

QUARTERLY REPORT ON THE EURO AREA

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Highlights in this issue:

- Recent economic developments and short-term prospects.
- How vulnerable is the euro-area economy to higher oil prices?
- Focus: Fiscal policy – Mid-year review
- Focus: Cyclical convergence in the euro area – Recent developments and policy implications.

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EDITORIAL

It is with great pleasure that I continue the tradition established by my predecessor Pedro Solbes of drawing together the main lines of the analysis presented in the regular Quarterly Reports on the Euro Area.

It has now been about a year since the euro-area economy began to turn around and, after a hesitant start, the recovery is now proceeding on increasingly firm ground. After running at about 1.5% during the second half of 2003, GDP growth gathered momentum in the first quarter of this year with an annualised rate of 2.3%. This was above both consensus expectations and the Commission Spring 2004 Forecasts. After sending somewhat mixed signals in the first months of the year, confidence and leading indicators have now taken a more upbeat tone on the back of strengthening business sentiment. This shows that some of the uncertainties that had hitherto weighed on confidence have been lifted. Overall, recent data suggest that our spring forecast of 1.7% GDP growth for 2004 – considered optimistic by some commentators at the time – now appears to have been somewhat on the low side.

However, some uncertainty still surrounds the outlook for next year. The recovery is not yet self-sustaining and, in the context of a maturing global trade cycle, robust domestic demand will become increasingly necessary. Recent developments on this front have been somewhat mixed. The upswing in private consumption during the first few months of 2004, while marking a welcome break with the previous period of stagnation, still looks somewhat fragile. On the investment side, preliminary first quarter estimates were somewhat disappointing, but they are likely to be revised upwards. All in all, the investment recovery seems to be pursuing its course underpinned by strengthening business confidence, low capital costs and improving profitability.

The recent increase in oil prices, meanwhile, is a cause for concern. However, the report suggests that higher oil prices should not be a major constraint on the euro-area recovery, for a number of reasons. First, the oil price increase at this stage is still relatively small in historical terms, and the economy's dependence on oil has significantly decreased. Second, an analysis of developments in the oil market indicates that the recent rise should be, at least to some extent, temporary. Finally, the experience of the 1999-2000 oil shock suggests that the euro-area economy can now absorb higher oil prices more effectively than in the past.

Nevertheless, a number of downside risks should be borne in mind. A further increase in oil prices, especially if it is more permanent, could inflict more serious damage on the euro-area economy. Furthermore, this oil price shock has hit the euro-area economy at an early stage of the recovery. While this should help ensure that wage claims remain moderate, it could also make business and consumer confidence more vulnerable to oil prices.

Moving on from the overall assessment of the economic situation, the report, as is customary at this time of the year, contains a focus section dedicated to the mid-year review of fiscal policies in the euro area. It looks at whether Member States' budgets for the current year are being implemented as planned and analyses possible reasons for divergence. Falling as it does in the midst of the budgetary preparations in most Member States, it also takes an early look at budgetary plans and developments in 2005. Member States' 2003 stability programme updates suggest an improvement in the nominal budget deficit for the euro area by about ½% of GDP in both 2004 and 2005. However, more recent indications paint a less sanguine picture about the budgetary adjustment that is in the pipeline.

According to the Commission's Spring Economic Forecasts, budgetary prospects for 2004 and 2005 are not especially promising. Following three years of fiscal slippages, both the actual and cyclically-adjusted budget balances of the euro area are projected to be broadly unchanged in 2004 and, if current policies are not changed, in 2005. Under that assumption, six Member States would post deficits above the 3% reference value in 2004 and/or 2005. Moreover, the updates of the stability programmes show that a close-to-balance position in cyclically-adjusted terms will not be reached in several countries by 2007.

Member States with excessive deficits would therefore be well advised to fully implement the measures they have committed to, in order to correct their excessive deficits by 2005. In some other Member States, additional efforts will be necessary in order to prevent deficits rising above 3% of GDP. More generally, Member States that do not yet have a budgetary position 'close to balance or in surplus', need to step up consolidation efforts to achieve the annual improvement in their cyclically-adjusted budget positions of at least 0.5% of GDP, as agreed upon in the Broad Economic Policy Guidelines which were confirmed by the European Council in June. This is particularly urgent since the window of opportunity before the impact of ageing is fully felt is small and closing. The nascent recovery provides an ideal opportunity to step up fiscal consolidation.

On this point, I would draw your attention to the historic agreement on the Constitution achieved at the June Brussels European Council and in particular to the annexed Declaration on the Stability and Growth Pact. It states that "Member States should use periods of economic recovery actively to consolidate public finances and improve their budgetary positions. The objective is to have a budgetary surplus in good times which creates the necessary room to accommodate economic downturns and thus contribute to the long-term sustainability of public finances."

The final section of the report focuses on business cycle convergence in the euro area. Prior to the launch of EMU, many commentators saw the possibility of insufficient cyclical synchronisation between euro-area Member States as a major source of concern on the grounds that it could hamper the conduct of monetary policy. The report shows that these fears were exaggerated. The euro area is already characterised by a high degree of cyclical convergence among its Member States and this will be deepened in the coming years. EMU is indeed turning out to be a major driver of trade and financial integration between Member States and stronger trade and financial links are known to enhance cyclical synchronisation.

EMU is not immune to forces of cyclical divergence, however. Divergence may arise because of country-specific shocks or differences in the transmission of common shocks. To ensure that EMU functions smoothly, it is important to strengthen the adjustment mechanisms that tend to counteract forces of cyclical divergence, including changes in external competitiveness and automatic fiscal stabilizers. Adjustment based on competitiveness has been at play since the launch of the single currency. However, because EMU is still characterised by significant price and wage rigidities, this adjustment mechanism is slow and can lead to costly periods of over- or undershooting. Further progress on structural reforms must therefore be made to enhance markets' capacity to cope with shocks. Budgetary consolidation must also be pursued in order to allow the full play of automatic stabilisers.

Joaquín ALMUNIA

MEMBER OF THE EUROPEAN
COMMISSION



I. Economic situation in the euro area

Recent data indicate that the euro-area recovery is now proceeding on firm ground. GDP growth came in somewhat stronger than expected in the first quarter thanks to a pick-up in private consumption and a sharp rebound of exports. After sending somewhat mixed signals in the first months of the year, survey indicators are again pointing upwards on the back of a revival in business confidence. The external sector also continues to be supportive; however, the recovery of domestic demand remains hesitant. After several quarters of stagnation, private consumption picked up speed during the first months of 2004, through this still appears fragile, with household confidence subdued and the labour market relatively weak. First estimates of investment growth in Q1 were disappointing but are likely to be revised upwards, and the recovery in investment seems to be continuing. The recent increase in oil prices poses a downside risk to the short-term growth outlook, but is small relative to the oil shocks of the 1970s or 1999-2000. Simulations suggest that its toll on growth will be limited in the euro area as a whole provided that it is only temporary, that wages and labour markets respond adequately and that growth in world trade is not overly affected. Nevertheless, the impact could be more significant in some Member States than in others, reflecting differences in energy intensity, the level of indirect taxation and the response of labour markets.

1. Recent economic developments and short-term prospects¹

GDP growth picked up in the first quarter

National account data for the first quarter of 2004 indicate that economic activity is progressively gaining momentum in the euro area. Quarter-on-quarter GDP growth picked up from 0.4% (revised upwards from 0.3%) in the last quarter of 2003 to 0.6% in the first quarter of

2004. The performance was slightly above consensus expectations but remained in the forecast range of 0.3-0.7% presented in the March Quarterly Report on the Euro Area. The acceleration of activity was attributable to a pick-up in private consumption, which expanded faster than at any time since the beginning of 2001, and a rebound in export growth. The inventory build-up, initiated in the last months of last year, continued in the first quarter of 2004, although at a slightly more moderate pace.

Table 1: Euro-area growth components

| | 2003 | 2003 | 2003 | 2004 | Carryover to 2004 | Forecast (1) | |
|---|------|------|------|------|----------------------|--------------|----------|
| | Q2 | Q3 | Q4 | Q1 | | 2004 (2) | 2005 (2) |
| % change on previous period, volumes | | | | | | | |
| GDP | -0.1 | 0.4 | 0.4 | 0.6 | 1.0 | 1.7 | 2.3 |
| Private consumption | -0.1 | 0.1 | 0.1 | 0.6 | 0.7 | 1.6 | 2.3 |
| Government consumption | 0.6 | 0.7 | 0.4 | -0.2 | 0.6 | 1.2 | 1.3 |
| Gross fixed capital formation | -0.3 | 0.1 | 0.6 | -0.1 | 0.3 | 2.4 | 3.6 |
| Changes in inventories (% of GDP) | 0.1 | -0.1 | 0.4 | 0.3 | 0.2 | 0.1 | 0.2 |
| Exports of goods and services | -0.9 | 2.3 | 0.2 | 1.7 | 2.7 | 4.9 | 5.9 |
| Imports of goods and services | -0.5 | 1.3 | 1.1 | 0.8 | 2.1 | 5.0 | 6.6 |
| % contribution to change in GDP | | | | | | | |
| Private consumption | 0.0 | 0.1 | 0.1 | 0.3 | 0.4 | 1.1 | 1.6 |
| Government consumption | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Gross fixed capital formation | -0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.5 | 0.7 |
| Changes in inventories | 0.0 | -0.2 | 0.5 | -0.1 | 0.2 | 0.0 | 0.1 |
| Net exports | -0.1 | 0.4 | -0.4 | 0.4 | 0.3 | 0.0 | -0.1 |

(1) Annual change in %. (2) European Commission Spring 2004 Forecasts.

Source: Commission services.

¹ The cut-off date for the statistics included in this issue was 30 June 2004.

Table 2: Selected euro-area and national leading indicators, 2003-2004

| | SENT. IND ¹⁾ | BCI ²⁾ | OECD ³⁾ | PMI ⁴⁾ | Reuters Ser ⁵⁾ | IFO ⁶⁾ | NBB ⁷⁾ | ZEW ⁸⁾ |
|---------------------------|-------------------------|-------------------|--------------------|-------------------|---------------------------|-------------------|-------------------|-------------------|
| Long-term average | 101.0 | 0.0 | 2.9 | 52.2 | 54.4 | 95.6 | -13.0 | 34.4 |
| Trough in latest downturn | 87.7 | -1.28 | -3.6 | 42.9 | 46.7 | 87.3 | -26.5 | -10.4 |
| August 2003 | 94.3 | -0.47 | 3.9 | 49.1 | 52.0 | 96.2 | -14.3 | 52.5 |
| September 2003 | 96.2 | -0.45 | 5.5 | 50.1 | 53.6 | 97.9 | -14.5 | 60.9 |
| October 2003 | 97.0 | -0.20 | 6.6 | 51.3 | 56.0 | 99.7 | -10.6 | 60.3 |
| November 2003 | 98.9 | 0.07 | 6.9 | 52.2 | 57.5 | 100.9 | -8.8 | 67.2 |
| December 2003 | 97.4 | 0.00 | 6.7 | 52.4 | 56.6 | 102.4 | -6.9 | 73.4 |
| January 2004 | 98.5 | 0.16 | 6.5 | 52.5 | 57.3 | 102.8 | -5.6 | 72.9 |
| February 2004 | 98.9 | 0.02 | 6.3 | 52.5 | 56.2 | 100.3 | -6.8 | 69.9 |
| March 2004 | 98.9 | -0.05 | 6.3 | 53.3 | 54.4 | 98.8 | -4.1 | 57.6 |
| April 2004 | 100.2 | 0.39 | 5.8 | 54.0 | 54.5 | 97.7 | -0.5 | 49.7 |
| May 2004 | 100.3 | 0.28 | | 54.7 | 55.8 | 97.8 | -2.5 | 46.4 |
| June 2004 | | | | | | | | 47.4 |

1) Economic sentiment indicator, DG ECFIN. 2) Business climate indicator, DG ECFIN. 3) Composite leading indicator, six monthly change. 4) Reuters Purchasing managers index, manufacturing. 5) Reuters Services purchasing manager index. 6) Business expectations, West Germany. 7) National Bank of Belgium indicator for manufacturing. 8) Business expectations of financial market analysts, Germany.

By contrast, the performance of investment was disappointing. After early signs of recovery at the end of last year, gross fixed capital formation contracted mildly again in Q1. Government consumption fell during the quarter for the first time since 1997, which is suggestive of a tighter control of government spending in some Member States.

The strengthening of growth in the first quarter was relatively broad-based across sectors, at least according to the 6-sector breakdown of GDP provided in quarterly accounts. Industry staged a strong performance with quarter-on-quarter growth accelerating from 0.5 to 1.1%. Activity also picked up in the service sectors, although more moderately and only for market-based services. In line with developments in government consumption, growth in non-market services decelerated sharply. The construction sector registered a marked contraction, suggesting that the weak performance of capital formation is rooted in developments in construction rather than equipment investment.²

Finally, it is noteworthy that the acceleration of growth was also broad-based geographically. Of the six Member States for which Q1 GDP estimates were available at the time of the publication of the euro-area GDP estimate, only two (the Netherlands and Spain) reported a mild deceleration of growth. Activity strengthened in

the three largest countries (Germany, France and Italy) as well as in Finland.

The hard data so far available for the second quarter of the year is still limited but the latest releases of industrial production, manufacturing new orders and retail sales were encouraging. Year-on-year growth in industrial output accelerated to 1.7-1.8% in March and April. Manufacturing new orders have shown strong momentum in the past few months with year-on-years growth at 6% in April. Finally, retail sales rose in April, pushing annual growth upwards to 0.9%, the best performance in 12 months.

Leading indicators point again upwards

After sending somewhat mixed signals in the first months of the year, survey indicators are again pointing upwards on the back of strengthening confidence in the business sector.

In the manufacturing sector, Reuters PMI increased significantly between February and May. After several months of fluctuations around its long-term average, ECFIN's Business Climate Index rose markedly in April – posting its largest monthly gain since 1985 – and increased further in June. The BCI is now at its highest level in more than three years.

To a lesser degree, recent developments have also been more upbeat in other sectors. Although it remained below the levels reached at the end of 2003 and early this year, Reuters service index

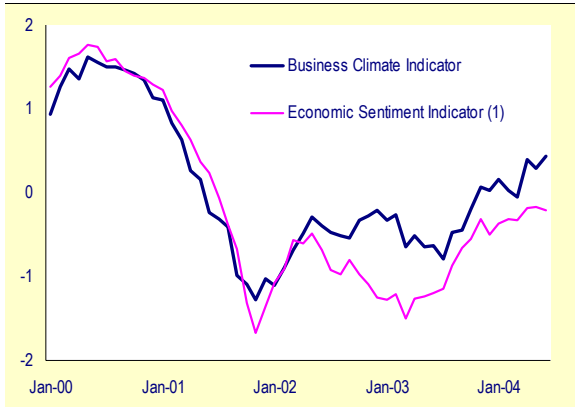
² Value added in the construction sector and construction investment tend to move in close tandem in the euro area.



surprised on the upside in May. The picture is more mixed for ECFIN's service indicator, which increased in May after six months of stagnation but retreated again in June on the back of increasing concerns regarding future demand prospects. Finally, confidence has been strengthening progressively since March in the construction sector.

By contrast, the situation appears somewhat less encouraging on the households' side. Consumer confidence has fluctuated around the same level since the end of last year. It dipped in May but regained the lost ground in June and remains below its long-term average.

Graph 1: Confidence indicators, euro area



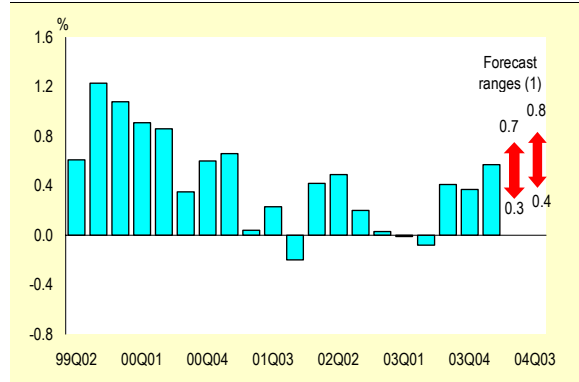
(1) Normalised.
Source: Commission services.

Notwithstanding the broad stagnation of household sentiment, confidence and leading indicators are now sending more upbeat signals than during the previous quarter, suggesting that some of the uncertainties that had weighed on confidence earlier this year have been lifted. ECFIN's Economic Sentiment Indicator, which combines data from manufacturing, service and household surveys,³ progressed significantly in April and May before retreating slightly in June. This suggests that, even though a marked acceleration of activity is unlikely in the short run, the recovery is proceeding on firm grounds.

³ The Economic Sentiment Indicator is a weighted sum of several confidence indicators compiled by DG ECFIN. It has recently been modified in order to cover confidence in the service sector in addition to household sentiment and confidence in the manufacturing, retail and construction sectors. As a result it now tracks annual changes in GDP more closely with a correlation exceeding 90%.

DG ECFIN's indicator-based model for quarterly GDP growth paints a similar picture. It forecasts GDP growth to be in a range of 0.3-0.7% in the second quarter before accelerating slightly to 0.4-0.8% in the third quarter.

Graph 2: GDP growth, euro area (quarter-on-quarter growth)

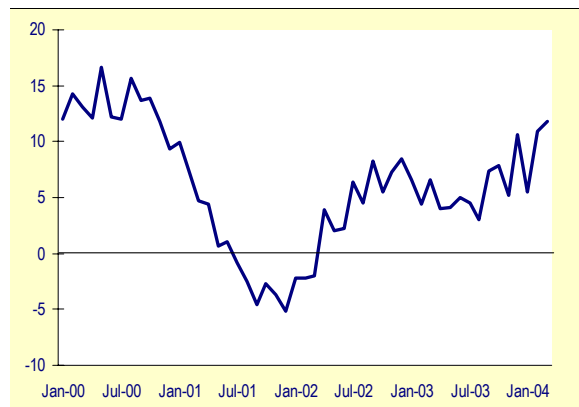


(1) ECFIN's indicator based forecast model.
Source: Commission services.

External trade continues to be a major stimulus to growth

Estimates provided by the CPB Netherlands Bureau of Economic Analysis indicate that world trade continued to expand rapidly during the first months of the year. In February and March – the latest available data – annual real growth of world imports entered into double-digit territory for the first time since early 2001 (Graph 3).

