

# QUARTERLY REPORT ON THE EURO AREA

Volume 5 N° 3 (2006)

Highlights in this issue:

- Recent economic developments and short-term prospects
- Latest financial market developments and macro-financial stability outlook
- Recycling of oil-exporting countries' oil revenues: more beneficial to the euro area than in the past
- Focus: Labour market developments in the euro area

**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
LATEST FINANCIAL MARKET DEVELOPMENTS AND MACRO-FINANCIAL STABILITY OUTLOOK.....	13
RECYCLING OF OIL-EXPORTING COUNTRIES' OIL REVENUES: MORE BENEFICIAL TO THE EURO AREA THAN IN THE PAST.....	18
II. FOCUS: LABOUR MARKET DEVELOPMENTS IN THE EURO AREA .....	23
III. RECENT DG ECFIN PUBLICATIONS.....	34
IV. KEY INDICATORS FOR THE EURO AREA .....	36
 <i>BOXES:</i>	
1. <i>THE UPCOMING EURO ENLARGEMENT.....</i>	<i>11</i>
2. <i>AN ECONOMETRIC ESTIMATION OF EMPLOYMENT DEMAND IN THE EURO AREA.....</i>	<i>31</i>





## EDITORIAL

After several years of sluggish performance, the recovery is now on a solid footing in the euro area. Economic growth accelerated to an annualised rate of 3.4 % in the first half of 2006, which was well above expectations and the fastest pace in six years. Underlying this robust pick-up in activity is a significant shift in the relative contributions of external and domestic demand. While external trade remains very supportive, domestic demand has now become the main driver of growth. Following a protracted lean period, private investment has rebounded strongly with both construction and equipment contributing to the momentum. Furthermore, employment growth is accelerating gradually and unemployment is on a clear downward course. Conditions are therefore in place for a recovery in private consumer demand, which has been a particular economic weak spot in recent years.

Looking ahead, some business sentiment indicators have recently softened, pointing to some deceleration in growth in the next few months. However, these indicators remain well above their long-term levels and growth in the euro area is set to remain close to, or above, potential in the second half of the year. According to the Commission services' September interim forecast, euro-area GDP is projected to increase by 2.5 % in 2006, which represents a 0.4 percentage point upward revision compared to the Commission's spring forecast.

Regarding 2007, growth may moderate somewhat as the recovery becomes more established and the gradual edging up of interest rates from their historical lows, the temporary impact of the VAT increase in Germany, and a softening of the global economy start to weigh on activity. However, the broad basis of growth and the fact that it is firmly underpinned by accelerating domestic demand should increase the resilience of the economy to these adverse developments.

Although tensions on oil markets have eased since August, high oil prices have weighed on activity in the euro area in recent quarters.

However, compared with the experiences of the 1970s and the 1980s, the economy has shown a remarkable resilience to surging energy prices. There are several explanations for this, including better macroeconomic management, better functioning labour markets and the fact that the economy is now less oil-intensive. An additional factor, which is analysed in this report, is that the recycling of oil revenues by oil-exporting countries into oil-consuming countries is now clearly more beneficial for the euro area than in the past. The strengthening of the recycling channel is twofold. First, although precise data is sketchy, oil-exporting countries increasingly invest their extra oil revenues in euro-denominated assets. Second, and more important, euro-area exporters are now quicker to exploit market opportunities in oil-exporting countries, so that a larger share of oil revenues is recycled back into the euro-area economy via the trade channel than was the case in the 1970s.

While these factors help mitigate the risks to growth arising from a possible further tightening of the oil market, the downside risks related to the macro-financial environment have recently intensified. This is evidenced by the equity price correction in May-June. Although equity markets have more or less recovered from the setback, the dynamics of the price correction – a rapid and disruptive shift from higher-risk to lower-risk assets across the globe – was indicative of investor nervousness about the risk of deterioration in the fundamentals of their operating environment. Investor sensitivity to risk must be seen against the background of unprecedented external imbalances in the global financial system, the possibility of a sharper-than-expected slowdown in world economic growth and a widespread perception that many asset markets may be overvalued. Such conditions leave markets ripe for volatility. Financial-market developments need therefore to be followed carefully, especially as household debt has risen above 60% in half of the euro-area Member States and might reach levels close to 100% of GDP in Ireland, Spain, and the Netherlands in the foreseeable future. Hence, some fallout to

the real economy, namely to investment and household consumption, cannot be ruled out if downside risks to macro-financial stability materialise.

Finally, this Quarterly Report examines recent labour market developments in the euro area in its focus section. The labour-market performance of the euro area over the past five years has been truly remarkable, with more than five million jobs created. These signs of increased employment resilience indicate that the functioning of the labour market has improved, with net job creation continuing even in periods of marked economic slowdown. In particular, the participation rates of older workers have risen significantly in the past few years, though admittedly from very low levels. These results testify to the positive impact of wide-ranging reforms carried out by Member States and of persistent wage moderation.

Nevertheless, despite these positive results, there is clearly scope for further improvements in the functioning of labour markets in the euro area. Structural unemployment remains high and employment rates are well below the Lisbon targets. Demographic developments over the medium term, and their positive consequences for unemployment, could prove a mixed blessing, as they might lessen the perceived need for reforms, when in fact the progress accomplished so far should encourage further steps in the right direction.



Klaus REGLING  
DIRECTOR GENERAL



## I. Economic situation in the euro area

*The economic situation has improved substantially since the beginning of the year in the euro area. The pace of expansion accelerated to an annualised rate of 3.5% during the first half, its highest rate in 6 years. With growth mostly driven by domestic demand, the economic recovery now appears solidly established. Domestic spending is underpinned by a strong pick-up in investment, robust job creation and consumer confidence above its long-term average. The global environment remains supportive, but looks set to soften on the back of a slowdown in the US economy. Some indicators of business sentiment have eased since the summer but confidence remains high and consistent with sustained expansion in activity during the second half of the year. According to the Commission services' September interim forecast, GDP growth is projected to be above potential during the second half of 2006 and to average 2.5% for the year as a whole.*

*Except for the episode of equity market turbulence in May-June, the performance of euro-area financial markets has been favourable so far in 2006. Nevertheless, downside risks have intensified. On the international side, the possibility of a sharper-than-expected deceleration in global economic growth cannot be excluded in a context of high oil prices, tightening monetary policies, significant global imbalances and geopolitical tension. With asset valuations already stretched in many markets, this combination of risks has raised investor sensitivity to risk exposure. On the domestic side, corporate and, above all, households' balance sheets are a potential source of additional vulnerability.*

*High oil prices now seem to have a considerably less damaging effect on the euro-area economy than in the past. Several factors can account for this improved resilience, including better macroeconomic management, better functioning labour markets and the economy's lower energy intensity. An additional explanation is that the recycling of oil revenues by oil-exporting countries into oil-consuming countries is now more beneficial for the euro area than in the past. Analysis presented in the report shows that the pattern of recycling has changed. In particular, there are indications that the share of the oil revenues that is being recycled into the euro area via the trade channel is now significantly higher than was the case during the 1970s. Furthermore, although the USA remains the main destination for oil exporting countries' financial investment, the importance of euro-denominated assets has risen noticeably.*

### 1. Recent economic developments and short-term prospects<sup>1</sup>

#### Buoyant growth in the second quarter

The economic situation in the euro area has brightened substantially since the beginning of the year. According to the first estimate of the Quarterly National Accounts, euro-area GDP rose by an impressive 0.9% quarter-on-quarter in the second quarter, the highest pace of expansion since the second quarter of 2000 and a significantly better outturn than projected in the Commission services' spring 2006 forecasts (0.6%). At the same time, real GDP growth in the first quarter was revised upwards to 0.8%. As a consequence, the carryover for annual GDP growth in 2006 has been revised strongly upward, from 1.2% to 2.1%. The underlying growth momentum, as measured by the year-on-year growth rate, edged up from 1.8% in the last quarter of 2005 to 2.6% in the second quarter of

2006, the best reading since 2001. The strengthening of activity was also accompanied by an encouraging rebalancing of the source of demand with net trade accounting for only a fraction of growth in the second quarter.

#### Domestic demand as the main engine of growth

The strong growth momentum in the euro-area economy is now mostly fuelled by domestic demand, which rose by 0.8% quarter-on-quarter (excluding inventories) in the first quarter and by 0.7% in the second.

In the second quarter, domestic demand was primarily driven by a surge in investment spending. Gross fixed capital formation accelerated to an astonishing (non-annualised) 2.1%, up from 0.9% in the first quarter. The breakdown of investment spending by sector is not yet available for the second quarter but there is indirect evidence that growth in investment was underpinned by robust expansion in both construction and equipment investment. Value added in the construction sector, which is

<sup>1</sup> The cut-off date for the statistics included in this issue was 22 September 2006.

