



QUARTERLY REPORT ON THE EURO AREA

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Highlights in this issue:

- **Recent economic developments and short-term prospects**
- **Will the effects of a US slowdown spill over to the euro area?**
- **The non-accelerating wage rate of unemployment (NAWRU) in the euro area**
- **Focus: Widening current account differences within the euro area**
- **Focus: Ensuring fiscal sustainability in the euro area – achievements and remaining challenges**

**EUROPEAN
COMMISSION**

**DIRECTORATE-GENERAL FOR
ECONOMIC AND FINANCIAL AFFAIRS**



Table of contents

EDITORIAL.....	3
I. ECONOMIC SITUATION IN THE EURO AREA.....	5
RECENT ECONOMIC DEVELOPMENTS AND SHORT-TERM PROSPECTS.....	5
WILL THE EFFECTS OF A US SLOWDOWN SPILL OVER TO THE EURO AREA?	13
THE NON-ACCELERATING WAGE RATE OF UNEMPLOYMENT (NAWRU) IN THE EURO AREA	20
II. FOCUS: WIDENING CURRENT ACCOUNT DIFFERENCES WITHIN THE EURO AREA	25
III. FOCUS: ENSURING FISCAL SUSTAINABILITY IN THE EURO AREA – ACHIEVEMENTS AND REMAINING CHALLENGES	38
IV. RECENT DG ECFIN PUBLICATIONS.....	49
V. KEY INDICATORS FOR THE EURO AREA	51

BOXES:

1. ARE WE WITNESSING A STRUCTURAL IMPROVEMENT IN LABOUR PRODUCTIVITY?.....	10
2. A HARDER-LANDING SCENARIO FOR THE US ECONOMY.....	18
3. ESTIMATING STRUCTURAL UNEMPLOYMENT IN THE EURO AREA	22
4. SHOULD WE STILL CARE ABOUT MEMBER STATES' CURRENT ACCOUNT POSITIONS IN EMU?	26
5. A PANEL REGRESSION ANALYSIS OF THE DETERMINANTS OF CURRENT ACCOUNTS IN OECD COUNTRIES.....	33



EDITORIAL

Economic activity in the euro area has decelerated, from the very buoyant pace registered in the first half of the year to 0.5% in the third quarter. Nevertheless, growth prospects remain robust. Growth is being driven primarily by domestic demand, suggesting that the expansion has become self-sustained. The recovery in consumption now seems firmly established, as a strengthening labour market and improving consumer confidence buttress household spending. Investment spending also continues to perform strongly and business confidence indicators remain upbeat, suggesting a healthy corporate sector.

In line with these developments, our assessment of the short-term outlook is sanguine. The European Commission's autumn 2006 forecast projects GDP to increase by 0.6% in the last quarter of 2006 and to average 2.6% for the year as a whole. Looking further ahead, some deceleration in growth is expected for 2007, reflecting the temporary effects of the VAT increase in Germany, the recent depreciation of the dollar and an easing in global demand, stemming mainly from the US. Nevertheless, the underlying strong momentum of the euro-area economy should allow it to withstand these negative influences. Growth is therefore still projected to be around its potential rate in 2007.

While slower growth in the US will undoubtedly have an impact on the rest of the world through various channels (trade, financial markets and confidence effects), our analysis suggests that its effect on activity in the euro area should be limited. While the economies of the euro area and the US frequently moved in tandem in the past, this was primarily a reflection of the occurrence of common shocks rather than of spillover effects from the US to the euro area. Today, the US faces a slowdown that is attributable to domestic factors rather than common shocks. What is more, the US slowdown is projected to be moderate and will pave the way for a much needed orderly unwinding of global imbalances.

On this side of the Atlantic, the improvement in the euro-area economy is not purely cyclical. Sustained employment growth and falling structural unemployment are evidence that fundamental structural changes are also at play. For instance, according to estimates of the NAWRU (Non-Accelerating Wage Rate of Unemployment) presented in this report, structural unemployment has decreased by close to 1.5 percentage points in the euro area since the late 1990s. This shows that past structural reforms have begun to pay off. Further progress is clearly needed, but we are heading in the right direction. The Annual Progress Report recently released by the Commission shows that the renewed Lisbon Strategy is working and that Member States have made a promising start with the implementation of their National Reform Programmes.

The increased dispersion of current account positions within the euro area has attracted analysts' attention recently. Since the late 1990s, current account deficits have deteriorated remarkably in Member States such as Greece, Portugal and Spain, while Member States such as Finland, Germany and the Netherlands have built up increasingly large surpluses. In some euro-area Member States, the accumulation of external deficits has led to a deterioration of net external asset positions that appears unmatched in the rest of the OECD.

Should we worry about these developments or, given that exchange-rate gyrations are no longer possible for individual Member States, opt for benign neglect? The conclusions of the analysis presented in this report are mixed.

The widening dispersion may partly be seen as a beneficial effect of the euro and European financial integration. In some Member States, the rise in current account deficits has been partly driven by a financial-deepening process that has allowed Member States with large financing needs to better tap international capital markets.

However, widening current account differences also reflect some imbalances within the euro

area, and can be partly ascribed to a series of less favourable factors, including budgetary policy slippages in some Member States and large and persistent disparities in competitiveness developments across Member States. In this sense, they also reveal the difficulties faced by some Member States in properly integrating the constraints imposed by a single currency, particularly in terms of wage behaviour. Furthermore, it is worth noting that Member States with large deficits have tended to channel inflows of foreign capital to private consumption and housing investment rather than to corporate investment. This may mean that only limited use has been made of foreign debt to boost productive capacity.

Although the immediate risks related to the funding of high external deficits appear negligible in EMU, the pace of accumulation of external debt in some Member States is clearly not sustainable in the long run. Under EMU, countries can finance their deficits more easily and for longer periods of time but not indefinitely. However, the transition to more sustainable current account positions will not be easy. It will require a marked improvement in the competitiveness of the countries concerned that, in the absence of nominal exchange-rate realignments, will necessitate a protracted period of wage moderation and/or efforts to enhance productivity. National economic policies geared at promoting wage flexibility, wage moderation and productivity gains could considerably facilitate the adjustment process.

An issue that has become a source of considerable concern among analysts and policy makers is population ageing. In the coming decades, the euro area's population will undergo dramatic demographic changes due to low fertility rates, continuous increases in life expectancy and the retirement of the baby-boom generation. This will pose major economic, budgetary and social challenges for the euro area as well as for the rest of the EU.

Against this background, this report presents an assessment of the long-term sustainability of budgetary policies in the euro area. The analysis reveals that, based on current policies, a considerable gap exists between the current budgetary position and a sustainable one, a gap which is estimated at about 3½% of GDP. Hence, in the absence of reform measures and budgetary consolidation, government debt in the euro area could increase from some 70% of GDP today to nearly 200% of GDP by 2050. This is a major concern for all the euro-area Member States, though the relative scale of the challenge differs significantly across countries.

Ensuring fiscal sustainability in the euro area requires time-consistent policies, which involves correcting budgetary imbalances before the budgetary impact of ageing sets in. A comprehensive approach is necessary, consisting of fiscal consolidation, efforts to increase employment and enhance productivity, and structural reforms that prepare the euro area's social models to meet tomorrow's challenges. Several Member States have made progress along these three routes, by resolutely implementing often strenuous policy measures. Evidence has shown that reforms and ambitious fiscal policies pay off. However, more needs to be done, and be done soon: postponing the inevitable policy choices will not make them easier, but more difficult in the future.



Klaus REGLING
DIRECTOR GENERAL



I. Economic situation in the euro area

The latest reading of the national accounts for the euro area showed slower, albeit continuously solid, growth in the third quarter, confirming that the recovery is broadly based and sustainable. Growth was driven primarily by domestic demand and in particular by household consumption, which was underpinned by robust job creation and high consumer confidence. Business confidence indicators have been upbeat, suggesting a healthy corporate sector. All these developments are consistent with a sustained expansion in the fourth quarter. Looking further ahead, some deceleration in growth is expected in 2007, reflecting temporary effects of the VAT increase in Germany and a certain easing in global demand, stemming mainly from the US. According to the European Commission's autumn 2006 forecast, GDP growth is projected to stay around potential in 2007.

The long-anticipated US slowdown is now clearly under way. The US and euro-area economies are interlinked through various channels (in particular through trade, financial markets and confidence effects) and their business cycles show considerable co-movement. Moreover, there is evidence that the US business cycle leads the euro-area cycle, which could suggest a transmission of US shocks to the euro area. However, the historical pattern partly reflects the occurrence of common shocks, such as past oil price hikes and the bursting of the asset price bubble. Therefore, it is not, a priori, clear whether the current slowdown in the US, which is domestically generated, will affect the euro-area economy in the same way and to a similar extent as in the past. Moreover, the euro area is now in a significantly better position to withstand a US slowdown.

The level of structural unemployment as measured by the non-accelerating wage rate of unemployment (NAWRU) has been on a declining trend since 1997 for the euro area as a whole. From a peak of 9.2% of the labour force in 1997, the NAWRU decreased by 1.4 percentage point to 7.8% in 2006 and projections point to a further decrease in 2007 and 2008. However, the decline is uneven across Member States, reflecting the varying intensity of national policies to tackle structural unemployment. According to estimates of the relationship between unemployment and wage inflation, a decrease of the unemployment gap of one percentage point pushes up wages by 0.7 percentage point in the euro area as a whole.

1. Recent economic developments and short-term prospects¹

Growth levelled off in the third quarter, but remains robust

Euro-area GDP growth in the third quarter slowed down to 0.5% (quarter-on-quarter), i.e. 0.1 percentage point lower than projected in the European Commission's autumn 2006 forecast. This followed strong growth in the first half of the year, which was revised upwards by Eurostat, with GDP growth for the second quarter now estimated at 1% instead of 0.9%. As a consequence, the average annualised growth rate for the first three quarters of 2006 was 2.6% and the carryover for annual GDP growth in 2006 was revised upward to 2.5%. The underlying growth momentum, as measured by the year-on-year growth rate, marginally edged down from 2.8% in the second quarter to 2.7% in the third quarter.

The third-quarter growth in the euro area was largely influenced by the sharp deceleration in France, with growth falling from 1.2% in the second quarter to zero in the third quarter.² Growth in Italy also weakened in the third quarter (0.3%). Conversely, GDP growth remained strong in Spain (0.9%) and healthy in Germany and the Netherlands (0.6%).

Domestic demand remains the main engine of growth

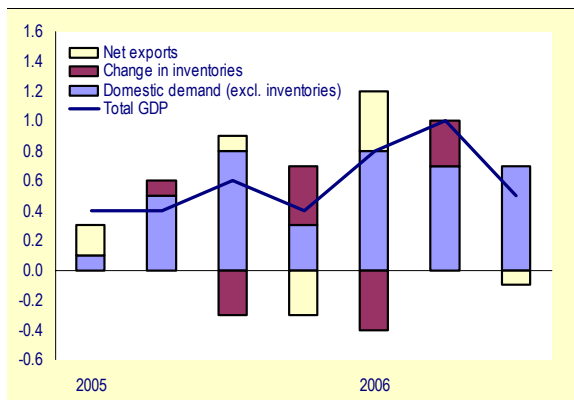
Though slower growth was observed in the third quarter, a much brighter picture emerges when looking at the different GDP components. Indeed, growth in the third quarter continued to be fuelled primarily by domestic demand, which contributed 0.7 percentage points to growth in the third quarter. The slower GDP growth in the third quarter can be mainly attributed to external demand, which was a drag on growth, and to

¹ The cut-off date for the statistics included in this issue was 7 December 2006.

² The stagnation of France's GDP follows the very strong growth in the second quarter (1.2%), which was probably overstated due to working day adjustment problems.

inventory developments, which were neutral (Graph 1).

Graph 1: Contributions to real GDP growth, euro area (quarter-on-quarter % point contributions)



Source: Commission services.

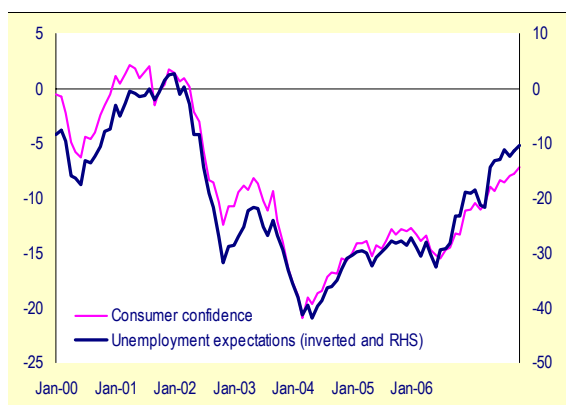
After a disappointing reading in the second quarter (0.3%), private consumption growth rebounded to 0.6% in the third quarter, becoming the main driver of growth. The volatility in consumption was mainly caused by developments in Germany, where private consumption rebounded by 0.7% in the third quarter after a contraction of 0.2% in the second quarter. The consumption increase was recorded across all euro-area countries. It is now increasingly clear that consumer spending has been gaining momentum this year after a sluggish performance in previous years.

The growth of household borrowing, though still at very high rates, has shown some deceleration in the third quarter compared to the second one. Available data for October show a deceleration in both lending for house purchase and consumer credit. Past withdrawal of monetary stimulus by the ECB seems to be weighing on mortgage borrowing and consumer credit. This signals a normalisation of monetary conditions in the euro area after a period of strong credit growth.

Despite the deceleration in household borrowing, the improvement in household consumption is expected to continue, mirroring mainly the improved performance in the labour market. Employment growth accelerated to 0.4% (quarter-on-quarter) in the second quarter. At the same time, unemployment continued its

downward trend. In October, unemployment decreased to 7.7% of the labour force. This is the lowest rate since the start of the Eurostat series in 1993. The drop was driven by significant improvements in Germany and France. According to the European Commission's business and consumer survey, employment expectations in the manufacturing and service sectors improved further in November. In line with these developments, consumer confidence picked up again in November and households' unemployment expectations were more optimistic (Graph 2).

Graph 2: Consumer confidence, euro area (balance in % – Jan 2000 to Nov 2006)



Source: Commission services.

Though decelerating from the remarkable 2.3% increase in the previous quarter, gross fixed capital formation continued to grow at a sustained pace in the third quarter (0.8%). The strong deceleration of gross fixed capital can mainly be attributed to developments in German investments. After an exceptional 4.4% increase in the second quarter, investment slowed down to 0.8% in the third quarter. Given the strong volatility of quarterly data, figures for the third quarter should be analysed in conjunction with those for the second quarter.

The breakdown of investment spending by sector is not yet available for the third quarter. But available data for the second quarter showed that the contributions of construction and equipment investment in the euro area were comparable; both increased strongly compared to the previous quarter (2.2% and 2.1% respectively). For the construction sector, this was the highest rate in almost ten years.



Table 1: Euro-area economic growth components

	2005 Q4	2006 Q1	2006 Q2	2006 Q3	Carryover to 2006	Forecast (1)	
						2006 (2)	2007 (2)
Percentage change on previous period, volumes							
GDP	0.4	0.8	1.0	0.5	2.5	2.6	2.1
Private consumption	0.1	0.7	0.3	0.6	1.8	2.0	1.6
Government consumption	0.4	0.9	0.1	0.8	2.1	2.0	1.4
Gross fixed capital formation	0.6	1.0	2.3	0.8	4.6	4.3	3.0
Changes in inventories (% of GDP)	0.4	0.0	0.3	0.2	0.0	0.2	0.4
Exports of goods and services	0.7	3.8	1.1	1.7	8.0	7.9	6.0
Imports of goods and services	1.6	2.8	1.1	2.1	7.9	7.5	5.7
Percentage point contribution to change in GDP							
Private consumption	0.1	0.4	0.2	0.4	1.0	1.1	0.9
Government consumption	0.1	0.2	0.0	0.1	0.4	0.4	0.3
Gross fixed capital formation	0.1	0.2	0.5	0.2	1.0	0.9	0.6
Changes in inventories	0.4	-0.4	0.3	0.0	0.0	-0.1	0.1
Net exports	-0.3	0.4	0.0	-0.1	0.2	0.3	0.2

(1) Annual change in %. (2) European Commission Autumn 2006 Forecasts.

Source: Commission services.

The continued investment dynamism was reflected in loan developments in the corporate sector. Loans to the non-financial corporate sector continued to grow very strongly, reaching annual rates above 12% in the third quarter. In October, corporate loans were particularly impressive, reaching 12.9%, the highest rate seen since the early 1990s. The ECB's October 2006 Bank Lending Survey suggests that financing needs are strongly related to the strengthening of economic activity. In particular, the need to increase fixed capital investments and working capital has become the main driver of corporate loan demands. It is also particularly interesting to note that, for the first time since the survey began (April 2003), the growth rate of corporate loans for capital spending has now exceeded that for M&A and debt restructuring.

These developments seem to suggest that liquidity conditions continue to be favourable and support the ongoing corporate expansion. Looking ahead, a solid pace of investment growth should be maintained in the coming quarters. This follows from improved balance sheets, benign financial conditions, steady increases in capacity utilisation and solid output. According to the European Commission's business survey, capacity utilisation rose to 83.9% between July and October, the highest rate since the year 2000. Higher profit margins also encourage ongoing corporate expansion and are supported by the continued pick-up in

activity and still fairly moderate wage developments. Moreover, recent developments in labour productivity in the euro area have surprised on the upside. Annual labour productivity averaged 2% in the first half of 2006, compared with an average rate of 0.7% during the past decade. It is hard to tell, at this juncture, how much of this productivity pick-up reflects a genuine structural improvement. However, the analysis in Box 1 suggests that the downward trend of labour productivity appears to have halted towards the end of 2002 and to have reversed since.

Trade has remained unexpectedly robust

While growth in euro-area exports decelerated sharply in the second quarter, it rebounded in the third quarter (1.7%), thereby defying expectations of a further deceleration in conjunction with the US slowdown. This can be explained by different factors.

Firstly, so far, spillover effects from the decelerating housing market in the US to the rest of the US economy seem to be limited.³ For instance, the US Quarterly National Accounts show a 2.3% (quarter-on-quarter) increase in imports of goods in the third quarter.

³ See Section I.2 for a discussion on the impact of the US slowdown on the euro-area economy.

Table 2: Selected euro-area and national leading indicators, 2005-2006

	SENT. IND ¹⁾	BCI ²⁾	OECD ³⁾	PMI Man. ⁴⁾	PMI Ser ⁵⁾	IFO ⁶⁾	NBB ⁷⁾	ZEW ⁸⁾
Long-term average	101.2	-0.00	2.77	52.5	54.7	96.5	-8.2	29.6
Trough in latest downturn	88.1	-1.25	-0.77	42.9	46.7	87.3	-26.5	-10.4
November 2005	100.2	0.10	3.4	52.8	55.2	98.4	-5.6	38.7
December 2005	101.1	0.30	3.6	53.6	56.8	100.4	-0.8	61.6
January 2006	101.8	0.30	3.9	53.5	57.0	103.9	-4.4	71.0
February 2006	103.2	0.60	4.4	54.5	58.2	104.8	1.6	69.8
March 2006	104.0	0.80	4.4	56.1	58.2	105.6	0.3	63.4
April 2006	106.4	1.10	4.8	56.7	58.3	105.4	6.4	62.7
May 2006	107.4	1.00	4.9	57.0	58.7	103.9	1.4	50.0
June 2006	107.8	1.40	4.4	57.7	60.7	104.1	10.6	37.8
July 2006	108.6	1.30	3.6	57.4	57.9	102.6	5.6	15.1
August 2006	108.5	1.20	3.2	56.6	57.4	101.4	3.3	-5.6
September 2006	109.3	1.40	2.7	56.6	56.7	98.9	5.0	-22.2
October 2006	110.4	1.40		57.0	56.5	99.2	2.4	-27.4
November 2006	110.3	1.50		56.6	57.6	100.1	4.1	-28.5

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 Purchasing Manager Index, services. 6) Business expectations, West Germany. 7) National Bank of Belgium indicator for manufacturing. 8) Business expectations of financial market analysts, Germany.

Secondly, according to the latest estimates of the CPB Netherlands Bureau of Economic Policy Analysis, world trade growth has not decelerated. Rather, it seems to have stabilised, increasing by 2.5% or more (quarter-on-quarter) since the last quarter of 2005.⁴

Thirdly, euro-area exports to the US have been declining since 1999. Today, the share of euro-area exports to the US is 15% for goods and 20% for services compared with, respectively, 17% and 23.5% in 1999.

The prospects for euro-area exports are thus fairly bright. According to the European Commission's business surveys, the assessment of current export-order books improved in November while export-volume expectations in the manufacturing industry remained constant in the fourth quarter, albeit at a very high level.