Graph 3: World trade (year-on-year % changes in volume)



Source: CPB Netherlands Bureau of Economic Analysis.

Nevertheless, an inflexion has been visible since the beginning of the year in the quarterly averages. Quarter-on-quarter growth in world trade was less buoyant in the first quarter of 2004 than in the second half of 2003. The slowdown was broad-based geographically, which might suggest that world trade is entering a more sustainable phase of growth after a very sharp cyclical rebound.

Looking ahead, the short-term outlook is for a continued solid expansion in world trade with robust growth in most parts of the global economy.

The US recovery consolidated in the first half of 2004 with the arrival of the long-awaited upturn in employment. Output is estimated to have grown by 3.9% at an annual rate in the first quarter and appears to have expanded at a similar rate in the second quarter. All components of domestic demand contributed to the expansion, while net exports exerted a drag. Although household spending may slow somewhat in the months to come, short-term growth prospects appear reasonably solid. However, the economy's internal and external imbalances continue to be a cause of concern for the medium-term outlook.

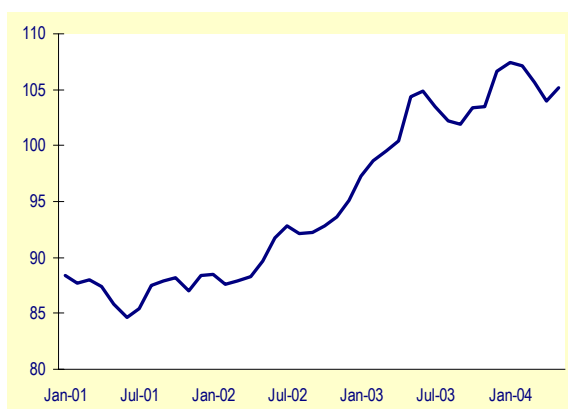
The Japanese economy has been experiencing a significant recovery and its short-term outlook continues to be favourable. Prospects for key export markets remain good and domestic demand is also supporting the recovery. GDP has been growing now for eight successive quarters and has outpaced the USA in the two most recent quarters. On a more negative tone, current statistics are, to some extent, overestimating growth. In addition, large structural imbalances remain, particularly in the financial sector.

Short-term prospects for emerging markets are also upbeat. Continued robust growth is expected in East Asian economies on the back of a strong international environment, competitive exchange rates and some policy stimulus. Latin America is also expected to experience solid growth, driven by the recoveries in Brazil and Argentina.

The robust momentum in world trade is providing a strong stimulus to euro-area exports. After a pause in the last quarter of 2003, euro-area exports of good and services resumed a

growth path in the first quarter of 2004, expanding by 1.7% in real non-annualised terms. This confirms the assessment made in the March Quarterly Report on the Euro Area, that the poor export performance registered in the last quarter of 2004 was more a statistical blip than a consequence of the strong euro.

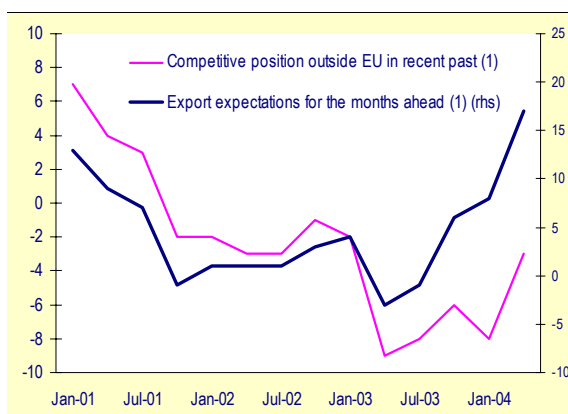
Graph 4: Real effective exchange rate, euro area (based on CPI - index 100 = average 1990-2003)



Source: ECB.

The recent weakening of the external value of the euro relative to its peak at the beginning of the year should provide further support to euro-area exports in the next few months. In May, the real effective exchange rate of the euro – based on CPI – had lost 2% relative to its peak in January and was back at its level of last summer.

Graph 5: Manufacturers' opinion on export prospects and competitiveness, euro area (1)



(1) Balance of positive and negative answers seasonally adjusted. Source: Commission services – Quarterly survey of the manufacturing industry.



The positive short-term outlook for exports is also reflected in manufacturing surveys. During the quarter to April, companies reported a sizeable improvement in their assessment of external competitiveness and further large gains in anticipated volumes of exports (Graph 5).

Short-term prospects for domestic demand still clouded by uncertainties

The acceleration of consumption growth in the euro area in the first quarter of 2004 comes after three quarters of near stagnation. However, it should be interpreted with caution for a number of reasons. For one thing, the strengthening of household spending does not appear very broad-based in geographical terms. Available data at the Member State level show a pronounced acceleration only in France, Italy and Belgium. By contrast, progress was limited in Germany, the Netherlands and Portugal. In addition, evidence on a number of fronts suggests that short-term prospects for private spending remain uncertain.

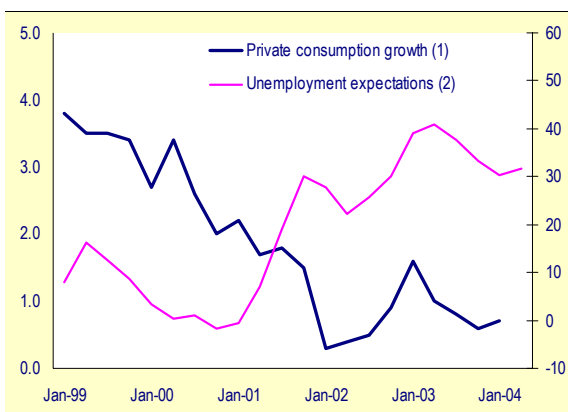
First, confidence indicators related to household spending remain disappointing. Consumer confidence is still below its long-term average. Confidence in the retail trade sector deteriorated again in May and June and is now back at its level of last December.

Second, the short-term outlook for employment is sluggish. After 12 consecutive months of stability at 8.9%, the unemployment rate drifted marginally upwards to 9.0% in April and May. Households' employment expectations have not improved significantly since the beginning of the year. By contrast, there have been encouraging signs of improvement in companies' employment expectations in most business surveys in the past three months. However, against the background of a moderate recovery and cost pressures from oil prices, the unemployment situation is unlikely to improve rapidly.

Finally, high oil prices will dent households' purchasing power in the months to come, with CPI inflation likely to stay above 2% for the remainder of the year. Recent price pressures related to oil have begun to be visible in household surveys. In May and June, households'

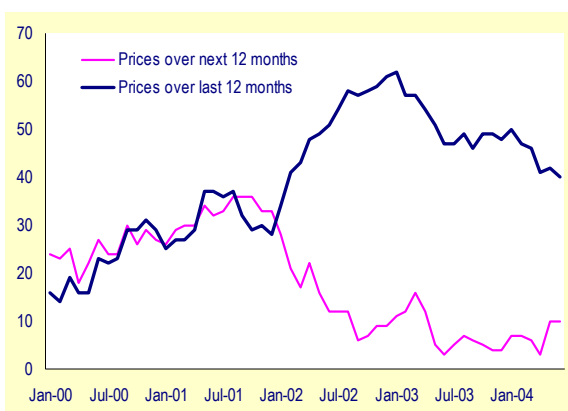
assessment of future price developments increased somewhat (Graph 7).

Graph 6: Private consumption and households' unemployment expectations, euro area



(1) Quarterly year-on-year growth in %.
(2) Quarterly averages of monthly unemployment expectations in consumer survey.
Source: Commission services.

Graph 7: Assessment of price trends in household surveys, euro area



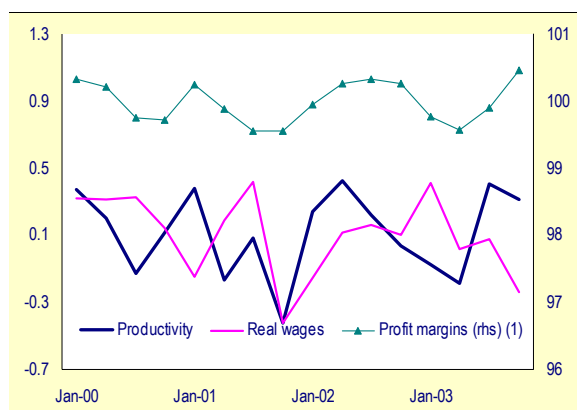
Source: Commission services.

The setback in investment growth in the first quarter of the year illustrates the uncertainty still surrounding the recovery in investment. After increasing by 0.6% in the last quarter of 2003, gross fixed capital formation stalled again in the first quarter of 2004 (-0.1%). However, looking at Member States' individual data, the setback is much less worrying than it may seem at first sight. The weak performance in capital formation during the first months of 2004 was entirely attributable to Germany where construction

investment contracted sharply, partly as a result of technical factors. In the other six Member States for which detailed national accounts are now available, capital formation actually picked up speed. Furthermore, Eurostat's Q1 estimate for the euro area was produced before detailed quarterly account data were made available for Italy. Recently released estimates point to an unexpectedly sharp acceleration of investment in Italy. This should lead to an upward revision of data for the euro area as a whole with capital formation likely to show modest growth in the first quarter.

Several factors indicate that the investment recovery should continue in the coming months. After a weak performance in January, industrial new orders increased strongly in February, March and April. In addition, fundamentals remain largely conducive to a recovery in investment. Profit margins as measured by the inverted real unit labour costs improved during the second half of 2003 (no data is yet available for the current year) on the back of a pick-up in labour productivity and persistent wage moderation (Graph 8). In addition, financing costs remain low by historical standards. Finally, business confidence in manufacturing and services has resumed an upward trend.

Graph 8: Labour productivity and profit margins, euro area (annual change in %)



(1) Inverted real unit labour costs – index 2000=100.

Source: Commission services.

Notwithstanding these positive developments, a slight deceleration of growth in corporate debt suggests that some factors are still weighing on investment decisions in the corporate sector and

slowing the speed of the investment recovery. According to ECB data, the growth rate of long-term debt financing to the non-financial corporate sector declined from 5.2% in the last quarter of 2003 to 4.2% in the first quarter of 2004. Despite improvements in balance sheets, the debt overhang remains substantial in the corporate sector and is seen as a possible drag on capital formation by many analysts. However, the fact that non-financial corporations have accumulated liquid financial assets at a rapid pace in recent months suggests that pressures on the funding side are limited.⁴ At this stage, the constraining factors on business investment are probably more related to a perceived lack of profitable non-financial investment opportunities and to uncertainties regarding the short-term growth outlook. Such uncertainties will be lifted progressively as signs of recovery multiply.

The recovery is consolidating but oil prices pose a downside risk

The European Commission's Spring Economic Forecasts project an acceleration of GDP growth in the euro area from 0.4% in 2003 to 1.7% in 2004. The recent developments in activity and confidence reviewed in this report are broadly in line with this projection. If anything, data suggest a pace of recovery that could be slightly more rapid than expected during the first half of the year. Risks to the recovery exist on both the upside and the downside.

On the upside, there are risks attached to the pace of recovery of domestic demand. Several years of sluggish growth in private spending could lead to the release of pent-up demand, especially on the household side. The surprisingly good showing by private consumption in the first quarter in some Member States exemplifies this possibility. Stronger than expected world demand is another upside risk.

On the downside, risks revolve around both domestic demand and key external prices. Regarding domestic demand, the recent negative surprise on investment growth highlights the uncertainty still surrounding the forces governing the recovery of domestic spending. As to the

⁴ See ECB Monthly Bulletin June 2004.



external sector, although recent developments in the euro exchange rate have slightly alleviated pressure on exporters, a further strengthening of the euro cannot be ruled out, especially given the prevailing imbalances in the US economy.

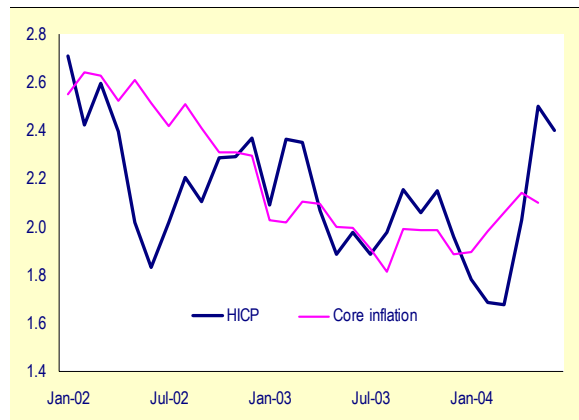
Another important source of downside risks is the recent increase in oil prices. Section 2 below discusses the implications of higher oil prices for growth in the euro area. It concludes that the recent increase in oil prices is fairly modest compared with the oil shocks of the 1970s or of 1999-2000 and should have only a relatively small negative impact on growth in the euro area provided that it is short-lived. However, downside risks are non-negligible. A further or more lasting increase of oil prices above the prevailing levels, negative responses of euro-area wages or a higher than expected vulnerability of emerging markets would all imply a more substantial growth toll on the euro-area economy.

Energy prices lift inflation to above 2%

After a steady deceleration in late 2003 and early 2004, HICP inflation again accelerated from March onwards. According to Eurostat's latest flash estimate, it was 2.4% in June – 0.7 of a percentage point higher than three months before. While such a rapid acceleration had not been observed for three years, it was largely anticipated. It was mainly related to changes in energy prices. Annual changes in the energy component of the HICP, which accounts for about 8% of the underlying consumption basket, rose from -2% in March to 6.7% in May. The rise can be explained by two factors.

- Firstly, the favourable base effects that contributed to the decline of inflation in the first two months of this year went into reverse in the subsequent three months, as oil and energy prices fell sharply after the start of the Iraq war in 2003. These base effects are estimated to have shaved off around 0.2 of a percentage point from headline inflation in January and February, while adding about the same amount in March, April and May.
- Secondly, the increases in crude oil prices over the past few months have begun to permeate into consumer prices.

Graph 9: Inflation in the euro area
(annual change in %) (1)



(1) June data for HICP is based on Eurostat's Flash Estimate.
Source: Commission services.

While core inflation remains lower than headline inflation, the downward trend in core inflation, visible in Graph 9, has come to an end. Core inflation as measured by the HICP excluding energy and unprocessed food has been above 2% since March.

The European Commission Spring 2004 Forecasts projected a decrease of the euro-area annual inflation rate from 2.1% in 2003 to 1.8% in 2004 and 1.6% in 2005. The anticipated deceleration of inflation reflected the impact of the appreciation of the euro, the prevailing negative output gap, muted wage pressures and a cyclical rebound in productivity. While these factors are still expected to exert downward pressure on prices, recent developments in energy prices are likely to have a significant upward impact on the short-term inflation outlook and suggest that inflation will remain above 2% for longer than expected.

A key aspect of the inflation outlook is whether the impulse from energy prices will initiate second-round effects through higher wage claims. Past experience shows that this is more likely to be the case when economic activity is strong and/or when the hike in energy prices feeds into inflation expectations. In this respect, the following developments in inflation expectations should be a source of concern:

- As already highlighted, households' short-term inflation expectations as measured by the EU consumer survey drifted upwards in May after having remained around a historical low

level for almost a year. If sustained, this increase could spill over into wage claims.

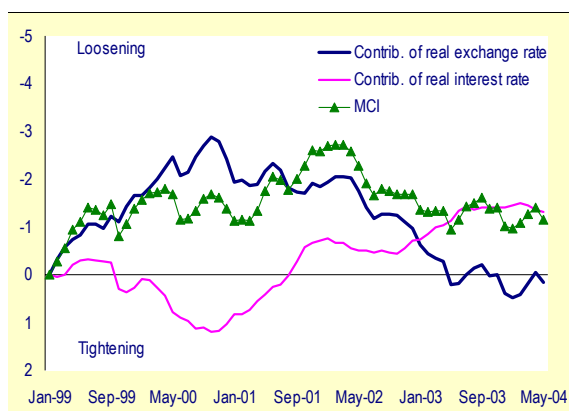
- Purchasing managers have reported rising input prices. Reuters PMI corresponding sub-index has increased considerably over the last few months, for both manufacturing and services.
- Long-term inflation expectations embedded in French index-linked bonds have been on an upward trend since summer 2003. In June 2004, the break-even rate was close to 2.3%.

Reassuringly, the experience of the 1999-2000 oil shock suggests that higher oil prices do not automatically become entrenched in higher trend inflation. A threefold increase in oil prices led to energy price inflation in the euro area rising at two-digit levels throughout 2000. The contribution of energy prices to overall HICP inflation increased sharply. Based on annual averages, energy price inflation added 1.1 percentage points to headline HICP inflation in 2000, pushing it to 2.1%, up from 1.1% in 1999. However, neither inflation expectations nor wage growth were significantly affected by these developments. Available data suggest that, in the absence of substantial second-round wage effects, most of the impact from oil prices takes about 1½ years to feed through into overall HICP inflation. In line with this rule of thumb, growth in HICP excluding energy peaked in January 2002 and fell over the following year.

Contrasting developments in monetary and financial conditions

Recent developments in monetary conditions in the euro area have been conducive to the economic recovery. The external value of the euro has come down from the high level reached at the beginning of the year. The depreciation mostly took place in March and April and was partly offset by a renewed strengthening in May. In May, the euro real exchange rate was around 2% below its peak in January. With fairly stable real interest rates, recent changes in monetary conditions, as measured by the MCI, have been dominated by fluctuations in the external value of the euro. Hence, monetary conditions eased between January and April before tightening slightly again in May (Graph 10).

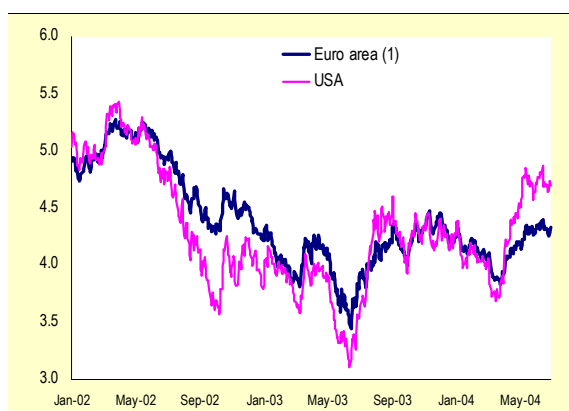
Graph 10: Monetary conditions, euro area
(index January 1999 = 0)



Source: Commission services

Recent developments in longer-term financial conditions have been somewhat less favourable. Government bond yields in the USA and the euro area have edged up since March 2004 (Graph 11). By end-June, the yield on 10-year US government bonds was at 4.7%, around 90 basis points above the level seen in March. Shadowing this development to some extent, yields on the German 10-year bonds – which is considered as the benchmark for the euro area – rose by 40 basis points to almost 4.3%. While neither the speed of the increase nor the current level of interest rates are exceptional, recent developments may signal a reversal of the downward trend observed since the last months of 2003.