Table 1: Euro-area growth components

	2005 Q3	2005 Q4	2006 Q1	2006 Q2	Carryover to 2006	Forecast 2006 (1)	
						Spring Forecasts (2)	Interim Forecasts (3)
<b>Percentage change on previous period, volumes</b>							
GDP	0.6	0.3	0.8	0.9	2.1	2.1	2.5
Private consumption	0.7	0.1	0.7	0.3	1.4	1.7	
Government consumption	0.7	0.2	0.8	0.4	1.7	2.0	
Gross fixed capital formation	1.2	0.4	0.9	2.1	3.7	4.2	
Changes in inventories (% of GDP)	0.0	0.5	0.0	0.2	-0.1	0.6	
Exports of goods and services	2.6	0.9	3.9	1.3	7.5	5.4	
Imports of goods and services	2.5	1.6	2.9	1.2	7.0	6.0	
<b>Percentage point contribution to change in GDP</b>							
Private consumption	0.4	0.0	0.4	0.2	0.8	1.0	
Government consumption	0.1	0.0	0.1	0.1	0.3	0.4	
Gross fixed capital formation	0.3	0.1	0.2	0.5	0.8	0.9	
Changes in inventories	-0.3	0.4	-0.4	0.1	-0.1	0.0	
Net exports	0.1	-0.3	0.5	0.1	0.3	-0.2	

(1) Annual change in %. (2) European Commission Spring 2006 Forecasts. (3) European Commission September 2006 interim forecasts  
**Source:** Commission services.

generally closely linked to spending in construction, increased by a remarkable 2.4% (non-annualised quarter-on-quarter) in the second quarter. This indicates that, after a disappointing start in the first few months of the year due to poor weather conditions, construction investment likely rebounded strongly in the spring. Combining data on total investment with estimates of construction spending suggests that equipment investment – which accounts for around half of total investment – also grew healthily in the second quarter.

The investment recovery, which began during the first half of last year, has now acquired a robust momentum with year-on-year growth above 4.5% and all main sources of investment demand contributing to the expansion.

On the household side, the current business cycle has been characterised by a surprisingly slow response of residential construction to an environment of low interest rates and high house prices.<sup>2</sup> However, the recovery in the sector is now clearly under way and has registered

<sup>2</sup> Despite the strong dynamics in house prices in many euro-area countries, construction supply in the euro area as a whole has been weak in recent years. This appears to be largely attributable to Germany, where the housing market has been strongly depressed by overcapacity since the end of the unification boom. See Quarterly Report on the Euro Area, Vol. 5 N°1(2006).

relatively solid growth since the second quarter of 2005. Furthermore, it is encouraging to note that housing investment in Germany, which had weighed heavily on euro-area investment data in recent years, has been sending signs of a strong upturn in the second quarter of 2006.

On the corporate side, equipment investment has been on a robust growth path since the beginning of last year except for a brief relapse in the last quarter of 2005.<sup>3</sup> More recently, there has also been early evidence of a progressive upswing in non-residential construction. With capacity utilisation now at its highest level since the beginning of 2001, this could be an indication that the corporate sector is again expanding capacity. The recovery in business investment is buttressed by past balance sheet restructuring, favourable financing conditions and continued improvement in profitability. In particular, recent developments in real unit labour costs (which may be interpreted as an inverted measure of profit margins) have been very conducive to investment growth. Real unit labour costs have followed an almost uninterrupted downward trajectory since mid-2003. The improvement in margins has continued in the last few quarters despite a slight pick-up in wages, with growth in compensation per employee increasing from 1.5% in the second quarter of 2005 to 2.0% in

<sup>3</sup> The relapse probably owes much to the same technical factors that dampened GDP growth that quarter.



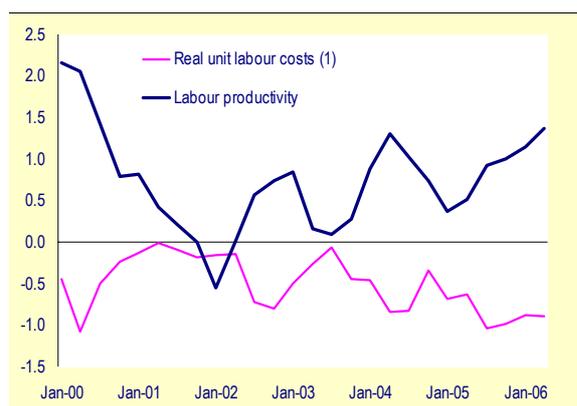
Table 2: Selected euro-area and national leading indicators, 2005-2006

	SENT. IND <sup>1)</sup>	BCI <sup>2)</sup>	OECD <sup>3)</sup>	PMI Man. <sup>4)</sup>	PMI Ser <sup>5)</sup>	IFO <sup>6)</sup>	NBB <sup>7)</sup>	ZEW <sup>8)</sup>
Long-term average	100.9	-0.00	2.75	52.4	54.6	96.5	-8.6	31.7
Trough in latest downturn	88.1	-1.25	-0.77	42.9	46.7	87.3	-26.5	-10.4
September 2005	98.5	0.00	2.0	51.7	54.7	96.7	-7.0	38.6
October 2005	100.2	0.10	2.9	52.7	54.9	99.5	-6.0	39.4
November 2005	99.7	0.10	3.5	52.8	55.2	98.4	-5.6	38.7
December 2005	100.5	0.30	3.8	53.6	56.8	100.4	-0.8	61.6
January 2006	101.5	0.30	4.2	53.5	57.0	103.9	-4.4	71.0
February 2006	102.7	0.60	4.5	54.5	58.2	104.8	1.6	69.8
March 2006	103.6	0.80	4.6	56.1	58.2	105.6	0.3	63.4
April 2006	105.7	1.10	4.9	56.7	58.3	105.4	6.4	62.7
May 2006	106.7	1.00	5.1	57.0	58.7	103.9	1.4	50.0
June 2006	107.1	1.40	4.4	57.7	60.7	104.2	10.6	37.8
July 2006	107.8	1.40	3.1	57.4	57.9	102.6	5.6	15.1
August 2006	106.7	1.30		56.5	57.1	101.5	3.3	-5.6
September 2006							5.0	-22.2

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.

the first quarter of 2006.<sup>4</sup> This pick-up, which must be assessed against the very low wage growth registered during the second half of 2005 and still leaves wage growth below its average of the last few years, was more than offset by a rebound in productivity (Graph 1).

Graph 1: Labour productivity and real unit labour costs, euro area (y-o-y changes in % – 2000Q1 to 2006Q2)



(1) Estimate for 2006Q2.  
Source: Commission services.

Renewed appetite for spending in the corporate sector is also visible in corporate loan data. Loans

<sup>4</sup> Indicators available for Q2 – such as ECB's indicator of negotiated wages and Eurostat's indicator of hourly labour costs – point to a further slight acceleration of wages that quarter.

to the non-financial corporate sector rose at an annualised rate of 11.1% in the second quarter, up from 9.2% in the first quarter. According to the ECB's latest bank lending survey, the ongoing strong demand for corporate loans reflects mainly financing needs for fixed investments, although financing for mergers and acquisitions, corporate restructuring and debt restructuring also supported corporate loan demand.

In contrast to investment, the latest reading for private consumption was somewhat disappointing. After having grown by 0.7% in the first quarter of 2006, private consumption slowed down to 0.3% in the second quarter. The slowdown was mainly the result of a significant contraction in Germany (-0.4%) and a weak performance in Italy (0.2%). In contrast, consumption accelerated in Spain (0.8%) and in the Netherlands (0.6%) while remaining resilient in France (0.7%).

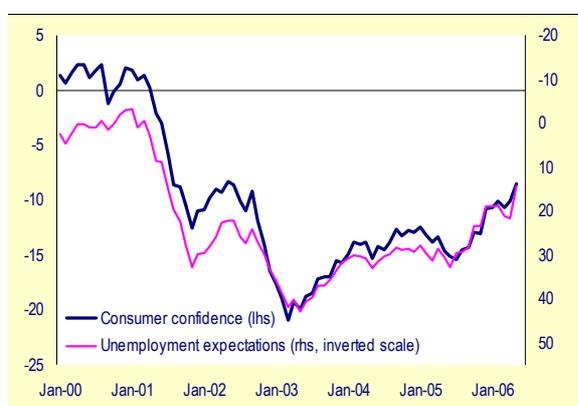
The drop in private consumption in Germany should be interpreted with caution:

- It is at odds with expectations of a positive effect of the World Cup on private spending.
- Consumption has tended to be rather volatile in Germany in the last few quarters, possibly affected by seasonal factors.

- The drop in the second quarter may partly be a correction to the sharp pick-up registered in the first quarter of the year (1.2%).
- It could also reflect the fact that foreigners' spending in Germany during the World Cup has been classified as exports of services instead of consumption.

Overall, it would not be very surprising to see either an upward revision in consumer spending in the forthcoming national account releases or a rebound in the third quarter.

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



Source: Commission services.