Euro-area imports also rebounded in the third quarter (2.1%), reflecting robust domestic demand in the euro area. The strong inflow of imports offset export growth, resulting in a slightly negative contribution of net trade. However, the picture is rather different across

Member States. For example, in France, net trade continued to contribute negatively to growth (-0.2%) while in Germany net trade contributed strongly (0.4%) to quarter-on-quarter growth.

Business surveys reaching record high levels

Business confidence indicators in general are remarkably high. Since mid-2005, they have increased sharply and reached record heights lately. In November, the European Commission's Business Climate Indicator continued to increase, reaching the highest level ever (Graph 3). These results were fully in line with other surveys.

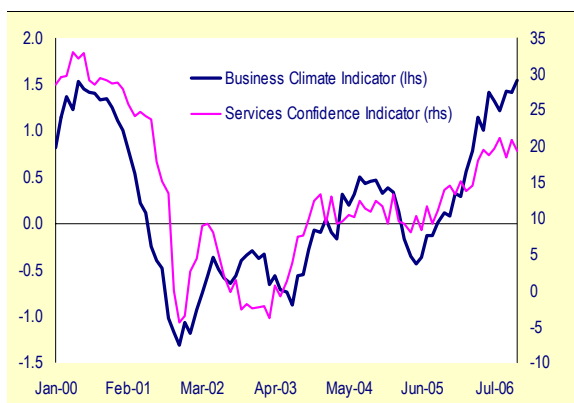
The German Ifo index also rose further in November, reaching much higher than expected levels. The index measuring current economic conditions hit its highest level since German reunification. Business expectations also increased, seemingly unaffected by the forthcoming VAT increase on 1 January 2007. The Belgian manufacturing index also rebounded in November, remaining quite high, well above the long-term average. Managers' production expectations for the months ahead continued to increase. The French INSEE business indicator remained steady, staying close to the five-year highs reached earlier this year (in March). The

⁴ Except in the second quarter of 2006 when world trade increased only by 1.3%. This was mainly the result of the 1.8% decrease in April compared to March, which was partly due to working-day effects.



euro-area manufacturing PMI also rose further in October. This was particularly encouraging in the light of declines in the US, Japanese, Chinese, and UK PMI. However, at odds with most national surveys, the euro-area PMI decreased in November, dragged down by Italy.

Graph 3: Business confidence indicators, euro area
(Balance in % – Jan 2000 – Nov 2006)



Source: Commission services.

The business surveys message is thus very clear: confidence remains high in the euro area. This is consistent with recent robust growth, which should remain strong or even accelerate in the fourth quarter.

In spite of these strong results, industrial production was down by 1% in September, after the strong 1.7% increase in August. However, it is important to keep in mind the quite substantial volatility in monthly data. In any case, on a quarterly basis, euro-area industrial production growth showed some stabilisation. It increased by about 1% in the third quarter compared to the 1.2% increase in the second quarter. In this context and as long as business confidence remains high, fluctuations in monthly production are not unduly worrying.

Various factors explain the recent business optimism: (i) robust domestic demand in the euro area; (ii) declining oil prices; (iii) ongoing gains in the stock market; (iv) improved balance sheets; (v) benign financial conditions and; (vi) higher profit margins. Most of these factors should continue supporting business confidence in the coming months.

The service sector surveys also point to a solid pace of economic activity. After four months of consecutive fall, the services PMI rebounded strongly in November. The European Commission's Survey indicator, though slightly decreasing in November, still remains well above its long-term average (Graph 3).

Short-term outlook and risks

After the slight moderation in growth in the third quarter, business surveys clearly point to either a stabilisation at a high level in the fourth quarter, or to some acceleration.

The European Commission's autumn 2006 forecast projected growth to reach 0.6% in the last quarter of 2006. For 2006, GDP growth is expected to reach 2.6%. Looking ahead, some deceleration in growth is expected for 2007, reflecting a certain easing in global growth and, in particular, in US growth. Nevertheless, the outlook is still for robust euro-area growth at around potential (2.1% for 2007), driven primarily by domestic demand.

Overall, the risks to the outlook are fairly balanced. On the domestic side, on the one hand, the VAT increase in Germany will have temporary adverse effects on consumer consumption. On the other hand, the labour market performance in the euro area could improve more than expected, boosting consumer consumption.

Risks stemming from the international side include developments in oil prices. Fundamentals suggest that they could fall further. However, it cannot be ruled out that oil prices may increase again due to geopolitical tensions. A disorderly correction of global imbalances also remains one of the main downside risks. Finally, a sharper-than-expected US slowdown could have a negative impact on the euro area.

Nevertheless, the confirmation of domestic demand as the main engine of growth, as well as the good health of the corporate sector, should help the euro area to maintain robust growth.

Box 1: Are we witnessing a structural improvement in labour productivity?

As a key determinant of long-run economic growth, productivity constitutes a core economic indicator. There are two generally accepted measures of productivity: labour productivity and total factor productivity. Whereas labour productivity measures economic output per unit of labour, total factor productivity relates output to the combined usage of factor inputs, namely, labour and capital. In a standard decomposition of a production function, there is a clear relationship between the two concepts in that changes in labour productivity are composed of capital input, labour input and total factor productivity. The concept of labour productivity is of significant policy relevance, as a driving force of competitiveness, living standards and potential output.

Recent developments in labour productivity growth

Recent developments in labour productivity in the euro area have surprised on the upside. Labour productivity in the euro area averaged 2% (annualised) in the first half of 2006, compared with an annual average rate of 0.7% during the past decade. However, as the acceleration of labour productivity is fairly recent, a pick-up of the long-term trend is difficult to disentangle from the current cyclical upswing.

The acceleration in labour productivity between the second half of 2005 and the first half of 2006 appears to be broadly based across sectors, even though labour productivity growth in the labour-intensive market services sectors and construction sectors was slower than in the more capital-intensive industrial sectors. Specifically, labour productivity (measured in terms of value added per person) in the private business sector (i.e. the whole economy excluding agriculture and public administration) expanded at an annualised pace of 2.6% in the first half of 2006, up from 0.8% in the previous six months, which equals the average growth rates observed in the decade 1995-2005. Within the private business sector, labour productivity growth strengthened in industry, largely reflecting a capital deepening. Across the larger Member States, productivity gains have been particularly large in the first half of 2006 in Germany. This surge is reflected in the sharp increase in labour productivity in industry, which more than doubled the average growth rate observed in the past decade. The private services sector has also performed remarkably well in Germany. Labour productivity gains have been significant in France and Spain, although more moderate than in Germany as far as the private business sector as a whole is concerned. Spain appears to be reducing the gap in the services sector. The picture is less rosy in Italy. Long-term labour productivity growth has been fairly low in Italy over the last ten years across the main sectors of the economy and recent developments appear to be at odds with the rest of the euro area. In the case of both Spain and Italy however, figures are partly distorted to the downside due to the regularisation of immigrants.

Labour productivity growth (1), euro area (annual change in %.)				Labour productivity growth, larger Member States (annual change in %.)		
	1995-2005 (2)	2005H2 (3)	2006H1 (3)	1995-2005 (1)	2006H1(2)	
Whole economy	0.7	0.7	2.0			DE Private business sector
Private business sector, of which	0.8	0.8	2.6			of which:
Private services sector	0.2	-0.3	1.6			- Industry (excl. construction)
Public administration	0.0	-0.1	0.2			- Private services sector
Breakdown of private business sector into main branches:						FR Private business sector
Industry (excl. construction)	2.3	3.6	5.6			of which:
Construction	-1.0	1.1	1.0			- Industry (excl. construction)
Trade & transport	0.8	1.4	2.2			- Private services sector
Finance and business	-1.1	-2.5	0.8			IT Private business sector
						of which:
						- Industry (excl. construction)
						- Private services sector
						ES Private business sector
						of which:
						- Industry (excl. construction)
						- Private services sector

(1) Measured in terms of value added per person.
(2) Average y-o-y growth rates.
(3) Annualised semester-on-semester growth rates.
Source: Commission services.

(1) Average y-o-y growth rates.
(2) Annualised semester-on-semester growth rates.
Source: Commission services.

Assessing the structural component of labour productivity growth

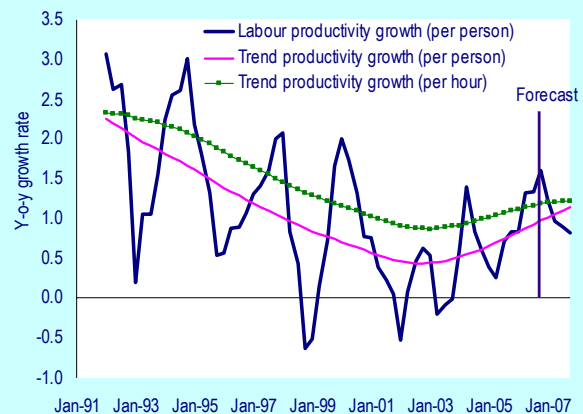
Productivity growth is partly a cyclical phenomenon. Productivity changes are known to be pro-cyclical, picking up strongly in the early stages of an economic upturn and tending to weaken in a downturn. This reflects the lagged response of employment to output changes. Yet labour productivity growth is also subject to long-run dynamics and the long-run dimension is typically captured by trend patterns. Ten-year averages show labour productivity growth in



the euro area to have been on a declining trend during the last fifty years. The main factors behind this long-term decline are low capital accumulation and deteriorating total factor productivity growth. According to several recent studies, from a sectoral perspective, industries that neither produce nor use ICT appear most responsible for the decline in average labour productivity growth since the mid-1990s.*

In order to analyse the latest labour productivity developments, the trend was extracted from a quarterly sample. The downward trend of labour productivity growth in the private business sector appears to have halted towards the end of 2002 and to have been reversed since then. Trend labour productivity growth bottomed out at 0.5% (year-on-year) in 2002Q4 accelerating to 0.8% in 2006Q2. One drawback of measuring labour productivity per person is that it is affected by the declining trend in the number of average hours worked per person. However, as shown in the chart, correcting for the trend in hours worked seems to make little difference other than a level shift in the overall trend of labour productivity. A similar rising trend in labour productivity is visible in most sectors of the economy (see table below). This is particularly the case for the private services sector. Labour productivity growth in this sector started declining in the early nineties, to bottom out in the last quarter of 2001. Since then, however, it has accelerated to stand at 0.4% in the second quarter of 2006.

Actual and trend labour productivity growth, euro area (private business sector) (in%)



Source: Commission services.

Trend labour productivity growth by sector, euro area (1)
(y-o-y growth rates in %)

	at latest trough (2)	2006Q2
Whole economy	0.5 (2002Q4)	0.8
Private business sector, of which	0.5 (2002Q4)	0.8
Private services sector	-0.1 (2001Q4)	0.4
Breakdown of private business sector in main branches:		
Industry (excl. construction)	1.9 (2002Q1)	3.1
Trade and transport	0.5 (2003Q2)	1.0
Finance and business	-1.8 (1999Q3)	-0.5

(1) Trend extracted using a Hodrick-Prescott filter.

(2) Latest trough within brackets.

Source: Commission services.

Overall, the acceleration in productivity gains in the services sector since 2002 is higher than the improvement observed for the euro area as a whole, highlighting the role of the services sector as the key driver of the labour productivity surge. It is worth noting that the contribution of the services sector to the acceleration of overall labour productivity growth since 2002 is now as large as that of industry. Looking at labour productivity developments in other sectors of the economy (manufacturing, trade and transport, finance and business), the overall picture of an interruption in the declining trend of the nineties and the subsequent reversal remains valid.

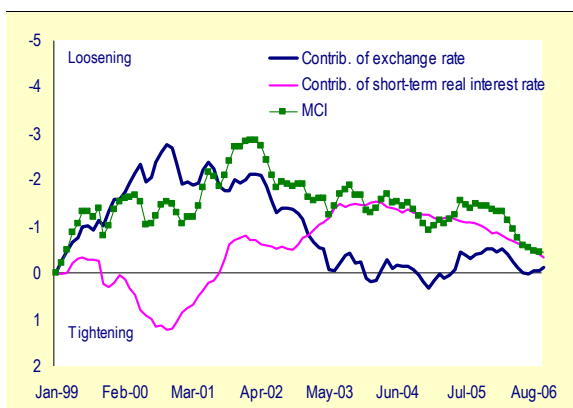
(* European Commission (2006), 'Long-term labour productivity and GDP projections for the EU25 Member states: a production function framework', *European Economy*, Economic Papers, No 253/2006

Monetary and financial conditions

On 7 December, the ECB continued its normalisation of interest rates when it hiked its policy rates for the sixth time since December 2005. The ECB's key policy rate currently stands at 3.5 percent. The interest rate increases were motivated by upside risks to price stability over the medium term, as identified by the ECB's analysis, both economic and monetary. It should help ensure that medium- to longer-term inflation expectations in the euro area remain solidly anchored at levels consistent with price stability.

Although interest rates are still at relatively low levels, the policy rate hikes combined with an exchange-rate appreciation have led to some further tightening of monetary conditions in the euro area as measured by a Monetary Conditions Index (MCI).

Graph 4: Euro-area MCI and its contributors
(index Jan 1999=100 – Inverted scale – Jan 99 to Oct 06)



Source: Commission services.

After a weakening of the euro exchange rate at the beginning of the fourth quarter 2006, the euro has been on an appreciating trend since mid-October. Between 16 October and 8 December, the euro gained some 6% against the US dollar and about 2.5% against the Japanese yen, though in nominal effective terms the appreciation was more muted. The recent weakening of the US dollar can be explained by different factors. The US is in the late stages of the business cycle, there is evidence suggesting a

slowdown of productivity growth and of the medium-term growth potential, while the current account deficit remains high. At the same time, economic growth in the euro area has accelerated, and the expected interest-rate differential (based on futures contracts) with respect to the US has decreased by around 90 basis points over the last seven months.

Table 3: Exchange rate developments
(in %, 8 December 2006)

	USD/ EUR	JPY/ EUR	NEER euro area (1)	REER euro area (2)
Change relative to				
1 Jan. 06	12.5	10.3	4.9	1.7
Avg 2005	7.0	12.4	2.4	-1.0
Level compared with 1995-2005 average				
	18.8	20.8	16.2	2.2

(1) Nominal Effective Exchange Rate (reference group of 41 countries).

(2) Real Effective Exchange Rate (reference group of 41 countries).

Source: Commission services, EcoWin.

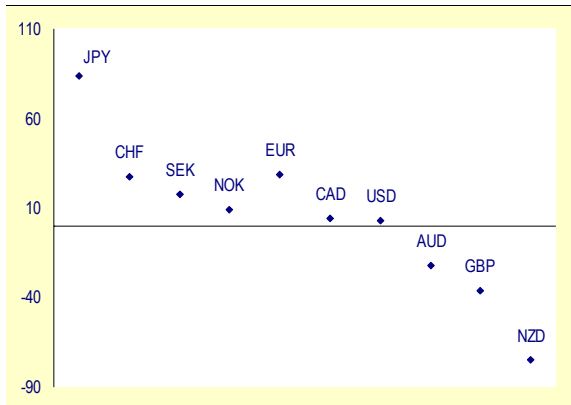
The cyclical decoupling between the euro area and the US has also been reflected in government bond markets. Overall, 10-year government bond yields temporarily increased some 20 basis points in the course of October in both the US and the euro area. In November, bond yields remained relatively stable in the euro area at around 3.7% but lost some 10 basis points in the US where they currently stand slightly below 4.5%. As a result, the interest-rate differential at both sides of the Atlantic declined further to around 80 basis points over the last months. This could be interpreted as a sign that market participants are increasingly differentiating between the US and the euro-area economy. Some differentiation was already noticeable earlier at the short end of the yield curve, where the differential for 2-year government bonds declined from 180 basis points in June to currently slightly above 90 basis points.

Both the euro area and the US are experiencing flat or flattening yield curves. Flat yield curves today seem to be a phenomenon common to



most industrialised countries. Nine out of ten selected yield curves show an absolute spread of less than 50 basis points between the 2-year and the 10-year maturity segment (swaps) (Graph 5).

Graph 5: **Flattering of the yield curve**
(10y-2y interest rate swaps spreads in bp as of
8 December 2006)



Source: Commission services.

2. Will the effects of a US slowdown spill over to the euro area?

The long anticipated US slowdown is now clearly under way. US GDP growth decelerated to an annualised rate of 2.6% in the second quarter and to 1.6% in the third quarter. The slowdown is so far mainly concentrated in the housing sector. Home sales have fallen by 10% since the last quarter of 2005, while residential investment contracted in the third quarter at an annualised rate of 17.4% compared to the preceding quarter, the sharpest decline since the 1990-1991 recession. In October, housing starts dropped by 14.6% compared to September, to the lowest level in more than six years. Year-on-year, housing starts are now 27% lower while building permits declined for the ninth consecutive month. The appreciation of house prices has also slowed sharply and some local markets have experienced price declines. However, significant spillover effects on other parts of the US economy are not yet discernible in the data. Consumer spending (3.2%) and business fixed investment (8.6%) both rebounded to post solid growth in the third quarter.

At the same time, the euro-area economy is growing strongly. The Commission's autumn 2006 forecast projects that this year's economic growth will reach 2.6% in the euro area, i.e. more than 1 percentage point above last year's. Domestic demand, which is the main driver, is set to maintain a steady pace.

The US and euro-area economies are interlinked through various channels (in particular through trade, financial markets and confidence effects) and their business cycles show considerable co-movement. There is also evidence that the US business cycle leads the euro-area cycle, which could be indicative of a transmission of US shocks to the euro area. A more severe downturn in the US economy could therefore also lead to a deterioration of the outlook for the euro area.

Spillover effects through trade linkages...

A US slowdown will directly affect the euro-area economy through a decline in euro-area exports to the US. Euro-area exports of goods (in

nominal USD values⁵) to the US, which in 2005 were 2.3% of GDP, have increased by almost 60% between 1999 and 2005. This rapid growth notwithstanding, the share of the US in euro-area exports of goods (excluding intra-euro-area trade) declined by 1½ pp. to 15½% in 2005 (Table 4). This decline is comparable with the evolution for the other industrialised economies, reflecting, in particular, the enhanced importance of emerging markets in world trade. In particular, the recently acceded Member States (RAMS), the candidate countries and emerging Asia have become important destinations for euro-area exports.

Table 4: Share of extra euro-area exports in total euro-area exports of goods (%)

	1999	2001	2003	2005
Industrialised non-EA	59.1	57.2	54.8	51.6
DK, SE, UK	27.1	25.6	25.1	23.1
USA	17.1	17.6	16.3	15.4
Other (1)	14.9	14.0	13.4	13.0
RAMS (2)	10.0	10.3	11.5	11.8
Candidate countries (3)	3.7	3.6	4.7	5.4
CIS (4)	2.3	3.3	3.9	4.9
Dev. Countries	24.9	25.6	25.1	26.4
MENA (5)	8.0	7.9	8.0	8.5
Sub-Saharan Africa	2.8	2.9	2.9	2.9
Latin America	5.3	5.1	4.0	4.2
Asia	8.8	9.7	10.2	10.8

(1) Japan, Canada, Norway, Switzerland, Iceland, Australia, New Zealand.

(2) Recently-acceded Member States of the EU.

(3) Bulgaria, Croatia, Romania, Turkey.

(4) Commonwealth of Independent States

(5) Middle East and North Africa

Source: IMF.

Given that the slowdown in the US is likely to affect consumer goods more than other goods, the share of consumer goods in overall goods exports to the US may also be important. This share amounts to 30% for the euro area as a whole. Combining the figures for the share of exports of goods to the US in overall goods exports and the share of consumer goods in goods exports to the US, about 5% of total euro-area exports would be more-or-less strongly affected by a US downturn.

⁵ Exports by destination are only available in values.

Available data on international trade for services show similar trends to those for goods. Between 2002 and 2004, euro-area services exports (excluding intra-euro-area trade) shifted towards emerging economies. The falling share of exports to industrialised countries over this period is, however, solely due to the declining share going to the US, which dropped by more than 4 pp.⁶ Despite this fall, the US share in total euro-area services exports remains above the corresponding share for goods exports. In terms of GDP, services exports to the US accounted for 0.9% of euro-area GDP in 2004.

Taking goods and services exports together, exports to the US account for about 3% of euro-area GDP. Assuming that a drop in US imports affects euro-area exports in a proportional manner, a 1% decline would reduce euro-area exports by an amount worth 0.03% of GDP.⁷ However, in order to gauge the impact on euro-area GDP itself, multiplier effects would have to be taken into account, including a reduction in import growth.

The slowdown in the US will have not only a direct but also an indirect impact on euro-area exports. Euro-area exports to third countries will be affected by the impact of the US slowdown on those countries' economic activity, though the magnitude of the impact will depend on the extent of their trade relations with the euro area. It might be significant, as seen from the US trade shares of some industrialised trading partners of the euro area. For instance, the United Kingdom – the euro-area's largest individual export market (one-sixth of extra-euro-area exports) – ships one-seventh of its own exports to the US.