Graph 11: Yields on 10-year bonds, euro area and USA



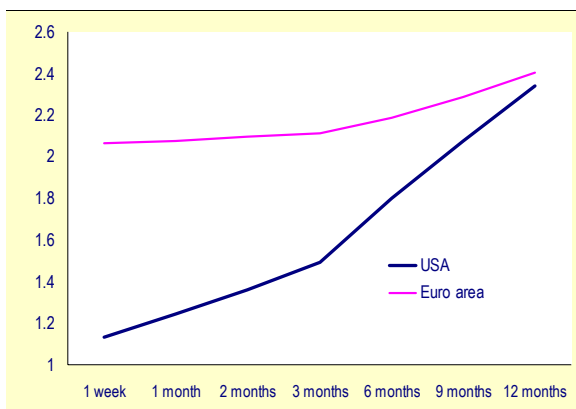
(1) German benchmark.

Source: Datastream.



A turnaround in expectations concerning the future path of central bank interest rates figures prominently among the explanatory factors for the observed increase in bond rates. This has been particularly true in the USA. Late June, the Fed's main policy rate had been at 1% for a year. Economic data releases pointing to accelerating growth, a tightening of the labour market and emerging price pressures have led many financial market participants to expect the US FED to tighten the monetary stance earlier and more forcefully than previously thought. Forward rates indicate that market participants now expect the FED to raise policy rates quite markedly (Graph 12). Spreads in the euro area have also increased, but by a considerably smaller magnitude. This is consistent with the view that the ECB has more leeway to keep policy rates at a low level than the FED, where short-term rates are at an extraordinarily low level.

Graph 12: Money market forward rates, euro area and USA (June 2004)



Source: Datastream.

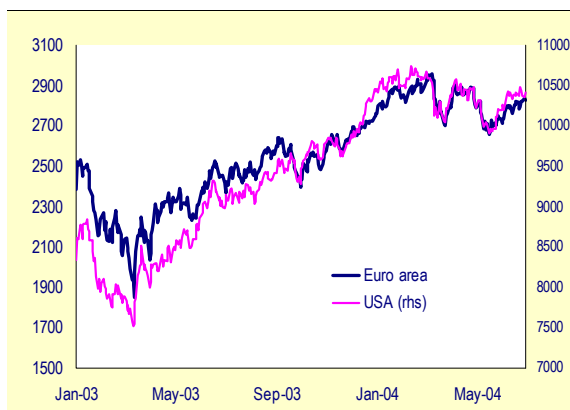
More generally, interest rates on bond markets have been at a historically low level for some time and the recent increase probably represents a return to a more balanced level. Interest rates tend to move with the business cycle, as returns on capital, inflation expectations and risk premiums tend to be lower in downturns than in expansions. These factors may have returned to levels more in line with the acceleration of growth witnessed in many parts of the global economy. There is for instance some evidence that recent increases in nominal bond yields reflect both an increase in the underlying real

interest rate and higher expected inflation.⁵ However, cyclical factors are pushing yields more significantly in the USA than in the euro area, as a result of a stronger increase of inflation expectations and better growth perspectives in the USA.⁶

Finally, there is evidence that perceived uncertainty among market participants has edged up again after having been on a downward trend from autumn 2003. This can be seen in a rising expected volatility on US bonds, as captured in option prices. The level of volatility is, however, still considerably below multi-annual averages.

Turning to stock prices, the upward trend which had been noticeable for a year came to a halt in early March in both the USA and the euro area. By mid-May 2004, stock market prices had lost between 8 and 10% (depending on the index chosen) relative to their previous peak. A recovery has been under way since mid-May but by end-June stock prices had only partly recouped the losses incurred in March and April. The weakness in stock prices is primarily a reflection of higher long-term interest rates. Higher oil prices and increased uncertainty may also have played a role. These negative factors have more than offset positive developments in terms of corporate profitability.

Graph 13: Stock market indices, euro area and USA



Source: Datastream.

⁵ The yield on the inflation-indexed bonds of the French government has risen by more than 40 basis points since mid-March.

⁶ 10-years bond market interest rates are now about 40 basis points lower in the euro area than in the USA. The difference was slightly negative from December to March.

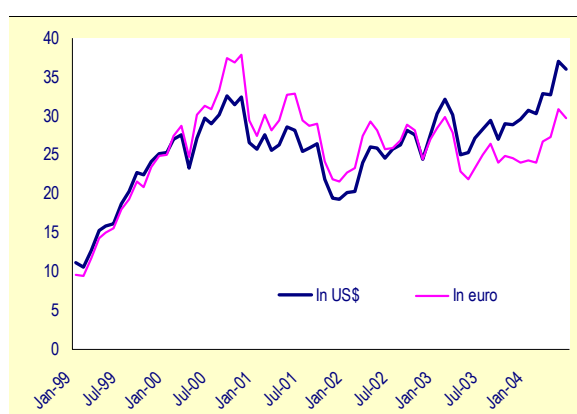
2. How vulnerable is the euro-area economy to higher oil prices?

Recent sharp increases in oil prices have renewed concerns about their potential impact on economic activity and inflation. This section discusses recent developments in oil markets and assesses the vulnerability of the euro-area economy to higher oil prices.

Recent developments in oil prices

In US dollar terms, the rising trend in oil prices has been evident for over a year, while the upward trend in euro dates to February this year. After reaching a low of about 23\$ per barrel at the end of April 2003, the price of Brent crude increased steadily, peaking at above 38\$ in early June 2004 before easing somewhat again to about 35\$ by end-June.

Graph 14: Oil price
(Brent crude, price per barrel, monthly averages)



Source: Commission services.

For euro-area companies and consumers, the appreciation of the euro initially cushioned the rise in the price of oil. However, in recent months, the slight decline in the value of the euro against the dollar has allowed the price increase to permeate through to the euro area. Based on monthly averages, the price of Brent increased by 44% in US\$ and 29% in euro between April 2003 and June 2004. The cushioning role of the euro is even more significant when looking at price developments since early 2002, with the price of Brent increasing by close to 79% in US\$ terms and only 31% in euro terms over the period.

High prices reflect supply factors with OPEC playing a key role...

A number of factors, on both the demand and supply sides have contributed to rising oil prices over the last year. On the supply side, OPEC has sought to offset the fall in the value of the US dollar over the past year by maintaining prices above its 22-28 US\$ price range. This is shown by developments in OPEC output. In the first quarter of 2004, OPEC production was 4%, higher than a year before but much of the increase reflected the return to near capacity of Venezuelan output, following earlier industrial relations problems (Table 3). Importantly, Saudi Arabia, the leading OPEC producer, reduced its output by 5% over the period despite large spare capacity.

Table 3: OPEC crude oil production and spare capacity (million barrels per day) (1)

| | Q1 2003 | Q1 2004 | Spare Capacity (2) |
|--------------|---------|---------|--------------------|
| Algeria | 1.04 | 1.14 | 0.11 |
| Indonesia | 1.04 | 0.98 | 0.12 |
| Iran | 3.79 | 3.92 | 0.08 |
| Kuwait | 1.77 | 1.95 | 0.35 |
| Libya | 1.39 | 1.47 | 0.08 |
| Neutral Zone | 0.6 | 0.6 | --- |
| Nigeria | 2.13 | 2.33 | 0.22 |
| Qatar | 0.74 | 0.75 | 0.10 |
| Saudi Arabia | 8.61 | 8.21 | 1.29 |
| UAE | 2.29 | 2.3 | 0.15 |
| Venezuela | 1.3 | 2.17 | 0.18 |
| Iraq | 2.12 | 2.11 | 0.69 |
| Total | 26.82 | 27.94 | 3.37 |

(1) Not including NGLs

(2) Spare capacity compared to Q1 04 output. Capacity levels can be reached in 30 days and sustained for 90 days. Saudi Arabia can produce a further 1.0 m b/d within 90 days

Source: IEA – Monthly Oil Market Report.

A longer term look at global oil supply (Table 4) shows that increased output since 2000 has come from non-OPEC sources, particularly Russia, despite the OPEC countries accounting for much of the existing spare capacity.



Table 4: The oil market – Supply and demand (million barrels per day)

| | 2000 | 2001 | 2002 | 2003 | 2004 | |
|-------------------------------------|------|------|------|------|-----------|------|
| | | | | | Total (1) | Q1 |
| Supply | 76.7 | 76.9 | 76.6 | 79.4 | --- | 81.8 |
| - OPEC | 30.7 | 30.2 | 28.6 | 30.5 | --- | 31.9 |
| - Non-OPEC | 46.1 | 46.7 | 48.1 | 48.9 | 50.1 | 49.8 |
| <i>of which Former Soviet Union</i> | 7.9 | 8.6 | 9.4 | 10.3 | 11.1 | 10.8 |
| Demand | 76.2 | 76.8 | 77.0 | 78.7 | 80.6 | 81.0 |
| - OECD | 47.8 | 47.8 | 47.8 | 48.5 | 49.0 | 49.7 |
| - Non-OECD | 28.4 | 29.0 | 29.3 | 30.2 | 31.6 | 31.2 |
| <i>of which China</i> | 4.7 | 4.7 | 4.9 | 5.5 | 6.2 | 6.2 |
| Changes in Stocks | 0.6 | 0.1 | -0.4 | 0.7 | --- | 0.8 |

(1) IEA estimate for 2004 as a whole.

Source: International Energy Agency – Monthly Oil Market Report May 2004.

The announcement on June 3, after the meeting of OPEC oil ministers, that the production quota was to be increased by 2 million barrels per day from July 1 and by a further 0.5 million barrels per day from August 1, apparently marked a reversal of OPEC's attempt to restrict output. However, it also reflected the fact that the fall in demand that OPEC had anticipated for spring 2004 had not come about. Moreover, it is unclear by how much production will actually be increased given that OPEC crude oil production in April exceeded official production quotas by an estimated 2.3 million barrels per day.

...as well as demand pressures related to economic growth and geopolitical concerns

Oil demand has increased as a result of both short and longer-term factors. The strong recovery of the global economy has resulted in strong growth in the demand for oil. The International Energy Agency (IEA) projects the rise in world oil demand in 2004 to be the largest absolute increase in 16 years.

China's fast rising energy consumption is fuelling much of the growth in oil demand. The IEA projects that Chinese consumption will rise by up to 20% on an annual basis in the second quarter of 2004, after growth of 18.5% in the first quarter. In addition to fast economic growth rates, the share of Chinese energy demand accounted for by oil continues to rise, boosted by strong growth in car-ownership. Table 4 shows that China is expected to account for around a third of the growth in world oil demand between

2000 and 2004. Overall demand in non-OECD countries is expected to grow by a total of 11% between 2000 and 2004 (accounting for over 70% of the overall increase in demand), compared with 3% for OECD countries.

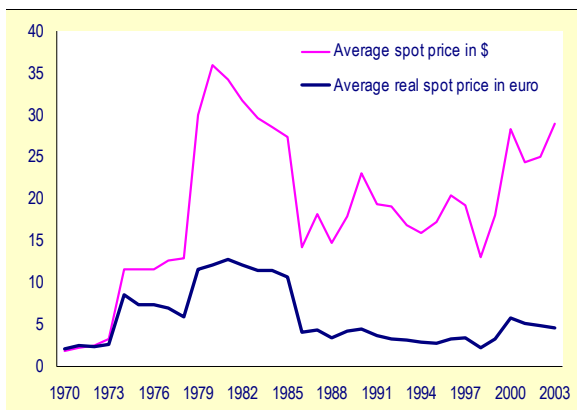
But a considerable share of the latest surge in demand appears to have been triggered by shorter-term factors. Concerns regarding security of supply resulting from geopolitical factors in the Middle East, which have been heightened by terrorist attacks on oil workers' compounds in Saudi Arabia, have encouraged strategic purchases. Geopolitical concerns have also fuelled speculative buying from hedge funds and traders, alongside continued demand from the growing number of commodity funds. This strategic and speculative demand comes on top of the boost to demand created by exceptionally harsh winter conditions in the US and higher-than-usual demand to build stocks due to the existing low stock environment, particularly in the US.

The mixture of short and longer-term factors affecting the oil price is reflected in developments in futures prices. Futures prices in late June showed that the price of Brent was expected to fall steadily to below \$30 /barrel by the end of 2006. But this represents a premium of around \$6, compared with the future price for mid-2006 which was being traded in June 2003. Thus whilst much of the recent price rise is clearly the result of short-term, possibly in part speculative factors, markets also expect some of the factors which have raised the price in recent months to persist into the medium-term.

A comparatively small shock the impact of which will depend on several factors

By historical standards, notably in comparison with the oil price shocks of the 1970s or 1999-2000, the increase in oil prices registered in the past months represents only a modest shock to the euro-area economy. Based on annual averages, the dollar price of the crude rose by 371% between 1972 and 1974, by 179% between 1978 and 1980 and by 116% between 1998 and 2000. In euro, the price rises were 343%, 156% and 162% respectively. By contrast, the increase observed in recent Months is small. In June 2004, prices in euro were only 35% above the lows briefly reached after the beginning of the Iraq war last year. They were also about 25% above, both the level in February 2004 and the average level in 2003. Such a rise does not qualify as a severe oil shock. Moreover, the real price of oil remains significantly below the price sustained in the first half of the 1980s following the second oil price shock (Graph 15).

Graph 15: Real and nominal oil prices (annual averages)



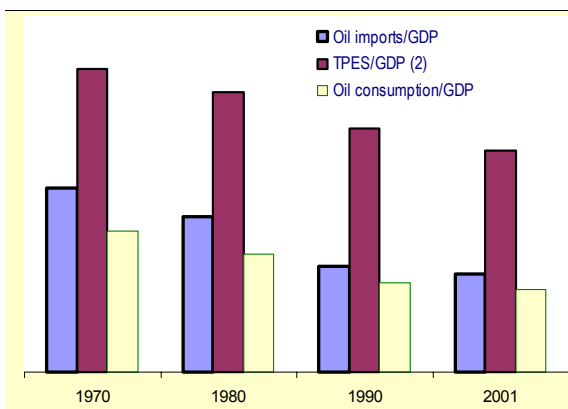
Source: Commission services.

In addition, the euro-area economy has significantly reduced its direct dependence on oil since the 1970s (Graph 16). Oil dependency, both in terms of net imports as a proportion of GDP and consumption as proportion of GDP, has fallen by over 40%.

Another factor that limits the economy's exposure to oil prices is the fact that taxes levied on fuel products in the euro area are dominated

by duties calculated per physical unit, as opposed to ad-valorem taxes. The former do not rise as the price of oil rises. As a consequence, percentage changes in after-tax prices of fuel products tend to be much lower than corresponding percentage changes in oil prices. Duties on fuel products levied on physical units have increased in the euro area over the last 30 years, and generally account for around half of the final price of petrol.

Graph 16: The dependence of the euro area on oil (1)



(1) Tonnes of oil equivalent per thousand 1995 euro.

(2) TPES: total primary energy supply.

Source: IEA and Commission services.

Turning to the economic impact, an increase in oil prices entails a transfer of income from oil-consuming to oil-producing countries. Consumers and producers in the oil-consuming countries share the burden of the transfer, via higher consumer prices for the former and pressures on profit margins for the latter. The cost of the transfer is determined not only by the economy's dependence on oil but also by its resilience to external shocks. In this respect several factors appear important.

- The inflationary impact of an increase in oil prices will be magnified if wage earners try to recoup losses in purchasing power through higher wage claims. Such second-round effects will force monetary authorities to tighten their policy.
- More generally, the impact of higher oil prices will depend on the prevailing macroeconomic environment. An increase in oil prices is likely to inflict more damage if it hits an economy in a situation of overheating or accelerating



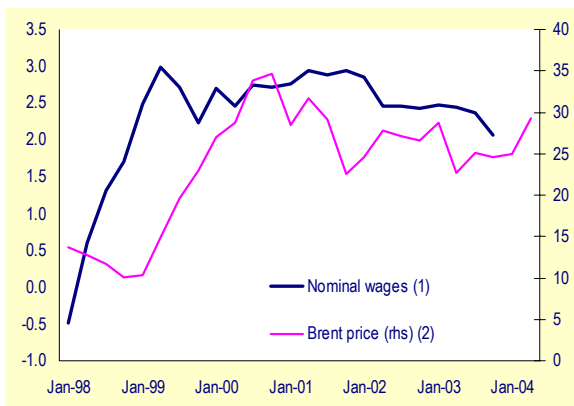
inflation. The response of macroeconomic policy is also crucial.

- Resilience will also depend on the response of household and business sentiment. An oil price shock may have a negative bearing on household and business confidence if, for instance, it heralds increased geopolitical and macroeconomic uncertainty.
- Finally, a critical factor will be economic agents' expectations regarding the length of the rise in oil prices. A rise perceived to be temporary may affect domestic demand more moderately because it may induce households to smooth consumption by temporarily reducing savings. By contrast, a rise perceived to be permanent will encourage companies to proceed with costly changes in technologies aimed at substituting oil with capital.

Lessons from the 1999-00 oil shock are encouraging

If we look at the response of the euro-area economy to the previous oil price increase in 1999-2000 – the first since the inception of EMU – the message is encouraging.

Graph 17: Oil prices and wages, euro area (quarterly data)



(1) Year-on-year changes in nominal wages.

(2) Euro per barrel of Brent.