Despite the recent volatility of German consumption statistics, there are several reasons to be optimistic about household spending in the euro area. First, euro-area consumption excluding Germany has shown a smooth pattern with annual growth at about 2% since the last quarter of 2005. Second, recent data related to private consumption have been encouraging. In the past few months, households' willingness to spend in the euro area has been visible in a pick-up of retail trade data in June and July and improving confidence in the retail sector. Consistent with robust consumption developments, lending to households has also accelerated, with growth in consumer credit running at 8.6% in July. Finally, household spending is fostered by an improving outlook for the labour market. Employment grew at an annual rate of around 1.5% in the first half of 2006, the strongest increase since the second half of 2000. Though the assessment of employment in business surveys softened slightly at the

beginning of the third quarter, it still points to robust employment growth in the next few months. Meanwhile, the euro-area unemployment rate is pursuing its downward trend. In July 2006, unemployment stood at 7.8% of the labour force, a full percentage point below the peak level registered in 2004. As a consequence, households' employment expectations have improved substantially since the spring, thereby providing support to consumer confidence.

Overall, near-term prospects for private consumption appear good. At this juncture, the main source of uncertainty in household spending is related to prices. Headline inflation eased slightly over the summer to 2.3% in August and oil prices have dropped significantly since the record highs reached in July and August. Nevertheless, previous oil price pressures are still fuelling producer prices inflation, suggesting that high energy costs could be gradually passed-through into final goods and service prices in the months to come, thereby continuing to weigh on purchasing power. In any event, prices remain a source of concern for households, with consumer surveys showing a significant rise in price expectations.<sup>5</sup>

### A supportive, but softening, global environment

Growth in euro-area exports slowed in the second quarter (1.3% q-o-q) after a very strong acceleration in the first quarter (3.9%). The deceleration is in line with recent developments in world trade. According to the latest estimates of the CPB Netherlands Bureau of Economic Policy Analysis, quarter-on-quarter growth in world trade decelerated from 2.7% in the first quarter to a 0.9% in the second.

The deceleration in both world trade and euro-area exports should be interpreted with prudence. Trade data tend to be volatile and the underlying momentum remains robust: euro-area export growth was still at 9% year-on-year in the second quarter while growth in world trade was running at a healthy 8% in July (year-on-year). Nevertheless, signs of a softening of the global

<sup>5</sup> By contrast, data on inflation-indexed bonds suggest that long-term inflation expectations remain stable.



environment are also visible in GDP data. While world GDP growth continues to be robust, growth appears to have moderated in some key regions. In particular, there is some evidence of a slowdown in the US economy. US GDP growth slowed down to 0.7% (quarter-on-quarter) in the second quarter of 2006 from a first quarter estimate of 1.4%. This deceleration reflected a drop in household spending and fixed investment spending. In Japan, GDP growth in the second quarter of 2006 decelerated to 0.2% (quarter-on-quarter) from 0.7% in the first quarter. At the same time, the expansion in China remains strong, with growth accelerating to 10.9% year-on-year in the first half of 2006.

Against this background, the global economy is likely to be somewhat less buoyant during the second half of the year than during the first half. In line with this assessment, most recent survey indicators of the world economy point to a period of growth moderation over the coming months. The July reading of the quarterly World Economic Survey clearly indicates a marked deterioration of expectations concerning the next six months, the first one since November 2005. In the global Purchasing Managers' Index survey, the indicator for world export expectations also declined in August for the second month in a row.

Combined with the lagged effects of the moderate appreciation of the effective euro exchange rate since the beginning of the year, the softening of the global economy means that the international environment will become somewhat less supportive for euro-area exporters in the months to come. However, it should be noted that export prospects as reported in manufacturing surveys have so far remained at a record high.

### Business confidence has eased, but still points to robust growth ahead

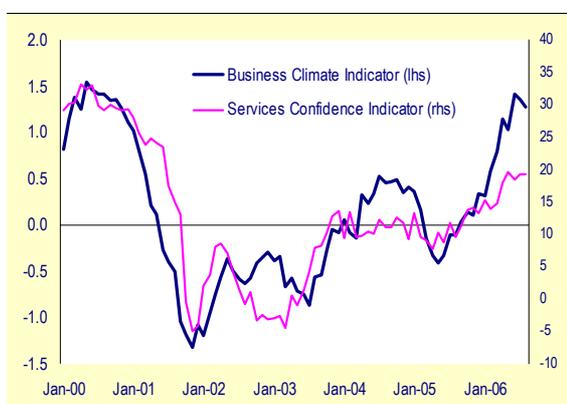
An inflexion in business confidence has been noticeable in manufacturing since July. DG ECFIN's Business Climate Indicator for the euro area fell in August for the second month in a row. The easing of confidence seems to reflect several factors. The drop in July was mainly explained by the German manufacturers' assessment of past production trends falling

back, after surging in June on the back of the World Cup. In contrast, the decrease in August was more broad-based among Member States and mostly due to a deterioration of production expectations. The easing of confidence, which is also visible in other manufacturing surveys such as IFO and Reuters' PMI, reflects increasing expectations of a downshift in global industrial production on the back of weakening prospects for the global economy. It could also mirror worries related to the planned increase in VAT in Germany in 2007. On a more positive note, the indicator for manufacturing of the National Bank of Belgium – which is the first business confidence indicator available for September – has risen and remains well above its long-term average.

Regarding the rest of the economy, recent business surveys have been conveying somewhat conflicting messages. DG ECFIN's survey shows a stabilisation of managers' confidence in the euro-area service sector over the summer. Meanwhile, Reuters Service Index displayed a significant drop in July and declined marginally further in August. In contrast, surveys in the construction and retail sectors have continued to trend upwards.

Overall, signs of an easing in confidence seem clearer in the manufacturing sector than in the rest of the economy and are related to concerns about a possible softening of production prospects in the coming months rather than a weakening of current activity.

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



Source: Commission services.

Table 3: **Real GDP growth**  
(Interim Commission Services' forecast, September 2006)

	Quarterly GDP forecast (quarter-on-quarter in %)				Annual GDP forecast for 2006 (year-on-year in %)	
	2006/1 (1)	2006/2 (1)	2006/3	2006/4	Interim forecast September 2006	Spring forecast May 2006
<b>Germany</b>	0.7	0.9	0.5	0.7	2.2	1.7
<b>Spain</b>	0.9	0.9	0.8	0.8	3.5	3.1
<b>France</b>	0.5	1.1	0.7	0.7	2.3	1.9
<b>Italy</b>	0.7	0.5	0.6	0.4	1.7	1.3
<b>Euro area</b>	0.8	0.9	0.7	0.7	2.5	2.1

(1) Data for 2006/1 and 2006/2 are estimates released by Eurostat. Where possible, the quarterly growth rates are working-day and seasonally-adjusted, whereas the annual projections are unadjusted.

*Source:* Commission services.

### Short-term outlook and risks

Despite their recent decline, most survey indicators are still well above their long-term averages. This suggests steady expansion of economic activity during the second half of the year, although growth is likely to moderate somewhat. The first hard data available for the beginning of the third quarter support this assessment. Retail sales and industrial new orders have both picked up significantly in July. Industrial production declined in July after a flat reading in June but year-on-year industrial production growth continues to be strong (3.2%) and the July decline seems to partly reflect seasonal adjustment problems.

According to the Commission services' interim forecasts released on 6 September, economic growth should remain above potential throughout the second half of 2006, at about 0.7% quarter-on-quarter (Table 3). For the year as a whole, GDP is now projected to increase by 2.5%, which represents a 0.4 percentage point upward revision compared with the Commission services' spring forecasts. The revision is mostly due to the stronger-than-expected GDP reading during the first half whereas projected growth during the second half of the year has been lifted only marginally. Regarding prices, the forecast has hardly been changed with HICP inflation now projected to average 2.3% in 2006, i.e. 0.1 percentage point higher than in the spring forecast.

Looking further ahead, growth is likely to decelerate somewhat in 2007 as a result of a

deterioration of financing conditions, the temporary impact of the VAT increase in Germany and a softening of the global economy.

Near-term risks to the growth outlook seem slightly tilted to the upside. With the recent easing of oil prices and continued improvement in the labour market, household spending could rise more strongly than assumed, leading to higher growth than expected during the second half of 2006.

Further ahead, however, downside risks to growth from the external side are becoming more prominent. First, there is a non-negligible risk that the slowdown in world economic growth, particularly in the USA, will be stronger than assumed. Second, although they have come down since August, oil prices remain a recurrent risk in a context of persistent tensions in the Middle East. Third, a disorderly unwinding of global imbalances continues to be a threat to the global growth outlook. Finally, a possible resurgence of protectionist tensions amid problems with the Doha trade round could hamper trade integration which has been a major driver of growth in recent years.

