budgetary processes might play a role in maintaining macroeconomic stability.

Continuing on the positive track record of structural reforms will also help Estonia to further strengthen its domestic and external adjustment capacity, as well as its fiscal position. Wage adjustment is expected to continue in 2010, with the new Labour Law further strengthening labour market flexibility. Regarding productivity, domestic enterprises are mostly SMEs and their capacity to invest in R&D is limited. However, public policy aimed at promoting R&D as well as innovation, both public and private, contribute to ensuring that Estonia continues to climb the technological ladder⁽²³¹⁾ and progressively shifts to a predominance of medium-to-high tech exports. In parallel, efforts made to ensure that labour skills and training systems meet the evolving market needs reinforce the ongoing shift to more sophisticated exports.

5.5. CONCLUDING REMARKS

The divergence in competitiveness and current accounts can be ascribed to a range of factors. Some of them reflect the normal functioning of the globalised and increasingly integrated EU economy, such as Balassa-Samuelson effects, price level convergence and a healthy response to

⁽²³¹⁾ Estonia has been climbing the technology ladder from low tech (LT) exports in the late nineties to medium-to-low tech (MLT) exports in this decade. The dynamism of medium-to-high tech (MHT) exports augurs relatively well for future trade developments. Conversely, a successful high-tech (HT) episode in the late nineties was made possible by specific sub-contracting arrangements on low value-added operations in the electronic industry and by exceptional cost-competitiveness conditions which have now disappeared. As a result, the development of genuine HT exports in a broader product range than in the late nineties seems to be a longer term prospect (Lamine, 2010).

cyclical differences between Member States. EU enlargement added to the effects of increasingly integrated global markets. Equally, the euro has facilitated the divergence in current accounts by giving euro-area catching-up economies better access to international capital markets, facilitating the financing of larger trade deficits.⁽²³²⁾ These capital flows and corresponding excesses of domestic investment over savings played an important role in the real convergence and catching up process. They allowed a faster build-up of the capital stock than would have occurred through domestic savings alone.

However, the divergences also have less benign causes warranting close monitoring and adjustment. The capital flows increasingly financed unsustainable trends in consumption and unproductive investment, particularly in housing construction. They reflected increases in wages beyond what was warranted by the increase in the capital stock, increases in consumption by more than what was justified by increases in future incomes, and credit growth fed by housing price and construction bubbles. The booming domestic demand thus contributed to an increasing loss in competitiveness in external deficit countries. The imbalances led to the accumulation of high private sector and external debt, a surge in house prices and increased vulnerability to abrupt changes in financial market conditions.

Budgetary policy played a role in the build-up of imbalances: directly, by contributing little to aggregate saving; and indirectly by contributing to dissaving through its effects on private sector decisions. Its importance relative to private sector developments and its capacity to affect private sector imbalances is still subject to debate.⁽²³³⁾

⁽²³²⁾ European Commission (2009) provides a recent detailed discussion of the build up of competitiveness and external imbalances. Langedijk and Roeger (2007), using a DSGE model to analyse adjustment in the Euro area, find that the absence of an exchange risk premium in EMU allows an increase in capital mobility resulting in a lower correlation between domestic savings and investment. Due to the absence of (exchange rate) risk premia, investment – and especially housing investment – responds strongly to exogenous shocks.

⁽²³³⁾ See also section IV.2 for a review of literature on the impact of fiscal balances on current account balances.

Part V

Resources

1. ABBREVIATIONS AND SYMBOLS USED

Member States

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
EI	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	The Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland

SE Sweden

UK United Kingdom

EA Euro area

EU European Union

EU-25 European Union, 25 Member States (excl. BG and RO)

EU-27 European Union, 27 Member States

EU-15 European Union, 15 Member States before 1 May 2004

EU-10 European Union, 10 Member States that joined the EU on 1 May 2004
(CZ, EE, CY, LV, LH, HU, MT, PL, SI, SK)

Non-EU countries

AU Australia

CA Canada

CH Switzerland

JP Japan

KO South Korea

NO Norway

NZ New Zealand

US(A) United States

Currencies

EUR euro

ECU European currency unit

BGL Bulgarian lev

CZK Czech koruna

DKK Danish krone

EEK Estonian kroon

GBP Pound sterling

LTL Lithuanian litas

LVL	Latvian lats
HUF	Hungarian forint
RON	New Rumanian leu
SEK	Swedish krona
SKK	Slovak koruna
CAD	Canadian dollar
CHF	Swiss franc
JPY	Japanese yen
SUR	Russian rouble
USD	US dollar