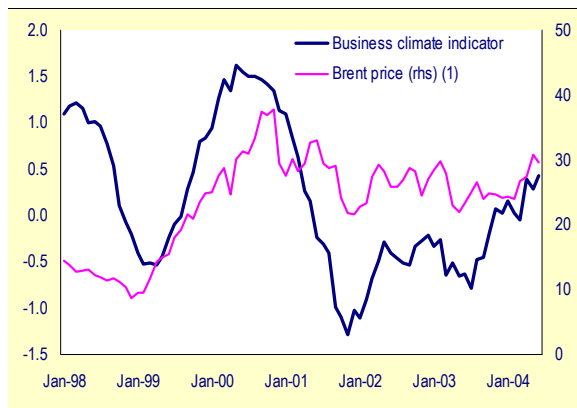
Source: Commission services.

Regarding labour markets, there is little evidence that the 1999-2000 oil shock had an impact on nominal wage developments (Graph 17). Wage moderation prevailed in a context of continuously decreasing unemployment. This

positive development reflects the fact that labour markets are functioning better than at the time of the oil shocks of the 1970s and, in particular, that automatic wage indexation is less prevalent. Given that the labour market is currently looser than in 2000 with unemployment still increasing, conditions are in place to ensure that the wage response to the recent oil price increase will be muted.

Turning to possible negative confidence effects, there has been little correlation between household or business sentiment and oil prices since the late 1990s and, insofar as any can be observed, it is – rather counterintuitively – positive. This is particularly clear in the case of manufacturing sentiment as measured by the Business Climate Indicator (Graph 18).

Graph 18: Oil prices and manufacturing confidence, euro area (monthly data)



(1) Euro per barrel of Brent.

Source: Commission services.

Looking further into households' behaviour, Graph 19 plots the euro-area saving ratio together with the price of Brent. Since the beginning of EMU, there has been no evidence of a rise in precautionary savings at times of higher oil prices. If anything, the inverse relation shown in the graph could be indicative of a certain degree of consumption smoothing. This is in line with research presented in a previous issue of the QREA which suggested that private consumption in the euro area follows a so-called error correction pattern.⁷ Error correction patterns imply that abrupt changes in disposable

⁷ Quarterly report on the Euro Area, Volume 3 No. 1 (2004), pp. 13-20.

Box 1: Simulating the impact of an increase in oil prices

The table presents two simulations carried out with DG ECFIN's QUEST model. The two scenarios correspond respectively to a temporary and a permanent 25% increase in oil price, occurring at the beginning of the year. It is important to stress that these simulations are purely illustrative and represent a bigger shock than the one incurred so far. If current trends are maintained, the average oil price in 2004 will be higher than assumed in the Commission's Spring 2004 Forecasts but, at about 10%, the increase will be much less than the one simulated here.

In the *temporary increase scenario*, euro-area GDP is reduced by slightly more than 0.3% in the first year. The oil price is back at its baseline level in the second year, but the negative shock on activity unwinds only progressively and GDP is still close to 0.2% lower than the baseline that year. In the third year, the impact of the shock is no longer noticeable. In the *permanent increase scenario*, GDP in the euro area is slightly less than 0.3% lower than the baseline in the first year. (*) The negative impact continues to be felt in the second and third year with GDP respectively 0.4% lower than the baseline.

Impact of a 25% increase in oil price, euro area
(differences in the level of the variables relative to baseline in %)

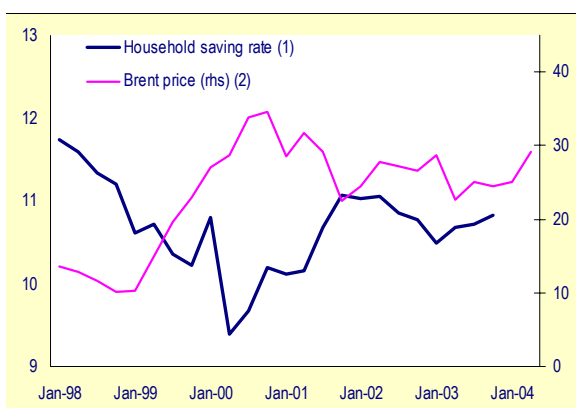
| | Year 1 | Year 2 | Year 3 |
|--|--------|--------|--------|
| Scenario 1: A temporary increase in oil price | | | |
| Oil price | 25 | 0 | 0 |
| GDP | -0.34 | -0.15 | -0.04 |
| Consumer prices | 0.19 | 0.09 | 0.02 |
| Scenario 2: A permanent increase in oil price | | | |
| Oil price | 25 | 25 | 25 |
| GDP | -0.29 | -0.38 | -0.41 |
| Consumer prices | 0.22 | 0.28 | 0.31 |

Source: Commission Services

(*) An oil price hike that is anticipated to be transitory will put less pressure on economic agents to adjust and should thereby imply lower output effects. However, for the euro area, the first-year GDP effect is slightly smaller for a permanent than for a transitory shock, because there is a small depreciation of the euro vis-à-vis the dollar in that case.

income are partly smoothed out by changes in the saving ratio. In this context, some consumption smoothing in case of large swings in oil prices is likely.

Graph 19: Oil prices and household saving, euro area
(quarterly data)



(1) As a share of GDP in % - scale is inverted.

(2) Euro per barrel of Brent.

Source: Commission services and Fagan et al. (2001).

A small impact but significant downside risks

Overall, the analysis presented here suggests that the recent increase in oil prices is likely to represent only a relatively small constraint on the euro-area recovery. Three main arguments support this sanguine assessment. First, the oil price increase at this stage remains relatively small in historical terms and the economy's exposure to oil has decreased considerably. Second, the analysis of developments in the oil market indicates that the recent increase should be essentially temporary. Finally, the experience of the 1999-2000 oil shock suggests that the euro-area economy can now absorb higher oil prices more effectively than in the past. The stability-oriented framework of EMU, with its clear objective in terms of price stability, is likely to lead to an appropriate policy response and to promote an adequate behaviour by all economic agents, particularly in terms of wages.

This relatively benign assessment is also backed by model simulations which indicate that a hike



in oil prices of the magnitude registered in the past months only has a limited impact on growth. According to DG ECFIN's QUEST model, a 25% increase in oil prices occurring at the beginning of the year and persisting for a year would shave 0.3% off GDP in the euro area in the first year. The negative effect would be partly recouped in the second year with GDP only 0.2% below its base line level and fully offset in the third year (see Box 1). Furthermore, it is worth stressing that, although oil prices in euro have risen by about 25% in the past four months, the shock for 2004 as a whole is likely to be much smaller if current trends are pursued. If the oil price registered in June is maintained throughout the remainder of year, the average annual increase in the Brent price will be of only about 12% in 2004 as a whole. The average price in 2004 will also be only 11% higher than assumed in the Commission Spring 2004 Forecasts. This represents a much more modest shock than assumed in the simulations above.

Nevertheless, recent developments in oil markets also pose significant downside risks. In particular, a further increase of oil prices relative to prevailing levels, especially if more permanent, could inflict more damage to the euro-area.

Another significant risk is linked to the current cyclical position of the euro-area economy. In the past, large hikes in oil prices generally hit the euro-area economy at times of a positive output gap. In contrast, the output gap is currently still negative. This should contribute to moderate wage claims in the face of rising inflation. However, the still relatively weak cyclical position could also make business and consumer confidence more vulnerable to oil prices.

Finally, some downside risks are attached to the response of emerging markets and world trade to the hike in oil prices. Previous oil shocks have always been associated with a slowdown in world trade as oil-importing countries had a higher propensity to consume than oil-exporting countries. The question of the vulnerability of world trade to higher oil price could be critical at this juncture. First, the euro-area recovery still relies heavily on trade. Second, growth in world trade may be more sensitive to rises in oil prices than in the past due to the growing importance of emerging markets such as China. Emerging

markets also tend to be more energy-intensive than more advanced economies and therefore more exposed to higher oil prices.

Possible large differences between countries

While the recent increase in oil prices is likely to have only a limited incidence on the euro-area economy as a whole, its impact could be more significant in some Member States than others. As shown in Table 5, the contribution of energy to HICP inflation during the 1999-2000 oil shock varied greatly between countries. Over that period, the increase in the energy component of the HICP directly dented households' purchasing power by 2.2pp in Greece and Belgium but by only 1.2pp in Italy and 0.3pp in Portugal.⁸

Table 5: Impact of the 1999-2000 oil shock on HICP, euro area

| | Change in energy comp. of HICP (1) | Energy weight in HICP (2) | Contrib. to change in HICP (3) |
|-------------|------------------------------------|---------------------------|--------------------------------|
| Belgium | 22.2 | 101 | 2.2 |
| Germany | 21.7 | 99 | 2.1 |
| Greece | 31.1 | 71 | 2.2 |
| Spain | 21.2 | 69 | 1.5 |
| France | 18.9 | 87 | 1.7 |
| Ireland | 19.3 | 99 | 1.9 |
| Italy | 17.3 | 70 | 1.2 |
| Luxemburg | 30.5 | 67 | 2.0 |
| Netherlands | 15.5 | 89 | 1.4 |
| Austria | 16.4 | 85 | 1.4 |
| Portugal | 2.8 | 92 | 0.3 |
| Finland | 19.2 | 108 | 2.1 |
| EU 12 | 19.8 | 87 | 1.7 |

(1) Percentage point change in energy component of HICP between January 1999 and March 2000.

(2) Weight of energy component in Member State's HICP (1999), total HICP=1000

(3) Contribution of energy component to change in HICP in %.

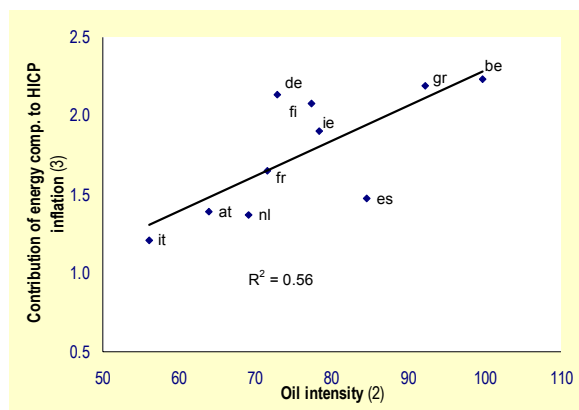
Source: Commission services.

Differences in oil intensity between Member States are the primary reason why the effect of oil price rises may vary between Member States. Graph 20 shows a positive relation between Member States' oil intensities and the

⁸ Further indirect price increases will take place as manufacturers pass through higher input costs into their sales prices. These indirect effects are not captured in Table 5 but may entail a substantial further cut in households' purchasing power.

contribution of the energy component to total HICP inflation during the 1999-2000 oil shock. The R^2 for the 12 Member States is only 0.07, but once two clear outliers (Luxemburg and Portugal) are excluded, oil intensity accounts for about 55% of the variance in the HICP contributions between Member States.

Graph 20: Oil intensity and the contribution of energy to HICP inflation, euro area (1) - 1999-2000 oil shock



(1) Excludes Portugal and Luxemburg, whose oil intensities are 92 and 149 respectively.

(2) Oil consumption in MTOE divided by GDP in PPS.

(3) See last column of Table 5.

Source: Commission services, IEA.

However, other factors will also affect the transmission from oil price rises to CPI rises.

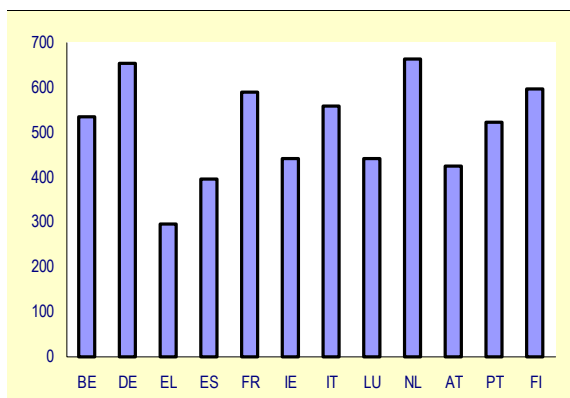
Firstly, excise duties on petrol vary considerably between Member States (Graph 21). Because excise duties on energy prices in the euro area are calculated on volume, rather than value, they act as a buffer between rises in oil prices and rises in petrol prices.

In the past, Member States have sometimes responded to oil price increases by adjusting indirect taxes on some oil products. This behaviour aggravates disparities in the price response of Member States and can therefore complicate the single monetary policy. Furthermore, changes in taxes tend to distort the price signals provided by the market about the relative scarcity of oil and therefore diminish the effectiveness of the economy's response.

Finally, the pass-through of increased crude oil prices into higher consumer prices may also be influenced by local market conditions. A

Commission report⁹ in 2000 noted that the major differences in consumer prices for oil products between Member States, cannot be explained solely by cost factors, but points to the existence of oligopolistic behaviour and a lack of competition in distribution.

Graph 21: Excise duties on petrol in Member States



(1) Average excise duty in euro on 1000 litres of petrol of euro-super 95, April 2004.

Source: Commission services

In addition to factors affecting the pass through of oil prices, another major source of potential country differences in the impact of higher oil prices is related to labour markets. Differences in labour market institutions and conditions between Member States can affect the extent to which workers seek to protect their real wages in the face of a sustained increase in oil prices. Estimations of wage equations point to large differences in the response of wages to terms-of-trade shocks across Member States¹⁰. The existence of wage indexation schemes in a limited number of countries is an example of these differences. It is also worth noting that there is a substantial asymmetry in the potential interactions between wage developments and monetary policy. Whereas second-round wage effects in the larger Member States will affect the euro-area average inflation rate and are therefore likely to trigger a rapid monetary policy response, this is not the case of smaller Member States. Wage earners in the latter may therefore be less inclined to moderate their wage claims.

⁹ European Commission (2000), 'The European Union's Oil Supply', DG Energy and Transport.

¹⁰ See European Commission (2003), 'The EU economy 2003 review', Chapter 4, *European Economy*, No. 6/2003.



Focus

II. Fiscal policy: mid-year review

According to the updated Stability Programmes presented by Member States in autumn 2003, the nominal budget balance in the euro area as a whole is expected to improve by almost half a percentage point of GDP in 2004, followed by a similar improvement in 2005. The projected improvement relies heavily on budgetary consolidation in the larger Member States. However, recent evidence paints a much less sanguine picture of budgetary consolidation in the euro area. The Commission Spring 2004 Economic Forecasts project no improvement in the nominal budget deficit of the euro area in 2004, leaving it close to 3% of GDP, and only a marginal improvement in 2005, unless policies change. Cyclically adjusted balances are also forecast to remain virtually unchanged. Furthermore, data released since the spring forecasts suggest that there is a risk that deficits in several countries could be higher than projected by the Commission in the spring.

1. Budgetary developments in 2004

Since the submission of the updated stability programmes in autumn 2003, the short-term growth prospects for the euro area have been virtually unchanged. Indications that the economic recovery is materialising imply that actual growth will be relatively close to the assumptions made in the programmes in most Member States. In 2004, growth in all countries,

except Italy, is expected to be within close range of the programme assumptions (Table 6).

According to the updated programmes, the nominal budget balances are expected to improve by 0.4% of GDP to 2.3% of GDP. This projected improvement between 2003 and 2004 is heavily dependent on budgetary consolidation in the larger Member States. Germany, France and Italy anticipate an improvement of the nominal and cyclically

Table 6: Comparison between Commission Spring 2004 Economic Forecasts (COM) and the autumn 2003 updates of the Stability Programme (SP) for 2004 (% of GDP)

| | Real GDP growth in 2004 | | Nominal budget balance | | | | Cyclically adjusted budget balance (1) | | |
|--------------|-------------------------|--------------|------------------------|-------------|--------------|------------------|--|------------------------|--------------|
| | SP scenario | COM forecast | 2003 | 2004 | | | 2003 | 2004 | |
| | | | | SP target | COM forecast | Differ. COM – SP | | SP implicit target (2) | COM forecast |
| BE | 1.8 | 2.0 | 0.3 | 0.0 | -0.5 | -0.5 | 0.8 | 0.6 | 0.0 |
| DE | 1.7 | 1.5 | -3.9 | -3¼ | -3.6 | -0.35 | -3.2 | -2½ | -3.0 |
| EL | 4.2 | 4.0 | -3.2 | -1.2 | -3.2 | -2.0 | -3.8 | -1.8 | -4.1 |
| ES | 3.0 | 2.8 | 0.3 | 0.0 | 0.4 | 0.4 | 0.4 | ---- | 0.6 |
| FR | 1.7 | 1.7 | -4.1 | -3.6 | -3.7 | -0.1 | -3.9 | -2.0 | -3.4 |
| IE | 3.3 | 3.7 | 0.2 | -1.1 | -0.8 | 0.3 | 0.1 | -0.5 | -0.3 |
| IT | 1.9 | 1.2 | -2.4 | -2.2 | -3.2 | -1.0 | -1.9 | -1.6 | -2.6 |
| LU | 2.0 | 2.4 | -0.1 | -0.7 | -1.2 | -0.5 | 1.3 | 1.0 | 0.6 |
| NL | 1.0 | 1.0 | -3.2 | -2.3 | -3.5 | -1.2 | -2.0 | -0.7 | -1.7 |
| AT | 1.9 | 1.8 | -1.3 | -0.7 | -1.1 | -0.4 | -1.0 | -0.4 | -0.9 |
| PT | 1.0 | 0.8 | -2.8 | -2.8 | -3.4 | -0.6 | -1.8 | -1.1 | -2.1 |
| FI | 2.7 | 2.6 | 2.3 | 1.7 | 2.0 | 0.3 | 2.3 | 2.4 | 2.1 |
| EU-12 | 2.0 | 1.7 | -2.7 | -2.3 | -2.7 | -0.4 | -2.2 | -1.5 | -2.2 |

(1) Estimates based on the Production Function approach except for DE, ES and AT for which a Hodrick-Prescott filter is used.

(2) Calculations are based on information provided in the SPs.

Source : Commission services.