### Monetary and financial conditions

On 3 August, the ECB hiked its policy rates for the fourth time since December 2005. The ECB's key policy rate currently stands at 3%. The main reasons behind the interest rate hikes were the upside risks to price stability over the medium term, identified by both the ECB's

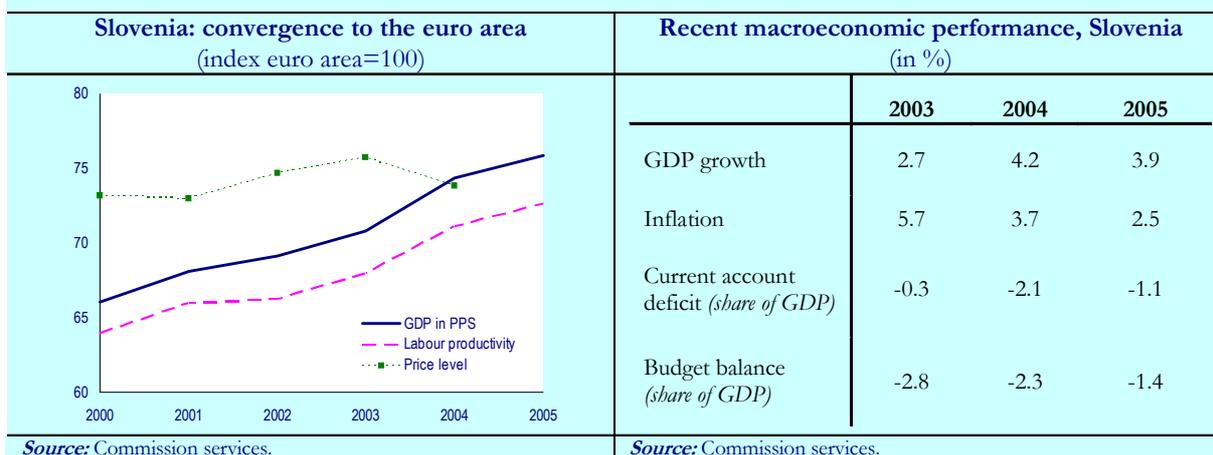


### Box 1: The upcoming euro-area enlargement

On 11 July 2006, the Economic and Financial Affairs Council (Ecofin) adopted a decision allowing Slovenia to adopt the euro as its currency as from 1 January 2007, and a regulation fixing the irrevocable conversion rate between the Slovenian tolar and the euro. Slovenia will be the first of the ten Member States that joined the EU on 1 May 2004 to enter the euro area. Adoption of the euro as Slovenia's currency will occur at the same time as the issuing of euro notes and coins. The conversion rate is set at 239.64 Slovenian tolar to the euro, which corresponds to the current central rate of the tolar within the ERM II exchange-rate mechanism.

Slovenia's entry into the euro area is the coronation of a successful process of convergence towards the euro area accompanied by stability-oriented policies and structural reforms. As far as nominal convergence is concerned, the European Commission concluded in its Convergence Report on Slovenia of 16 May 2006 that all Treaty criteria (on price stability, exchange rate stability, interest rate convergence and public finances) were fulfilled. (\*)

Slovenia has also made considerable progress in terms of real convergence. In 2005, Slovenian GDP per capita in Purchasing Power Standards reached 76% of the euro area level (81% of the EU-25 average), compared to 62% in 1996. Slovenia maintained robust growth at around 4% since 2004 and growth is expected to accelerate to around 5% in 2006. The employment rate in Slovenia was 66% in 2005 (63.5% in the euro area) and the unemployment rate 6.5% (8.6% in the euro area). Labour productivity has been increasing at robust rates (3.2% average annual increase in 2003-5) but is still only at 73% of the euro-area average. The current account has been hovering around balance since 2001 (deficit of 1.1% of GDP in 2005) and Slovenia enjoys a strong export performance being a gateway to South-eastern Europe.



Source: Commission services.

Source: Commission services.

Slovenia is highly integrated with the euro area; trade with the euro area accounted for 31% of GDP in 2005 (trade with all EU countries was 45% of GDP) and FDI inflows from the euro area, although lower than in other recently acceded Member States, are growing. Slovenia is, among the new Member States, one of the economies whose industrial structure is similar to that of the euro area. Slovenia's economic cycle is already well synchronised with the euro area. The correlation of its cycle to the euro-area average is comparable to that of several current EMU member states.

The transition to the euro should have a limited short-term demand impact. Interest rate convergence has been largely achieved; the short-term interest rate differential vis-à-vis the euro decreased from 180 basis points in the autumn of 2005 to some 25 basis points in the summer of 2006 and the spread for long-term interest rates has shrunk to under 10 basis points. Slovenia has already a developed financial system, which has substantially integrated into the broader EU financial system. In the longer term, the real catching-up process is expected to continue, and with it the convergence in the level of prices (74% of the euro area in 2004).

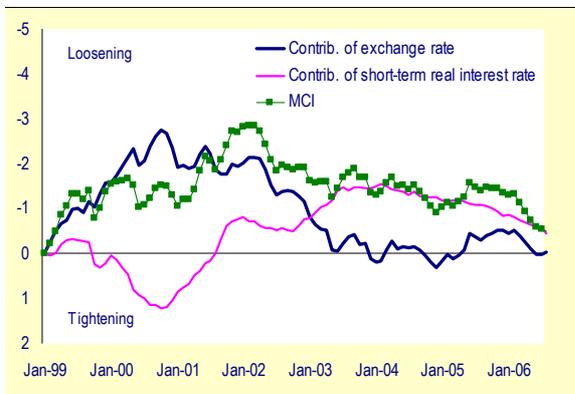
Slovenia will become one of the smallest economies in the euro area, contributing only 0.4% to euro area GDP and 0.6% to its population. Slovenia's membership in the monetary union brings additional opportunities for its citizens and businesses, and adds to the euro area a member with above-average GDP growth rates and a stable macroeconomic performance. However, in the new monetary environment, it is essential that Slovenia's economic policy will continue to be geared towards preserving macroeconomic stability and competitiveness. Above all, more effort will be needed to implement product market, labour market and social-welfare reforms to enhance the flexibility and resilience of the economy.

(\*) European Commission (2006), Directorate-General for Economic and Financial affairs, 'Convergence Report 2006 on Slovenia', May 2006  
European Central Bank (2006), 'Convergence Report', May 2006

economic and monetary analysis. The hikes should contribute to ensuring that medium- to longer-term inflation expectations in the euro area remain solidly anchored at levels consistent with price stability.

Even after four interest rate hikes, the current level of interest rates remains low across the entire maturity spectrum and monetary policy continues to be accommodative. Deflated by inflation expectations, real short-term interest rates stand currently at around 1%. Nevertheless, monetary conditions in the euro area, as measured by the Monetary Conditions Index (MCI), have somewhat tightened over the recent months, driven by the euro appreciation and the increase in short-term interest rates. Since mid-June, the euro exchange rate has appreciated by about 2% against the US dollar. In the same period, the euro has gained around 3.3% against the Japanese yen and reached a historical high at above 150 JPY/EUR at the end of August.

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



Source: Commission services.

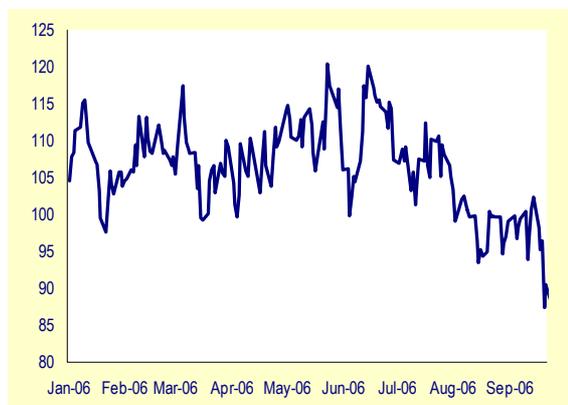
As the year has progressed, it has become increasingly clear that the US Fed is approaching the end of its current tightening cycle, with the Fed funds rate at 5.25%. By contrast, markets see continued upward potential for euro-area interest rates. At present, financial market participants and many analysts anticipate two further 25 basis points rate increases by the ECB by the end of the year and consider another hike in the first quarter of 2007 somewhat probable.

Table 4: Change in nominal exchange rates (in %)

22 Sept. compared with:	USD/EUR	JPY/EUR	NEER Euro area IC41
1 Jan 2006	8.3	6.6	3.7
Avg 2005	3.0	8.7	1.3
Avg 1995-2005	14.4	16.8	14.9

Source: Commission services.

Graph 5: 10-year government bond differential US-Euro area (in % – 1 Jan 2006 to 22 Sept 2006)



Source: Commission services.

Since early July, 10-year government bond yields in the euro area have dropped by around 50 basis points and stand currently at around 3.7%.<sup>6</sup> The recent decline of bond yields seems to reflect some disappointing sentiment indicators and lower inflation in the euro area as well as speculations in the USA about a possible end to the Fed's tightening cycle. Although bond yields in the euro area and the USA show similar underlying trends, the differential between US and euro-area 10-year government bond yields has gradually declined since mid-June and is currently slightly below 100 basis points.

<sup>6</sup> For a more detailed analysis of financial market developments see Section 2 'Latest financial market developments and macro-financial stability outlook'.