An important question will be to what extent the emerging-market economies in Asia would be affected by a downturn in the US. The importance of the US as a destination for Asian exports remains high, albeit declining. Exports to the US represented about 20% of total Asian

⁶ Preliminary data suggests that the share of euro-area services exports to the US saw a further significant drop in 2005.

⁷ According to econometric estimates of the link between euro-area exports and US import demand on the basis of quarterly data, the long-run elasticity of euro-area exports to the US with respect to a change in US imports is 0.93, a near-proportional effect.



exports in 2005, compared to 25% in 2000. Due to the growing Asian trade integration, the importance of intra-Asian exports has increased. However, a large part of intra-Asian trade consists of intermediate goods which are assembled in Asia before being shipped to the US. For this reason, intra-Asian trade is likely also to be affected by a US slowdown.

...but also through financial market linkages and confidence effects

The magnitude of the trade-channel effects depends also on how the dollar-euro exchange rate responds to the US slowdown. If the US economy were to slow down more sharply than expected, market expectations of changes in the interest differential between the US and the euro area might lead to a depreciation of the dollar. This could be reinforced should there also be an upward shift in the risk premium foreign investors require for investing in the US.

Any depreciation of the dollar would exacerbate the negative effect of a US slowdown on the euro-area economy via direct trade effects. Moreover, the strength of any ensuing indirect trade effects would also crucially depend on the exchange-rate policy of Asian countries. However, given the euro area's strong trade links with other European countries, developments in its overall competitiveness will also very much depend on how those countries' currencies evolve.

While lower export demand, in particular for consumer goods, would tend to lead to lower investment growth, this would be somewhat offset by lower interest rates due to higher US savings and reduced inflationary pressures. In fact, simulations carried out with DG ECFIN's Quest model suggest that the net effect of the slowdown on investment could even be positive, leading to higher GDP in euro area in the long-run.

Exchange-rate movements would also have significant direct effects through the changes in the valuation of euro-area holdings of US assets, affecting in particular corporate balance sheets.⁸

⁸ According to ECB statistics, at the end of 2005 the euro area held (gross) assets in the United States worth more

Recent estimates suggest that the net claims in US dollars of the euro area amounted to 16.8% of GDP in 2005.⁹ While this is significant, it was found to be roughly half the exposure of Japan and China.

The US slowdown may also have spillover effects through corporate and financial linkages other than the channels already considered. The US activities of euro-area firms are considerable. In 2003, sales through affiliates of euro-area companies amounted to 7.5% of euro-area GDP.¹⁰ A slowdown in the US would therefore have an impact in that it would make these activities less profitable. And there could be some impact on euro-area production to the extent that production by US affiliates affects the production and investment decisions of euro-area parent companies. Furthermore, the US slowdown could also affect production decisions by US entrepreneurs in the euro area.

Financial linkages could also lead to spillover effects through financial asset prices due to the impact of the slowdown on investor sentiment. Financial markets currently seem to be predicting a soft landing of the US economy, in line with the Commission's autumn 2006 forecast. A stronger-than-expected slowdown could therefore have an impact on US asset markets. Given the interdependence of international financial markets, with widespread cross-border holdings of assets, there could be an additional spillover effect on investor confidence globally. Currently, the degree of co-movement of stock prices in the US and the euro area is quite high (Graph 6) and an adjustment of stock market valuations could easily spread across major markets (as it did during May this year). Global risk premia are very low by historical standards and a reassessment of investors' appetite for risk could lead to synchronised rise in risk premia. However, this might be somewhat

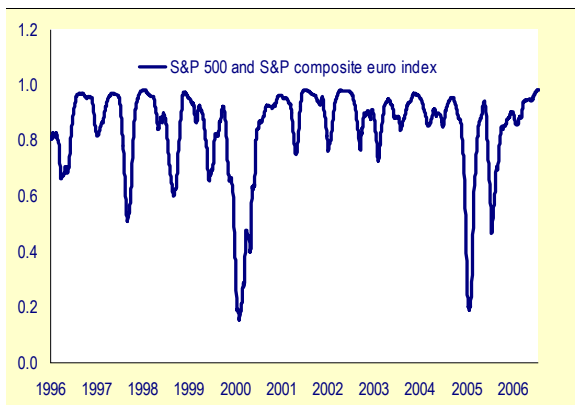
than 2.3 trillion euro (1.3 trillion euro in portfolio assets, 0.5 trillion euro for direct investment and 0.5 trillion euro for other assets).

⁹ Lane and Milesi-Ferretti (2005), 'Europe and Global imbalances', paper presented at the IMF's 7th Jacques Polak annual research conference, November 9-10, 2006.

¹⁰ Domestic sales exclude imports from the euro-area parent group, as these are included in euro-area exports.

counterbalanced by a possible shift in relative risk premia in favour of euro-area assets.

Graph 6: Correlation of euro and US equity indices (6 months)



Source: Commission services.

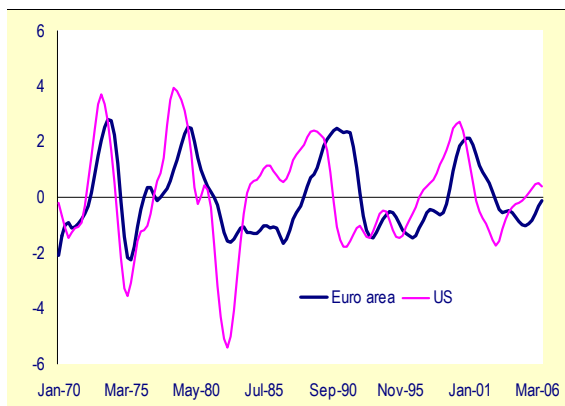
Finally, there may be spillover effects on business and consumer confidence in general.¹¹ Historically, there is evidence of a correlation between business and consumer confidence in the US and the euro area over and above what would be expected from the impact through the channels that have been considered so far.¹² However, in the current context of an idiosyncratic slowdown in the US resulting from a slowdown in the housing market, such spillovers may be smaller than seen in the past.

Correlation between the euro area and US business cycles has been high since the 1970s...

Since the US and euro-area economies are interlinked through various channels, their business cycles show considerable co-movement. Over the last 35 years, the euro-area and the US business cycles have posted a significant degree of co-movement, with a clear lead for the US

cycle (Graph 7).¹³ On average, the US cycle led the euro-area cycle by 3 quarters for a coincident correlation of about 47% (the correlation rises to 67% when the euro-area cycle is lagged by 3 quarters) (Table 5).¹⁴ However, the degree of synchronisation is very different depending on the sub-periods considered. If the sample is restricted to the period from 1990, the correlation falls to 25%.

Graph 7: GDP business cycles, euro area and US (Output gap in % – 1970Q1-2006Q3)



Source: Commission services.

Table 5 displays the correlations between the detrended euro-area and US GDP series for different periods. The first three periods correspond broadly to the last three euro-area cycles (1970-1985, 1986-1996 and 1997-2006). A strong correlation is found in the seventies as well as in the current cycle and hardly any correlation in the early nineties. This can be partly explained by the German unification which boosted euro-area growth while the US was falling into recession. It was only after the US was well on its way to recovery that the euro area fell into recession.

¹¹ See also the discussion in the Quarterly Report on the Euro Area, December 2003, Vol 2, No 4, pp. 16.

¹² See Anderton et al, 'Understanding the impact of the external dimension on the euro area: Trade, capital flows and other international macroeconomic linkages', ECB Occasional Paper, No 12, April 2004.

¹³ The euro-area and US business cycles were extracted from respectively, the euro-area and US GDP series using the Hodrick-Prescott filter.

¹⁴ In the current cycle, the highest correlation is reached when the US cycle is lagged by 5 quarters. This is quite short compared with the 1986-1996 period during which the euro-area cycle was lagging the US cycle by more than two years (9 quarters) but relatively long compared to the 1970-1985 period (2 quarters).



Table 5 : GDP cycles correlations, euro area and US

	Correlation	Highest correlation (lag)
1970Q1 – 1985Q4	70%	84% (2)
1986Q1 – 1996Q4	6%	80% (9)
1997Q1 – 2006Q4	42%	89% (5)
1970Q1 – 2006Q4	47%	67% (3)
1990Q1 – 2006Q4	25%	87% (7)
2003Q1 – 2006Q4	-20%	79% (8)

Source: Commission services.

... but this was mainly the result of common shocks

A high degree of correlation may be the consequence of common shocks hitting both regions at the same time or of a shock hitting one country and being transmitted rapidly to the other via contagion effects. The high co-movement observed here seems to reflect mostly the former (i.e. common shocks) for two reasons.

Firstly, if transmission through the different channels identified above was the main cause of the high correlation during the past 35 years, contagion effects would be found in euro-area investment rather than consumption. In this case, a higher correlation would be found between the euro-area and US for investment cycles than for consumption cycles. However, this is not the case and the correlation between consumption cycles is high.

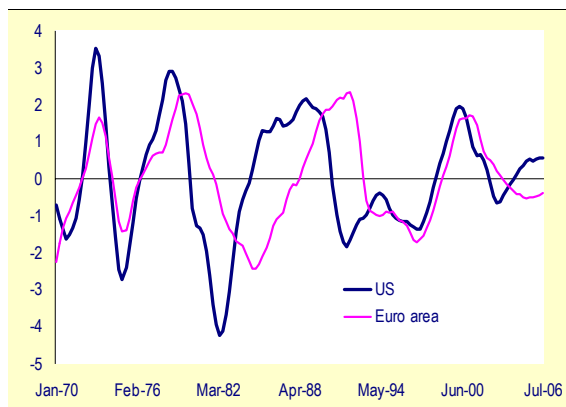
Second, three out of the four major slowdowns in the US over the last 35 years (1973, 1979 and 2000) were clearly followed by a euro-area slowdown. The key common element to these downturns is that they were all caused by common shocks which hit all different parts of the world at the same time. These include the large hikes in oil prices (in 1973 and 1979) and the bursting of the stock market bubble (2000-2001). These common shocks have synchronised not only the euro-area and US business cycles, but the international business cycle in general. As already mentioned, in the case of the US slowdown in the early nineties, the euro area was boosted by German unification.

This begs the crucial question, why does the US seem to lead the euro-area economy when

common shocks hit all parts of the world at the same time? The answer lies in the greater flexibility of its economy, which means that its response to shocks is markedly faster than the euro area's. Thus a common shock which hits both economies at the same time will result in a sharper and faster downturn in the US and also in an earlier and faster recovery. Therefore, the slower euro-area response to common shocks is not a sign of dependence on the US but rather a delayed response to shocks due to a less flexible economy.

Since the high correlation between the two cycles in the past seems to reflect common shocks rather than a dependence on the US, today's US slowdown, which is driven by its housing sector, should have a limited impact on the euro area. This should be true unless a sharper US slowdown triggers strong spillovers through balance sheets, equity markets and confidence channel and through a fall in the value of the dollar. Box 2 describes the impact of different simulations of a sharper slowdown in the US on the euro area.

Graph 8: Euro area and US consumption cycles
(Gap in % – 1970Q1-2006Q3)



Source: Commission services.

An encouraging picture also emerges when looking at the most recent period (2003-2006). Indeed, since 2003, there seems to be no correlation between the euro-area and the US cycles (Table 5). The pick-up in activity in the US since 2003 was not followed by a similar upswing in the euro area until mid-2005. Moreover, the correlation between the consumption cycle in the euro area and the US has come down significantly from the high levels reached in the

Box 2: A harder-landing scenario for the US economy

This box presents the results of three QUEST II model simulations of a sharper slowdown in the US economy. The baseline scenario (the softer-landing scenario) of the European Commission's autumn 2006 forecast assumes a 10% fall in the level of house prices and a moderate decline in residential construction until the third quarter of 2007. A sharper correction could see house prices coming down by 20% and residential construction following a more pronounced downturn similar to the one experienced in the 1990/1991 recession. In the three sharper slowdown scenarios presented in this box, US GDP is reduced by 2.5% in 2008 compared to the baseline projection (annual growth in 2007-2008 is reduced by about 1¼ pps. each year). In all three scenarios, the US slowdown is triggered by a cooling of the housing market and the effect this has on residential construction and private consumption.

In the first scenario, the slowdown in US domestic demand leads to a small improvement in the US trade balance of ½% of GDP. As to the effects on the euro area, only trade effects are assumed to be at work, with lower demand in the US reducing EU exports. Indirect effects via other trading partners reinforce this negative trade impact. In addition, the increase in US savings reduces global real interest rates, leading to a small increase in euro-area investment. The overall effect on euro-area GDP is a small negative spillover, reducing GDP growth by about 0.2 pp. in 2007 and by 0.1 pp. in 2008. This scenario is relatively benign with spillover effects only coming through lower export demand (and partly compensated by a lower global interest rate).

QUEST simulations: impact of a harder-landing scenario in the US

(Level deviations from baseline in %)

	Euro area			US		
	GDP	Investment	Consumption	GDP	Investment	Consumption
Scenario 1: Only trade channel (both direct and indirect)						
2007	-0.2	0.3	0.0	-1.1	-4.1	-0.9
2008	-0.3	0.6	0.0	-2.5	-5.9	-2.7
Scenario 2: Trade channel + balance sheets, equity markets and confidence channel						
2007	-0.3	0.0	0.0	-1.1	-4.1	-0.9
2008	-0.5	0.0	-0.1	-2.5	-5.9	-2.7
Scenario 3: Trade channel + confidence effects + financial market linkages						
2007	-0.5	0.7	0.3	-1.3	-5.4	-1.5
2008	-0.8	1.6	0.4	-2.5	-8.2	-3.4

Source: Commission services.

A sharper slowdown in the US could, however, trigger further spillovers through the balance sheets, equity markets and confidence channels. Scenario 2 includes an additional negative shock to investment in the euro area which offsets the positive impact of lower global real interest rates on investment. Consumption and, in particular, investment growth would be less buoyant than in the first scenario. This would almost double the overall GDP effect on the euro area, reducing growth by 0.3 pp. in the first year and by 0.2 pp. in the second.

The possibility of a fall in the value of the dollar cannot be ruled out. Scenario 3 assumes that, in addition to the effects underlying scenario 2, the dollar depreciates by 10% vis-à-vis the euro (risk premium shock). The scenario assumes further that Asian currencies maintain a peg relative to the US currency, leading to depreciation of the dollar of around 6% in real effective terms. The real effective appreciation for the euro area is less than 3%. As before, it is assumed that this accompanied by a negative confidence-related spillover effect impacting on investment in the euro area. The slowdown in US domestic demand and the dollar depreciation lead to a sizeable improvement in the US trade balance of more than 1 pp. There are several partly offsetting channels through which the euro area is affected. The appreciation of the euro and lower demand in the US reduces EU exports and raises imports. On the other hand, the appreciation lowers import prices, boosting consumption and investment spending. The increase in US savings also reduces global interest rates. In addition, the risk premium shock to the dollar implies a shift in investors' preferences, benefiting the euro, reducing interest rates and boosting domestic demand in the euro area. However, this is partly offset by a negative shock to investment reflecting lower confidence and stock market repercussions. This leads to a smaller positive effect on domestic demand in the euro area and the negative trade effect dominates. GDP growth is reduced by 0.5 pp. in the first year and 0.3 pp. in the second year.



late nineties (Graph 8).¹⁵ In addition, the consumption outlook for the euro area is increasingly optimistic with a clear improvement in employment growth.

Overall assessment

The euro-area economy will evidently be directly affected by a US slowdown through a decline in euro-area exports to the US. Furthermore, there will also be an indirect trade effect, depending on the extent to which the US growth slowdown will impact on third countries' economies and on those countries' trade relations with the euro area. The implications of the slowdown for euro-area trade will also depend on possible exchange rate movements. The US slowdown may in addition have spillover effects through corporate and financial linkages as well as through business and consumer confidence.

However, while the risks of contagion stemming from linkages should not be ignored, neither should we exaggerate them. The current slowdown in the US is country-specific and not sparked by a common adverse shock across world regions as was the case in previous downturns. Therefore, it is not, a priori, clear whether it will affect the euro-area economy in the same way and to the same extent as in the past.

Moreover, the euro area is now in a better position than in the past to decouple from the US slowdown. Indeed, euro-area growth is anticipated to be increasingly based on domestic demand over the next two years. While the overall macro-economic policy stance is likely to be somewhat less accommodative than in previous years, financing conditions remain fairly favourable. Good employment growth and increasing profitability on the back of moderate wage increases, coupled with a rise in productivity growth, will be the main driving forces of domestic demand. This domestic-demand-driven growth should help reduce the euro area's reliance on exports. Moreover, in

view of the diminishing share of the US in euro-area exports, euro-area exports should not worsen dramatically.

Company balance sheets have improved since the dot-com bubble burst. This makes companies less vulnerable to a worsening of financial-market conditions. In addition, companies in the euro area should be less affected via the financial-market channel due to current stock market valuations, which are more in line with fundamentals in than they were at the height of the dot-com bubble.

¹⁵ The particularly high correlation of consumption in the two regions from the late 1990s until 2003 reflects the importance of the succession of common shocks during this period. See 'Business cycle linkages between the euro area and the USA', Quarterly Report on the Euro Area, Vol. 2, No. 4 (2003).

3. The non-accelerating wage rate of unemployment (NAWRU) in the euro area

When it comes to the measurement of structural unemployment, the non-accelerating wage rate of unemployment (NAWRU) has long been part of the analyst's toolkit for a better understanding of the interplay between the functioning of the labour market and inflationary pressures in the economy. This section presents the concept and its current modelling at DG ECFIN and outlines a number of observations that can be derived from the indicator.

The origin of the concept

The starting point for the reflections that would eventually lead to the emergence of NAWRU as a concept was written in 1958 by A.W. Phillips, who was the first to note the trade-off between wage inflation and unemployment in data covering the United Kingdom.¹⁶ He observed that wage inflation tends to be high when unemployment is low and low when unemployment is high. Data was found to fit well along a specific pattern that became to be known as the Phillips curve. This concept gave rise to policies exploiting that relationship. They concluded that some degree of economic stimulation leading to an acceleration of inflation could lower the unemployment rate. This interpretation was refuted thereafter by prominent economists, including E. Phelps, 2006 Nobel prize winner, and the late M. Friedman, Nobel prize winner in 1976.¹⁷ Employment gains brought by higher wage inflation can only be of a temporary nature as they are driven by the money illusion of workers. Persistent policy stimulus leads to higher inflation but labour market benefits disappear as the Phillips curve shifts upwards and is ultimately vertical over the long term. Ample evidence derived from the

stagflation of the seventies in industrialised countries came to the support of these objections: any short-term improvements relative to the NAWRU resulting from stimulatory policy actions were reflected in progressively higher rates of inflation without a durable decrease in unemployment.

However, although discredited as a direct policy tool, the Phillips curve and its associated NAWRU can still provide some information to economists and policy-makers alike. Provided the NAWRU is successfully isolated, the unemployment rate can be broken into a cyclical and a structural component. The structural rate of unemployment (NAWRU) reveals how well the labour market performs in matching employment supply with demand, especially as data on vacancies, another potential indicator for the same purpose, has proven to be less reliable. For its part, the cyclical unemployment component reflects the effect of temporary macroeconomic shocks. If properly identified, the NAWRU can also provide evidence on whether output and unemployment changes are sustainable or not and serve as a yardstick to gauge inflationary pressures for monetary policy purposes. It has labour-market policy implications as well. Reducing the NAWRU component of unemployment requires structural reforms, whereas the policy mix can only have a bearing on cyclical unemployment.

Potential factors influencing the level of the NAWRU

The level of the NAWRU may depend on a wide range of institutional and economic parameters. Frictional unemployment might be considered largely incompressible, although new techniques as Internet job searching or improvements in the functioning of public or private placement agencies could lower its level. Beyond frictional unemployment, structural unemployment can be inflated by the mismatch of supply and demand in periods of rapid technological change or reallocation of demand between sectors. Education and training have a key role to play here in ensuring that the labour market works smoothly, especially for more the vulnerable segments of the workforce, namely the young and the unskilled. Labour market institutions have also recently been highlighted as having

¹⁶ Phillips, A.W. (1958), 'The relation between unemployment and the rate of change of money wage rates in the United Kingdom', 1861-1957, *Econometrica*, 25, pp. 283-299.