Table 7: Comparison between Commission Spring 2004 Forecasts (COM) and autumn 2003 updates of Stability Programmes (SP) for 2005 (% of GDP)

| | Real GDP growth in 2005 | | Nominal budget balance | | | Cyclically adjusted budget balance (1) | |
|--------------|-------------------------|--------------|------------------------|--------------|---------------------|--|--------------|
| | SP scenario | COM forecast | SP target | COM forecast | Difference COM – SP | SP implicit target (2) | COM forecast |
| BE | 2.5 | 2.5 | 0.0 | -0.7 | -0.7 | 0.1 | -0.5 |
| DE | 2¼ | 1.8 | -2½ | -2.8 | -0.3 | -2.0 | -2.5 |
| EL | 3.8 | 3.3 | -0.5 | -2.8 | -2.3 | -1.1 | -3.8 |
| ES | 3.0 | 3.3 | 0.1 | 0.6 | -0.5 | --- | 0.7 |
| FR | 2.5 | 2.4 | -2.9 | -3.6 | -0.7 | -1.4 | -3.3 |
| IE | 5.2 | 4.6 | -1.4 | -1.0 | 0.4 | -0.4 | -0.2 |
| IT | 2.5 | 2.1 | -1.5 | -4.0 | -2.5 | -1.1 | -3.6 |
| LU | 3.8 | 3.1 | -2.3 | -2.3 | 0.0 | 0.6 | 1.2 |
| NL | 2½ | 1.6 | -1.6 | -3.3 | -1.7 | -0.5 | -1.3 |
| AT | 2.5 | 2.5 | -1.5 | -1.9 | -0.4 | -1.3 | -1.8 |
| PT | 2.8 | 2.2 | -2.2 | -3.8 | -1.6 | -0.6 | -2.6 |
| FI | 2.4 | 2.7 | 2.1 | 2.1 | 0.0 | 2.4 | 2.2 |
| EU-12 | 2.6 | 2.3 | -1.8 | -2.6 | -0.8 | -1.2 | -2.2 |

(1) Estimates based on the Production Function approach except for DE, ES and AT for which a Hodrick-Prescott filter is used.

(2) Calculations are based on information provided in the SPs.

Source: Commission services.

adjusted balances by at least 0.5% of GDP.

In sharp contrast with the relatively favourable picture displayed by the updated Stability Programmes, the Commission Spring 2004 Economic Forecasts project the euro-area nominal budget deficit in 2004 to remain unchanged relative to 2003 at 2.7%. Assuming no changes in fiscal policy, nine out of twelve Member States are expected to miss the budgetary targets set in the updates of the Stability Programme.¹¹ Greece, Italy and the Netherlands would even miss their target by one percentage point of GDP or more.

In 2003, nominal budget deficits turned out to be higher than (or equal to) 3% of GDP in four countries. According to the Commission Spring 2004 Economic Forecasts, the situation will deteriorate further this year despite an improved

economic outlook, with six countries anticipated to post nominal budget deficits exceeding 3% of GDP.

2. Budgetary prospects for 2005

For 2005, almost all programme updates assume an acceleration of growth compared to 2004. At euro-area level, the overall difference between the updated programmes and the Commission's Spring 2004 Economic Forecasts is of a similar magnitude as in 2004, with GDP growth about 0.3 percentage point higher in the updates. However, in several Member States the expected divergences from the programmes' growth assumptions are larger than for 2004. Hence, in seven Member States, growth is expected to be around half a percentage point lower in the Commission forecast than assumed in the updated programmes.

On the basis of the updated programmes the nominal budget deficit of the euro area is projected to be 1.8% of GDP in 2005. However, the Commission's Spring 2004 Economic Forecasts project a deficit of 2.6% of GDP. Table 7 indicates that, according to the Commission forecasts, nine Member States are

¹¹ The economic forecasts of the Commission are based on the "no policy change" assumption. Measures which have been publicly announced are taken into account in the forecasts, while general plans, which are not known in sufficient detail, are excluded from the forecasts. For 2005, as the budget is not yet elaborated, the "no-policy change" assumption implies the extrapolation of measures and trends that are known at the time of completion of the forecasts.



Table 8: Debt developments according to the updates of the Stability Programmes and Commission Spring 2004 Economic Forecasts (COM) (in % of GDP)

| | SP scenario | | | COM Forecast | | Difference COM - SP | |
|--------------|-------------|-------------|-------------|--------------|-------------|---------------------|------------|
| | 2003 | 2004 | 2005 | 2004 | 2005 | 2004 | 2005 |
| BE | 102.3 | 97.6 | 93.6 | 97.4 | 94.3 | -0.2 | 0.7 |
| DE | 64.0 | 65.0 | 65½ | 65.6 | 66.1 | 0.6 | 0.6 |
| EL | 101.7 | 98.5 | 94.6 | 102.8 | 101.7 | 4.3 | 7.1 |
| ES | 51.8 | 49.6 | 47.7 | 48.0 | 45.1 | -1.6 | -2.6 |
| FR | 61.4 | 62.8 | 63.2 | 64.6 | 65.6 | 1.8 | 2.4 |
| IE | 33.1 | 33.3 | 33.5 | 32.4 | 32.6 | -0.9 | -0.9 |
| IT | 106.0 | 105.0 | 103.0 | 106.0 | 106.0 | 1.0 | 3.0 |
| LU | 4.9 | 5.2 | 5.0 | 4.5 | 3.8 | -0.7 | -1.2 |
| NL | 54.0 | 54.5 | 53.7 | 56.3 | 58.6 | 1.8 | 4.9 |
| AT | 66.4 | 65.8 | 64.1 | 65.5 | 65.3 | -0.3 | 1.2 |
| PT | 59.5 | 60.0 | 59.7 | 60.7 | 62.0 | 0.7 | 2.3 |
| FI | 45.1 | 44.7 | 44.9 | 44.5 | 44.3 | -0.2 | -0.6 |
| EU-12 | 70.1 | 70.0 | 69.4 | 70.9 | 70.9 | 0.9 | 1.5 |

Source: Commission services.

expected to miss their budgetary target, four of them by more than one percentage point of GDP.

The difference between programme targets and the Commission's forecasts for 2005 partly reflects the gap already accumulated in 2004 combined with the difference in projected economic growth for 2005. They also reflect the fact that the 2005 figures in the programme updates depend, in varying degrees, on as yet unspecified budgetary measures that are not taken into account in the Commission forecasts.

Developments in the cyclically-adjusted balance. The expected developments in nominal budget balances are broadly reflected in the cyclically-adjusted balances (CAB). This implies significant discrepancies between the Commission forecasts and the updated programmes. On the basis of the programmes, the cyclically-adjusted balance for the euro area is expected to improve from a deficit of 1.9% in 2003 to a deficit of 1.5% in 2004 and of 1.2% in 2005. However, the Commission Spring 2004 Economic Forecasts, starting from a worse initial position in 2003 (a CAB of -2.2%), show no improvement in 2004 and 2005, implying a shortfall of 1% in 2005 vis-à-vis the programmes.

Behind the unchanged cyclically-adjusted balance of -2.2% of GDP in the period 2003-2005 for the euro area as a whole, there are marked differences between Member States. Whereas five Member States (Belgium, Spain, Ireland, Luxemburg and Finland) record a CAB 'close to balance or in surplus', none of the other Member States is expected to show an annual improvement of its CAB of at least 0.5 percentage points per year over the 2004-05 period. Member States have agreed to an annual reduction of the CAB in the common economic policy strategy for the medium term set out in the Broad Economic Policy Guidelines for 2003-2005. In this way Member States would help to prepare for the budgetary costs of the ageing populations while allowing the full working of automatic stabilisers in the next economic downturn. Between 2003 and 2005, the CAB is now forecast to deteriorate in half of the Member States, unless policies change.

Debt developments. The programme updates project no change to the gross debt-to-GDP ratio in the euro area from 2003 (70.1%) to 2004 (70.0%). In 2005 this ratio is expected to decline to 69.4% of GDP. Compared to the deterioration in 2003 by 1 percentage point of GDP, the improvement in the trend is expected to come mainly from higher nominal GDP growth already in 2004, supported by an improved primary balance in 2005.

Conversely, the Commission Spring 2004 Economic Forecasts projects the gross debt-to-GDP ratio to increase further to 70.9% in 2004 and remain at that level in 2005. In particular, Greece, France, Italy, the Netherlands and Portugal are expected to perform worse than the path in their updated programmes, mainly reflecting expected deviations from their deficit targets and stock-flow effects.¹²

Table 8 shows that seven Member States are expected to have debt levels above the 60% of GDP ceiling in 2005 (Belgium, Germany, Greece, France, Italy, Austria and Portugal). With the notable exception of Belgium and Austria, all countries with debt levels above 60% of GDP are expected to record increases in their level between 2003 and 2005. Only 4 countries are expected to meet their programme targets in 2004 and 2005.

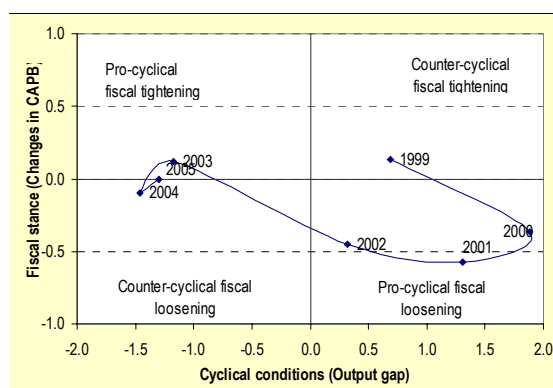
3. Fiscal policy and fiscal stance

Looking at the development of the fiscal stance in the euro area, Graph 22 displays the changes in the cyclically adjusted primary balance¹³ in relation to cyclical conditions as measured by the output gap. In the graph, fiscal behaviour in accordance with the Stability and Growth Pact would be represented by movements along the horizontal axis. In other words, countries would achieve and maintain broadly balanced budgets over the economic cycle. Thus, changes in the output gap would not imply movements in the CAPB. However, as long as a Member State has not yet reached the medium-term target of the SGP, a restrictive fiscal stance – i.e. a positive change in CAPB, in the upper-half of the graph would be needed for a number of years.

The graph shows that the fiscal stance was broadly neutral in 1999 before turning clearly expansionary between 2000 and 2002. Hence, the slippage in the overall euro-area budget

deficit in the past few years, although mainly a reflection of the deterioration of economic activity, is also partly attributable to a couple of years of pro-cyclical fiscal loosening (see Box 2 for a discussion of the fiscal slippage in the euro area). The fiscal stance turned neutral again in 2003 while the output gap deteriorated sharply. Looking ahead, the euro area fiscal stance is – on the basis of unchanged policies – projected to continue to be neutral in 2004 and 2005. Lessons from the past show, however, that special efforts to improve the underlying budget positions should be made as economic conditions improve, in order to ensure sufficient room for the automatic stabilisers to operate in the next downturn.

Graph 22: Euro-area fiscal stance and cyclical conditions, 1999-2005



Source: Commission services.

4. Developments in Member States with high or excessive deficits

Particular attention should be paid to the six Member States with high or excessive deficits. Germany, France, the Netherlands and Greece are currently in the so-called excessive deficit procedure of the EU fiscal framework, since they realised budget deficits above 3% of GDP in 2003. They are committed to reducing their deficits to below 3% of GDP by 2005. Moreover, on the basis of an unchanged policy assumption, Italy and Portugal risk recording a deficit above 3% of GDP in 2004, which would initiate the excessive deficit procedure.

Recent information on the individual Member States' growth developments and budgetary

¹² Stock-flow effects refer to all effects which account for differences between government net borrowing and the variation in the stock of gross public debt. This includes for instance changes in the value of debt denominated in foreign currency.

¹³ The cyclically adjusted primary balance equals the cyclically adjusted balance excluding interest payments.



execution suggests that in Germany budget deficits in both 2004 and 2005 will be higher than projected in the Commission's Spring forecasts. An apparent tax-unfavourable composition of growth is likely to lead to a higher than expected budget deficit in 2004. A negative base effect from 2004 may also lead to an upward revision of the deficit in 2005. In France, the positive budgetary impact of better than expected economic developments has been countered by base effects and recent deficit-increasing policy adjustments. However, at the Ecofin Council of 25 November 2003, both Germany and France committed themselves to reducing the deficit below 3% of GDP in 2005. Provided the governments implement the adjustments they have committed to, excessive deficits currently existing in Germany and France can be corrected in 2005.

The 2004 budget deficit in the Netherlands is expected to be reduced as compared to previous estimates by a supplementary fiscal package

adopted by the government by mid-April. It is expected to come down slightly from the high of 3.2% recorded in 2003 which resulted in the opening of the excessive deficit procedure. It is likely to fall below 3% next year if the government implements the additional measures intended for the 2005 Budget.

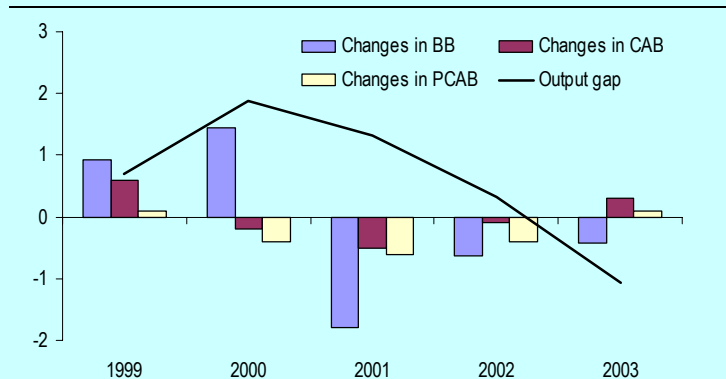
In contrast, the correction of the excessive deficit in Greece and the avoidance of its occurrence in Italy and its re-occurrence in Portugal demand significant additional measures to be taken, including in the current year. In Greece, there is particular uncertainty in view of data revisions clouding the forecasts for 2004 and 2005.

In addition to avoiding excessive deficits, further budgetary consolidation efforts are also necessary in these six countries, as well as in Austria, in order to progress towards a budgetary position 'close to balance or in surplus'.

Box 2: Reviewing fiscal slippage in 1999-2003

The overall stance of fiscal policy in the euro area (as measured by the change in the cyclically adjusted primary balance) became expansionary after the introduction of the single currency in 1999. Nominal budget balances, however, generally improved, due to buoyant cyclical conditions. All Member States recorded remarkable improvements in nominal balances in 1999 and 2000. These developments mainly reflected the unexpected acceleration in economic growth and a strong rise in financial asset prices, which buoyed revenues. Furthermore in 2000, additional and exceptional receipts arose from the auctions of UMTS licences. Although nominal balances improved, the cyclically adjusted (primary) balances deteriorated.

Changes in budget balances in the euro area, 1999-2003 (% of GDP) (1)



(1) BB: budget balance, CAB: cyclically adjusted budget balance, PCAB: cyclically adjusted primary balance.
Source: Commission services.

The worsening in economic conditions starting in 2001 reversed the rosy picture of 1999 and 2000, and nominal budget deficits grew rapidly. After having achieved a surplus in 2000, the euro-area nominal budget deficit stands at 2.7% of GDP in 2003, which is almost 1½ percentage points of GDP higher than in 1999. Although the economic slowdown was the main factor responsible for the deterioration in public finances in recent years, an important part of the deterioration stemmed from a worsening in the cyclically-adjusted budget balance (CAB). The CAB for the euro area in fact decreased from -1.7% in 1999 to -2.2% in 2003. While some half of the euro-area Member States completed the transition to budget positions of ‘close to balance or in surplus’, the larger countries in EMU have been amongst the group where underlying budgetary positions have failed to improve.

The euro-area Member States which showed the largest deterioration in the CABs between 1999 and 2003 (Germany, France and Greece) also exhibited the largest CAB and nominal deficits in 2003. The output gap deterioration in these countries was smaller than the average deterioration in the euro area. The countries with the largest swings in the output gap exhibited mixed fiscal developments. Austria and Portugal that experienced drops in the output gap by around 5%, strongly improved their CAB. Ireland and the Netherlands, which experienced similar drops in the output gap, let their CAB deteriorate somewhat.

Changes in budget balances 1999-2003, euro-area Member States:

| | Nominal budget balances (1) | | | Cyclically adjusted budget balances (2) | | | Output gap (3) | | |
|-------|-----------------------------|------|--------|---|------|--------|----------------|------|--------|
| | 1999 | 2003 | Change | 1999 | 2003 | Change | 1999 | 2003 | Change |
| BE | -0.5 | 0.3 | 0.7 | -1.1 | 0.8 | 1.9 | 1.1 | -0.8 | -1.8 |
| DE | -1.5 | -3.9 | -2.4 | -1.5 | -3.2 | -1.7 | 0.0 | -1.4 | -1.5 |
| EL | -1.8 | -3.2 | -1.4 | -1.3 | -3.8 | -2.5 | -1.0 | 1.5 | 2.6 |
| ES | -1.2 | 0.3 | 1.5 | -1.5 | 0.4 | 1.9 | 0.8 | -0.1 | -0.9 |
| FR | -1.8 | -4.1 | -2.3 | -2.2 | -3.9 | -1.7 | 1.1 | -0.5 | -1.6 |
| IE | 2.4 | 0.2 | -2.2 | 0.9 | 0.1 | -0.8 | 4.6 | 0.3 | -4.3 |
| IT | -1.7 | -2.4 | -0.7 | -1.9 | -1.9 | 0.0 | 0.4 | -1.2 | -1.6 |
| LU | 3.7 | -0.1 | -3.9 | 2.0 | 1.3 | -0.7 | 3.1 | -2.3 | -5.4 |
| NL | 0.7 | -3.2 | -3.8 | -1.7 | -2.0 | -0.3 | 3.7 | -1.7 | -5.4 |
| AT | -2.3 | -1.3 | 1.0 | -2.5 | -1.0 | 1.4 | 0.7 | -0.8 | -1.6 |
| PT | -2.8 | -2.8 | 0.0 | -3.5 | -1.8 | 1.7 | 1.8 | -2.8 | -4.7 |
| FI | 2.2 | 2.3 | 0.1 | 0.6 | 2.3 | 1.8 | 2.4 | -0.1 | -2.5 |
| EU-12 | -1.3 | -2.7 | -1.4 | -1.7 | -2.2 | -0.5 | 0.7 | -1.1 | -1.8 |

(1) Data about Budget Balance includes UMTS receipts.

(2) Data on CAB are netted of UMTS receipts.

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

Source: Commission services.