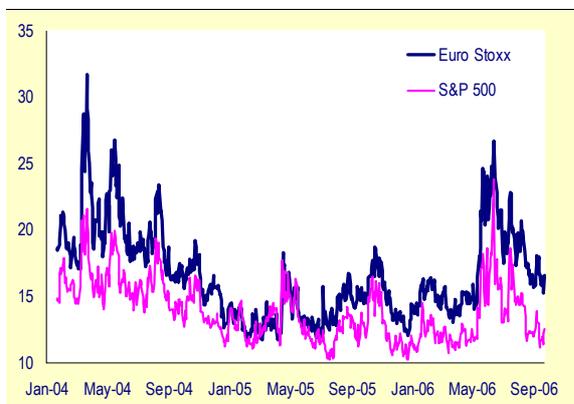


## 2. Latest financial market developments and macro-financial stability outlook

### A prolonged recovery in global equity markets interrupted by a sharp price correction in May-June...

Having risen steadily in the early months of 2006, there was a sharp correction in equity prices in the second week of May, with markets in the emerging economies most affected. The correction was triggered by higher-than-expected US inflation data and announcements of monetary tightening in Japan, prompting investor concern about the prospect of a more rapid-than-expected withdrawal of liquidity by the major central banks. Although evidence suggests that earning estimates were not significantly reduced at the time of the correction, there was a sharp jump in market volatility from historically low levels (Graph 6).

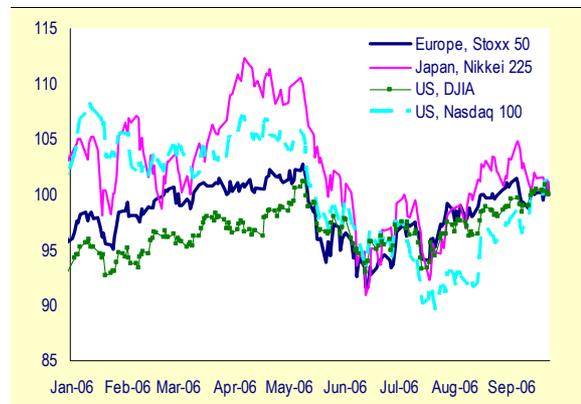
Graph 6: Volatility of stock market indices  
(standard deviation on option prices – 1 Jan 2004 to 22 Sep 2006)



Source: Ecowin.

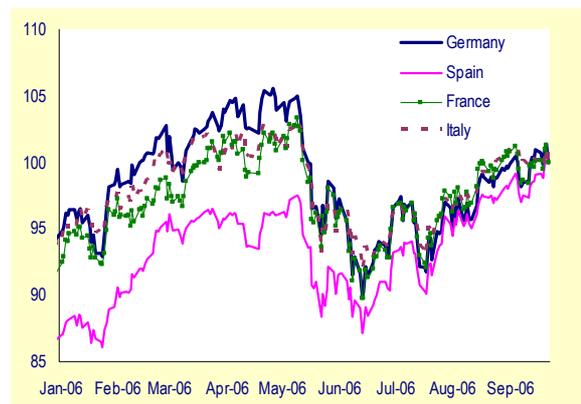
The price decline observed over the period from 10 May to 13 June was about 13.5% for the euro area (as proxied by the Eurostoxx 50 index) and 8.5% for the United States (as proxied by the Dow Jones index) (Graph 7). Within the euro area, the impact of the equity price correction was broadly uniform across the main markets, with indices declining by between 10% and 15% (Graph 8).

Graph 7: Main global equity indices  
(index end of period = 100 – 1 Jan 2006 to 22 Sep 2006)



Source: Ecowin.

Graph 8: Equity markets in selected euro-area Member States  
(index end of period = 100 – 1 Jan 2006 to 22 Sep 2006)

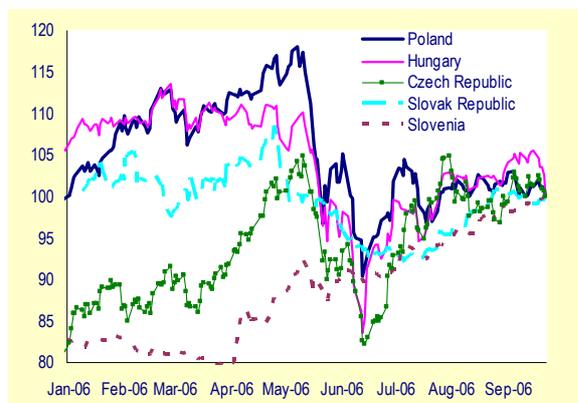


Source: Ecowin.

Over the same period, much larger declines in equity prices were experienced in the emerging economies and some countries in Central and Eastern Europe. For example, prices fell by 38% in India, 30% in Turkey and 26% in Brazil. They also dropped by more than 30% in Hungary, by 27% in Poland and by 25% in the Czech Republic (Graph 9) The equity-market correction was also broadly based from a sectoral perspective. While all the main sectors suffered significant losses, the market correction impacted more heavily on typically volatile sectors such as technology and less stable sectors such as retail sales.

Graph 9: Equity markets in selected EU-10 Member States

(index end of period = 100 – 1 Jan 2006 to 22 Sep 2006)



Source: Ecowin.

### Flight to quality and considerable herding among investors...

The generalised equity-price correction reflected an abrupt shift in investor sentiment away from assets perceived as relatively risky. As investors sought to reduce their risk exposure, there was a switch from equity markets to (mainly government) bond markets and away from assets in emerging economies to assets in the industrialised economies. To the extent that the equity-market turbulence implied a switch between asset classes in the industrialised economies, there were limited implications for the major currencies. In contrast, the flow of capital out of the emerging-economy equity markets was accompanied by significant exchange-rate movements. By mid-September, equity prices had more or less returned to their January 2006 level in the vast majority of the countries affected by earlier turbulence.

### Such abrupt price corrections could be a cause for concern...

From an historical perspective, euro-area equity valuations seem reasonable and, as in bond markets, structural factors should underpin demand for equities going forward. Nevertheless, the episode of market turbulence points to heightened nervousness among investors.

In this context, the rapid recovery in equity-market sentiment since June has prompted

differing interpretations of the May-June episode among market commentators.

On the one hand, it has been argued that the equity price correction was an isolated event, reflecting a healthy response to market valuations that had become clearly overstretched in the early months of 2006. A perception of overvaluation in these markets (particularly in the emerging economies<sup>7</sup>) had built up since the beginning of 2006 and left them particularly vulnerable to adverse news such as higher-than-expected US inflation data.

An alternative – and more pessimistic – view highlights the exaggerated market reaction to the US inflation data as evidence of an 'unstable investor psychology' in conditions where assets may be 'priced for perfection' in an environment of considerable uncertainty.<sup>8</sup> According to this view, investor uncertainty can be traced to a range of factors that are not solely economic but also include rising geopolitical tensions, a heightened risk of a major terrorist attack, etc. Financial markets being more sensitive to risk, their reaction to future adverse shocks could be faster and stronger. On this basis, the recent bout of market turbulence could be interpreted as a harbinger of a more sustained – and potentially disruptive – adjustment in international financial markets in the future.

### Steady demand for fixed income securities...

Investors' demand for fixed income securities remains high, despite the progressively tighter policy stance adopted by monetary authorities. In the euro area, higher short-term interest rates have been reflected in rising bond yields at the shorter end of the curve, while longer-term yields have moved more in line with developments in the US Treasury market (Graph 10). Overall, the euro yield curve became slightly more positively sloped during the first half of 2006, but has flattened again since July (while the US yield curve is even less positively sloped and slightly inverted at the short end). The decline in longer-term yields since July reflects a shift in investor sentiment from concern about a further US

<sup>7</sup> See, for example, BIS Quarterly Review of March 2006.

<sup>8</sup> Robert J. Shiller, What news is moving the markets?, Project Syndicate, 2006.



monetary tightening in response to inflation risk to confidence that an economic slowdown in the second half of 2006 will moderate inflation pressure. This view was reinforced by the Federal Reserve's decision not to raise the federal funds rates in early August and late September.

Graph 10: Evolution of euro-area and US benchmark yields (in % – 1 Sep 2004 to 22 Sep 2006)

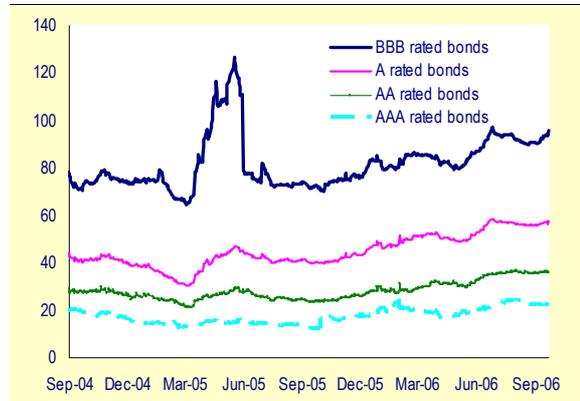


Source: Ecowin.