Other

AMC	Asset management company
AMECO	Macro-economic database of the European Commission
CAPB	Cyclically-adjusted primary balance
CMFB	Committee on monetary, financial and balance-of-payment statistics
COFOG	Classification of the functions of government
DEA	Data envelope approach
DG ECFIN	Directorate-General Economic and Financial Affairs
DR	Debt requirement
DSGE	Dynamic stochastic general equilibrium
DWF	Discount window facility
ECB	European Central Bank
ECOFIN	Economic and Financial Council
EDP	Excessive deficit procedure
EERP	European Economic Recovery Plan
EFC	Economic and Financial Committee
EMU	Economic and Monetary Union

EPC	Economic Policy Committee
ESA(95)	European System of National and Regional Accounts
ESSPROS	European System of Integrated Social Protection Statistics
EU KLEMS	European database on capital, labour, energy, material and services
FDI	Foreign direct investment
GDP	Gross domestic product
GLS	Generalised least squares
IBP	Initial budgetary position
ICT	Information and communication technologies
IMF	International Monetary Fund
INSEE	Institut National de la Statistique et des Études Économiques
ISCED	International Standard Classification of Education
LIME	Working group on methodology to assess Lisbon-related Structural Reforms
LTC	Long-term budgetary cost of ageing
MTBF	Medium-term budgetary framework
MTO	Medium-term budgetary objective
NAIRU	Non accelerating inflation rate of unemployment
OECD	Organisation of Economic Co-operation and Development
OLS	Ordinary least squares
PBB	Performance-based budgeting
PISA	Programme for International Student Assessment
pp	Percentage points
PPS	Purchasing power standard
QPF	Quality of public finances
R&D	Research and development
RAMS	Recently acceded Member States
RoEA	Rest of euro area

ROW	Rest of the world
SCPs	Stability and convergence programmes
SFEF	Société de financement de l'économie française
SGP	Stability and Growth Pact
SLS	Special liquidity scheme
SSC	Social security contributions
TFP	Total factor productivity
VAT	Value added tax
WGHQPF	Working Group on the quality of public finance
WHO	World Health Organization

2. GLOSSARY

Asset management company Public or private body aiming at restructuring, recovering or disposing of nonperforming assets.

Automatic stabilisers Features of the tax and spending regime which react automatically to the economic cycle and reduce its fluctuations. As a result, the budget balance in percent of GDP 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 Croatia and Turkey.

Close-to-balance requirement A requirement contained in the 'old' *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; was replaced by country-specific *medium-term budgetary objectives* in the reformed *Stability and Growth Pact*.

Code of Conduct Policy document endorsed by the ECOFIN Council of 11 October 2005 setting

down the specifications on the implementation of the *Stability and Growth Pact* and the format and content of the *stability* and *convergence programmes*.

COFOG (Classification of the Functions of Government) A statistical nomenclature used to break down general government expenditure into its different functions including general public services, defence, public order and safety, economic affairs, environmental protection, housing and community amenities, health, recreation, culture and religion, education and social protection.

Composite indicator: a compilation of several indicators into a single index reflecting the different dimensions of a measured concept.

Convergence programmes Medium-term budgetary and monetary strategies presented by 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*.

Defined-benefit pension scheme A traditional pension scheme that defines a benefit, i.e. a pension, for an employee upon that employee's retirement is a defined benefit plan.

Defined-contribution pension scheme A scheme providing for an individual account for each participant, and for benefits based solely on the amount contributed to the account, plus or minus income, gains, expenses and losses allocated to the account.

Demand and supply shocks Disturbances that affect the economy on the demand side (*e.g.* changes in private consumption or exports) or on the supply side (*e.g.* 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 fiscal costs (gross, net) of a financial crisis The direct gross costs are the fiscal outlays in support of the financial sector that increase the level of public debt. They encompass, for example, recapitalisation, purchase of troubled bank assets, pay-out to depositors, liquidity support, payment when guarantees are called and subsidies. The direct net costs are the direct gross cost net of recovery payments, such as through the sale of acquired assets or returns on assets. Thus, the net direct fiscal costs reflect the permanent increase in public debt.