Focus

III. Cyclical convergence in the euro area: recent developments and policy implications

EMU is characterised by a high degree of cyclical convergence between participating Member States. Convergence is largely an EMU-specific factor rather than a reflection of the emergence of a world business cycle. It owes much to trade and financial integration and the convergence of macroeconomic policies within the euro area. As EMU is proving to be a major driving force of economic integration, it should also foster cyclical convergence still further in the years to come. Nevertheless, EMU is not exempt from forces of cyclical divergence, as shown by a temporary rise of output gap disparities in the late 1990s. This phase of divergence can be explained by asymmetries related to the launch of the euro and differences in the transmission of common shocks. EMU contains a number of adjustment mechanisms that tend to counteract forces of cyclical divergence, including changes in external competitiveness and automatic fiscal stabilisers. These adjustment mechanisms have been at play in recent years. However, due to prevailing price and wage rigidities, adjustment based on competitiveness can be slow and involve costly over/undershooting. To limit cyclical divergence and enhance the effectiveness of the adjustment mechanisms, further progress with structural reforms and budgetary consolidation are both essential.

1. Introduction

The first years of EMU have seen persistent differences in economic growth between participating Member States. In 2003, the fastest growing country enjoyed a GDP growth rate which was 5.5 percentage points higher than that of the poorest performer. The size of the gap was by no means exceptional and was, in fact, slightly below the average registered since the inception of the single currency.

Growth differences between two countries can be of a cyclical nature, reflecting the fact that countries are positioned at different stages of the business cycle or are subject to business cycles of different lengths or amplitudes. They can also reflect divergence in long-term growth patterns. Whereas the business cycle was the main source of growth differences between euro-area Member States in the 1970s and the 1980s, differences in long-term growth gained in importance in the 1990s and now account for about two thirds of GDP growth differences.¹⁴

The coverage of the present Focus Section is restricted to an analysis of cyclical convergence/divergence in the euro area. Despite a decrease in their relative importance in recent years, cyclical differences between

Member States remain a possible source of concern for the conduct of macroeconomic policies. Excessive cyclical divergence can impair the smooth functioning of an economic and monetary union and, in particular, complicate the conduct of monetary policy. In contrast, divergences in long-term growth are, to a large extent, a lesser concern for macroeconomic stabilisation policies.¹⁵ Significant disparities in long-term growth patterns may actually be economically warranted if they result from a catching-up process characterised by faster growth in low income countries.

2. Recent developments in cyclical convergence in the euro area

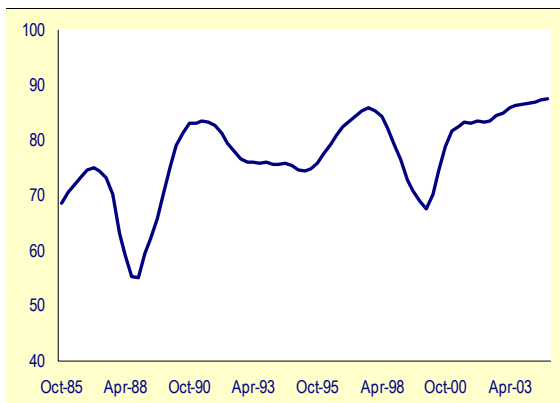
Statistical theory offers a large variety of techniques to measure business cycles and their degree of convergence across countries. Graph 23 displays the unweighted average of the correlations of each Member State's output gap with the euro-area's output gap. Such a measure captures the extent to which national cycles are moving in tandem. The correlations are based on quarterly data and calculated for a

¹⁴ Based on a decomposition of the variance of growth across Member States into a cyclical and a trend component (HP filter).

¹⁵ Nevertheless, to the extent that they give rise to differences in inflation with the so-called Balassa-Samuelson effect, differences in long-term growth can lead to lasting differences in real interest rates and hinder the proper conduct of the single monetary policy.

rolling window of 8 years. Due to data limitations in quarterly accounts, Greece, Ireland and Luxembourg are excluded.

Graph 23: Average output gap correlation of euro-area Member States' (1) (8-year window - in %)



(1) Average of the correlation of individual Member State's output gap with the overall euro-area output gap (excluding the Member State itself). Output gaps are calculated with an HP filter on quarterly GDP data. Due to data limitations, EL, IE, LU are excluded.
Source: Commission services.

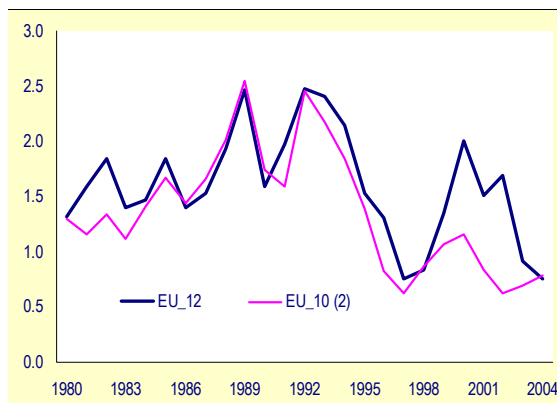
The graph points to an overall high level of cyclical synchronisation between euro-area Member States since the late 1980s. Synchronisation decreased briefly after the mid-1990s but renewed with a moderate upward trend after 2000 and now stands at its highest level in the past two decades.

The picture of a high level of cyclical convergence in the euro area is also backed by an alternative measure of convergence, namely the dispersion of Member States' output gaps around their mean. As shown in Graph 24, the dispersion of output gap points to a phase of cyclical divergence in the euro area in the late 1990s followed by renewed convergence during the 2001-03 downturn. Nevertheless, these divergence and convergence phases largely reflect the overheating and the subsequent cooling off of the Irish and Luxembourg economies.¹⁶ Excluding these two countries, the two phases appear much more muted and the overall level of cyclical convergence has

¹⁶ In 2000, Ireland and Luxembourg were posting output gaps three times as large as the euro-area average. Given that Graph 2 is based on unweighted standard deviation, it tends to be dominated by these two outliers.

remained high by historical standards since the launch of EMU.

Graph 24: Dispersion of Member States' output gaps, euro area (1) (in %)



(1) Output gaps are calculated with an HP filter on annual GDP data. Dispersion is measured by the standard deviation.

(2) Excluding Ireland and Luxembourg.

Source: Commission services.

Overall, the early years of EMU have been marked by close synchronisation of fluctuations in Member States' activity (Graph 23) even if some of them have experienced sharper cycles than others (Graph 24). This is suggestive of an environment where asymmetric shocks have been limited¹⁷ and where some countries have responded more strongly than others to common shocks.

Looking further into the characteristics of cyclical convergence in EMU, the central role of investment stands out. Graph 25 on page 31 displays the contributions of GDP components to the overall cyclical correlation between Member States displayed in Graph 23.¹⁸ Private consumption and investment emerge as the two major sources of cyclical convergence in the euro area. The contribution of investment is striking as it is much larger than the share of investment in GDP, indicating the central role played by capital formation in cyclical

¹⁷ Important asymmetric shocks in some countries should be reflected in a shift of the cycle of these countries relative to the euro-area cycle. There is no track of such shifts in the cyclical correlations presented in Graph 1.

¹⁸ To facilitate reading, the graph omits the contribution of inventories which is rather low.



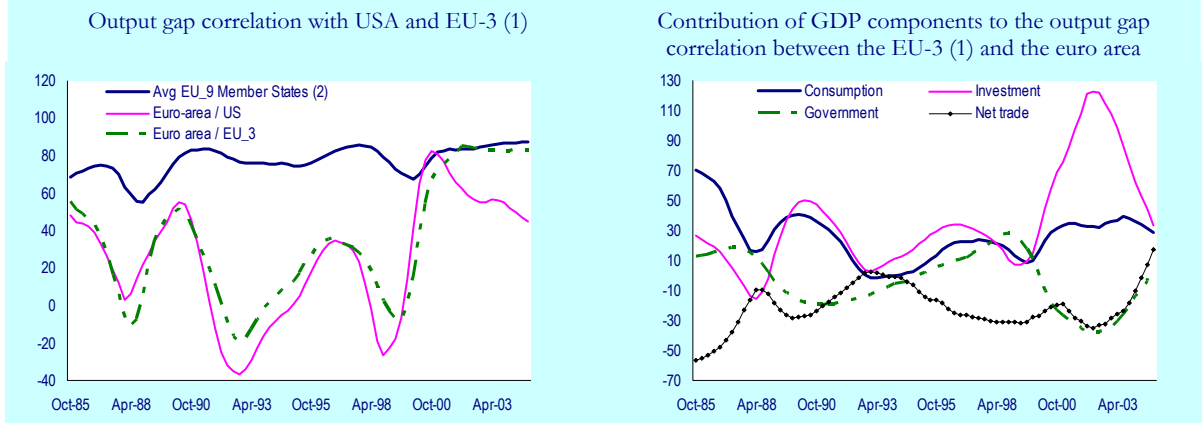
Box 3: Cyclical convergence within the euro area - global trend or an EMU-specific factor?

The objective of the present box is to ascertain to what extent cyclical convergence in the euro area reflects EMU-specific factors or more global trends. OECD countries have experienced a strong convergence in business cycles since the second half of the 1990s on the back of rising trade and financial integration as well as forceful common shocks. The high level of cyclical synchronisation observed in EMU could therefore be partly explained by the emergence of a world business cycle or by the temporary consequence of common shocks.

The graph below compares cyclical convergence between euro-area Member States with cyclical convergence between the euro area and third countries. The left-hand panel of the graph plots the measure of intra-euro-area cyclical correlation presented in Graph 23 together with similar measures of cyclical correlation between, on the one hand, the euro area and, on the other hand, the USA or EU countries not participating in EMU (due to data limitation, these are restricted to Denmark, Sweden and the UK and do not include the 10 new Member States).

Cyclical correlation between the euro area and some other OECD countries

(8-year window – in %)



(1) Average correlation for DK, SE, UK.

(2) Average output gap correlation of euro-area Member States' as displayed in Graph 23. EU-9 is euro area except EL, IE, LU.

Source: Commission services.

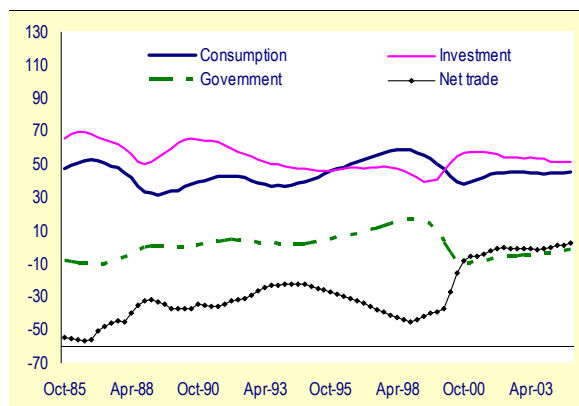
The graph shows that, over the past two decades, cyclical synchronisation has tended to be much higher between euro-area Member States than between the euro area and other EU countries (EU-3) or the USA. However, a substantial increase in synchronisation between the euro area and third countries is clearly visible in the late 1990s and early 2000s. The convergence is short-lived in the case of the USA but more lasting in the case of the EU-3.

The temporary nature of the rise in cyclical correlation with the USA points a priori to common shocks as a key factor of cyclical convergence in OECD countries in recent years. The common shocks explanation seems to be difficult to reconcile with the apparent persistence of the convergence process in the case of EMU-3. However, before concluding that EU-wide factors (as opposed to EMU-specific factors) have been at play in the cyclical convergence process since the late 1990s, it is worth looking in more detail into the euro-area/EU-3 correlation. The right-hand panel of the above graph displays the contribution of GDP components to the overall cyclical correlation between the euro area and the EU-3. A striking feature of the graph is that the contributions are far less stable than in the case of intra-euro-area cyclical convergence (see Graph 25). Investment played a key role in convergence in the late 1990s but this was short-lived and followed by a rising contribution of net trade and government consumption. Hence, although cyclical convergence between the euro area and the EU-3 may, in part, reflect structural factors such as the deepening of the Internal Market and enhanced financial market integration, it also seems to be largely explained by a succession of temporary factors such as common shocks to investment and exchange rate fluctuations.

Overall, the instability of the cyclical convergence process between the euro area and the USA or the EU-3 contrasts with the more stable patterns registered in the case of intra-EMU convergence. This suggests that intra-euro-area cyclical convergence is largely related to EMU-specific factors as opposed to global shocks or global economic integration.

convergence in the euro area. Net trade has traditionally made a negative contribution to cyclical correlation within the euro area but its contribution has increased since 1999.

Graph 25: Contribution of GDP components to the output gap correlation between euro-area Member States (1) (8-year window – in %)



(1) The contributions of GDP components add up to the correlation displayed in Graph 23. EL, IE, LU are excluded due to data limitations.

Source: Commission services.

The high level of cyclical convergence reached in the euro area could be a consequence of economic and monetary integration or just a reflection of a global trend. The past few years have seen close synchronisation of business cycles in most advanced economies. This may be explained both by increasing global economic integration and by the occurrence of a number of forceful common shocks. The analysis presented in Box 3 suggests two conclusions.

- First, the remarkable business cycle synchronisation between most advanced economies in the last few years is, at least in part, the consequence of common shocks and thereby, to some extent, a temporary phenomenon.
- Second, beyond global shocks and global integration, there are forces of cyclical convergence that are specific to EMU. These forces are discussed in the next section.

3. Forces of cyclical convergence and divergence in EMU.

Main sources of convergence in EMU

In an economic and monetary union, the degree of cyclical convergence between participating countries is not established once and for all but is shaped by the evolving macroeconomic and structural setup. Two forces have contributed to the greater synchronisation between euro-area Member States' business cycles since the launch of EMU, namely, product and financial market integration and convergence in macroeconomic policies.

Product and financial market integration. As discussed in more detail in Box 4, recent empirical studies have generally found a significant positive effect of trade and, to a lesser degree, financial integration on cyclical convergence between OECD countries.

This conclusion suggests that EMU can have a positive impact on cyclical convergence between Member States through the trade and financial integration channels. There is now substantial empirical evidence that EMU has provided a strong stimulus to trade integration within the euro area and will likely continue to do so in the coming years. The advent of the common currency has also accelerated the integration of financial markets in the euro area. Although, globalisation has generally entailed closer integration of Western financial markets in the past decade, there has been a distinct and additional impact of the euro on financial integration within EMU countries. For instance, there is evidence of faster integration of stock markets in the euro area than elsewhere.¹⁹ In recent years, large flows of foreign direct investment between euro-area countries are further evidence of this trend.

Graph 26 provides evidence of the effect of trade on cyclical convergence in the euro area. The graph plots the share of intra-euro-area trade together with the synchronisation of individual Member States' business cycles with the euro-area. Member States with a higher share of intra-

¹⁹ Brooks R. and M. Del Negro (2002), "International stock returns and market integration: a regional perspective", *IMF Working Paper*, WP/02/202.



Box 4: How is trade and financial integration affecting business cycle synchronisation?

Economic theory does not provide clear guidance regarding the impact of trade and financial integration on international cyclical synchronisation. Trade integration can affect both demand and supply conditions with possibly differing impacts on cyclical convergence. On the one hand, international trade facilitates the cross-border transmission of demand shocks. On the other hand, trade integration may foster inter-industry trade specialisation and therefore spark the probability of sectoral country-specific shocks. Similar arguments have been developed in the case of financial integration. On the demand side, financial integration encourages international portfolio diversification and thereby promotes cross-border comovements in private consumption. As in the case of trade, this positive effect of financial integration on demand synchronisation may be offset by higher risks of sectoral country-specific shocks, as more effective allocation of capital may foster production specialisation. Finally, financial integration also facilitates cross-border merger and acquisition activity and thereby cross-border corporate linkages. Given this theoretical indeterminacy, assessing the effect of integration on cyclical synchronisation is essentially an empirical issue.

Trade integration. The recent empirical literature has generally found trade integration to have a positive effect on cyclical convergence. In their seminal work, Frankel and Rose (1998) report a strong positive relation between the bilateral trade intensities and bilateral correlations of business cycles of a panel of industrialised countries. Their result has generally been confirmed in subsequent research (see for instance Kose (2003b) for a review). There is also some evidence that cyclical synchronisation depends not only on the intensity of bilateral trade flows but also on the similarities in the structures of the economies considered. Imbs (2003) argues that countries with more similar economic structures, as measured by the sectoral specialisation of production, tend to post higher cyclical correlation. This works through two channels. First, similarities in production structures reduce the scope for country-specific sectoral shocks. Second, countries with similar production structures tend to trade more with each other. In other words, a sizeable part of the impact of trade integration on cyclical synchronisation could be linked to the existence of intra-industry trade.

Financial integration. Empirical evidence on the link between financial integration and synchronisation is relatively sparse. Imbs (2003 and 2004) reports a significant positive relation. Kose et al (2003a and 2003b) find only limited support for an impact of financial integration on comovements in activity but they also report an increase in cross-country correlations of investment for advanced economies. There is also some preliminary evidence that foreign direct investment may be an important factor of cyclical synchronisation. Jansen and Stockman (2003) find a strong positive link between bilateral FDI linkages and output comovement after the mid-1990s.

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Kose, M.A., Prasad E.S. and M.E. Terrones (2003a), 'How does globalisation affect the synchronisation of business cycles', *American Economic Review Papers and Proceedings*, Vol 96 No 2, pp 57-62

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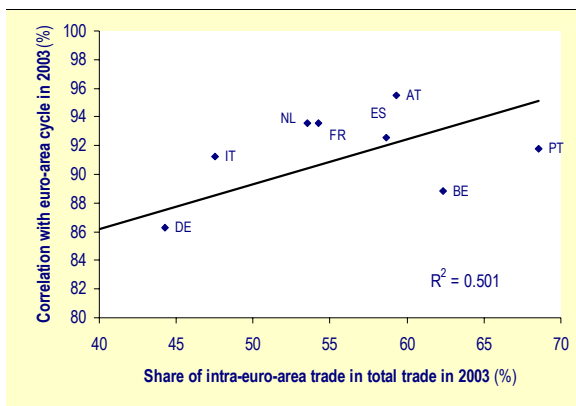
euro-area trade tend to post stronger cyclical synchronisation with the euro area than others.

Nevertheless, the impact of EMU on cyclical convergence via product and financial market

integration should not be overestimated. Integration is a relatively slow process and it is likely that the high level of cyclical convergence reached in the euro area has, at this stage, as much to do with the EU's Internal Market

programme as with the, still largely forthcoming, integration effects of the euro.