### Increased discrimination among fixed-income assets based on credit risk

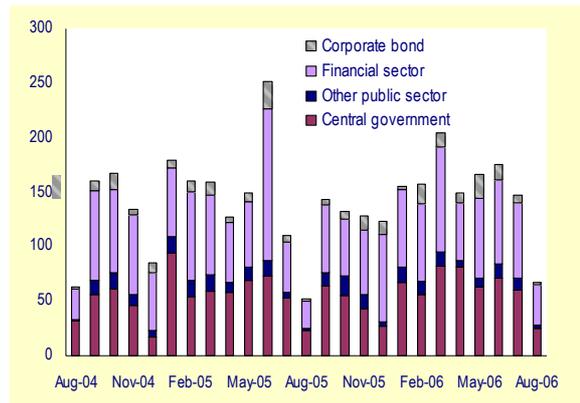
There has been a modest widening in yield spreads on lower-rated corporate bonds since April (Graph 11). Yield spreads on the euro-area's lower-rated government issuers (i.e. Italy and Greece) over Bund have also widened slightly to about 30 basis points in the 10-year maturity, compared to spreads of only a few basis points for the other euro-area government borrowers. Nevertheless, issuance conditions in bond markets remain favourable by historical standards. Gross issuance of euro-denominated bonds has stabilised at a relatively high level in recent months, with central government and financial institutions accounting for the bulk of issuance (Graph 12). While yields are now significantly above the lows recorded in mid-2005, they remain low in a longer-term perspective.

Graph 11: Euro-area corporate bond spreads (in basis points – 1 Sep 2004 to 22 Sep 2006)



Source: Ecowin.

Graph 12: Gross issuance of euro-denominated bonds by type of issuer (in bn euro – Aug 2004 to Aug 2006)



Source: Commission services.

### Amid increased uncertainty about global economic growth and inflation, the near-term outlook for bond markets is unclear

Inflation-adjusted benchmark yields have risen substantially since mid-2005, reflecting the tightening in global liquidity conditions and implying a corresponding deterioration in financing conditions across the EU25 and euro-area economies. Looking forward, market expectations of a global economic slowdown in the coming months, as well as other more structural factors,<sup>9</sup> are likely to support the

<sup>9</sup> These factors include (a) the high anti-inflation credibility of central banks, which has limited market concern about inflation; (b) expectations of a deceleration in world economic growth, led by a cooling in the US housing

demand for fixed-income assets and limit upward pressure on yields. Meanwhile, concern about inflation among bond investors seems to have eased. The break-even inflation rate on index-linked government bonds suggests that long-term inflation expectations are stable, while the recent decline in longer yields – in tandem with corresponding yields in the United States – would seem to confirm that markets have been reassured by the counter-inflationary policy measures already taken by monetary authorities.

On the other hand, survey evidence suggests that inflation pressure may still be mounting in the short run and that the risk of second-round effects from durably high oil prices may not have been fully discounted in markets. The implication of a higher inflation rate than currently discounted would be upward pressure on benchmark yields.

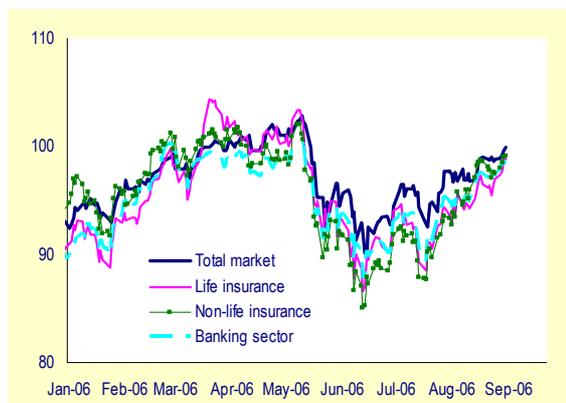
Irrespective of developments in benchmark yields, a possible further widening of yield spreads between benchmark and lower-rated issues would not be precluded if changes in the economic and/or political environment were to lead to greater risk aversion among investors.

#### **Financial intermediaries withstood the recent turbulences and continue to perform well...**

Many financial institutions – notably the banking sector – continue to record very high quarterly earnings, although there have been warnings of a more difficult operating environment in the coming months. In aggregate, solvency ratios for the euro-area banking sector appear sound and the capacity of the sector to absorb adverse shocks seems robust. In consequence, the sector has enjoyed an above average degree of credit-rating stability (and even a slight bias towards upgrading) relative to other sectors.

market; (c) the continued effect of an ample supply of global liquidity and investor search for yield; (d) structural demand for long-term sovereign debt among institutional investors; (e) high net savings in the corporate sector, although recent evidence suggests that the credit cycle has now turned; and (f) high current account surpluses (in the oil-producing countries and in some Asian countries).

**Graph 13: Relative performance of euro-area banking and insurance sector indices**  
(index end of period = 100 – 1 Jan 2006 to 22 Sep 2006)



Source: Ecwin.

Equity market indicators confirm the strength of the banks' performance (Graph 13), with the sectoral index progressively moving into line with the total market in the early part of 2006 and remaining broadly in line with the total market amid the recent equity market turbulence. The same analysis holds for the insurance sector which, despite a series of national catastrophes in 2005, continued to improve its performance and capacity to absorb shocks. The assessment is more mixed for pension funds. On average, their funding levels continued to improve but were adversely affected by the recent equity-market turbulence.

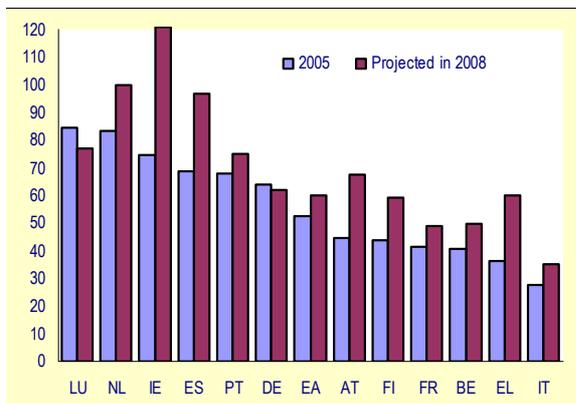
#### **... but households and corporate balance sheets risks could be a source of vulnerability**

While still below levels recorded in the late 1990s, recent data suggest a marked acceleration in borrowing in the total non-financial corporate sector, which is consistent with the evidence of a recovery in private investment spurred by the economic upturn. Coming after a prolonged period of largely constant debt levels in terms of GDP in the corporate sectors, the recent trend focuses attention on the implications of high debt levels for investment outlays in the event of a sharper-than-expected rise in interest rates. In this respect, the question arises whether the extent of debt consolidation achieved by euro-area corporations since 1999 (which has been much less than that achieved by US corporations) has been sufficient to avoid the risk that a sharp rise in funding costs might



undermine the still nascent recovery in euro-area investment activity.

Graph 14: Outstanding bank loans to households in the euro area and Member States in 2005 (1) and projected 2008 (2) (in % of GDP)



(1) MFI excluding the Eurosystem.

(2) Debt and nominal GDP growth rates from 2003 to 2005 projected into 2008.

Source: ECB, Commission services calculations.

The situation of households is more worrisome as the debt dynamics (mostly mortgage debt) appear unsustainable in some Member States, particularly in a context of rising interest rates. At the end of 2005, household debt was above 60% of GDP in half of the euro-area Member States and above 70% in Ireland, Luxembourg and the Netherlands (Graph 14). An extrapolation of current trends<sup>10</sup> in debt accumulation and nominal GDP to 2008 suggests an unprecedented additional debt burden for several Member States. For example, household debt would increase to about 120% of GDP in Ireland, about 100% of GDP in the Netherlands and about 95% of GDP in Spain (Graph 14).<sup>11</sup> Member States with such high household debt ratios seem particularly vulnerable to the higher debt-servicing costs implied by rising interest rates, with negative implications for private consumption expenditure. Higher interest rates are likely to impact most strongly on households which have borrowed at variable interest rates (which tend to be predominant in Spain, Ireland, Italy, Portugal and Finland).

<sup>10</sup> Taking developments from 2002 until 2005 as a basis.

<sup>11</sup> The increase in the household debt to GDP ratio would also be substantial in Greece (+24%) and in Austria (+23%), albeit from a considerably lower current level.

With private-sector debt at historically high levels in many euro-area Member States, financial-market turbulence could be expected to feed back into the real sector via reductions in the level of investment and household spending. Although this does not seem to be a problem for the euro area as a whole; a disorderly adjustment in housing markets represents a specific risk to economic growth in those Member States in which the accumulation of household debt has a counterpart in very high house valuations.

## Conclusion

The baseline scenario for the euro-area macro-financial environment is generally reassuring. Except for the episode of equity market turbulence in May-June, the performance of euro-area financial markets has been favourable so far in 2006. Nevertheless, the downside risks to the macro-financial environment have intensified. Regarding the international environment, the possibility of a sharper-than-expected deceleration in global economic growth cannot be excluded in a context of high oil prices, tightening monetary policies, significant global imbalances and rising geopolitical tension. This combination of factors has contributed to an increase in investor sensitivity to risk exposure, in conditions where asset valuations in many markets have become stretched. On the domestic side, corporate and, above all, households' balance sheets are an additional potential source of vulnerability.