¹⁷ Phelps, E. (1968), 'Money-Wage Dynamics and Labor-Market Equilibrium', *Journal of Political Economy*, vol. 76, Part 2, p. 678-711 and Friedman, M. (1968), 'The role of monetary policy', *American Economic Review*, Vol. 58, pp 1-17.



potentially adverse effects on structural unemployment. Wage bargaining structures, employment protection regulations and the statutory level of unemployment insurance could, if not properly designed, lead to significant wage rigidities which hamper adjustment and could thus be detrimental to growth and employment. In such an environment, macroeconomic shocks could generate cyclical unemployment that would later coalesce into structural unemployment, as the employability of the jobless drops over time, effectively excluding them from the labour market. Finally a large tax wedge could also lift the NAWRU upwards by widening the gap between take-home pay for the employee and labour costs for the employer. All these factors combine to explain the persistence of unemployment in Europe, even long after the impact of the successive shocks has subsided.¹⁸ Within that conceptual framework, the high level of unemployment in the eighties and nineties went hand-in-hand with a gradual increase of structural unemployment.

Measurement issues and DG ECFIN's specifications

It is by definition hard to measure structural unemployment since it is not directly observable and may vary over time. Several indicators can be used, notably those based on price inflation (NAIRU), wage inflation (NAWRU) or even the rate of capacity utilization (NAIRCU). Estimation methods also differ. Structural methods model price- or wage-setting behaviour, while statistical methods focus on the actual unemployment rate and split it into trend and cyclical components. DG ECFIN has developed NAWRU indicators for the whole of the euro area and its member States (see Box 3 for methodological aspects).¹⁹

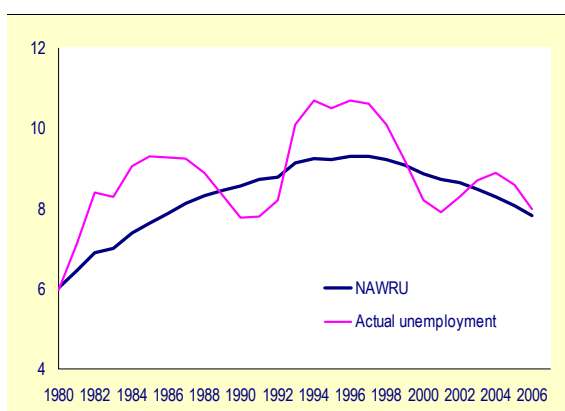
¹⁸ Blanchard O. (2006), 'European unemployment: the evolution of facts and ideas', *Economic Policy*, Vol. 21, No. 45, pp. 5-59 (January).

¹⁹ These indicators are consistent with the methodology used for the determination of output gaps that was discussed and approved by the EU's Economic Policy Committee and the Ecofin Council. See Denis C., Grenouilleau D., Mc Morrow K. and W. Röger (2006); 'Calculating potential growth rates and output gaps – A revised production function approach', *European Economy*, Economic Papers, No. 247 (March).

Results and lessons drawn from the NAWRU in the euro area

Following a steady increase after the first oil price shock of the early seventies, the level of the NAWRU has been on a declining trend since 1997. From a peak of 9.2% of the labour force in 1997, the NAWRU decreased by 1.4 pp. to 7.8% in 2006 (latest estimate from the Commission's autumn 2006 forecasts).

Graph 9: Unemployment rate and NAWRU in the euro area (in % of labour force – 1980 to 2006)



Source: Commission services.

The reversal in the trend since 1997 is not the result of dramatic measures being implemented but rather appears to be the outcome of a series of incremental reforms launched in various Member States that eventually delivered benefits, albeit sometimes with a significant lag. It is worth noting that the decline in the level of the NAWRU persisted even during the recent period of soft growth.

Other ways of depicting the recent positive trend yield similar results. The depiction of the wage-unemployment relationship shows successive shifts downwards, starting from 1996-1997, which would suggest that the functioning of the euro-area labour market has become less rigid (Graph 10).

A similar picture emerges from the examination of the Beveridge curve, with a positive evolution that takes shape in a leftward drift, though at a slightly later point in time (Graph 11).

Box 3: Estimating structural unemployment in the euro area

Structural unemployment can be determined by removing the cyclical component from the observed unemployment rate. The cyclical component can be identified via a Phillips curve in accordance with well-established theory. The Phillips curve specification used by DG ECFIN is a reduced form which is derived from a standard wage-setting curve and a labour-demand equation.

As regards wage setting, it relates nominal wages demanded by workers to price expectations, to the level of the reservation wage, to the expected productivity, and to the unemployment rate. According to the neoclassical model, wages are largely determined by the reservation wage, whereas wage-bargaining models attribute a larger role to productivity developments. DG ECFIN's chosen specification allows both theoretical strands to be covered. It is assumed that price and productivity expectations are backward-looking. The reservation wage, which would – according to theory – be a function of labour taxation and the unemployment replacement rate, is not observed. It is rather considered a permanent component of the wage equation which is implicitly estimated by a Kalman filter.

For its part, the labour-demand equation depends on the level of productivity and labour-demand shocks, the latter triggering shifts in labour demand. These labour-demand shocks could drive a wedge between productivity and real wages and comprise a cyclical component, which derives from labour hoarding, and a permanent component, which covers sectoral shifts or changes in mark-ups. Temporary labour-demand shocks are approximated by a first difference in the growth rate of the wage share and enter the Phillips curve.

Rearranging the wage-setting curve and the labour-demand equation gives an estimation of structural unemployment. It is also possible to derive the change in wage inflation (w_t), which is modelled as a function of labour productivity (pr_t), the wage share (ws_t), and the deviation of unemployment from structural unemployment ($u_t - u_t^*$). Terms of trade (tot_t) have been added as an explanatory variable as nominal wages can respond positively to a possible wedge between consumer prices and GDP inflation.

$$\Delta^2 w_t = \phi^{pr} \Delta^2 pr_t + \phi^{ws} \Delta^2 ws_t + \phi^{tot} \Delta^2 tot_t - \beta(u_t - u_t^*) + v_t^w$$

Phillips curve estimates (based on annual data, 1965-2006)

	$U_t - U_t^*$	$\Delta^2 PR_t$	$\Delta^2 WS_t$	$\Delta^2 TOT_t$	$\Delta^2 TOT_{t-1}$	R ²	Q-Statistic
Euro area	-0.69(-3.1)	0.82(4.7)	0.99(6.0)	0.03(0.2)	0.31(1.7)	0.52	0.85
Germany	-0.53(-2.6)	0.86(7.2)	1.20	–	0.22(1.6)	0.81	0.23
France	-0.45(-2.2)	0.82(3.8)	0.93(6.8)	0.23(1.7)	0.48(3.6)	0.67	0.90
Italy	-0.50(-0.4)	0.68(2.4)	0.72(3.7)	–	0.74(1.6)	0.28	0.36
Spain	-0.39(-2.9)	0.47(2.5)	0.56(3.4)	–	0.61(2.6)	0.39	0.59

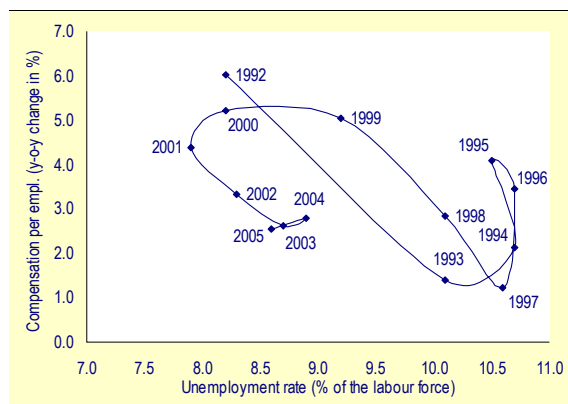
T-Statistics in brackets. See for methodology Denis, C. Grenouilleau, D., McMorro, K. and W. Röger, (2006), 'Calculating potential growth rates and output gaps – A revised production function approach', *European Economy*, No 247. The Commission's autumn 2006 forecasts were used to construct 2006 data.

Source: Commission services.

Wage inflation remains sensitive to the unemployment gap once additional parameters are added to the equation to control for other factors: one additional point of unemployment depresses wage inflation by 0.69 point in the euro area, although the sensitivity is lower (0.4-0.5) for bigger euro-area countries. The influence of productivity is noticeable even across large euro-area countries (0.82), which provides support to wage bargaining theories. The lagged impact of terms of trade, measured by the difference between consumer and GDP prices, is also significant, although less so for Germany. Finally, it is found that wages respond to labour-demand shocks, approximated by changes in the wage share. Its impact is somewhat proportional to labour productivity.

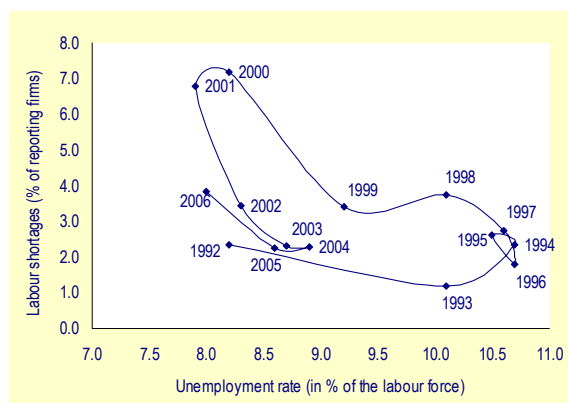


Graph 10: Unemployment rate and wage growth in the euro area (1992-2005)



Source: Commission services.

Graph 11: Beveridge curve in the euro area (1992-2005)



Source: Commission services.

While structural unemployment has been on a downward path in the euro area as a whole since the late 1990s, the labour-market performance has varied significantly across individual Member States, reflecting the fact that there are still twelve different labour markets, governed by national regulations and institutions. Figures point to a decrease in the NAWRU in the period 2001-2005 compared to 1996-2000 in seven euro-area Member States. In particular, Finland, Spain and Italy have recorded significant progress. But structural unemployment has still been increasing in Austria, Germany, Greece, Luxembourg and Portugal. Uneven progress between member States suggests that there is still scope for further improvements in the functioning of the labour market in many euro-area Member States.

In particular, estimates of the NAWRU point to a persistently high level of structural employment in Germany, with no improvement recorded thus far. It would, however, be too early to draw any conclusion on the effectiveness of the recent Hartz reforms, since the impact of reforms usually takes a long time to make itself felt in aggregate data.

Table 6: Estimation of NAWRU in the euro area (1)

	(in %)			Forecasts (2)	
	Average level			2006	2008
	1991-1995	1996-2000	2001-2005		
BE	8.3	8.0	7.9	7.9	8.0
DE	7.0	7.9	8.3	8.3	8.2
EL	8.0	9.3	9.6	9.4	9.1
ES	15.2	13.8	10.6	8.3	6.9
FR	9.9	10.3	9.5	9.0	8.6
IE	13.7	8.1	4.2	4.0	4.4
IT	9.7	10.0	8.6	7.5	7.0
LU	2.2	2.6	3.5	4.2	4.5
NL	5.7	4.1	3.0	3.2	3.0
AT	3.6	3.9	4.4	4.9	5.1
PT	5.3	5.2	5.9	6.7	7.4
FI	11.2	11.9	8.1	7.1	7.0
Euro Area	8.9	9.1	8.3	7.8	7.4
US	5.7	5.2	5.2	5.1	5.1

(1) Data in percentage of the labour force.

(2) Commission autumn 2006 forecasts.

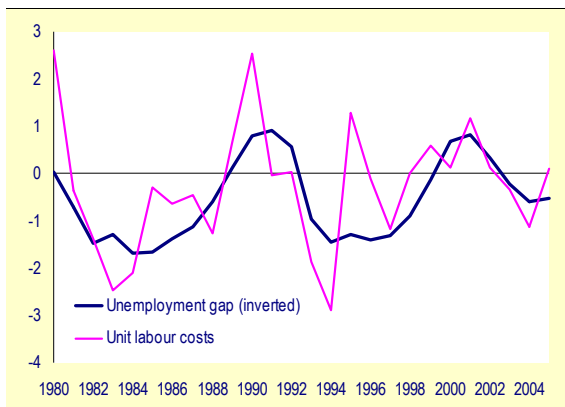
Source: Commission services.

Assessing wage elasticity through the NAWRU

The NAWRU model also provides information on the elasticity of wages to labour market conditions. For the euro area, the elasticity to the unemployment gap, measured by the difference between headline unemployment and the NAWRU, amounts to -0.7, which means that a one percent decrease in unemployment would increase, in the short run, wage inflation by 0.7 percent. Estimates differ, however, significantly between euro-area countries, ranging from -0.4 for Finland to -1.3 for Austria.

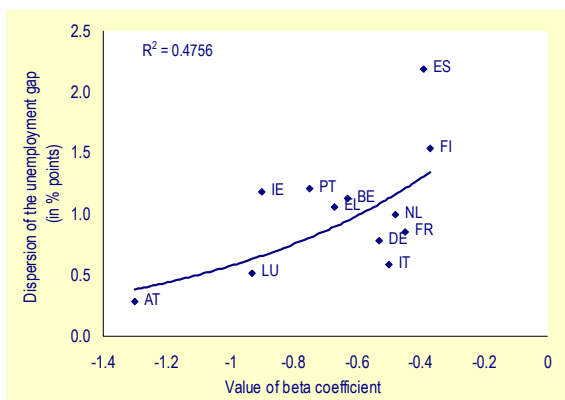
The evolution of unit labour costs in the euro area fits well with the unemployment gap, although some overshooting can be observed at times on account of the productivity cycle (Graph 12).

Graph 12: Unemployment gap and unit labour costs (annual change) in the euro area (1980 to 2005)



Source: Commission services.

Graph 13: Sensitivity of wages to the unemployment gap and dispersion of the unemployment gap (1)



(1) The unemployment gap measures the distance to NAWRU, dispersion has been calculated over the 1965-2006 period. The beta coefficient measures the sensitivity of wage inflation to the unemployment gap (estimated NAWRU equations).

Source: Commission services.

The elasticity of wage inflation to the unemployment gap can inform on the capability of the labour market to smooth cyclical developments. A higher elasticity would signal that the labour market has a better capability to adjust quickly to the slack in the economy. In countries with labour market rigidities, the unemployment would have to deviate significantly from its natural rate in order to trigger counter-balancing wage pressures. On the contrary, countries with flexible labour markets would see their wages adjusting quickly, with low unemployment fluctuations as a result. Evidence from Graph 13 is mixed. A positive correlation

between wage elasticity and the dispersion of unemployment gap exists among euro-area Member States, but it is a rather weak one. Other factors, such as the design of wage bargaining schemes in some countries, might also have an influence on the wage-unemployment relationship.

Conclusion

Though its calculation remains dependent on many theoretical assumptions and uncertainties, the NAWRU is an important indicator for measuring structural unemployment and assessing the impact of labour markets reforms. As the direct estimation of the impact of individual labour market reforms is often far from being straightforward, it is necessary for policy-makers to get an overview of the aggregate reaction of the labour market. This is all the more necessary as reforms are staggered and often deliver benefits with a substantial lag. The NAWRU can also provide valuable indications on the slack in the economy.

Evidence suggests that the NAWRU has substantially declined in the euro area as a whole since 1997. This testifies to the improved resilience of the euro area to adverse macroeconomic shocks. However structural unemployment remains high and there is scope for further reforms, especially in countries where structural unemployment has not yet decreased. It is, in particular, crucial to avoid that cyclical improvements in the labour market are captured by labour market insiders through wage claims that would not be commensurate with medium-term productivity developments. The reintegration of a portion of the workforce that has been excluded from the labour market is at stake. Other advanced industrialised countries have proved that a further reduction of structural unemployment is possible, provided the pace of reform is not slowed down and experiences and lessons learnt are effectively shared between euro-area Member States.



Focus

II. Widening current account differences within the euro area

The dispersion of current account positions within the euro area has widened significantly since the late 1990s as a result of a sharp deterioration of current account deficits in Greece, Portugal and Spain and, to a lesser degree, rising surpluses in Finland, Germany and the Netherlands. The widening dispersion has been partly driven by a trend towards financial deepening in some Member States which has allowed Member States with bigger financing needs to tap international capital markets more easily. This can be considered to be a beneficial by-product of the euro and European financial market integration. Nevertheless, widening current account differences also reflect a range of less favourable factors which, depending on the country considered, include budgetary policy slippages, large disparities in competitiveness developments and inappropriate responses of labour markets to productivity shocks or to the constraints imposed by the euro. In some euro-area Member States, the accumulation of external deficits has led to a deterioration of net external asset positions which appears unmatched in the rest of the OECD. Although immediate risks related to the funding of these high external deficits appear negligible in EMU, the pace of accumulation of external debt in these Member States is not sustainable in the long run. The transition to more sustainable current account positions will require a marked and lasting improvement in competitiveness. A pick-up in productivity growth would ease the necessary adjustment to more sustainable levels of external balances but the fact that increased foreign debt has been mostly geared to private consumption and housing investment rather than corporate investment is not very encouraging in this respect.

The dispersion of current account positions within the euro area has widened significantly since the late 1990s with the emergence, in particular, of significant deficits in Greece, Portugal, and Spain and of large surpluses in Germany, the Netherlands and Finland. This focus report seeks to shed some light on the factors behind this process. Section 1 sets the stage by deriving a few stylised facts from analyses of recent developments in current account statistics. Section 2 looks at the counterpart of these current account data by analysing the corresponding capital flows and investment/saving balances. Section 3 reviews possible explanations for the divergences, while Section 4 draws a number of policy lessons.

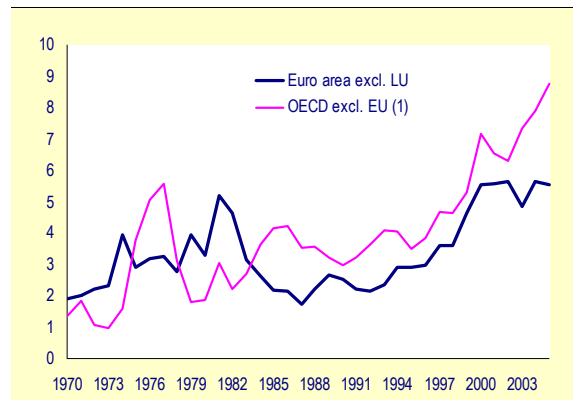
1. Stylised facts of current account developments in the euro area

In this first section we take a look at the data of the current account and the international investment position to produce stylised facts that underpin and set the stage for further analysis in the remainder of the report.

Stylised fact 1: The dispersion of current accounts has increased sharply within the euro area since the late 1990s. The trend is not euro-area specific as it was also observed in the rest of the OECD. Although surges in dispersion were also observed in the 1970s and the 1990s, the current episode appears

unprecedented in terms of both its strength and its duration (Graph 14).

Graph 14: Dispersion of current account balances
(standard deviation - % of GDP – 1970-2005)



Source: Commission services.
(1) OECD excl. EU, NZ, IS, KO, MX.

Stylised fact 2: Within the euro area the increased dispersion is mostly accounted for by rising current account deficits in Greece, Spain and Portugal. Widening surpluses in Germany, the Netherlands and Finland have also contributed to the rise in dispersion, although much more modestly. Dispersion excluding the high-deficit countries has shown only a modest upward trend in recent years and remains well below previous peaks (Graph 15). Excluding Germany, the Netherlands and Finland also reduces dispersion but to a much smaller degree.

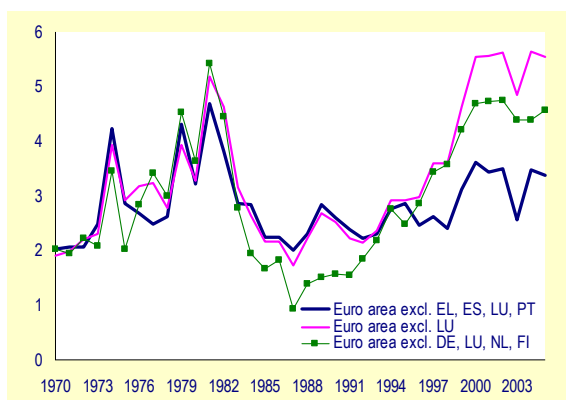
Box 4: Should we still care about Member States' current account positions in EMU?

The elimination of national exchange rate risks in EMU greatly facilitates the process of financing individual Member States' external deficits. The balance of payments ceases to be an autonomous macroeconomic constraint to become a mere reflection of domestic agents' borrowing decisions. Therefore, one could argue that because exchange rate crises are no longer possible at the Member State level, there is no need for a monitoring of current account developments by economic policy makers.

However, in a world of imperfect foresight, imperfect markets and incomplete information, forecasting and evaluation errors can indeed occur and optimal individual behaviour can sometimes lead to macroeconomic problems. In this context, changes in current account positions may not only reflect economic agents' optimal responses to a changing economic environment, but also the build-up of macroeconomic imbalances. Against this background, national current account data remain an important element of the toolkit used for macroeconomic surveillance in the euro area for several reasons:

- Although macroeconomic financing constraints are indeed lessened with the disappearance of exchange rate premiums, intra-euro-area cross-border financing remains subject to country credit risk, i.e. the risk of widespread debt default by residents of a particular Member State. If perceptions develop that many borrowers in deficit economies face debt-servicing difficulties, external imbalances could prove difficult to finance smoothly, despite the single currency.
- Experience with government bond markets suggest that the disciplining role of financial markets may become less effective in EMU as investors have lost their most effective mechanisms for pricing default risk, namely the exchange rate premium. In particular, there is a possibility that country risk premia might respond in a non-linear way (i.e. responding sharply but late) to possible insolvency problems in a Member State.
- In conjunction with other macroeconomic indicators, current account data remain a useful indicator to detect the emergence of economic imbalances. In a monetary union, possible current account imbalances are likely to last longer and to be more costly to correct as individual countries have lost the main traditional adjustment mechanism, i.e. the nominal exchange rate.