Graph 26: Trade and business cycle synchronisation, euro area (1)

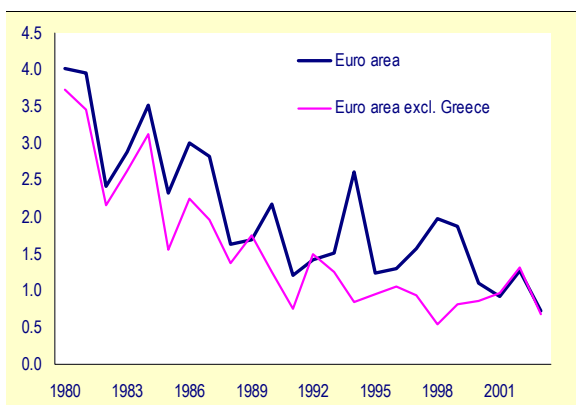


(1) Trade is calculated as the sum of export and imports. Cyclical correlation is calculated with a BK filter applied to quarterly GDP data over 1996-2003.

Source: Commission services.

Convergence in macroeconomic policies. Another key source of cyclical synchronisation in EMU is the convergence of macroeconomic policies. It may be argued that independent national macroeconomic policies can be a source of cyclical divergence if they lead to different responses to common shocks. For instance, this could be the case if the respective importance attached to the output and inflation stabilisation objectives of independent monetary policies vary across countries.

Graph 27: Convergence in interest rates, euro area (standard deviation of Member States short-term real interest rates in %)



Source: Commission services.

Reflecting increased coordination of macroeconomic policies, first with the Exchange Rate Mechanism (EMR) and later with the EMU process, the past two decades have witnessed a progressive convergence of macroeconomic policies. The trend is particularly clear in the case of monetary policy. As shown in Graph 27, the single monetary policy has brought about a fair degree of convergence in real interest rates. Due to a moderate pick-up in inflation differences between Member States, a moderate upward drift in the dispersion of real interest rates is noticeable since the launch of EMU but the overall level of dispersion has remained low by historical standards in the past years.

It is difficult to determine empirically to what extent convergence in macroeconomic policies is a source or a mere reflection of increased cyclical synchronisation. Artis and Zhang²⁰ compare the pre-ERM (Exchange Rate Mechanism) period with the ERM period and show that the latter has been associated with a shift of the business cycle affiliations of participating countries from the US cycle to the German cycle. The finding is suggestive of a possible strong impact of monetary policy on cyclical convergence.²¹

Another argument is the leading role played by investment in cyclical correlation in the euro area (see Section 1). The fact that investment is generally found to be the component of GDP that is the most sensitive to short-term interest rates and monetary policy in the euro area further supports the idea of a causal link between monetary and cyclical convergence.

In the case of budgetary policies, there is some evidence that the coordination framework of EMU has allowed some of the mistakes of the past to be avoided. In particular, European countries have in the past shown a tendency to run pro-cyclical budgetary policies that have exacerbated cyclical differences. Although failure to pursue budgetary consolidation in the good

²⁰ Artis, M.J. and W. Zhang (1999), 'Further evidence on international business cycles and the ERM: is there a European business cycle?', *Oxford Economic Papers*, 1999, January 51, pp: 120-32.

²¹ However, this conclusion has not remained unchallenged. For a criticism, see Inklaar, R. and de J. de Haan (2001), 'Is there really a European business cycle? A comment', *Oxford Economic Papers*, 53, pp. 215-20.



times of the late 1990s in some Member States has limited budgetary room for manoeuvre, these pro-cyclical tendencies have been largely contained in the latest downturn.

Main sources of divergence in EMU

Notwithstanding the overall high level of cyclical convergence registered in the euro area so far, EMU has not been exempt from forces of cyclical divergence. First, the inception of EMU may in itself have constituted an asymmetric shock in some Member States. Second, with a single monetary policy, differences in countries' inflation rates translate into differences in real interest rates that may exacerbate cyclical divergences. Third, there may be asymmetries between countries in the transmission of common shocks.

EMU inception as an asymmetric shock. There is evidence that the inception of EMU has in itself been an asymmetric shock in some Member States, either as a consequence of the interest rate convergence process which preceded the launch of the euro or due to a misalignment of the initial exchange rate parities.

Nominal convergence in the run-up to EMU has translated into a rapid fall of real interest rates during the second half of the 1990s in countries such as Spain, Ireland, Italy, Portugal and Finland. This is likely to have contributed to wider cyclical differences by spurring domestic demand. In this respect, it is worth noting that all the above countries except Italy experienced comparatively stronger developments in domestic demand in the late 1990s than the rest of the euro-area.

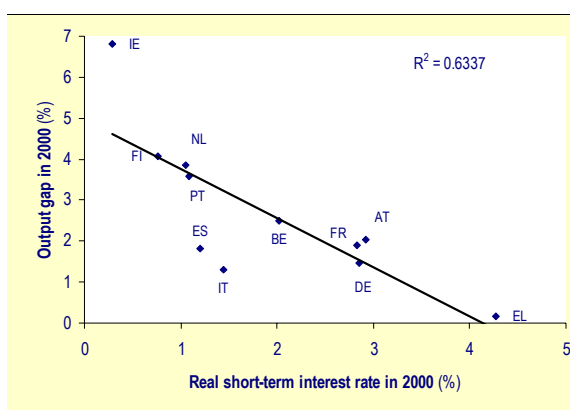
Given the methodological difficulties, estimates of equilibrium exchange rates and of possible exchange rate misalignments at the time of the launch of the euro should be considered with prudence. It is nevertheless worth noting that, according to estimates made by Hansen and Roeger,²² in the late 1990s fast growing countries such as the Netherlands, Finland and Ireland

were all enjoying undervalued currencies relative to their equilibrium values whereas slow-growing Germany was posting an overvalued currency.

Differences in inflation and real interest rates. As a single currency brings convergence in nominal interest rates, inflation differences translate into differences in real interest rates. This effect may be self-reinforcing and can magnify cyclical divergence. For instance, an overheating country will tend to post above euro-area average inflation. The resulting low real interest rate will fuel domestic demand and raise further price pressures and cyclical divergence.

Despite a broad convergence trend during much of the 1990s, disparities in real interest rates remain significant in the euro area. In 2003, the difference between the highest and the lowest Member State real interest rates was close to 2.5%. As illustrated in Graph 28, real interest rates at the peak of the cycle in 2000 were significantly higher in those Member States that had built-up a large positive output gap. Due to inflation inertia, these differences have persisted throughout the ensuing downturn.

Graph 28: Country differences in short-term real interest rate and output gaps,⁽¹⁾ euro area



(1) Real interest rates are calculated with the consumption deflator. Output gaps are based on an HP filter.

Source: Commission services.

Asymmetric transmission of common shocks. Common shocks can have asymmetric impacts on countries characterised by different economic structures. Asymmetric transmission can originate in differences in the degree of exposure to shocks.

²² Hansen, J. and W. Roeger (2000), 'Estimations of real equilibrium exchange rates', European Commission, *DG ECFIN Economic Paper*, No. 144.

Box 5: Decomposing output gap dispersion in the euro area

The table below displays the contributions of consumption, investment and trade to the total variance of output gaps across Member States. The contributions are derived from a standard covariance formula. The upper half of the table displays the contributions in 2004 and, as a matter of comparison, the average contributions for the 10 years preceding EMU. The lower half of the table displays the changes in contributions during the period of cyclical divergence of the late 1990s (1997-2000) and the changes in contributions during the period of cyclical convergence after 2000. Two results stand out:

- Comparing 2004 and the 10 years preceding EMU, the contribution of investment to output gap disparities appears to be currently quite low by historical standards. This confirms the important role played by investment in cyclical convergence in the euro area.
- Looking at the changes in contributions in the lower half of the table, net trade emerges at the major source of cyclical divergence in the late 1990s and the major force of convergence in the first years of the present decade. The changes in the contribution of net trade were only partly offset by opposite fluctuations in the contribution of private consumption.

| Contribution of GDP components to output gap differences between Member States, euro area (1) - in % | | | | | |
|--|-----------|-------------|------------|-----------|-----------|
| | Total (2) | Consumption | Investment | Net trade | Other (3) |
| 2004 | 0.6 | 1.2 | 0.7 | 0.1 | -1.4 |
| Average 1989-98 | 3.4 | 1.7 | 2.7 | -1.3 | 0.3 |
| Change 2000-03 | -3.2 | 9.3 | 0.3 | -10.3 | -2.5 |
| Change 1997-00 | 3.4 | -10.0 | 0.2 | 12.5 | 0.7 |

(1) Output gap differences are measured by the variance of Member States' output gaps.

(2) Variance of Member States' output gaps. Sum of the columns on consumption, investment, net trade and other.

(3) Government consumption and inventories.

Source: Commission services.

Overall, external trade emerges as the major source of changes in output gap differences between Member States since the launch of the euro, although the approach used here does not allow the respective roles of fluctuations in world trade and in the euro exchange rate in this process to be disentangled. Conversely, the results suggest that sources of cyclical divergence linked to domestic demand have not been prevalent in the past few years.

For instance, wealth effects consecutive to a fall in equity prices may vary across countries depending on the size of equity ownership. Asymmetries may also reflect differences in the strength of the economy's stabilisation forces. For instance, a more flexible labour market will help to absorb a shock more rapidly. Differences in the adjustment to shocks will be discussed further in the next section.

Since the late 1990s, EMU Member States have been subject to a number of common shocks, including swings in key prices (financial asset prices, oil prices and the external value of the euro), changes in the monetary stance, several confidence shocks and a pronounced world trade cycle. Different exposures to these shocks may have contributed to temporary cyclical divergence in the euro area. In this respect, it is worth noting that differences in output gaps widened in the late 1990s when most of the

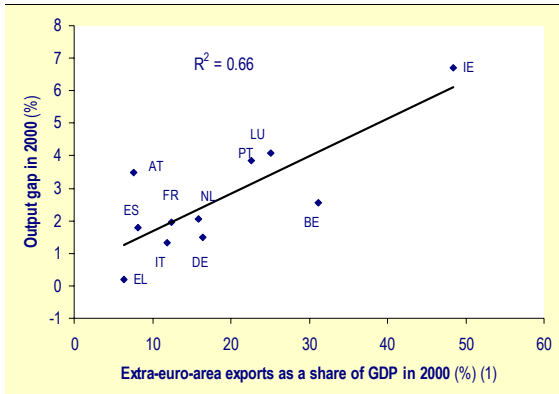
common shocks were affecting the economy positively and narrowed again in the early 2000s when the shocks were reversed.

Disentangling the respective contributions to cyclical divergence of the various possible transmission asymmetries is difficult. However, differences in the degree of exposure to extra-euro-area trade seem to have played a central role. This can be seen in Graph 29 on the next page which exhibits a positive relation between Member States' exposure to extra-euro-area trade and the size of the output gap at the peak of the cycle. In other words, the very strong expansion of world trade in the late 1990s was an important cause of cyclical divergence within the euro-area during that period. The subsequent recession in world trade then had the opposite effect. Graph 30 shows that the Member States with a high exposure to extra-euro-area trade are also those which incurred



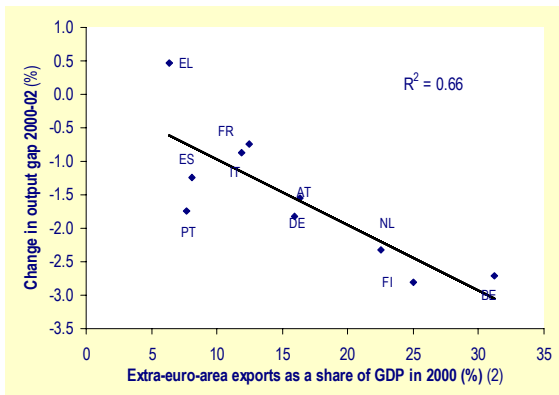
the largest losses in output gap during the two years of recession in world trade in 2001 and 2002.²³

Graph 29: Country differences in output gap and extra-euro-area trade exposure at the peak of the cycle



(1) Exports of goods.
 Source: Commission services.

Graph 30: Strength of cyclical slowdown and extra-euro-area trade exposure (1)



(1) IE excluded.
 (2) Exports of goods.
 Source: Commission services.

A similar point is made in Box 5 which presents a breakdown by GDP components of the dispersion of output gaps between euro-area Member States. The analysis highlights trade as the major source of changes in output gap dispersion since the inception of EMU. Trade

²³ The correlation between the two variables is high only if Ireland is excluded. In that country, the impact of the slowdown in world trade was partly delayed by special factors related to the multinational sector. As a result, the output gap deteriorated mainly in 2003 and not in 2001-02 as in other countries.

was the major cause of increased output gap dispersion in the late 1990s and of reduced output gap dispersion over 2001-03.

Overall, there is therefore substantial evidence that the strong expansion of world trade in the late 1990s and the ensuing world trade recession in 2001-02 were, successively, a significant source of cyclical divergence and convergence within the euro area. The effect of these fluctuations in world trade was exacerbated by largely synchronised swings in the external value of the euro. For instance, the phase of depreciation of the euro in 1999-00 accentuated the growth stimulus of exports in the Member States more open to extra-euro-area trade.²⁴ However, the respective effects of trade and exchange rates are difficult to disentangle.

Although trade seems to have played a critical role in explaining changes in cyclical convergence since the launch of EMU, other possible transmission asymmetries should also be noted:

- Empirical research has generally highlighted the existence of differences between Member States regarding the importance of wealth effects without, however, reaching clear agreement as to the magnitude of these differences. Given large fluctuations in equity prices and sustained price increases in the housing sector; wealth effects may have contributed to cyclical divergence in the euro area in the past few years.
- The transmission of monetary policy impulses may differ from one country to the other. These differences may be related to the degree of exposure to external trade and the importance of the exchange rate channel of monetary policy. They may also be related to the importance of bank

²⁴ The depreciation also raised inflation pressures in these countries via higher imported inflation. However, differences in the impact of the exchange rate on inflation do not only depend on trade openness but also on differences in the pass-through. Empirical evidence suggests that the latter can be significant. See for instance, Campa, J.M. and J.M. González-Minguez (2002), 'Differences in exchange rate pass-through in the euro area', Banco de España, Documento de Trabajo No. 0219, July.

financing relative to market financing or to the characteristics of the housing and mortgage markets.

- There are indications of asymmetries in the response of national economies to large increases in oil prices. These asymmetries are related to differences in oil dependency but also to differences in policy reaction and in the capacity of the labour market to absorb such shocks (see section on the impact of oil prices in this report).

Overall, although these three sources of asymmetries cannot be ruled out as potentially significant forces of cyclical divergence in the future, their contribution to divergence in the first years of EMU was probably significantly more modest than that of external trade. The three sources of asymmetries work largely – although not exclusively – via domestic demand. The decomposition of output gap dispersion in Box 5 suggests that the contribution of domestic demand to the temporary increase in cyclical divergence in the late 1990s was limited.

4. The adjustment mechanisms in EMU

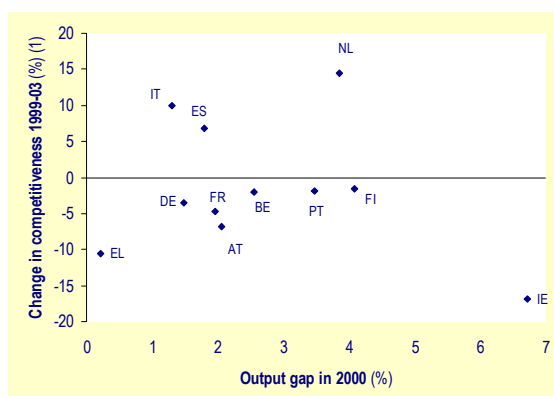
An economic and monetary union is also characterised by built-in adjustment mechanisms that tend to counteract forces of cyclical divergence. In the euro area, competitiveness effects and automatic fiscal stabilisers are the two most important mechanisms in this respect.

Competitiveness effects. Member States where cyclical growth is stronger than the euro-area average also tend to experience stronger domestic price pressures. The associated losses in competitiveness will then progressively bring the deviating cycle back in line with the overall euro-area cycle.

As shown in Graph 31, this competitiveness adjustment has, to some extent, been at play in the euro area in the latest cycle. Since the launch of the euro, competitiveness relative to the other Member States has deteriorated

significantly in the Netherlands and improved somewhat in Germany. However, large positive output gaps in the late 1990s have not led to a deterioration of relative competitiveness in Ireland and Finland and comparatively weak cyclical developments in Italy have been associated with real appreciation.

Graph 31: Competitiveness effects as an adjustment to cyclical divergence, euro area



(1) As measured by the real effective exchange rate (based on manufacturing unit labour cost) relative to other euro-area Member States.

Source: Commission services.

The effectiveness of the competitiveness mechanism in correcting cyclical divergence may be hampered by two factors.

First, as already noted, inflation differentials translate into differences in real interest rates. Hence, in a country experiencing stronger cyclical growth and faster inflation, domestic demand will be boosted by comparatively lower interest rates. In its early stages, the negative competitiveness effect will tend to be offset by this positive real interest rate effect. Although the competitiveness will ultimately prevail,²⁵ the speed of the correction will depend on the sensitivity of domestic demand to interest rates.

Second, the effectiveness of the competitiveness mechanism will depend on the flexibility of the response of wages and prices to cyclical developments. There is, in general, a significant degree of nominal wage rigidity in the euro

²⁵ A constant inflation differential with the euro-area average will entail a constant interest rate differential but a continuous deterioration of competitiveness.



area.²⁶ Simulations carried out with a small stylised macroeconomic model suggest that the adjustment to asymmetric shocks via the competitiveness mechanism can be slow and lead to periods of undershooting and overshooting.²⁷ In this regard, it is interesting to note that two of the four countries which were posting the largest positive output gaps at the peak of the cycle in 2000 now report the largest negative output gaps in the euro area.

Finally, it is worth stressing that the effectiveness of the competitiveness adjustment mechanism will vary significantly from one country to another. Labour market effectiveness and openness to trade are two critical parameters in this respect.