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. 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 Part of the preventive elements of the *Stability and Growth Pact*. It 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, the EFC is a Committee of the Council of the European Union

set up by Article 114 of the. 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 government officials whose main task is to prepare discussions of the (ECOFIN) Council on structural policies. It plays an important role in the preparation of the *Broad Economic Policy Guidelines*, 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.

Effectiveness The same concept as efficiency except that it links input to outcomes rather than outputs.

Efficiency Can be defined in several ways, either as the ratio of outputs to inputs or as the distance to a production possibility frontier (see also Free Disposable Hull analysis, Data Envelope analysis, stochastic frontier analysis). *Cost efficiency* measures the link between monetary inputs (funds) and outputs; *technical efficiency* measures the link between technical inputs and outputs. *Output efficiency* indicates by how much the output can be increased for a given input; *input efficiency* indicates by how much the input can be reduced for a given input.

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 and/or correct 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 An improvement in the *budget balance* through measures of *discretionary fiscal policy*, 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 governance Comprises all rules, regulations and procedures that impact on how the budget and its components are being prepared. The terms fiscal governance and fiscal frameworks are used interchangeably in the report.

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' *QUEST* model.

Fiscal institutions Independent public bodies, other than the central bank, which prepare macroeconomic and budgetary forecasts, monitor the fiscal performance and/or advise the government on fiscal policy issues.

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 effect of *discretionary fiscal policy*. 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*.

Government contingent liabilities Obligations for the government that are subject to the realization of specific uncertain and discrete future events. For instance, the guarantees granted by governments to the debt of private corporations bonds issued by enterprise are contingent liabilities, since the government obligation to pay depend on the non-ability of the original debtor to honour its own obligations.

Government implicit liabilities Government obligations that are very likely to arise in the future in spite of the absence of backing contracts or law. The government may have a potential future obligation as a result of legitimate expectations generated by past practice or as a result of the pressure by interest groups. Most implicit liabilities are contingent, i.e., depend upon the occurrence of uncertain future events.

Growth accounting A technique based on a production function approach where total GDP (or national income) growth is decomposed into the various production factors and a non-explained part which is the total factor productivity change, also often termed the Solow residual.

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 the value added tax (VAT), excise duties, import levies, energy and other environmental taxes.

Integrated guidelines A general policy instrument for coordinating EU-wide and Member States economic structural reforms embedded in

the Lisbon strategy and which main aim is to boost economic growth and job creation in the EU.

Interest burden *General government* interest payments on public debt as a share of GDP.

Lisbon Strategy for Growth and Jobs Partnership between the EU and Member States for growth and more and better jobs. Originally approved in 2000, the Lisbon Strategy was revamped in 2005. Based on the Integrated Guidelines (merger of the *broad economic policy guidelines* and the employment guidelines, dealing with macro-economic, micro-economic and employment issues) for the period 2005-2008, Member States drew up three-year national reform programmes at the end of 2005. They reported on the implementation of the national reform programmes for the first time in autumn 2006. The Commission analyses and summarises these reports in an EU Annual Progress Report each year, in time for the Spring European Council.

Maastricht reference values for public debt and deficits Respectively, a 60 % *general government* debt-to-GDP ratio and a 3 % *general government* deficit-to-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*.

Medium-term budgetary framework An institutional fiscal device that lets policy-makers extend the horizon for fiscal policy making beyond the annual budgetary calendar (typically 3-5 years). Targets can be adjusted under medium-term budgetary frameworks (MTBF) either on an annual basis (flexible frameworks) or only at the end of the MTBF horizon (fixed frameworks).

Medium-term budgetary objective (MTO) According to the reformed *Stability and Growth Pact*, *stability programmes* and *convergence programmes* present a *medium-term objective* for the budgetary position. It is country-specific to

take into account the diversity of economic and budgetary positions and developments as well as of fiscal risks to the sustainability of public finances, and is defined in structural terms (see *structural balance*).

Minimum benchmarks The lowest value of the structural budget balance that provides a safety margin against the risk of breaching the *Maastricht reference value for the deficit* during normal cyclical fluctuations. The minimum benchmarks are estimated by the European Commission. They do not cater for other risks such as unexpected budgetary developments and interest rate shocks. They are a lower bound for the *'medium-term budgetary objectives (MTO)*.

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).

One-off and temporary measures Government transactions having a transitory budgetary effect that does not lead to a sustained change in the budgetary position. See also *structural balance*.

Outcome indicator Measures the ultimate results (outcomes) of policy choices (e.g. education attainment, healthy life years, economic growth).