Graph 15: Dispersion of current account balances
(standard deviation - % of GDP – 1970-2005)



Source: Commission services.

Stylised fact 3: Whereas within non-EMU industrialised countries a certain polarisation has taken place since the late 1990s (countries with a current account deficit in 1999 have accumulated more deficits since, while countries with a positive current account balance in 1999 have accumulated more current account surpluses), there have been large swings in current account positions in the euro area since the late-1990s.

Looking at the dynamics of current accounts in the euro area reveals that current account positions experienced rapid reversals in some euro-area Member States between the end of the 1990s and the year 2005. These shifts seem to be euro-area-specific and contrast with developments in the rest of the OECD where countries in surplus (or deficit) have tended to remain so. They could be a sign that changes in current account in the euro area have been in part driven by factors specific to that region.

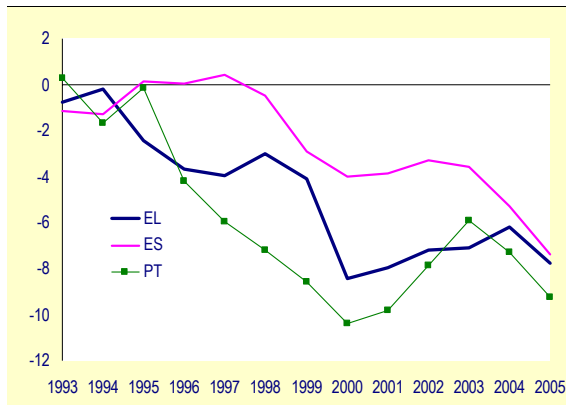
We broadly distinguish between three groups of euro-area Member States: countries experiencing substantial current account deficits (Portugal, Greece and Spain), large-surplus countries (Luxemburg, the Netherlands, Germany, Finland) and countries holding a middle-range current account (Italy, France, Ireland, Austria and Belgium).

Among the countries with a large current account deficit, Portugal and Greece began to experience a fall in their external position around the mid-1990s, whereas the Spanish current account only turned into deficit shortly before the start of EMU. All three countries



experienced a deterioration of their current account under EMU (Graph 16).

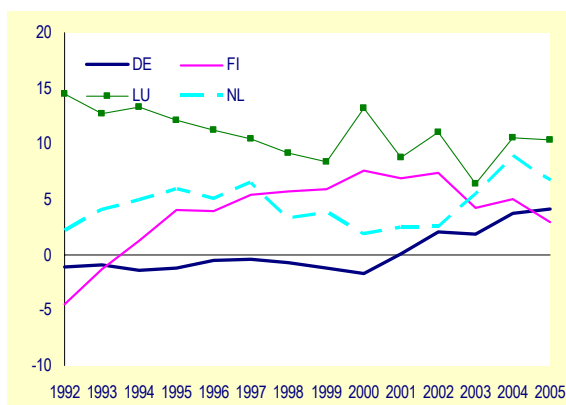
Graph 16: Current-account balances, euro-area Member States with a large deficit (% of GDP – 1993-2005)



Source: Commission services.

In the group of large surpluses, Luxembourg the Netherlands and Finland entered EMU with sizeable current account surpluses while Germany was still reporting a small deficit in 2000.²⁰ Both Germany and the Netherlands have experienced a substantial improvement in their current account position in the last few years while the Finnish surplus has decreased somewhat (Graph 17).

Graph 17: Current-account balances, euro-area Member States with a large surplus (% of GDP – 1992-2005)



Source: Commission services.

All other euro-area Member States show middle-range current account balances, largely within a range of $\pm 3\%$ of GDP for most years since the early 1990s. Within this group, Austria has substantially improved its current account balance since 1999 whereas all other countries have experienced declining current account balances over the same period and are now, apart from Belgium and Austria, in a deficit position.

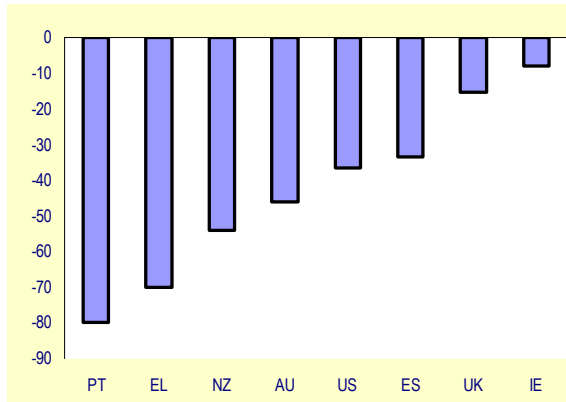
Stylised fact 4: Current-account deficits in Greece, Portugal and Spain are large relative to deficits in non-euro-area OECD countries. Furthermore, even though large deficits were also registered in some euro-area countries in the 1970s and early 1980s (Ireland and Portugal) they were not such an enduring phenomenon as they are at present. As a result of large current account deficits, the international investment positions of some euro-area countries have deteriorated significantly. In contrast, Member States with large surpluses post net investment positions that are either mildly positive or still mildly negative.

The accumulated deficits of the euro-area Member States showing the largest deficits since the start of EMU surpass those of the non-euro area industrialised countries with significant current account deficits (United States, Australia, and New Zealand) (Graph 18). Accumulated deficits are somewhat lower in Spain than in Greece or Portugal as the country's external position was relatively balanced until 1998.

Portugal already registered significant current account deficits in the 1970s and early 1980s. However, accumulated deficits in the 1990s through to 2005 already surpass those incurred earlier while the Portuguese current account is forecast to stay around the high 2005 level in the years ahead. Spain and Greece never incurred current account deficits as large as they do at present – and they are also forecast to continue to do so for the coming years. The only country exceeding present magnitudes of current account deficits in the euro area was Ireland until the mid-1980s – with its special position in attracting inward FDI from (US) multinational companies.

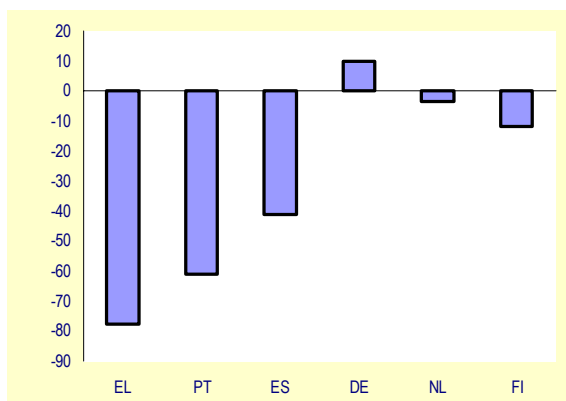
²⁰ Given the small size of Luxembourg and the fact that the country's surplus is largely driven by its key role as an international financial centre, we confine our further analysis of large-surplus countries to Germany, the Netherlands and Finland.

Graph 18: Accumulated current account deficits in euro-area and other OECD countries (% of GDP – 1996-2005)



Source: Commission services.

Graph 19: International Investment Positions, selected euro-area Member States (% of GDP – 2005)



(1) 2003 for ES, 2004 for DE, NL, FI (latest available data).

Source: IMF.

The persistent current account deficits have left their mark on the international investment position (IIP), the balance sheet of the stock of external financial assets and liabilities. Graph 19 clearly shows the striking scale of negative net foreign asset positions for Greece, Spain and Portugal. The large-surplus countries do not report large positive investment positions and, except for Finland, have not experienced large improvements in their positions since the mid-1990s. This highlights the fact that valuation effects may strongly distort the link between

accumulated current account positions and net asset positions.²¹

2. Looking at the counterparts of the current account

Capital and financial accounts²²

A look at the capital and financial accounts of the balance of payments reveals how the deficit countries finance their negative current account balances as well as how the surplus countries invest their funds. For the three large deficit countries (GR, PT, ES), the capital account, which takes up capital transfers (e.g. from EU structural funds) makes a positive financial contribution, in the range of around 1-2% GDP. The capital accounts for large-surplus countries (DE, NL, FI) only show negligible balances.

Turning to the financial account, Foreign Direct Investment is, on average, not a major or continuous source of financing for the large-deficit countries (Table 7). For 1999-2005 outgoing direct investment was even bigger than incoming direct investment for Spain and Portugal. For Greece portfolio investments in the form of debt securities, seconded by bank loans, are the most important continuous source of financing whereas for Portugal the most important source of financing is funding through the banking industry. For Spain, the banking industry is also an important source of financing, while incoming portfolio investment in the form

²¹ The data on the stock of international assets and liabilities is subject to a number of valuation effects, among which exchange rate movements are an important factor. In particular, liabilities for advanced economies like the euro area are usually denominated in home currency (in euro) whereas foreign assets held outside the euro area are usually denominated in foreign currency, e.g. the US dollar. A depreciation of the dollar will let the value of the assets, when expressed in euro, shrink or will magnify the level of liabilities (when expressed in dollars). For a more thorough discussion of the IIP and related valuation effects, see for example QREA, Volume 4, No. 3 (2005), pp. 28-30.

²² Since the introduction of the 5th edition of the IMF Balance of Payments Manual, the counterpart to the current account is subdivided into a capital account (mostly capital transfers) and a financial account (FDI, portfolio investment etc.). The change aims at better harmonisation with the System of National Accounts (SNA).



Table 7: **The financial account** (share of GDP in % - period averages) (1)

	1992-1998				1999-2005			
	Foreign direct invest.	Portfolio investment	Other invest.	of which: Banks	Foreign direct invest.	Portfolio investment	Other invest.	of which: Banks
Large-deficit countries								
EL	n.a.	n.a.	n.a.	n.a.	0.0	6.7	-1.3	2.9
ES	0.4	0.7	-0.5	0.8	-1.8	0.9	3.4	2.9
PT	0.5	-0.4	1.8	2.2	-0.4	0.3	6.7	6.7
Large-surplus countries								
DE	-1.4	1.5	1.0	1.5	0.9	-0.1	-2.7	-2.4
NL	-2.1	-3.6	2.8	2.5	-3.9	1.5	-0.4	1.1
FI	-1.8	2.4	-1.5	-2.2	-1.5	-3.1	-1.6	-1.4

(1) The table does not contain the entries 'Financial Derivatives', 'Reserve assets' nor 'Net errors and omissions'.

Source: IMF.

of debt securities has been on the rise in the most recent years. Regarding large-surplus countries, outflows of foreign direct investment have played a significant role in the case of the Netherlands whereas for Finland all forms of outgoing investment are important. German capital outflows have mainly taken the form of loans.

While a large part of capital inflows have transited via the banking industry in the cases of Portugal, Greece and Spain, it is interesting to note that the German banking industry has substantially stepped up the amount of funds lent out since 2001, a development which could be indicative of the fact that the large current account deficits are in part financed by banks in large-surplus countries. Such an interpretation is also backed by statistics on banks' bilateral foreign claims collected by the Bank for International Settlements (BIS). For Portugal, Spiegel (2004) concludes that participation in EMU has been accompanied by a shift in Portugal's foreign borrowing patterns away from non-EMU countries and in favour of other EMU Member States.²³ Overall, this is suggestive of the fact that the euro has facilitated financial integration between Member States.

The saving-investment balances

Data on saving-investment balances can shed some light on the factors that have underpinned current account developments over the past decade (Table 8). In Portugal, the drop in the

external balance is mostly due to a fall in savings. The investment rate surged in the late 1990s but has since returned to its trend decline and is now at a historical low, while staying broadly stable in terms of period averages. In Spain, national savings have remained broadly stable and the deterioration of the current account can be ascribed to a surge in investment, while Greece lies somewhere midway between the other two countries. All three countries have experienced a significant downswing in private savings, dominated by a fall in household savings since the mid-1990s. During the second half of the 1990s, the trend decline in private savings was partly (or totally in the case of Spain) offset by rising public savings. Whereas the offsetting effect has continued in Spain during the present decade, drops in public savings have aggravated external deficits in Portugal and Greece since 2000.

As regards the sectoral composition of investment, the rise in the investment share in Spain has been dominated by construction, particularly housing investment. In contrast, the rise of the investment share in Greece is attributable to equipment while the share of housing investment in GDP has remained broadly stable. Finally, investment in Portugal has been constantly on the decrease in both the equipment and the construction sectors since a peak in investment activity in 2000.

Turning to high-surplus countries, the rise in surplus observed in Germany and the Netherlands since 2001 and 2002, respectively, can be traced back to the private sector and in particular to the corporate sector. In Germany, the investment rate has been on a downward

²³ Spiegel, M.M. (2004), 'Monetary and financial integration: evidence from Portuguese borrowing patterns', Federal Reserve Bank of San Francisco, Working Paper 2004-07.

Table 8: **Saving and investment** (share of GDP in % - period averages) (1)

	1992-1998				1999-2005			
	National savings	Private savings (1)	Public savings	Total Investment	National saving	Private savings	Public savings	Total Investment
Large-deficit countries								
EL	18.9	24.0	-5.1	19.9	15.0	15.8	-0.8	23.8
ES	21.1	22.4	-0.5	21.7	22.5	18.8	3.7	26.7
PT	20.1	21.5	-1.4	23.5	16.3	17.1	-0.9	24.5
Large-surplus countries								
DE	21.1	20.6	0.5	22.0	20.2	20.4	-0.2	19.1
NL	26.0	25.7	0.3	21.5	26.8	24.2	2.6	20.5
FI	19.8	20.1	-0.2	17.5	26.9	20.7	6.2	18.7

(1) Private savings include household and corporate savings.

Source: Commission services.

path since the beginning of the decade largely on account of a weak construction sector. Since 2003 we can observe a rise in the savings rate (mostly in the corporate sector). In the Netherlands the rise in the surplus can be explained by a combination of weakening corporate investment and increasing corporate savings while spending in the household sector has remained comparatively stronger. Hence, in both countries, the rise in the external surplus in the past few years seems to largely relate to enterprises' efforts to improve balance sheets.

The situation is quite different for Finland. Following a deep recession in the early 1990s, the country underwent profound changes in terms of both macroeconomic management and production structures. These changes have left their marks on the current account, transforming the structural deficit into a large structural surplus throughout the 1990s due to substantial increases in government and corporate savings (i.e. improvements in public finances and corporate profits).

3. Sources of current account differences within the euro area

Economic theory proposes a large array of possible determinants of current account positions, ranging from structural factors (e.g. demographics, stage of economic development) to more cyclical factors (e.g. strength of domestic demand, changes in competitiveness and fiscal policy). Reviewing possible explanations, the present section argues that the widening dispersion of current account positions within the euro area reflects a combination of

causes including cyclical differences, financial integration, widening differences in competitive positions and country-specific shocks.

Current account differences partly reflect differences in cyclical positions...

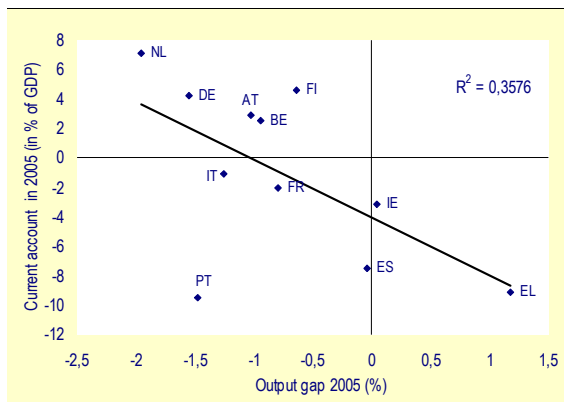
Within an economic and monetary union, current account differences are part of the process of adjustment to cyclical differences. Countries in a comparatively stronger cyclical position will 'export' activity to the rest of the union via their import demand. In addition, strong cyclical conditions will also foster inflation pressures and which will weigh on competitiveness. In this sense, Member States' differences in current account positions may be interpreted as a natural response to cyclical differences. This response has been at play in the last few years, as shown by the negative cross-country correlation between the output gap and the current account (Graph 20).²⁴

Nevertheless the link displayed in Graph 20 should be interpreted with caution as it appears to be fragile: the cross-country correlation was weak in the late 1990s and is projected to drop again significantly in 2006-2007 in the Commission's autumn forecast. Overall, it is difficult to attribute the divergence in current accounts in the euro area since the late 1990s to cyclical factors. Therefore, whereas cyclical differences may have contributed to current account disparities in recent years, their role has probably been modest.

²⁴ Replacing the output gap by the cyclical component of domestic demand would not alter the chart significantly, suggesting that domestic demand is the main driver of the link between the current account and the output gap.



Graph 20: Cyclical conditions and the current account
(in % – 2005)



Source: Commission services.

... but can also be traced back to EMU related structural changes

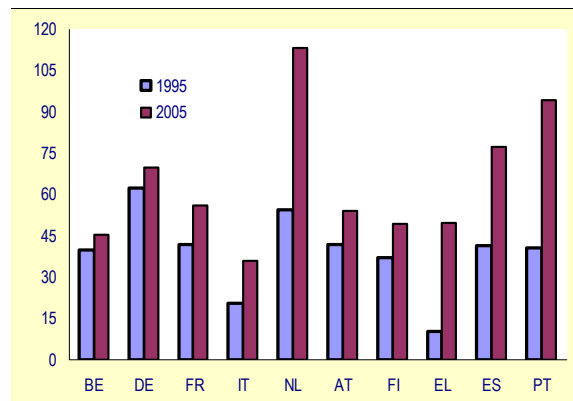
The causes of the present current account differences between euro-area Member States can in part be traced back to the launch of EMU. Different needs in terms of nominal convergence as well as large disparities in the initial degree of integration in Europe's financial markets and banking sector have turned the launch of the euro into a shock with protracted asymmetric effects on some Member States' current accounts. In Greece, Portugal and Spain sharp falls in real interest rates during the nominal convergence process have fuelled credit demand and inflows of foreign capital. This stimulating effect has been magnified by deepened integration in European financial markets, financial market deregulation and a concomitant decrease in liquidity constraints.²⁵ Developments in private-sector debt and a strengthening of the link between income and the current account provide indirect evidence of the importance of this financial deepening process.

Private-sector debt – Private-sector debt has increased much more rapidly in Greece, Portugal and Spain than in most of the rest of the euro area (Graph 21). The ratio of debt to GDP has increased both for households and for the

²⁵ It is difficult, however, to disentangle the respective roles of the euro, EU financial market integration and autonomous financial liberalisation instigated by domestic authorities as these factors have been mutually reinforcing.

corporate sector. Starting from a level below the euro-area average, Spain and Portugal now display the highest ratio of private-sector debt to GDP in the euro area next to the Netherlands. Debt levels in Greece remain below the euro-area average, but have risen sharply – at least in the household sector – from a comparatively very low level in the mid-1990s. These developments are suggestive of a strong convergence process in private-sector debt which could have led to some overshooting in Spain and Portugal.²⁶

Graph 21: Household debt, euro-area Member States
(in % of GDP) (1)



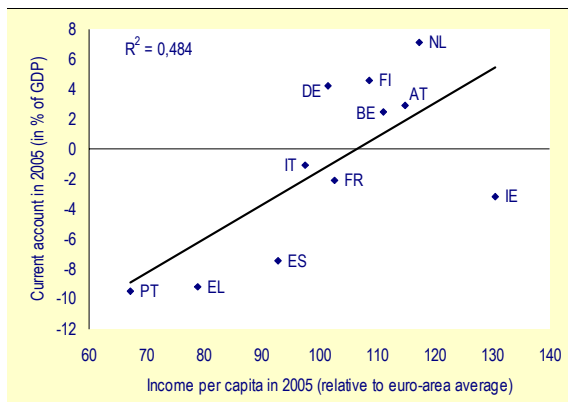
(1) No data available for IE and LU.

Source: Commission services.

Current accounts and income. Countries with high financing needs (e.g. because they are at a less advanced economic stage or because they have a comparatively old population) will tend to run current account deficits if they can tap international financial markets. Therefore, financial integration should strengthen the link between current account positions and demographic factors or income per capita. This strengthening has actually been observed in the euro area since the mid-1990s. Graph 22 shows a relatively strong cross-country correlation between income per capita and the current account position. The correlation has increased significantly over the past decade. Similarly, the negative correlation between old-age dependency ratios and current account positions is now higher than in the mid-1990s.

²⁶ For a discussion of the Portuguese case, see Cardoso, L. P. (2005), 'Household behaviour in a monetary union: what can we learn from the case of Portugal?', ECFIN Country Focus Volume 2, Issue 20.