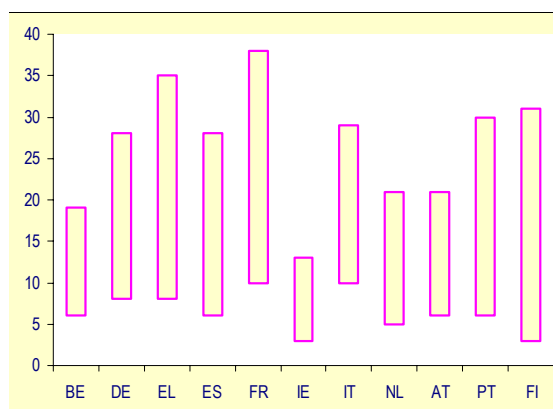
There is still considerable variation across euro-area countries in terms of labour market efficiency, both in employment regulations and in wage flexibility. These labour market differences could be an important source of asymmetries in the adjustment mechanism.

The impact of change in competitiveness on overall activity will depend on the sensitivity of exports to prices and the importance of trade in the economy. In this regard, differences in trade openness constitute an important source of asymmetries in the adjustment mechanisms in the euro area. Small Member States tend to be much more open to trade than larger ones. This is probably one of the factors explaining why the correction to the weak cyclical position of Germany is taking much more time than the correction to the overheating in the Netherlands.

Automatic fiscal stabilisers. Automatic stabilisers make for smoother cyclical fluctuations and can therefore help to reduce cyclical divergence in the euro area. Due to the size of the

government sector, the progressiveness of tax systems and the rather generous unemployment benefit systems, fiscal stabilisers are relatively large in the euro area. However, their effectiveness in smoothing the cycle depends on the source of the cyclical fluctuations. It also varies significantly across countries. Simulations carried out with DG ECFIN's QUEST model show that automatic stabilisers are more effective in the case of a shock to consumption than in the case of a shock to investment or exports. They also point to large differences in the smoothing effect of stabilisers across countries, depending on factors such as trade openness and the structure of the tax system (Graph 32).²⁸ Finally, it should be noted that, for some Member States, insufficient fiscal consolidation in the good times of the late 1990s has hindered the free play of automatic stabilisers during the downturn.

Graph 32: **Smoothing capacity of fiscal stabilisers for a variety of demand shocks, euro area (1)**
(in % of GDP)



(1) For each country, the graph displays a range of estimates of the smoothing capacity for various demand shocks. In most cases, the largest smoothing effect is found for consumption shocks and the lowest one for trade shocks.

Source: Brunila A., Buti M. and J. in't Veld (2002).

²⁶ According to Commission estimates, only about 65% of the wage adjustment to an inflationary shock takes place within the first year. See European Commission (2003), 'The EU economy 2003 review', Chapter 4, *European Economy*, No. 6/2003.

²⁷ Deroose, S., Langedijk, S. and W. Roeger (2004), 'Reviewing adjustment dynamics in EMU: from overheating to overcooling', European Commission, *DG ECFIN Economic Paper*, No. 198.

²⁸ Brunila A., Buti M. and J. in't Veld (2002), 'Fiscal policy in Europe: how effective are automatic stabilisers?', European Commission, *DG ECFIN Economic Paper*, No. 177.

5. Policy implications

Although EMU can be seen as an overall source of cyclical convergence between Member States, it is not exempt from forces of divergence. Hence, some cyclical divergence took place in the early years of EMU as a result of differences in the transmission of common shocks and asymmetries related to the launch of the euro. In an economic and monetary union, cyclical divergence between participating countries is to some extent offset by changes in competitive position and the play of automatic stabilisers. Nevertheless, due to prevailing price and wage rigidities, adjustment can be slow and involve some costly over/under shooting.

In theory, discretionary fiscal policy could be used to deal with excessive cyclical deviation in one country, provided that the deviation originates in demand rather than supply forces. In practice, there is now large recognition that fiscal fine-tuning is faced with a variety of difficulties which can seriously blunt its effectiveness.²⁹ As already noted, fiscal policy has tended to be frequently pro-cyclical in euro-area countries in the past. This pro-cyclical bias reflects, in part, the existence of significant time lags in implementation and difficulties in identifying cyclical positions with precision. The latter are likely to be magnified when the issue is less to identify the absolute cyclical position of a given country than its deviation relative to the euro-area average. Furthermore, model

simulations suggest that the impact of discretionary policy on output gaps is relatively limited, especially in the case of small open economies, which are also the ones most in need of individual stabilisation tools.

Overall, the analysis suggests that cyclical disparities within EMU are, in general, better dealt with by a combination of market-based adjustment and the free play of automatic stabilisers rather than by discretionary fiscal policy. There are three key policy implications.

- It is necessary to pursue fiscal consolidation in those countries which do not have sufficient budgetary margins to let automatic stabilisers play their full part.
- Further structural reforms of product and labour markets will improve price and wage flexibility, thereby transferring the burden of the adjustment to cyclical divergence from macroeconomic policy to market forces and from quantities (employment, activity, etc.) to prices. Increased flexibility reduces the risks of periods of over/undershooting in the adjustment process and, more generally, the magnitude of cyclical fluctuations.
- Progress with the Internal Market will raise trade and financial linkages between Member States, thereby fostering further cyclical convergence and reducing the need for adjustment.

²⁹ See European Commission (2002), 'Public finances in EMU – 2002', *European Economy*, No. 3 2002.



IV. References to further work

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EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 6. March 2004

Economic Review of EU Mediterranean Partners

http://europa.eu.int/comm/economy_finance/publications/occasional_papers/occasionalpapers6_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 7. April 2004

Annual report on structural reforms 2004 "reinforcing implementation"

http://europa.eu.int/comm/economy_finance/publications/occasional_papers/occasionalpapers7_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 8. April 2004

The Portuguese economy after the boom

http://europa.eu.int/comm/economy_finance/publications/occasional_papers/occasionalpapers8_en.htm

2. Analytical documents

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 198.

Servaas Deroose, Sven Langedijk and Werner Roeger

Reviewing adjustment dynamics in EMU: from overheating to overcooling

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers198_en.htm

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Andre Jungmittag (European Institute for International Economic Relations)

Innovations, technological specialisation and economic growth in the EU

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers199_en.htm

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Christoph Walkner

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Heikki Oksanen

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Alessandro Turrini

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Martin Hallet

Fiscal effects of accession in the new Member States

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Klaus Wälde

The empirics of trade and growth: where are the policy recommendations?

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers204_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 205.

Lars Jonung

To be or not to be in the euro? *Benefits and costs of monetary unification as perceived by voters in the Swedish euro referendum 2003*

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers205_en.htm

3. Regular publications

Euro area GDP indicator (Indicator-based forecast of quarterly GDP growth in the euro area)

http://europa.eu.int/comm/economy_finance/indicators/euroareagdp_en.htm

Business and Consumer Surveys (harmonised surveys for different sectors of the economies in the European Union (EU) and the applicant countries)

http://europa.eu.int/comm/economy_finance/indicators/businessandconsumersurveys_en.htm

Business Climate Indicator for the euro area (monthly indicator designed to deliver a clear and early assessment of the cyclical situation)

http://europa.eu.int/comm/economy_finance/indicators/businessclimate_en.htm

Key indicators for the euro area (presents the most relevant economic statistics concerning the euro area)

http://europa.eu.int/comm/economy_finance/indicators/key_euro_area/keyeuroarea_en.htm

Monthly and quarterly notes on the euro-denominated bond markets (looks at the volumes of debt issued, the maturity structures, and the conditions in the market)

http://europa.eu.int/comm/economy_finance/publications/bondmarkets_en.htm

Price and Cost Competitiveness

http://europa.eu.int/comm/economy_finance/publications/priceandcostcompetitiveness_en.htm



V. Key indicators for the euro area

| | | 2001 | 2002 | 2003* | Jan-04 | Feb-04 | Mar-04 | Apr-04 | May-04 | Jun-04 |
|---|-----------|--------|-------|-------|--------|--------|--------|--------|--------|--------|
| 1 Output | | | | | | | | | | |
| Industrial confidence ^{1.1} | Balance | -10 | -12 | | -6 | -7 | -7 | -5 | -5 | -4 |
| Industrial production ^{1.2} | mom % ch | 0.2 | -0.9 | | -0.4 | 0.3 | 0.3 | 0.2 | | |
| | | 2001 | 2002 | 2003* | 03Q1 | 03Q2 | 03Q3 | 03Q4 | 04Q1 | 04Q2 |
| Gross domestic product ^{1.3} | Qtr. % ch | | | | 0.0 | -0.1 | 0.4 | 0.4 | 0.6 | |
| 2 Private consumption | | | | | | | | | | |
| Consumer confidence ^{2.1} | Balance | -6 | -11 | | -15 | -14 | -14 | -14 | -16 | -14 |
| Retail sales ^{2.2} | mom % ch | 1.3 | 1.3 | | 1.8 | -1.1 | -0.2 | 1.3 | | |
| | | 2001 | 2002 | 2003* | 03Q1 | 03Q2 | 03Q3 | 03Q4 | 04Q1 | 04Q2 |
| Private consumption ^{2.3} | Qtr. % ch | 1.8 | 0.6 | 1.7 | 0.5 | -0.1 | 0.1 | 0.1 | 0.6 | |
| 3 Investment | | | | | | | | | | |
| Capacity utilization ^{3.1} | % | 83.5 | 81.2 | | 81.0 | 80.7 | 80.3 | 80.9 | 80.5 | 80.6 |
| Gross fixed capital formation ^{3.2} | Qtr. % ch | -0.3 | -1.9 | 2.0 | -0.8 | -0.3 | 0.0 | 0.6 | -0.1 | |
| Change in stocks ^{3.3} | % of GDP | -0.2 | -0.1 | 0.1 | 0.2 | 0.1 | -0.1 | 0.4 | 0.3 | |
| 4 Labour market | | | | | | | | | | |
| Unemployment ^{4.1} | % | 8.0 | 8.2 | 8.3 | 8.9 | 8.9 | 9.0 | 9.0 | | |
| | | 2001 | 2002 | 2003* | 03Q1 | 03Q2 | 03Q3 | 03Q4 | 04Q1 | 04Q2 |
| Employment ^{4.2} | Ann. % ch | 1.4 | 0.5 | 0.2 | 0.0 | 0.1 | 0.0 | 0.1 | | |
| Shortage of labour ^{4.3} | % | 7.8 | 3.8 | | 3.0 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 |
| Wages ^{4.4} | Ann. % ch | 2.8 | 2.9 | 2.8 | 2.9 | 2.5 | 2.5 | | | |
| 5 International transactions | | | | | | | | | | |
| Export order books ^{5.1} | Balance | -14 | -22 | | -19 | -21 | -19 | -13 | -15 | -11 |
| World trade ^{5.2} | Bn. EUR | 6454 | 6309 | | | | | | | |
| Exports of goods ^{5.3} | Bn. EUR | 767.4 | 776.9 | 823.4 | 90.4 | 91.5 | 91.9 | 93.6 | | |
| Imports of goods ^{5.4} | Bn. EUR | 802.2 | 781.6 | 828.1 | 82.1 | 83.5 | 82.1 | 86.0 | | |
| Trade balance ^{5.5} | Bn. EUR | -34.8 | -4.7 | -4.7 | 8.3 | 8.0 | 9.8 | 7.5 | | |
| | | 2001 | 2002 | 2003* | 03Q1 | 03Q2 | 03Q3 | 03Q4 | 04Q1 | 04Q2 |
| Exports of goods and services ^{5.6} | Qtr. % ch | 4.3 | 0.7 | 6.1 | -1.5 | -0.9 | 2.3 | 0.1 | 1.7 | |
| Imports of goods and services ^{5.7} | Qtr. % ch | 2.1 | -1.6 | 6.2 | -0.6 | -0.5 | 1.3 | 1.1 | 0.8 | |
| | | 2001 | 2002 | 2003* | Jan-04 | Feb-04 | Mar-04 | Apr-04 | May-04 | Jun-04 |
| Current account balance ^{5.8} | Bn. EUR | -12.3 | 9.6 | 11.0 | 2.5 | 5.4 | 5.1 | 9.0 | | |
| Direct investment (net) ^{5.9} | Bn. EUR | -104.6 | -90.4 | | -11.0 | 7.8 | -22.6 | -3.3 | | |
| Portfolio investment (net) ^{5.10} | Bn. EUR | 36.5 | 38.0 | | -11.5 | 4.4 | -1.3 | -3.0 | | |
| 6 Prices | | | | | | | | | | |
| HICP ^{6.1} | Ann. % ch | 2.3 | 2.3 | 2.1 | 1.9 | 1.6 | 1.7 | 2.0 | 2.5 | 2.4 |
| Core HICP ^{6.2} | Ann. % ch | 1.9 | 2.5 | 2.0 | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 | |
| Producer prices ^{6.3} | Ann. % ch | 2.2 | 1.7 | | 0.3 | 0.0 | 0.4 | 1.4 | | |
| Import prices ^{6.4} | Ann. % ch | 102.2 | 102.4 | | | | | | | |
| 7 Monetary and financial indicators | | | | | | | | | | |
| Interest rate (3 months) ^{7.1} | % p.a. | 4.3 | 3.3 | | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 |
| Bond yield (10 years) ^{7.2} | % p.a. | 5.0 | 4.8 | | 4.2 | 4.1 | 3.9 | 4.1 | 4.3 | 4.3 |
| ECB repo rate ^{7.3} | % p.a. | 3.25 | 2.75 | | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Stock markets ^{7.4} | Index | 4047 | 3053 | | 2839 | 2875 | 2835 | 2861 | 2729 | 2791 |
| M3 ^{7.5} | Ann. % ch | 5.3 | 5.6 | | 6.6 | 6.4 | 6.2 | 5.5 | 4.7 | |
| Credit to private sector (loans) ^{7.6} | Ann. % ch | 7.9 | 7.7 | | 5.5 | 5.5 | 5.4 | 5.5 | 5.6 | |
| Exchange rate USD/EUR ^{7.7} | Value | 0.90 | 0.95 | 1.13 | 1.26 | 1.26 | 1.23 | 1.20 | 1.20 | 1.21 |
| Nominal effective exchange rate ^{7.8} | Index | 91.5 | 95.1 | 106.2 | 110.7 | 110.4 | 108.6 | 107.0 | 108.5 | |

| Number | Indicator | Note | Source |
|----------|--|--|------------------|
| 1 | Output | | |
| 1.1 | Industrial confidence indicator | Industry survey, average of balances to replies on production expectations, order books, and stocks (the latter with inverted sign) | ECFIN |
| 1.2 | Industrial production | Volume, excluding construction, wda | Eurostat |
| 1.3 | Gross domestic product | Volume (1995), seasonally adjusted | Eurostat |
| 2 | Private consumption | | |
| 2.1 | Consumer confidence indicator | Consumer survey, average of balances to replies on four questions (financial and economic situation, unemployment, savings over next 12 months) | ECFIN |
| 2.2 | Retail sales | Volume, excluding motor vehicles, wda | Eurostat |
| 2.3 | Private consumption | Volume (1995 prices), seasonally adjusted | Eurostat |
| 3 | Investment | | |
| 3.1 | Capacity utilisation | In percent of full capacity, manufacturing, seasonally adjusted, survey data (collected in each January, April, July and October). | ECFIN |
| 3.2 | Gross fixed capital formation | Volume (1995 prices), seasonally adjusted | Eurostat |
| 3.3 | Change in stocks | In percent of GDP, volume (1995 prices), seasonally adjusted | Eurostat |
| 4 | Labour market | | |
| 4.1 | Unemployment | In percent of total workforce, ILO definition, seasonally adjusted | Eurostat |
| 4.2 | Employment | Number of employees, partially estimated, seasonally adjusted | ECB/ Eurostat |
| 4.3 | Shortage of labour | Percent of firms in the manufacturing sector reporting a shortage of labour (unfilled job openings) as a constraint to production, seasonally adjusted | ECFIN |
| 4.4 | Wages | Not fully harmonised concept, but representative for each Member State (mostly hourly earnings) | ECFIN |
| 5 | International transactions | | |
| 5.1 | Export order books | Industry survey; balance of positive and negative replies, seasonally adjusted | ECFIN |
| 5.2 | World trade | Bn; EUR, current prices, seasonally adjusted | ECFIN |
| 5.3 | Exports of goods | Bn. EUR, excluding intra euro area trade, fob | Eurostat |
| 5.4 | Imports of goods | Bn. EUR, excluding intra euro area trade, cif | Eurostat |
| 5.5 | Trade balance | Bn. EUR, excluding intra euro area trade, fob-cif | Eurostat |
| 5.6 | Exports of goods and services | Volume (1995 prices), including intra euro area trade, seasonally adjusted | Eurostat |
| 5.7 | Imports of goods and services | Volume (1995 prices), including intra euro area trade, seasonally adjusted | Eurostat |
| 5.8 | Current account balance | Bn. EUR, excluding intra euro area transactions; before 1997 partly estimated | ECB |
| 5.9 | Direct investment | (net) Bn. EUR, excluding intra euro area transactions | ECB |
| 5.10 | Portfolio investment | (net) Bn. EUR, excluding intra euro area transactions | ECB |
| 6 | Prices | | |
| 6.1 | HICP | Harmonised index of consumer prices | Eurostat |
| 6.2 | Core HICP | Harmonised index of consumer prices, excluding energy and unprocessed food | Eurostat |
| 6.3 | Producer prices | Without construction | Eurostat |
| 6.4 | Import prices | Import unit value index for goods | Eurostat |
| 7 | Monetary and financial indicators | | |
| 7.1 | Interest rate | Percent p.a., 3-month interbank money market rate, period averages | Datastream |
| 7.2 | ECB repo rate | Percent p.a., minimum bid rate of the ECB, end of period | Datastream |
| 7.3 | Bond yield | Percent p.a., 10-year government bond yields, lowest level prevailing in the euro area, period averages | Datastream |
| 7.4 | Stock markets | DJ Euro STOXX50 index, period averages | Datastream |



| | | | |
|-----|----------------------------------|--|-------|
| 7.5 | M3 | Seasonally adjusted moving average moving average (3 last months) | ECB |
| 7.6 | Credit to private sector (loans) | MFI loans to euro area residents excluding MFIs and general government, monthly values: month end values, annual values: annual averages | ECB |
| 7.7 | Exchange rate USD/EUR | Period averages | ECB |
| 7.8 | Nominal effective exchange rate | Against 13 other industrialised countries, double export weighted, 1995 = 100, increase (decrease): appreciation (depreciation) | ECFIN |

Comments on the report would be gratefully received and should be sent to:

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