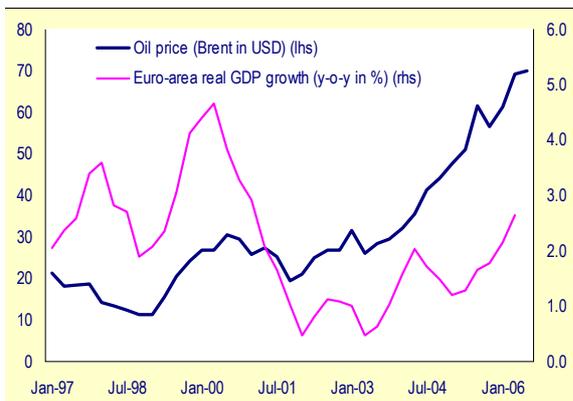
### 3 Recycling of oil-exporting countries' oil revenues: more beneficial to the euro area than in the past

#### The alleviating effect of oil-exporting countries' recycling of oil revenues

The increase in oil prices over the past few years has had a dampening effect on growth conditions in the euro area, but this has partly been alleviated by oil-exporting countries' recycling of windfall profits that translate into investment from abroad and extra demand for euro-area goods and services.

Given the relatively price-inelastic demand for oil, at least in the short run, the oil price increase has led to a substantial direct income transfer from oil-consuming countries to oil-exporting countries. This direct effect can explain a worsening of the euro area current account by about 0.9% of GDP since 2002. It has been even larger in the US, which is less energy-efficient. At the same time, the export revenues of oil-exporting countries have rocketed.

Graph 15: Oil prices and euro-area GDP growth (1997Q1 to 2006Q2)

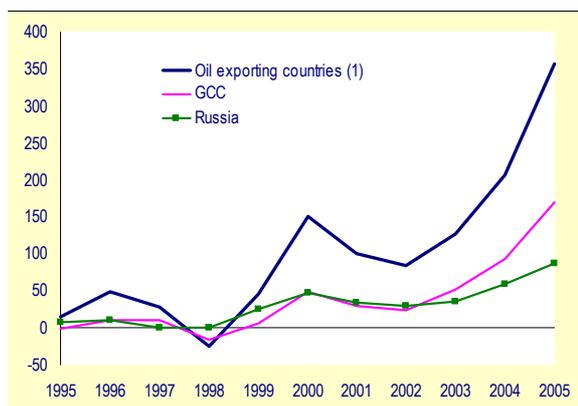


Source: Ecwin, Commission services.

The euro-area economy has shown remarkable resilience to the continued increases in oil and other energy prices, in particular when compared with the experience of the surge in oil prices in the 1970s. Euro-area growth has actually gained strength and the consumer price response has remained modest. There are several plausible explanations for this: (1) the oil intensity of the euro area, as measured by oil consumption in

relation to GDP, has been roughly halved since the early 1970s; (2) improvements in product- and labour-market flexibility are facilitating the reallocation of resources and thereby reducing the impact of oil price increases on economic activity; (3) monetary policy has firmly anchored inflation expectations for the euro area and thus so far limited the emergence of second-round effects in wage and price setting; and finally (as analysed in this section) (4) the recycling of revenues by the oil-exporters appears to have benefited the euro area with both a positive impact on investment from abroad and an increased demand for euro-area goods and services.

Graph 16: Oil-exporting countries' current account surpluses (billion USD – 1995 to 2005)



(1) Oil exporters include the Gulf Cooperation Council, Iran, Russia, Nigeria, Norway and Venezuela.

Source: IMF World Economic Outlook, April 2006.

The potential importance of the recycling of oil revenues for euro-area investments and exports is emphasised by the sheer scale of the oil revenue transfer. The six members of the Gulf Cooperation Council (Saudi Arabia, Bahrain, Kuwait, Oman, the United Arab Emirates and Qatar) currently export 14.9 million barrels of oil per day, equivalent to about USD 350 billion in annual export revenues. Their combined current account surplus equalled about USD 155 billion in 2005, slightly less than the surplus of China (Table 5). The combined current account surplus of a larger group of oil-exporting countries including the GCC, Iran, Nigeria, Norway, Russia and Venezuela has risen to as much as about USD 340 billion, equivalent to 43% of the US current account deficit in 2005, compared to just USD 85 billion (18%) in 2002.



Table 5: Economic weight and current account surpluses, 2005

	Share in world GDP (in %)	Share in world oil extraction (in %)	Current account surplus, (% of GDP)	Current account surplus, (billion USD)
- Euro area	22.4	0.2	0.0	-2.6
- Oil-exporting countries (1)	4.7	44.5	16.4	340.2
Of which:				
GCC	1.3	19.1	26.2	155.2
<i>Of which:</i>				
<i>Saudi Arabia</i>	0.7	10.8	29.3	90.8
Russia	1.7	11.3	10.9	83.6
Norway	0.7	3.5	16.8	49.7
Other oil-exp. countries	1.0	10.6	12.2	51.8
- China	5.0	4.3	7.2	160.8
- USA	28.0	8.7	-6.4	-791.5

(1) Oil exporters include the GCC, Iran, Norway, Nigeria, Russia and Venezuela.

Source: IMF WEO September 2006 and Commission services calculations.

### Oil-exporting countries have learned to cope with high oil prices

The first oil price hikes in the 1970s and early 1980s resulted in massive income transfers from the developed oil-consuming economies to oil-exporting countries, in particular to the Gulf region. The Gulf economies were at that time undiversified and their private sectors were underdeveloped. Oil accounted for more than 90% of exports and a similarly high share of government income. As oil revenues increased, the government sector expanded rapidly, generous social expenditures and subsidies were introduced and investments in infrastructure were undertaken. Imports soared and substantial investments were placed abroad – mainly in the USA. This helped to keep US interest rates low and alleviated, to some extent, the negative impact of high oil prices in oil-consuming developed economies.

The collapse in oil prices after 1982 turned the next decade into a prolonged downturn for most of the Gulf economies. The necessary fiscal restraint resulted in a decade of almost no real economic growth, and with an expanding labour force and fast-growing population this translated into unemployment and a falling GDP per capita.

Most oil-exporting countries have now learned the lessons from the 1970s and 1980s, and this has led to a change in the way oil revenues are used. During the current surge in oil prices, improved fiscal prudence by most oil exporters is generating huge government surpluses, which are used to pay down domestic debt and increase savings abroad. The authorities do pursue economic development at home, most visibly in Dubai, but within the limits of a sustainable fiscal framework.

In addition, although their dependency on oil revenues remains high, most oil-exporting countries have become more economically diversified. In the GCC countries oil revenues accounted for about 73% of exports and 84% of fiscal revenues in 2005, compared to more than 90% of both in the 1970s.

### The financial market channel and the trade channel

Oil revenues are re-injected into the global economy either through investments abroad (the financial market channel) or imports (the trade channel). The large increases in current-account surpluses of most oil-exporting countries show that imports, driven by domestic demand, have increased at a more modest pace than the oil-driven export revenues. This is partly explained by the prudent fiscal policies followed by many oil-producing countries in recent years. The Gulf countries have only spent about 35% of the increase in oil revenues on imports in the period 2002-2005 compared to about 60% in 1973-1976. Although Russia has spent a higher share of its export revenues on imports, it has also repaid all of its outstanding Paris Club and IMF debt and built up a considerable oil reserve fund (with USD 77 billion accumulated since its creation in 2004).

### Investing in New York...

The pattern of recycling oil revenues via the financial market channel has changed significantly since the first oil price shock. While in the 1970s oil savings were largely placed in international (mainly US) banks, during the present period of high oil prices only a fraction of the additional oil revenues have been

deposited in foreign banks. Only about USD 77 billion (22% of the oil-exporting countries current account surpluses) were placed as additional net deposits with international banks in 2005 (Table 6).<sup>12</sup> A noteworthy exception is Russia, which increased its net international bank deposits by USD 37.9 billion, the equivalent of more than 40% of its current-account surplus, in 2005.

**Table 6: Net assets held with BIS reporting banks**  
(billion USD)

	2003	2004	2005
Oil-exporting countries (1)	48.2	59.7	137.1
GCC	59.7	71.3	84.2
<i>of which:</i>			
<i>Saudi Arabia</i>	36.9	32.6	52.1
Russia	10.1	24.1	62.0
Norway	-45.6	-64.3	-58.3
Other oil-exp. countries	24.0	28.6	49.2

(1) Oil exporters include the GCC, Iran, Norway, Nigeria, Russia and Venezuela.

*Source:* BIS international banking statistics.

Investment in fixed income (not least in US Treasury bills) and equity is now likely to be the primary form of investment abroad by oil exporters. However, the complexity of international financial transactions, including the use of international settlement systems, offshore financial institutions and hedge funds makes it increasingly difficult – if not impossible – to track these investments.<sup>13</sup> Direct holdings of US Treasury bills by oil-exporting countries have shown an upward trend with an increase of USD 22 billion in 2005 and a continued increase early this year (Table 7), but these holdings only account for a fraction of the USD 340 billion current account surplus registered by the group of oil-exporting countries in 2005. A much larger increase in holdings of US Treasury securities is attributed to the UK (including the Channel Islands and Isle of Man), which could be explained by the fact that oil-exporting countries carry out investments through London or use offshore financial centres.