Graph 22: Income per capita and the current account (in % – 2005)



Source: Commission services.

Evidence from simple cross-section correlation coefficients should be interpreted with caution, but it is backed by econometric analysis. Box 5 presents the results of a panel regression which identifies a structural break in the relation between the current account and its determinants. Since the late 1990s, the link between the current account and income per capita has strengthened for EMU countries but not for non-European OECD countries. Estimated coefficients suggest that the structural break amounts to a drop in the ratio of the current account to GDP of about 4-5 percent points for Member States with per capita GDP of 70% of the euro-area average. In the late 1990s, income per head ranged between 65% and 80% of the euro-area average in Greece, Portugal and Spain. These results suggest that financial market integration has probably weighed substantially on current accounts in Greece, Portugal and Spain in the last few years. Although capital market integration in the context of globalisation may also have helped, the process seems to be mostly related to European integration and to the euro.

Finally, it is worth mentioning related results from a recent ECFIN study.²⁷ The study, which uses a dynamic general equilibrium model to analyse adjustment processes within the euro area, identifies a cut in the risk premium and a

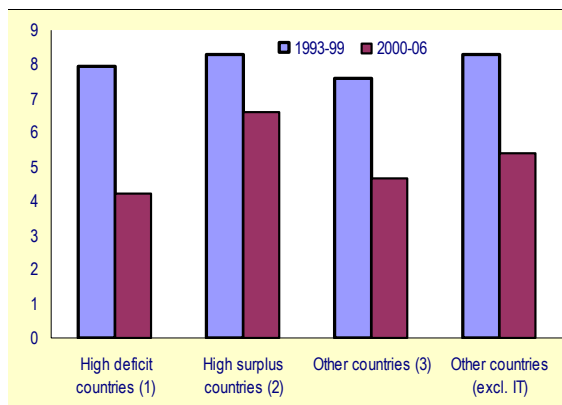
²⁷ European Commission (2006), 'Country adjustment experience', Chapter 7 in 'Dynamic Adjustment in the Euro Area: Experiences and Challenges', EU Economy Review 2006.

loosening of credit constraints as the two most important sources of widening external deficits in Portugal and Spain since the launch of the euro (the study does not cover Greece).

Current-account differences compounded by persistent divergence in competitiveness

Another explanation for widening differences in current account positions within the euro area pertains to the divergence of Member States' trade performances. Graph 23 decomposes the export performance of the euro area into three groups of Member States: those with large current account deficits (Greece, Portugal and Spain) and those with large surpluses (Finland, Germany and the Netherlands) and a residual group comprising all other Member States.

Graph 23: Real exports of goods and services (average annual growth in %)



(1) EL, ES and PT. (2) DE, FI and NL. (3) AT, BE, FR, IE, IT.
Source: Commission services.

Whereas the three groups reported relatively similar export growth during most of the 1990s, a polarisation process has been visible since the beginning of the 2000s. In recent years, high-surplus countries have enjoyed a much stronger export performance than high-deficit countries, with the group comprising the remaining Member States located somewhere in between. Export growth was particularly rapid in Germany and Finland and more moderate although still above the average in the Netherlands. It was quite sluggish in Portugal



Box 5: A panel regression analysis of the determinants of current accounts in OECD countries

Since the seminal work of Chinn and Prasad in 2003, several empirical studies have sought to identify the most important determinants of the current account by analysing econometrically large panels of countries (see references at the end of the box). Taking a similar approach, the table below reports the results of a panel analysis of the determinants of the current account in OECD countries. Several models were tested.

The base model (**Column A**) tests the impact of the dependency ratio, income per capita, a measure of the cyclical strength of domestic demand and government budget balances. Because it results in a better fit, the equation was estimated with the balance of goods and services rather than the current account as the dependent variable (the better fit could be explained by the fact that changes in the transfer or primary income balances play a significant role in explaining changes in current accounts in a few Member States). In line with previous research with OECD samples, regression results for the entire OECD sample appear mixed. Cyclical variables such as the strength of domestic demand and budget balances are meaningful and show the expected signs. In contrast, structural variables are either not significant (income per capita) or borderline significant (dependency ratio). The role of the net financial asset position was also tested but was found to be statistically insignificant (although this may be a consequence of limited data availability for this variable).

To assess the possibility that financial market integration may have strengthened the relation between current account and its structural determinants, dummy variables were used to test both for structural breaks across time and for differences between euro-area and other industrialised countries. The results shown in **Column B** indicate that for euro-area countries, the link between the current account and income has strengthened considerably since the late 1990s. Although the structural break is also significant for some earlier years in the 1990s, the best fit was obtained with the year 1998. In contrast, no significant break could be found for non-European OECD countries. As robustness checks, the equation presented in Column B was re-estimated using the current account rather than the balance of goods and services as the dependent variable (**Column C**). The results are qualitatively similar.

Panel estimates of the determinants of current account in OECD countries (1980-2004)
(endogenous variable: balance of goods and services in % share of GDP) (1)

	<i>Base model (A)</i>	<i>With structural break (B)</i>	<i>Current account as dependant variable (C)</i>
Relative GDP per capita (2)	0.003 (0.07)	-0.017 (-0.48)	-0.062* (-1.84)
Dependency ratio	-0.453* (-1.75)	-0.511** (-2.66)	-0.282 (-2.20)
Strength of domestic demand (3) (4)	-0.361** (-9.18)	-0.343** (-9.14)	-0.363** (-9.23)
Budget balance as a share of GDP (4)	0.240** (3.89)	0.195** (3.24)	0.192** (2.60)
Euro-area Member State dummies:			
GDP per capita (dummy after 1997) (5)		0.145** (7.33)	0.189** (8.72)
Constant (dummy after 1997) (5)		-14.12** (-6.24)	-19.57** (-8.49)
Adjusted R-squared (weighted)	0.75	0.80	0.75
Total pool (unbalanced)	546	546	546

(1) * and ** denote significance at 10% and 5% level. Estimation method: GLS (cross-section weight) with fixed country effects. T-values within parenthesis (White robust standard errors). Countries covered include all EU15 Member States (excluding Luxembourg), Australia, Canada, Japan Korea, Mexico, New Zealand, Norway, Switzerland and USA. (2) GDP per capita relative to the euro-area average measured at PPP exchange rates. (3) Deviation from trend as measured by an HP filter. Domestic demand excludes changes in stocks. (4) To minimise endogeneity problems, the variable is lagged by 1 year. (5) Dummy=1 for euro-area countries from 1998 onwards.

Source: Commission services.

Overall, the estimated equations offer some insight into the source of the widening differences in external balances observed in the euro area in recent years. Differences in the cyclical strength of domestic demand seem to have played only a modest role. In some Member States, such as Portugal and Greece, budgetary policy may have contributed to widen current account deficits although the order of magnitudes involved is relatively small (around 1 percentage point of GDP in both countries according to the estimated coefficient). In contrast, the euro together with European financial market integration and liberalisation may have been a major source of divergence. By allowing countries with comparatively low income per capita to benefit from lower interest rates and to tap international capital markets more readily, the euro and financial integration have contributed to widening current account differences in Europe. For a country with a level of income per capita at 70% of the euro-area average, the

estimated dummy represents a drop in the current account of about 4-5 pp. The equation shows that the trend is specific to Europe and not observable in the rest of the OECD and cannot therefore be ascribed to globalisation. A similar conclusion was reached by Blanchard and Giavazzi (2002) who, using a different methodology, came up with a similar estimate of 6 pp. Unfortunately, it is not possible to test statistically whether the trend is euro-area specific or reflects broader European Union integration. However, the fact that the estimated structural break was maximised for 1998 suggests that the divergence of external balances has a strong euro dimension.

References

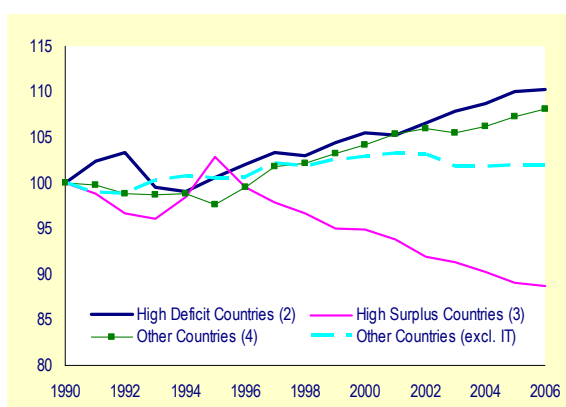
Blanchard, O. and F. Giavazzi (2002), 'Current-account deficits in the Euro Area. The end of the Feldstein-Horioka puzzle?', *Brookings Papers on Economic Activity*, 2002-2, 147-209

Chinn, M.D. and E.S. Prasad, (2003), 'Medium-term determinants of current accounts in industrial and developing countries: an empirical exploration', *Journal of International Economics*, Vol. 59, pp. 47-76.

De Santis, A. and M. Lührman, (2006), 'On the determinants of external imbalances and net international portfolio flows – A global perspective', Working Paper Series No. 651, European Central Bank, July.

and to a lesser degree in Spain and Greece.²⁸

Graph 24: Intra-area real effective exchange rate (1)
(index 100 in 2000 % – 1990-2006)



(1) Real effective exchange rate based on export prices relative to other euro-area Member States.

(2) EL, ES and PT. (3) DE, FI and NL. (4) AT, BE, FR, IE, IT.

Source: Commission services.

These differences in export performance can be largely traced back to developments in price and cost competitiveness (Graph 24). Since the mid-1990s, the group of Member States which now posts large external surpluses have benefited from steady gains in competitiveness.²⁹ Meanwhile, countries with large deficits have registered a significant deterioration in their

²⁸ Sluggish export growth was not confined to the high-deficit countries, however. Italy has registered the weakest export performance in the euro area since the beginning of the decade. As a result, when Italy is included, the average export growth of 'other countries' is close to that of the high deficit group.

²⁹ The gains were restricted to Germany and Finland. The Netherlands experienced a real exchange rate appreciation until the late 1990s/early 2000s, followed by a broad stabilisation.

competitive positions. Large losses in competitiveness, however, have not been restricted to high-deficit countries and were also reported, for instance, in Italy.

Changes in cost competitiveness between countries participating in a monetary union are not necessarily a problem. They may translate changes in relative prices that are necessary to adjust, inter alia, to country differences in cyclical positions. In that sense, differences in competitiveness and current account positions may be a reflection of the adjustment process in the euro area. For instance, the German economy has undergone a long process of competitiveness improvement aimed at correcting the sharp competitive losses incurred in the wake of unification and at boosting a dismal growth performance.

Nevertheless, a lesson from the early years of EMU is that in economies characterised by sticky prices and wages, the interplay between competitiveness effects and the real interest rate channel can slow adjustment and lead to periods of overshooting and undershooting in growth and prices. In this context, it cannot be excluded that, in some Member States, changes in competitiveness have gone significantly farther than what could be considered as a healthy response to growth differences.

Furthermore, recent developments in competitiveness in some Member States are also a sign of inefficiencies in the functioning of labour markets and of the build-up of further imbalances. In Spain and Portugal losses in competitiveness can be partly blamed on the sluggish response of wages in the face of a sharp



productivity slowdown (Table 9). In Portugal, losses were compounded by a muted response of wages to deteriorating cyclical conditions which is suggestive of strong downward rigidities in wage formation.³⁰ The Greek economy, by contrast, has enjoyed a more supportive productivity environment with a significant pick-up in labour productivity since the late 1990s. However, this advantage has been squandered by the difficulties of the wage bargaining system in adapting to EMU's environment of low inflation. Greek wage inflation has decelerated relative to the double digit levels registered in the 1990s, but has remained well above productivity gains despite a still high level of unemployment. In Germany, wage increases were in line with labour productivity growth, whereas Finland saw some deterioration in the match between these two variables. Among large-surplus countries, only the Netherlands shows, on average, some mismatch between growth in wages and labour productivity. This reflects the lasting effect of strong cyclical conditions in the late 1990s on wage inflation in the late 1990s and early 2000s.

Table 9: **Wages and labour productivity**
(average annual changes in %)

	Labour productivity		Compensation per worker	
	1991-98	1999-06	1991-98	1999-06
Euro area	1.9	1.1	3.5	2.6
<i>Large-surplus countries</i>				
DE	2.7	1.6	4.7	1.8
NL	1.2	1.6	3.2	3.8
FI	2.9	2.0	3.1	3.2
<i>Large-deficit countries</i>				
EL	1.2	3.4	11.1	6.4
ES	1.4	0.4	5.6	3.0
PT	2.3	0.8	8.9	4.2

Source: Commission services.

Country-specific factors have also played a role

Finally, a few country-specific factors have also contributed to widening the dispersion of current accounts in the past few years.

Fiscal policy. In Portugal and Greece, swelling budget deficits have contributed to widening current account deficits in recent years. Although the trend is estimated to have been reversed in 2006, the government's saving-investment balance dropped by more than three percentage points in Portugal between 1999 and 2005. A deterioration of a similar magnitude was registered in Greece between 1999 and 2004 and only partly reversed afterwards. The net impact on the current account of worsening government budget balances is of course difficult to assess as the private sector may adjust to changes in fiscal policy. Nevertheless, econometric estimations tend to find that budgetary policy may have contributed to widening current account deficits (in the order of around 1 percentage point of GDP for Portugal and Greece) (see Box 5).

Other country-specific factors. Recent current account developments in countries with large surpluses can in part be related to country-specific factors, including shocks incurred before EMU. In Germany, competitiveness improvements have brought the current account back to the levels of surplus registered before unification. High current account surpluses in Finland can be seen as a legacy of the profound structural changes put in place after the severe economic and fiscal crisis experienced in the early 1990s. Finally, the increase in the Dutch surplus in the last few years reflects in part changes in the country's supply structure, with the rising importance of re-exports and growing exports of natural gas.

4. Some policy considerations

To the extent that it is a sign of better access to international capital markets, the divergence of current account positions observed within the euro area since the mid-1990s may in part be considered as a natural, healthy and temporary consequence of the European integration process and, in particular, of the acceleration in financial integration connected to the adoption of the euro. This would mean that the current account imbalances could be progressively reabsorbed without relevant consequences. Nevertheless, the divergence process should be monitored carefully for two reasons.

³⁰ See Banco de Portugal, Annual report, (2004) for evidence on nominal and real wage rigidities in Portugal.

Firstly, persistent current account deficits have entailed the build-up of substantial foreign indebtedness in some Member States. At some stage the process will have to be halted and external deficits reversed. With no possibility of nominal exchange rate realignments, this reversal could prove costly in terms of reduced GDP growth rates. Secondly, it cannot be excluded that the divergence process has been associated with one form or another of overshooting which could aggravate the cost of such reversal.

Reversing current account deficits – Greece, Portugal and Spain now post large foreign debts. Despite low interest rates, the deficits in the balance of primary income have increased in the three countries and now amount to 2-3% of GDP. Although the elimination of exchange rate risks means that the short-term risk of an abrupt reversal of capital flows is negligible, such a pace of debt accumulation is clearly not sustainable in the long-run and will, at some stage, necessitate a substantial cut in current account deficits.³¹ This requires a change in relative prices – i.e. a fall in the real exchange rate – in order to boost exports and to shift domestic demand away from imports to domestic production. In EMU, changes in price competitiveness can no longer be achieved by nominal exchange rate realignments and therefore require a period of slow growth in unit labour costs which can in turn be achieved either via wage moderation or via faster productivity gains.³²

A process of competitiveness improvement via wage moderation is likely to be costly as it may imply a protracted period of slower GDP growth. To the extent that wages display downward nominal rigidities, improvements in real exchange rates via wage moderation can be particularly slow in the environment of low inflation that characterises EMU. Furthermore, as shown by the painful competitiveness

adjustment process registered in Germany over the past ten years, wage moderation can come at a significant cost in terms of growth in domestic demand.

Boosting competitiveness via productivity improvements is obviously a better route. However, recent developments in this area in high-deficit countries have not been very encouraging except, to some extent, in Greece. Since the mid-1990s high capital inflows have been geared to consumption or housing investment and have therefore not been very conducive to gains in corporate productivity. The trend has been particularly pronounced in Portugal where investment in equipment is still well below its peak in 2000. In addition, the productivity performance of both Spain and Portugal, countries which are still in a catching-up process in terms of income per capita and are therefore presumably still located inside the technology frontier, has not been in line with expectations since the beginning of the decade. Overall, prospects for a rapid improvement in competitiveness underpinned by a pick-up in productivity appear thin in these two countries. Stronger deregulation could contribute substantially to address this challenge, as more competition should lead to stronger productivity gains.

Risks of overshooting. In those Member States where the deterioration of current accounts can partly be explained by financial market integration and deregulation, there is a possibility that the rise in indebtedness has been partly fuelled by an overly optimistic reassessment of long-term income prospects. Developments in some EU Member States in the 1980s reveal that phases of rapid financial market liberalisation and deepening may lead to a temporary build-up of excessively optimistic expectations, as economic agents need time to fully understand the implications of their changing environment.³³ In the case of Greece, Portugal and Spain, the risk of over-optimistic growth expectations may be increased by the fact that financial deepening takes place in the context of a catching-up process and may be associated

³¹ It can be argued that although exchange risks have been curbed, bankruptcy risks remain especially for lending to the private sector. A scenario of large increases in bankruptcy risk premia cannot be ruled out in the long-run if financial operators begin to perceive the current account in a Member State to be unsustainable.

³² For a detailed discussion of the Portuguese situation see Blanchard, O. (2006), 'Adjustment with the euro. The difficult case of Portugal.', Massachusetts Institute of Technology, Department of Economics, Working Paper 06-04, February.

³³ For a discussion of how these factors have been at play in the UK and Nordic countries in the 1980s, see Debelle, G. (2004), 'Macroeconomic implications of rising household debt', BIS Working Paper No 153, June.



with excessive expectations about the positive effect of the euro on the speed of convergence.

Risks of overshooting not only relate to overoptimistic income expectations, they are also linked to developments in real exchange rates. As emphasised in the previous section, in a monetary union, the interplay between wage rigidities and interest rates may lead to periods of excessive real exchange rates appreciation or depreciation. In addition to overshooting, competitiveness may be hampered by an inappropriate response of labour markets to productivity shocks (as has been the case in Spain and Portugal in recent years), or to the constraints of the euro (as in Greece).

Whatever the source of the overshooting, it cannot be excluded that current account deficits have deteriorated farther than would be justified by changes in the inter-temporal allocation of consumption in a situation of financial market integration. The presence and magnitude of overshooting is difficult to assess but it will make any adjustment of large current account deficits more costly in terms of growth.

In the light of these considerations, several policy lessons can be drawn from the analysis presented in this focus report.

Firstly, budgetary policy can help absorb shocks such as a rise in private sector indebtedness consecutive to structural change in the financial markets. In Spain, rising public savings have helped to contain the fall in private sector savings, curbing the accumulation of current account deficits compared with Greece and Portugal. In the latter two countries, a fall in public savings compounded the deterioration in current accounts.

Secondly, wage bargaining systems in some Member States have not yet fully assimilated the constraints posed by the euro. To avoid major deterioration in competitiveness, which will ultimately be costly to reverse, wages need to be aligned on productivity developments. In particular, restoring lost competitiveness will involve a period of wage moderation. Downward wage rigidities such as those shown in Portugal in recent years can only delay this process and make it ultimately more costly.

Thirdly, the process of bringing external deficits back to equilibrium and restoring competitiveness would be facilitated by policies geared to improving productivity. In this context, further deregulation of labour and product markets will increase competitive forces, which will, in turn, boost productivity. This argument is at the very heart of the European Internal Market, i.e. to increase efficiency through an optimal allocation of resources, in order to exploit the growth potential of European economies.

Focus

III. Ensuring fiscal sustainability in the euro area: achievements and remaining challenges

In the coming decades, the euro-area's population will undergo dramatic demographic changes due to low fertility rates, continuous increases in life expectancy and the retirement of the baby-boom generation. Ageing populations will pose major economic, budgetary and social challenges for the euro area as well as for the rest of the EU. They are projected to have a significant impact on growth and lead to significant pressures to increase public spending. This will make it difficult for Member States in the euro area to maintain sound and sustainable public finances over the long-term, but it is particularly important for the euro area to work resolutely towards that goal nevertheless, as continuous high deficits and ensuing high debt levels in some countries could have an adverse impact on macro-economic conditions for other euro-area countries. Therefore, ensuring fiscal sustainability in the euro area requires time-consistent policies, which means addressing budgetary imbalances before the budgetary impact of ageing sets in, and a broad approach, consisting of fiscal consolidation, efforts to increase employment and enhance productivity, and structural reforms that prepare the euro-area's social models to meet the challenges ahead.