Output costs from a financial crisis This is the gap between the hypothetical output development without a crisis and the actual output realised against the back of the crisis. Various methods are available to calculate output losses, in particular either using the trend GDP growth or the level of GDP as a benchmark.

Output gap The difference between actual output and estimated potential output at any particular point in time. See also *cyclical component of budget balance*.

Output indicator Measures the technical results (outputs) of policy choices (e.g. number of university graduates, number of patents, life expectancy).

Pay-as-you-go pension system (PAYG) Pension system in which current pension expenditures are financed by the contributions of current employees.

Pension fund A legal entity set up to accumulate, manage and administer pension assets. See also *private pension scheme*.

Performance-based budgeting A budgeting technique that links budget appropriations to performance (outcomes, results) rather than focusing on input controls. In practice, performance-informed budgeting is more common which basis decisions on budgetary allocation on performance information without establishing a formal link.

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.

Potential GDP The level of real GDP in a given year that is consistent with a stable rate of inflation. If actual output rises above its potential level, then constraints on capacity begin to bind and inflationary pressures build; if output falls below potential, then resources are lying idle and inflationary pressures abate. See also *production function method* and *output gap*.

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) Framework for budgetary surveillance of candidate countries in the run up to accession. It closely approximates the policy co-ordination and surveillance mechanisms at EU level.

Primary budget balance The *budget balance* net of interest payments on *general government* debt.

Primary structural budget balance The *structural budget balance* net of interest payments.

Principal components A statistical technique used to reduce multidimensional data sets to lower dimensions for analysis. This technique provides a compression of a set of high dimensional vectors (or variables) into a set of lower dimensional vectors (or variables) and then reconstructing the original set summarizing the information into a limited number of values.

Private pension schemes The insurance contract specifies a schedule of contribution in exchange of which benefits will be paid when the members reach a specific retirement age. The transactions are between the individual and the insurance provider and they are not recorded as government revenues or government expenditure and, therefore, do not have an impact on government surplus or deficit.

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. 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 method to estimate the level of potential output of an economy based on available labour inputs, the capital stock and their level of efficiency. Potential output is used to estimate the *output gap*, a key

input in the estimation of *cyclical component of the budget*.

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 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 investment projects to the private sector 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.

Quality of public finances Comprises all arrangements and operations of fiscal policy that support the macroeconomic goals of fiscal policy, in particular economic growth.

Quasi-fiscal activities Activities promoting public policy goals carried out by non-government units.

QUEST The macroeconomic model of the EU Member States plus the US and Japan developed by the Directorate-General for Economic and Financial Affairs of the European Commission.

Recently acceded Member States Countries that became members of the EU in May 2004 and include Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. Two additional countries, Romania and Bulgaria joined in January 2007.

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 reasoning 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 the budget balance over the targets laid out in the *stability or convergence programmes*, that triggers the *Early warning* procedure of the *Stability and Growth Pact*.

Size of the public sector Typically measured as the ratio of public expenditure to nominal GDP.

'Snow-ball' 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, health care and other welfare provisions.

Sovereign bond spread The difference between risk premiums imposed by financial markets on sovereign bonds for different states. Higher risk premiums can largely stem from (i) the debt service ratio, also reflecting the countries' ability to raise their taxes for a given level of GDP, (ii) the fiscal track record, (iii) expected future deficits, and (iv) the degree of risk aversion.

Stability and Growth Pact (SGP) Approved in 1997 and reformed in 2005, 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* net of the *cyclical component and one-off and other temporary measures*. The structural balance gives a measure of the underlying trend in the 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 elasticity A parameter measuring the relative change in tax revenues with respect to a relative change in GDP. The tax elasticity is an input to the *budgetary sensitivity*.

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*.

Tax wedge The deviation from equilibrium price/quantity as a result of a taxation, which results in consumers paying more, and suppliers receiving less. When referring to labour tax wedge more specifically, the tax wedge is usually regarded as the difference between the difference between the salary costs of an average worker to their employer and the amount of net income that the worker receives in return, the difference being represented by taxes including personal income taxes and compulsory social security contributions.

Total factor productivity Represents the share of total output not explained by the level of inputs (labour, capital or primary product). It is generally considered as a measure of overall productive efficiency.

UMTS Third generation of technical support for mobile phone communications. Sale of UMTS licences gave rise to sizeable one-off receipts in 2001.

Welfare state Range of policies designed to provide insurance against unemployment, sickness and risks associated with old age.

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