1. The long-term fiscal sustainability challenge in the euro area³⁴

A significant proportion of the euro-area's public expenditure goes into financing the provision of public goods, services and insurance systems, which are at the core of how the euro-area societies are set up. These systems – or ‘social models’ – are not immutable, but depend upon the size and composition of the population. If current policies are allowed to continue in the future, demographic change will create enormous pressure for higher public expenditure. Euro-area members will need to find ways of maintaining sound and sustainable public finances over the long term. To do so they will need to make progress on three fronts: reduce government debt at a fast pace, raise employment rates and productivity, and reform social systems.

The risks associated with unsustainable public finances have long been a cause for concern to economists and policy-makers alike. In the European Union, the need to strengthen budgetary positions and reduce public debt levels to create a buffer against the pressures that population ageing will put on government budgets in the not-too-distant future has received

considerable attention since the late 1990s. In the European Economic and Monetary Union, the issue of safeguarding long-term fiscal sustainability is at the core of the fiscal framework.

The importance of ensuring fiscal sustainability in the long run has been the backdrop for the increased focus on long-term fiscal sustainability in the EU's budgetary surveillance armoury, in particular in the reform of the Stability and Growth Pact (SGP) last year. Consistency between medium-term budgetary targets and long-term sustainability is thus increasingly at the core of fiscal surveillance in the euro area.

2. The concept of long-term fiscal sustainability

Public finance sustainability is a multi-faceted issue and there is no agreed definition on what a sustainable debt position is. Blanchard et al. (1990) consider that *'it is essentially about whether, based on the policy currently on the books, a government is headed towards excessive debt accumulation'*.³⁵

³⁴ This focus section draws upon the detailed analysis in European Commission (2006), 'Long-term sustainability of public finances in the European Union', European Economy 4/2006.

³⁵ See Blanchard et al. (1990), 'The sustainability of fiscal policy: new answers to an old question', *OECD Economic studies*, No 15.



The time horizon depends on the purpose of the analysis

The time horizon over which debt sustainability is analysed, depends on the purpose of the analysis. In some cases, it might be relatively short, for example where the purpose is to evaluate short- to medium-term dynamics of debt or to analyse the dynamics of debt servicing, including in many cases external debt service.

In the case of the assessment of the long-term sustainability of public finances, the time horizon needs to be considerably longer – say for instance 40 to 50 years – to assess the budgetary impact of government commitments, notably regarding pensions.

The government's inter-temporal budget constraint needs to be fulfilled...

For the purposes of assessing sustainability of public finances over the long-term in view of the budgetary challenge posed by ageing populations, debt sustainability may be defined in two alternative ways:

- A first definition of sustainability is derived from the government's inter-temporal budget constraint. This states that current total liabilities of the government, i.e. the current public debt and the discounted value of all future expenditure, should be covered by the discounted value of all future government revenue over an infinite horizon. If current policies ensure that the government's inter-temporal budget constraint is fulfilled, current policies are financially sustainable.
- Whether the abovementioned condition is met over an infinite horizon can be approximated by looking over a finite period to assess if current policies ensure a specific debt level to be reached at a given date.

...and sustainability gap indicators provide a summary measure of the size of inter-temporal imbalances

However, assessing the long-term sustainability of public finances entails more than simply answering the question whether current policies are sustainable or not. The size of the budgetary

imbalances must also be estimated. This is provided by sustainability gap indicators that measure the size of a permanent budgetary adjustment (e.g. a constant reduction of non-age-related public expenditure as a share of GDP or a constant increase in public revenue as a share of GDP) that makes it possible to meet one of the following conditions:

- reaching a target of 60% of GDP for the Maastricht debt in 2050 (the S1 indicator);
- fulfilling the inter-temporal budget constraint over an infinite horizon (the S2 indicator).³⁶

The two sustainability indicators translate current and future budgetary imbalances into synthetic measures that can be simply expressed as a sum of three different components. This decomposition of the indicators gives additional insight into the numerical results of the indicators (see Table 10). It also makes it possible to determine for each country whether the risks to the sustainability of public finances stem from the initial budgetary position and/or a large increase in age-related expenditure over the long term.

Table 10: Decomposition of the indicators

	Initial budgetary position		Impact of: Debt requirement in 2050		Long-term changes in the primary balance
S1=	Gap to the debt-stabilising primary balance	+	Additional adjustment required to reach a debt target of 60% of GDP in 2050	+	Additional adjustment required to finance the increase in public expenditure <i>up to 2050</i>
S2=	Gap to the debt-stabilising primary balance	+	0	+	Additional adjustment required to finance the increase in public expenditure <i>over an infinite horizon</i>

Source: Commission services.

A high positive contribution of the current budgetary position (1st column) signals that the

³⁶ The detailed properties of the sustainability gap indicators are described in Annex 1 of European Commission (2006), 'Long-term sustainability of the public finances in the European Union', *European Economy*, No. 4/2006.

current level of the primary balance, if maintained, will lead to an explosive debt even before considering the long-term impact of ageing. A high positive contribution of the long-term changes in the primary balance (last column) signals that the impact of ageing on public expenditure is expected to be large.

To this end, a small sustainability gap may cover quite different situations. In some cases, it stems from a debt-stabilising budget balance and a small ageing impact on public finances. In other cases, it stems from a very strong budgetary position today with large primary surpluses that enable to compensate for a significant projected rise in age-related expenditure.

Underlying long-term expenditure projections

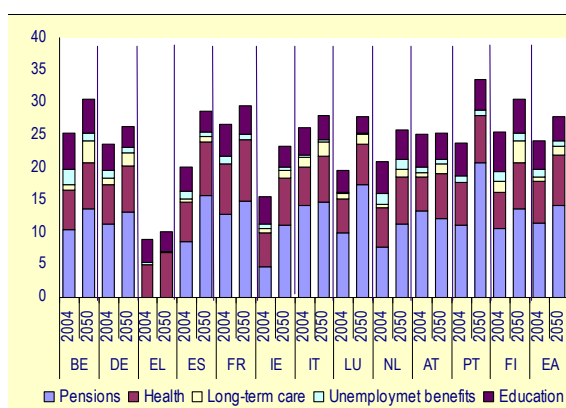
Budgetary projections over the long term must necessarily be based on a set of assumptions – demographic and macroeconomic - which can have a very large impact on the results. Thus, in the EUs multilateral budgetary surveillance and especially in the euro area, having a common setting for the projections for the purposes of analysing and assessing fiscal sustainability is essential to ensure equal treatment. This was the main motivation behind the 2006 common budgetary projections exercise, carried out by the European Commission together with national authorities working through the Economic Policy Committee.³⁷

The common projections used in the analysis concern the following five age-related expenditure items: gross public pensions, healthcare, long-term care, education, and unemployment benefits.

Overall, age-related expenditure in the euro area is projected to increase by about 4% of GDP up to 2050, although this hides very different developments in different countries (Graph 25). Most of the projected increase in public spending will be on pensions and, to a lesser degree, on

health care and long-term care. The potential offsetting savings in terms of projected public spending on education and unemployment benefits are likely to be limited.

Graph 25: Age-related expenditure in the euro area (% of GDP) (1)



(1) No pension projections were available for Greece in the new common projections exercise and the rise in age-related expenditure is therefore underestimated. Pension expenditure in Greece was projected to rise between 2005 and 2050 by 10.2% in the 2002 Greek stability programme.

Source: EPC and EC (2006), Commission services.

3. Main results

This section presents the calculation of the sustainability gap indicators and its decomposition into the long-term and medium-term impact for the euro area and its members.

Table 11 presents the results of the S2 sustainability gap indicator, which have been calculated on the basis of the structural budgetary position in 2005 and the projected change in age-related expenditure in the period to 2050.

In the euro area as a whole, the sustainability gap is about 3½ % of GDP according to the S2 indicator. The long-term budgetary impact of ageing is the main factor behind the sustainability gap.

The euro-area average, however, masks considerable variety between the Member States. Overall, all euro-area members but one (Finland) have sustainability gaps. This implies that based on the current budgetary position and with no changes in policies, an adjustment is necessary so as to render the public finances sustainable over

³⁷ These projections can be found in Economic Policy Committee and the European Commission (2006), "The impact of ageing on public expenditure for the EU25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004-2050)", *European Economy*, Special Reports No 1/2006.



the long term for most euro-area members. In eight countries, a considerable adjustment, of more than 2% of GDP, is required.

Table 11: Sustainability gap indicators
(% of GDP) (1)

	S2 sustainability gap (2)		
	Total	IBP	LTC
BE	1.8	-3.5	5.3
DE	4.4	1.6	2.8
EL (2)	3.0	2.2	0.9
ES	3.2	-2.7	5.9
FR	4.0	1.4	2.6
IE	2.9	-3.1	6.0
IT	3.1	1.3	1.8
LU	9.5	1.2	8.3
NL	1.3	-3.1	4.4
AT	0.3	-0.8	1.1
PT	10.5	3.8	6.7
FI	-0.9	-5.1	4.2
EA (2)	3.5	0.2	3.3

(1) IBP = the initial budgetary position, LTC = the long-term changes in the primary balance.

(2) See notes to Graph 25.

Source: Commission services.

The long-term budgetary impact of ageing

The decomposition of the sustainability gap indicators (see Table 11) provides information on the pure budgetary impact of ageing, and on the long-term change in the budgetary position (LTC) which, for the euro area, amounts to 3¼% of GDP. The situation however varies greatly among the euro-area members, as a result of the diversity and degree of maturity of their public pension arrangements and the effects of pension reforms enacted so far.

- The long-term budgetary impact of ageing is very significant in Luxembourg, Portugal, Ireland, Spain and Belgium, with an increase of close to 5% of GDP or more. These countries have either so far made only limited progress in reforming their pension systems so as to limit the projected increase in public pensions, or have pension systems that are still maturing.
- For a second group of countries - the Netherlands, Finland, Germany and France - the long-term budgetary impact of ageing is more limited, ranging from 2% to 5% of GDP. Several of these countries have implemented pension reforms that are

helping to limit the increase in pension expenditure (Finland, France and Germany), while the projected increase in public pension expenditure is also limited in the Netherlands, owing to its historically stronger reliance on private pension arrangements.

- Finally, the increase is more moderate, 2% of GDP or less, in Italy and Austria, which have implemented comprehensive pension reforms. For these countries, with a relatively limited long-term budgetary impact of ageing as mentioned above, the projected increase in expenditure on health care and on long-term care more generally is greater than the increase on pensions.

Concerning Greece, it should be noted that projections for pension expenditure and long-term care were not available for the Commission's Sustainability Report.³⁸ The rise in its age-related expenditure is therefore underestimated. In its 2002 stability programme, Greece projected pension expenditure to rise by 10.2% of GDP between 2005 and 2050.

The impact of the initial budgetary position

In addition to the long-term budgetary impact of ageing, the current budgetary position and level of debt can also present a risk to the sustainability of public finances. Indeed, Table 11 shows that there is a risk of unsustainable public finances even before the long-term budgetary impact of ageing populations in the euro area is considered, which highlights the importance of fiscal consolidation.

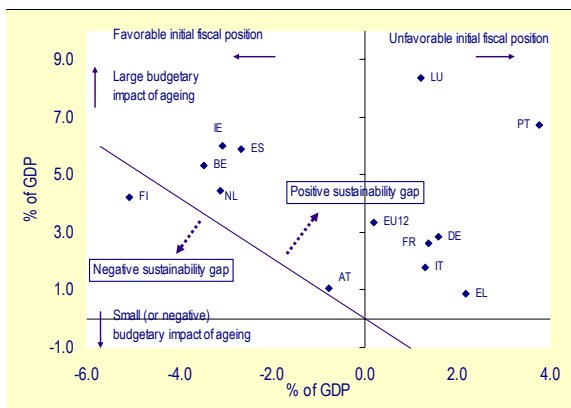
There are however large variations in terms of the initial budgetary positions among euro-area members. In half of the countries (PT, EL, DE, FR, IT and LU), the initial budgetary position poses a risk and the structural primary balance must be improved to avoid their public finances taking an unsustainable path even before the long-term impact of ageing is considered. This is a matter of urgency, particularly for those countries which have a high debt/GDP ratio such as Italy and Greece.

³⁸ See European Commission (2006), 'Long-term sustainability of public finances in the European Union', *European Economy*, No. 4/2006.

For the remaining six countries (AT, ES, IE, NL, BE and FI), the current budgetary position is such that the public finances would be on a sustainable path if there were no long-term impact of ageing to consider. They can however cover part of the budgetary impact of ageing over the long term by reducing their public debt and/or accumulating assets in the next few decades.

Graph 26 decomposes the sustainability gap indicators into the impact of: (i) the initial budgetary position on the horizontal axis, where the stronger the fiscal position, the further to the left the country appears; and, (ii) the long-term budgetary impact of ageing on the vertical axis, where the smaller the impact of ageing, the further to the bottom is the country. Nearly all countries have positive sustainability gaps and are thus above the sustainability diagonal.

Graph 26: **Decomposing the sustainability indicators**(1)



(1) See notes to Graph 25.
 Source: Commission services.

Government debt projections

The debt/GDP ratio is projected to remain above 60% of GDP over the coming decades in the euro area. Towards 2020, it is projected to start rising considerably and to reach nearly 200% of GDP in 2050, which clearly indicates that public finances are on an unsustainable path.

The debt/GDP ratio is currently above the Treaty reference value of 60% of GDP in seven countries (BE, DE, EL, FR, IT, AT and PT), which makes debt reduction a matter of urgency in these cases. For countries with a very high

government debt level, i.e. above 100% of GDP such as Greece and Italy, public finance consolidation is therefore of the utmost importance.

4. Sensitivity of the results

The sustainability indicators are sensitive to a number of underlying assumptions, required to project developments in public finances over a long period of time. Given the uncertainties surrounding the assumptions it is important to test the robustness of the results.

There are some uncertainties about assumptions regarding the demographic and economic outlook over the long term. Changes in assumptions on key variables, such as life expectancy, employment and productivity, can have a considerable impact on the results. For example, an increase in the total employment rate would reduce public expenditure as a share of GDP. In particular, pension expenditure would be lower if the employment of older workers increased, since it would reduce the number of retirees, but the total impact would depend on the extent to which those older workers would then be entitled to higher pensions as a result of extending their working lives.

There is also some uncertainty regarding the main drivers of some public expenditure items such as health care and long-term care. There has been an upward trend in health-care expenditure as a share of GDP in most euro-area Member States in the past even though the increase in the old-age dependency ratio in the euro area has been limited. Hence, there is a distinct possibility that public health-care expenditure will increase faster than implied solely by demographic factors, which would prove to be even more challenging.

Finally and importantly, the initial budgetary position (the current structural primary balance and debt) has a strong one-to-one impact on the sustainability gap indicators. A large majority of euro-area countries still have budget deficits above their medium-term objectives (MTOs) - defined for the first time in the 2005/06 updated stability and convergence programmes according to the principles of the revised SGP - and plan to



consolidate their public finances over the next few years; it is therefore important to estimate the impact of such medium-term budgetary developments.³⁹ To illustrate this point, the remainder of this section analyses the implication for sustainability of an MTO scenario where all Member States attain their MTOs in 2010.⁴⁰

Structural balances below the MTOs in most euro-area countries

Table 12 shows that a majority of the euro-area countries were not at their MTO in 2005. For most of them, attaining the MTOs will imply a budgetary consolidation over the medium-term and for five (DE, EL, FR, IT and PT), the budgetary consolidation required to reach their MTOs amounts to more than 2% of GDP.

The MTO is defined in terms of structural government balance. For the purposes of long-term public finance sustainability analysis, one has to refer to the structural primary balance underlying the MTO in 2010. In the MTO scenario, the structural primary balance in 2010 is calculated with the following assumptions:

- the general government balance is assumed to converge in a linear fashion towards the MTO in 2010 and the cyclical impact is assumed to be zero by 2010;
- the interest rate on debt in 2010 is assumed to be the implicit interest rate on debt in the last

³⁹ The reformed SGP specifies that MTOs should pursue a triple aim, namely: (i) providing a safety margin with respect to the 3 percent deficit limit; (ii) ensuring rapid progress towards sustainability; and (iii) taking the first two objectives into account, allow room for budgetary manoeuvre, in particular taking into account the needs for public investment. Country-specific MTOs in the current phase were set by the Member States themselves, taking into account: (i) the current government debt ratio (in 2004); (ii) potential economic growth (average 2005-2050); and, (iii) a measure of a safety margin with respect to the reference value of 3 percent of GDP. For a discussion of the MTOs and the experiences one year after the reform of the SGP, see Parts II.2 and II.3 of European Commission (2006), 'Public Finances in EMU – 2006', *European Economy*, No. 3/2006.

⁴⁰ The MTO scenario is a sensitivity test related to the initial budgetary position. It does not mean that the Commission expects all countries to reach the MTO exactly in 2010; some countries had already attained their MTO in 2005, while some might reach it only after 2010.

year of the stability/convergence programme of the country concerned.

Table 12: **Structural balances in 2005 and 2010 (MTO scenario) (% of GDP) (1)**

	2005 (2)		MTO in the SCPs	2010 (3)	
	Struct. balance	Struct. prim. balance		Struct. balance	Struct. prim. balance
BE (1)	0.1	4.5	0.5	0.5	3.7
DE	-3.1	-0.3	0	0	2.8
EL	-5.3	-0.3	0	0	4.3
ES	1.3	3.1	0	0	1.2
FR	-3.1	-0.5	0	0	2.5
IE	1.9	3.1	≈ 0.0	0	0.8
IT	-3.9	0.6	0	0	4.5
LU	-1.3	-1.2	-0.8	-0.8	-0.5
NL	1.0	3.6	-1.0 to -0.5	-0.75	1.4
AT	-1.0	1.7	0.0	0.0	2.4
PT	-5.2	-2.5	> -0.5	-0.5	2.5
FI	3.2	4.7	≈ 1½	1.5	2.3

(1) In BE, the rapidly declining debt will significantly reduce interest payments up to 2010; the primary balance underlying the MTO is therefore lower in 2010 than it would be today with the same deficit target..

(2) As estimated in the Commission's Spring 2006 forecasts.

(3) MTO scenario.

Source: Commission services.

The sustainability gap is reduced significantly in the MTO scenario

The long-term budgetary impact of ageing (LTC) in the MTO scenario is the same as in the baseline scenario (see Table 11). However, the initial budgetary position (IBP) is different for most countries. This reflects the fact that most countries were not at their MTO in 2005, as shown in Table 12. The change in the sustainability gaps can therefore be attributed to the difference in the initial budgetary position, i.e. the structural primary balance in 2010 consistent with the MTO and the level of debt in 2010.

Indeed, Table 13 shows that on average in the euro area, the outlook in the MTO scenario is more positive than the baseline scenario based on the 2005 budgetary outcomes. In fact, the sustainability gap (at 1½% of GDP) would be more than halved if the MTOs were attained in 2010 by all euro area members.

The considerable improvements in most countries, notably the large ones, contribute to this. This is particularly important for the

countries that have an S2 sustainability gap larger than 2% of GDP in the baseline scenario (DE, EL, FR, IT, LU and PT). In a number of countries (DE, FR and IT) the gap even falls below 2% of GDP under the assumption that the MTO is reached.

Table 13: Sustainability gap indicators – MTO scenario (% of GDP) (1)

	S2 sustainability gap (2)		
	Total	IBP	LTC
BE	2.7	-2.6	5.3
DE	1.2	-1.6	2.8
EL (2)	-1.8	-2.7	0.9
ES	5.2	-0.7	5.9
FR	0.9	-1.7	2.6
IE	5.3	-0.7	6.0
IT	-1.1	-2.9	1.8
LU	8.9	0.5	8.3
NL	3.6	-0.8	4.4
AT	-0.5	-1.5	1.1
PT	5.2	-1.5	6.7
FI	1.6	-2.6	4.2
EA (2)	1.6	-1.7	3.3

(1) IBP = the initial budgetary position, LTC = the long-term changes in the primary balance.

(2) See notes to Graph 25.

Source: Commission services.

Another sensitivity test regarding budgetary consolidation is the 'cost of a delay'. It shows the increase in the sustainability gap that would result from a delay of five years in implementing budgetary consolidation compared to the baseline. Such a delay is estimated to result in an increase of the S2 sustainability gap indicator for the euro area of around 0.3 pp. of GDP. The size of the necessary adjustment increases over time, making it more costly to address the challenge in the future than today.

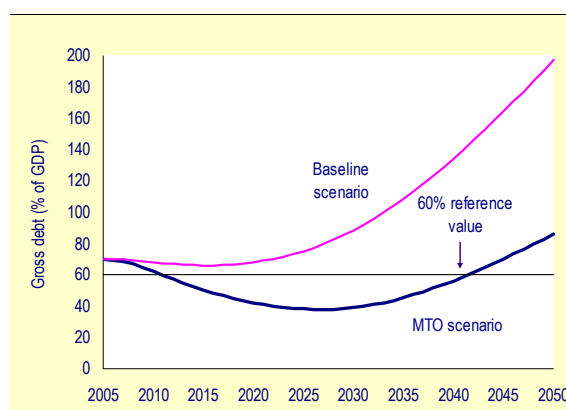
Government debt projections in the MTO scenario

The considerable impact that reaching the MTOs will have on future debt developments is apparent also from Graph 27, which compares debt developments with the baseline. Under this assumption, government debt would reach about 80% of GDP in 2050 in the euro area in the MTO scenario, as compared with the 200% projected in the baseline scenario.

Fiscal consolidation can contribute very significantly to reducing future debt levels.

Indeed, a majority of euro area members would have significantly lower government debt levels if the MTOs are attained in 2010 (see Table 14). Consolidating the public finances over the medium term enables the debt/GDP ratio to be reduced in the coming decades, a reduction which absorbs part of the long-term budgetary impact of an ageing population.

Graph 27: Debt developments, euro area



Source: Commission services.

Table 14: Gross debt developments (% of GDP)

	2005	2050	
		Baseline scenario	MTO scenario
BE	93.3	83	129
DE	67.7	261	65
EL (1)	107.5	255	-56
ES	43.2	72	198
FR	66.8	239	66
IE	27.6	31	157
IT	106.4	261	1
LU	6.2	268	240
NL	52.9	47	176
AT	62.9	63	18
PT	63.9	528	208
FI	41.1	-42	96
EA	70.0	196	83

(1) See notes to Graph 25.

Source: Commission services.

5. Other factors relevant for assessing fiscal sustainability

Current government debt

The level of the outstanding government debt is arguably the most important additional factor. While the sustainability gap indicators already include information on the current level of debt,



they do not incorporate all the specific risks faced by countries with a large initial debt level. For example, high-debt countries are more sensitive to shocks to economic growth and to interest rate changes in the short/medium term. Table 15 shows that if the real interest rate was 1 pp. higher, the initial budgetary position, i.e. the difference between the current structural primary balance and the debt-stabilising one, would increase by at least ¾% of GDP for countries with currently high levels of government debt.

Table 15: **Impact of a higher interest rate on the initial budgetary position (% of GDP) (1)**

	Initial budgetary position (2)	
	Baseline	Higher interest rate
BE	-3.5	-2.8
EL	2.2	3.2
IT	1.3	2.3
EA	0.2	0.7

(1) In the 'baseline' scenario a 3% real interest rate is assumed. In the 'higher interest rate' scenario, a 4% of GDP real interest rate is assumed.

(2) See table 10.

Source: Commission services.

Risks related to the projected evolution of pension expenditure

In some countries, a considerable decrease in the ratio of pension benefits to GDP is projected (DE, FR, IT, AT and PT). However, the purchasing power of pensions is still projected to increase in real terms – though at a significantly slower pace than wages, which may cast some doubt on the "social" sustainability of current arrangements.

It is difficult to draw clear-cut conclusions for the euro area as a whole given the diversity of pension arrangements. Nevertheless, it can be stated that a decrease in the public benefit ratio may lead to further risks to public finances, notably if: (i) it leads to a substantial increase in the poverty rate of older people; (ii) it leads to a large increase in contributions of private occupational and/or supplementary schemes over the long term, which may affect public revenue in the medium-term (for instance because of possible tax breaks on investment in private pension schemes); (iii) there are obstacles to the job activity of older workers that prevent them from accumulating additional pension

rights, or if prolonging their working lives substantially does not result in a substantial increase in pensions.

Thus, notwithstanding data availability limitations, looking at how the public benefit ratio will evolve can help qualify the assessment of public finance sustainability. In order to reduce the risks stemming from relatively low average public pensions in the future, it is of prime importance for the euro area to raise employment rates, notably of older workers.

Changes in the revenue ratio over the long term

A 'basic' approach to project public primary revenue over the long term is to assume that the revenue/GDP ratio is constant over the long term (i.e. a unit elasticity of each revenue item with regard to the relevant tax base and a unit elasticity of the tax bases to GDP).

This 'basic' approach has been used in the calculations of the indicators and is followed (explicitly or implicitly) by a majority of EU countries. However, a number of countries project revenues in their national long-term projections.

Changes in the revenue ratio up to 2050 may be large, in the order of 1-1½% points of GDP. For example, in the Netherlands, taxes on pensions will increase over the long term since individuals have accumulated large assets in funded pension schemes and these schemes have not yet matured; pension contributions are exempted from taxation while disbursements are subject to taxation. By contrast, property income as a share of GDP might fall over time since, for example, returns on bonds (the coupon) are nominally fixed and would thus fall in relation to GDP. This could have a relatively large impact for countries like Finland, with significant assets held by the government.

6. Overall assessment of the sustainability of public finances

Ensuring fiscal sustainability in view of ageing populations is a key challenge in the euro area. There is however considerable variation among euro-area members both in the scale of the

challenges that they are facing and whether they are mainly related to medium-term or to long-term budgetary developments.

Table 16: **Overall assessment**

Risk category	Country
Low	The Netherlands, Austria and Finland
Medium	Belgium, Germany, Spain, France, Ireland, Italy and Luxembourg
High	Greece and Portugal

Source: Commission services.

The relative scale of the public finance sustainability challenge is represented by three categories: low, medium and high risk. While clearly distinguishing the size of the challenge countries face (see Table 16), this categorisation recognises that an ageing population represents a budgetary challenge over the long term for all countries, since low risk does not mean no risk. Overall, two countries are assessed to be at high risk, seven at medium risk and three at low risk.

The high risk countries (EL and PT) are characterised by a very significant rise in age-related expenditure over the long term, which it will be necessary to curb. They also have large deficits and Greece in particular also already has a high debt level. This needs to be tackled through budgetary consolidation.

The medium-risk group of countries (BE, DE, ES, FR, IE, IT and LU) is a diverse group consisting of countries with very different characteristics. Some of these countries currently have relatively strong budgetary positions, but face significant costs relating to ageing, for which structural reform measures are needed. Spain, Ireland and Luxembourg fall into this group. Others need to consolidate their public finances over the medium term, to varying degrees, but are less concerned with the cost of ageing, usually because they have already reformed their pension systems. This is the case in Germany, France and Italy. Italy stands out in requiring a rapid budgetary consolidation to ensure a steady reduction of the currently very high level of debt. Belgium's situation is also distinctive in that it needs to maintain a strong budget balance to reduce its very high level of debt, as well as

taking measures to curb the high increase in age-related expenditure.

The low risk countries (NL, AT and FI) have come furthest in coping with ageing, which implies either a strong budgetary position and/or comprehensive pension reforms. This does not mean that in these countries there are no risks to the sustainability of public finances. In Austria, the situation depends on the successful implementation of the pension reforms enacted. The other two countries will also need to consider structural reform measures at some point to tackle the relatively high projected cost of ageing.

7. Policy implications

A broad strategy to ensure fiscal sustainability is needed...

Coping with the budgetary challenge posed by ageing populations is a key policy challenge in the euro area. The analysis confirms the relevance of and need for the three-pronged strategy to ensure sustainable public finances, i.e. reducing debt at a fast pace, raising employment rates and productivity, and reforming pension, health care and long-term care systems.⁴¹

Several euro-area members have made progress down these three routes, by resolutely implementing often difficult policy choices. They have shown that reforms and ambitious fiscal policies pay off. However, more needs to be done, and done soon: postponing these inevitable policy choices will not make them easier, but more difficult.

...consisting of fiscal consolidation...

First, euro-area members need to consolidate the public finances so as to run down public debt rapidly before the full impact of ageing unfolds. Indeed, the analysis shows that consolidating public finances towards the MTOs will significantly contribute to alleviating part of the long-term budgetary costs of ageing and will prevent a rapid rise of the debt/GDP ratio. Moreover, sound public finances allow for low

⁴¹ Decided by the Stockholm European Council in March 2001.



interest rates and high and stable economic growth which would in turn improve the sustainability of public finances.

...measures that increase employment and productivity...

Second, the employment rate needs to be raised in the euro area, especially amongst women and older workers. It should be noted that considerable progress has already been made in the euro area, with employment rates having increased in recent years and continued increases are projected over the long-term as a result of enacted structural reforms. The overall employment rate in the euro area is projected to increase from 63% in 2004 to 67% in 2010 and to reach 70% - the Lisbon target - by 2035. Nonetheless, if employment rates were to increase more than assumed in the common long-term projections made by the Commission and the Economic Policy Committee⁴² it would considerably contribute to fiscal sustainability. Indeed, in many countries, substantial benefits could be reaped by reducing structural unemployment further. Successfully implementing policy measures that increase employment and enhance productivity, in line with the goals of the Lisbon strategy, would furthermore raise potential GDP growth rates, improve future living standards and provide more room for budgetary reallocation in the future.

In addition, the above-mentioned common long-term projections show that some limited budgetary savings could be achieved by a projected reduction in education expenditure on account of ageing populations. However, as productivity will need to be boosted in the future, Member States could consider using those savings to modernise their education systems, in line with the Lisbon commitments to build a knowledge-based economy.

...and reforms of the welfare models...

Third, Member States need to consider appropriate reforms of pension, health-care and long-term care systems to ensure that they are financially viable in the face of ageing while at the

same time securing core policy goals of adequacy and access. Recent pension reforms in several euro-area countries have reduced the budgetary impact of ageing and are helping to raise the effective retirement age.

In many cases, reforms of public pension systems have made them less generous; they reduce average public pensions in relation to average wages over time. But it is important that pensions overall can be maintained at an adequate level for reforms to enjoy lasting support. This means raising employment rates and in particular giving older workers incentives to extend their working lives and hence accrue more pension benefits.

Finally, the analysis shows that there is some uncertainty as to what the key drivers of public health-care expenditure will be. The population may continue to demand an increasing share of public health-care services, as has been observed in the past decades, and there is a distinct possibility that demand for higher provision of health-care services will put upward pressure on public spending as a share of GDP over and above that motivated solely by demographic change. Coping with the observed trend increases in public spending on health care is currently under debate in several countries.

...to improve the functioning of the euro-area economies

In addition to rigorously implementing the consolidation of the public finances over the medium-term towards the MTOs and/or maintaining a budgetary position that would reduce sustainability risks, a determined effort will be required to improve the functioning of the euro-area economies and to adapt public systems to better enable them to cope with the significant challenges ahead. The policies behind this three-pronged strategy are an integral part of the Lisbon strategy as raising employment rates and running sound macro- and micro-economic policies are conducive to economic growth and prosperity. What combination of policies in these three areas is deemed appropriate will depend on what form the sustainability challenge takes in each euro-area country and what policy priorities they have set themselves.

⁴² See footnote 37.

IV. Recent DG ECFIN publications

1. Policy documents

EUROPEAN ECONOMY. No. 4. 2006

Long-term sustainability of public finances in the European Union

http://europa.eu.int/comm/economy_finance/publications/european_economy/2006/ee0406sustainability_en.htm

EUROPEAN ECONOMY. No. 5. 2006

Economic forecasts autumn 2006

http://europa.eu.int/comm/economy_finance/publications/european_economy/forecasts_en.htm

EUROPEAN ECONOMY. No. 6. 2006

The EU Economy 2006 Review

http://europa.eu.int/comm/economy_finance/publications/european_economy/2006/the_eu_economy_review2006_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 27. November 2006

Countries Country Study: Growth and competitiveness in the Polish economy: the road to real convergence

http://europa.eu.int/comm/economy_finance/publications/occasional_papers/occasionalpapers27_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 26. November 2006

What do the sources and uses of funds tell us about credit growth in Central and Eastern Europe?

http://europa.eu.int/comm/economy_finance/publications/occasional_papers/occasionalpapers26_en.htm

EUROPEAN ECONOMY. SPECIAL REPORT. No. 2. 2006

The 2006 convergence report on Slovenia

The 2006 convergence report on Lithuania

http://ec.europa.eu/economy_finance/publications/eespecialreports_en.htm

EUROPEAN ECONOMY. SPECIAL REPORT. No. 3. 2006

Annual statement and report on the euro area

http://ec.europa.eu/economy_finance/publications/european_economy/2006/eespecialreport0306_en.htm

EUROPEAN ECONOMY. SPECIAL REPORT. No. 4. 2006

Labour market and wage development in 2005, with special focus on labour market adjustment in the euro area

http://ec.europa.eu/economy_finance/publications/european_economy/2006/eespecialreport0406_en.htm

EUROPEAN ECONOMY. ENLARGMENT PAPERS. No. 28. 2006

2006 Fiscal notifications of acceding and candidate countries: overview and assessment

http://ec.europa.eu/economy_finance/publications/enlargement_papers/elp28_en.htm

2. Analytical documents

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 250.

Gaëtan Nicodème (Directorate-General for Economic and Financial Affairs)

Corporate tax competition and coordination in the European Union: What do we know? Where do we stand?

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers250_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 251.

Lars Jonung and Werner Roeger (Directorate-General for Economic and Financial Affairs)

The macroeconomic effects of a pandemic in Europe - A model-based assessment

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers251_en.htm

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Servaas Deroose (Directorate-General for Economic and Financial Affairs)

Assessing the factors of resilience of private consumption in the euro area

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers252_en.htm



EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 253.

Giuseppe Carone, Cécile Denis, Kieran Mc Morrow, Gilles Mourre and Werner Röger (Directorate-General for Economic and Financial Affairs)

Long-term labour productivity and GDP projections for the EU25 Member States: a production function framework

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers253_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 254.

Cécile Denis, Kieran Mc Morrow and Werner Röger (Directorate-General for Economic and Financial Affairs)

Globalisation: trends, issues and macro implications for the EU

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers254_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 255.

Baudouin Lamine (Directorate-General for Economic and Financial Affairs)

Monetary and exchange-rate agreements between the European Community and Third Countries

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers255_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 256.

N. Diez Guardia and K. Pichelmann (Directorate-General for Economic and Financial Affairs)

Labour Migration Patterns in Europe: Recent Trends, Future Challenges

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers256_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 257.

R. Beetsma (University of Amsterdam) and A. L. Bovenberg (Tilburg University)

Pension systems, intergenerational risk sharing and inflation

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers257_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 258.

Gilles Mourre and Michael Thiel (Directorate-General for Economic and Financial Affairs)

Monitoring short-term labour cost developments in the European Union: which indicators to trust?

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers258_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 259.

Karel Havik and Kieran Mc Morrow (Directorate-General for Economic and Financial Affairs)

Global trade integration and outsourcing: How well is the EU coping with the new challenges?

http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers259_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

1 Output		2003	2004	2005	June-06	July-06	Aug-06	Sep-06	Oct-06	Nov-06
Industrial confidence ^{1.1}	Balance	-11	-5	-8	3	4	2	4	5	6
Industrial production ^{1.2}	mom % ch	0.5	2.0	1.3	0.4	-0.5	1.7	-1.0		
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Gross domestic product ^{1.3}	Qtr. % ch				0.4	0.6	0.4	0.8	1.0	0.5
2 Private consumption		2003	2004	2005	June-06	July-06	Aug-06	Sep-06	Oct-06	Nov-06
Consumer confidence ^{2.1}	Balance	-18	-14	-14	-9	-8	-9	-8	-8	-7
Retail sales ^{2.2}	mom % ch	0.1	0.2	1.0	0.1	0.4	0.7	-1.0	0.3	
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Private consumption ^{2.3}	Qtr. % ch	1.3	1.4	1.4	0.4	0.7	0.1	0.7	0.3	0.6
3 Investment		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Capacity utilization ^{3.1}	%	80.7	81.6	81.3	81.1	80.9	81.1	82.0	82.5	83.6
Gross fixed capital formation ^{3.2}	Qtr. % ch	1.0	2.1	2.7	1.2	1.2	0.6	1.0	2.3	0.8
Change in stocks ^{3.3}	% of GDP	0.0	-0.1		0.2	0.2	0.4	0.0	0.3	0.2
4 Labour market		2003	2004	2005	June-06	July-06	Aug-06	Sep-06	Oct-06	Nov-06
Unemployment ^{4.1}	%	8.4	8.9	8.5	7.8	7.8	7.8	7.8	7.7	
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Employment ^{4.2}	Ann. % ch	0.4	0.6	0.7	0.7	0.7	0.8	1.0	1.3	
Shortage of labour ^{4.3}	%	2.5	2.4		2.0	2.1	2.8	2.7	3.1	4.3
Wages ^{4.4}	Ann. % ch	2.5	2.2		2.2	2.2	2.1	2.5	2.4	
5 International transactions		2003	2004	2005	June-06	July-06	Aug-06	Sep-06	Oct-06	Nov-06
Export order books ^{5.1}	Balance	-24	-13	-16	3	2	1	2	2	2
World trade ^{5.2}	Bn. EUR	132	146	157	172	169	175	178		
Exports of goods ^{5.3}	Bn. EUR	1056.0	1142.1	1232.5	113.2	111.1	116.2	118.5		
Imports of goods ^{5.4}	Bn. EUR	970.4	1069.1	1207.3	115.0	117.4	119.5	119.4		
Trade balance ^{5.5}	Bn. EUR	85.6	73.0	25.2	-1.8	-6.2	-3.3	-0.9		
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Exports of goods and services ^{5.6}	Qtr. % ch	1.1	6.8	4.2	1.9	2.6	0.7	3.8	1.1	1.7
Imports of goods and services ^{5.7}	Qtr. % ch	3.1	6.7	5.2	2.6	2.4	1.6	2.8	1.1	2.1
		2003	2004	2005	June-06	July-06	Aug-06	Sep-06	Oct-06	Nov-06
Current account balance ^{5.8}	Bn. EUR	18.1	42.4	38.8	4.9	-2.1	-3.9	-0.3		
Direct investment (net) ^{5.9}	Bn. EUR	-18.4	-39.7	-41.8	-7.7	-9.4	-7.6	-19.9		
Portfolio investment (net) ^{5.10}	Bn. EUR	-9.4	39.0	32.3	66.5	1.0	-15.0	40.5		
6 Prices		2003	2004	2005	June-06	July-06	Aug-06	Sep-06	Oct-06	Nov-06
HICP ^{6.1}	Ann. % ch	2.1	2.2	2.2	2.5	2.4	2.3	1.7	1.6	1.8
Core HICP ^{6.2}	Ann. % ch	2.0	2.1	1.5	1.5	1.6	1.5	1.5	1.6	
Producer prices ^{6.3}	Ann. % ch	1.6	2.3	4.1	5.8	6.0	5.7	4.6	4.0	
Import prices ^{6.4}	Ann. % ch	102.5	97.2	104.8	113.3	114.0	115.1			
7 Monetary and financial indicators		2003	2004	2005	June-06	July-06	Aug-06	Sep-06	Oct-06	Nov-06
Interest rate (3 months) ^{7.1}	% p.a.	2.3	2.1	2.2	3.0	3.1	3.2	3.3	3.5	3.6
Bond yield (10 years) ^{7.2}	% p.a.	4.1	4.1	3.4	4.0	4.0	3.9	3.8	3.8	3.7
ECB repo rate ^{7.3}	% p.a.	3.25	2.75		2.75	2.75	3.00	3.25	3.25	3.50
Stock markets ^{7.4}	Index	2420	2805	3207	3529	3617	3744	3817	3973	4053
M3 ^{7.5}	Ann. % ch	7.8	5.9	7.4	8.3	8.2	8.2	8.4		
Credit to private sector (loans) ^{7.6}	Ann. % ch	5.0	6.0	8.1	11.0	11.1	11.3	11.4	11.2	
Exchange rate USD/EUR ^{7.7}	Value	1.13	1.24	1.24	1.27	1.27	1.28	1.27	1.26	1.29
Nominal effective exchange rate ^{7.8}	Index	106.4	109.8	109.7	112.6	112.7	112.5	112.4	112.0	112.6



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	Volume, 1998=100, seasonally adjusted	CPB
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	Ecwin
7.2	Bond yield	Percent p.a., 10-year government bond yields, lowest level prevailing in the euro area, period averages	Ecwin
7.3	ECB repo rate	Percent p.a., minimum bid rate of the ECB, end of period	Ecwin
7.4	Stock markets	DJ Euro STOXX50 index, period averages	Ecwin
7.5	M3	Seasonally adjusted 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

Contributors to this issue are:

Recent economic developments and short-term prospects

C. Brzeski, L. González Cabanillas, D. Paternoster and V. Roussel-Laxton

Will the effects of a US slowdown spill over to the euro area?

L. González Cabanillas and S. Soresen

The non-accelerating wage rate of unemployment (NAWRU) in the euro area

D. Grenouilleau, W. Roeger and G. Tournemire

Focus: Widening current account differences within the euro area

E. Ruscher and W. Schoellmann

Focus: Ensuring fiscal sustainability in the euro area: achievements and remaining looming challenges

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