<sup>12</sup> However, it is worth bearing in mind that annual changes in net asset data may be distorted by valuation effects.

<sup>13</sup> Most oil-exporting countries do not themselves publish detailed data on foreign investment. Among the six GCC countries only Bahrain publishes its international investment position.

US assets are still likely to be the first choice for safe investments abroad as many oil-producing countries have their exchange rates fixed to the US dollar and oil prices are quoted in US dollars. Nevertheless, there has been a gradual increase in the share of euro-denominated assets, both for the Gulf countries and for Russia. In July 2006 the Central Bank of the United Arab Emirates announced a strategic decision to shift 10% of the USD 29 billion foreign-exchange reserves into euro. Similar policy shifts have been taken by other central banks in the Gulf countries, by the Russian monetary authority and by some oil funds. The Russian monetary authority has targeted, since February 2005, a currency basket with a progressively increasing euro share. The aim is to better reflect the EU share in Russia's foreign trade (about 52%). The euro's share in the currency basket had reached 40% by mid-2006. As the accumulated Russian foreign exchange reserves of about USD 250 billion are believed to reflect the composition of the currency basket, this implies that since January 2005, the Russian monetary authority has accumulated about USD 100 billion in euro-denominated assets.

**Table 7: Major foreign holders of US treasury securities** (billion USD)

	end 2004	end 2005	April 2006
Oil-exporting countries (1)	67	89	99
UK (incl. Channel Islands)	95	157	167
Caribbean financial centres	76	65	61
China	223	316	323
World	1874	2049	2066

(1) In this table oil exporters include the GCC, Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Libya, Nigeria, Venezuela. Russia is not included, but only has a small amount of US treasury securities.

*Source:* BIS international banking statistics.

While such policy shifts do not affect overall global liquidity, they may affect interest rate levels in major economic regions of the world. The liquidity provided by oil-exporting countries may until now have helped to support lower interest rates in the USA, although a statistically significant impact has been difficult to find.<sup>14</sup> The impact on euro-area interest rates and the euro exchange rate has so far been considered to

<sup>14</sup> IMF (2006), 'The impact of petrodollars on U.S. and emerging market bond yields', World Economic Outlook, April 2006, pp. 89-91.



be negligible, but may increase if the share of oil revenues invested in euro-denominated assets continues to rise.

Another novel feature compared to previous periods of high oil prices is the "home bias". Increased investments of oil revenues within the regions has had a visible impact across the Middle East and North Africa, and also, but to a much lesser extent, in the CIS. Beyond the GCC countries themselves, the investment boom has been most evident in Lebanon and Jordan, but also in Egypt, Morocco and Syria. The recent sharp stock market declines and geopolitical instability in the region could dampen this "home-bias", not least via a shift in risk perception.

### ...and shopping in Paris

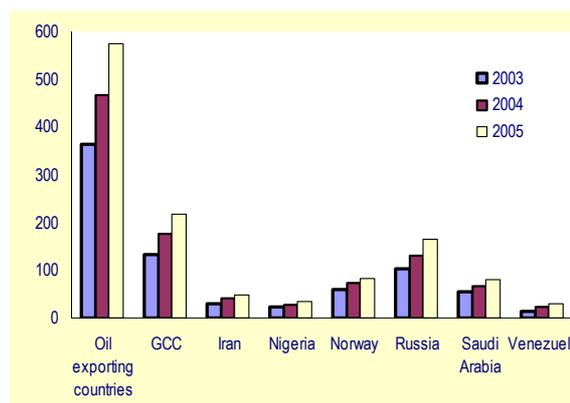
The second channel for recycling of oil revenues, the trade channel, is particularly relevant for the euro area. The euro area is a major trading partner of many oil-exporting countries in the Gulf and the CIS region and the main provider of their increase in imports. As much as 32% of Russia's imports originate from the euro area, while the figure is 28% for Saudi Arabia, 34% for Iran and 36% for Norway.<sup>15</sup>

Imports by the oil-exporting countries increased by about USD 106 billion (23%) in 2005, driven in particular by the rise in imports of the GCC countries and Russia (Graph 17). During the same period, the current account surplus increased by USD 140 billion (from USD 200 billion in 2004 to USD 340 billion in 2005). The trade channel therefore accounted for roughly 40% of the recycling of the export revenue increase in 2005, while the larger share was recycled via the financial market channel. There are however marked cross-country differences. Russia appears to have recycled about 55% of the export revenue increase via the trade channel in 2005, while the figure is roughly 35% for the GCC countries, and in the order of 40% for the other countries.

<sup>15</sup> In addition, increased investment by oil-exporting countries into the Middle East and North Africa has likely fostered demand for euro-area products and machinery in those countries.

Imports for further development of the energy sector and for large-scale construction projects have increased particularly fast. The euro area may benefit from this import mix, as it has a significant market share in some of the related sectors.

Graph 17: Imports of goods and services  
(billion USD)

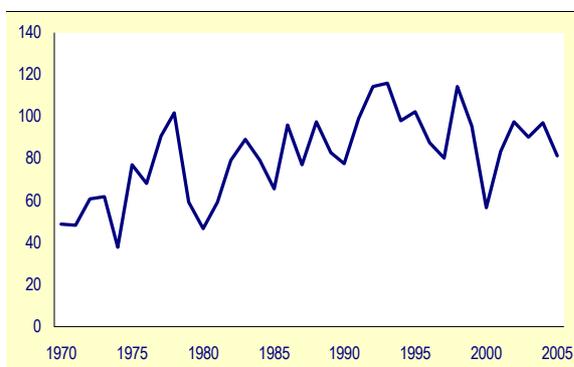


Source: IMF IFS.

Recycling via the trade channel appears to have become more beneficial to the euro area than it was during the 1970s despite the increased fiscal prudence of oil exporters. For every dollar of additional export revenues received from the euro area, oil exporters spent on average an additional 74 cents on imports of euro-area goods in 2000-2005 (Graph 18). During the 1973-1981 surges in oil prices only 59 cents out of each dollar were recycled back to the euro area through higher imports. The ratio of oil exporters' imports to exports vis-à-vis the euro area has risen. In 2002-2004 this ratio was close to one and thus the euro area had only a small trade deficit with a broad group of oil-exporting countries despite the rise in oil prices.

As a consequence, the demand increase has in recent years had a noteworthy alleviating effect on the euro-area economy via the trade channel. Exports of goods from the euro area to the group of oil-exporting countries increased by about USD 23 billion (17%) in 2005 and is expected to increase further in 2006. This was equivalent to about 0.3% of euro-area GDP.

Graph 18: Oil exporters' import/export ratio vis-à-vis the euro area (in % – 1970 to 2005) (1)



(1) Due to data limitations oil exporting countries in this graph comprise the GCC, Algeria, Indonesia, Iran, Iraq, Venezuela and Nigeria. Data restricted to trade in goods.

Source: IMF DOT.

### Perspectives for the future

Government spending in many oil-exporting countries is planned in a medium-term framework and large oil funds have been set up to save for the future. In this framework a substantial part of the oil revenues will continue to be saved and reinvested in the global economy, as long as the oil price stays well above the perceived long-term equilibrium level.

The way oil-extracting countries perceive the long-term equilibrium oil price level may thus be pivotal to the future recycling of oil revenues. Their perception may depend on a variety of variables: historical oil prices; geopolitical developments; progress towards alternative energy sources, and supply and demand forecasts. As oil prices have been growing for three consecutive years, perceptions of the long-run equilibrium oil price are likely to have shifted upwards. This would be in line with market expectations indicating that a considerable part of the price increase during the last three years is likely to be of a more permanent nature. As a result, some countries have already increased the equilibrium oil price used to determine the share of oil revenues that should be saved for the future.<sup>16</sup> The recent positive trend in euro-area

exports to oil-exporting countries may thus continue for some time.

Nevertheless, the life span of the known natural resources in some oil-exporting countries (including Azerbaijan, Norway and Oman) is relatively short. In these countries the motivation to save for future generations is less dependent on the perceived long-term oil price level. Concerns about the absorption capacity of the domestic economy may also lead some oil-exporting countries to continue restraining public spending.

### Conclusions

The recycling of oil revenues by oil-exporting countries benefits the euro area via increased demand for euro-area goods and services and a positive impact on investment from abroad.

The pattern of recycling via the financial market channel has changed since the first oil price shock. While in the 1970s oil savings were largely placed in international (mainly US) banks, during the present period of high oil prices only a fraction of the additional oil revenues have been deposited in foreign banks. Although US assets are still likely to be the first choice for safe investments abroad, as many oil-producing countries have their exchange rates fixed to the US dollar and oil prices are quoted in US dollars, there has been a gradual increase in the share of euro-denominated assets, for both the Gulf countries and Russia.

The trade channel is important for the euro-area economy. The euro area is the main trading partner of most oil-exporting economies in the Gulf and the CIS region and thus the main beneficiary of their increase in imports. During the current surge in oil prices a larger share of the export revenues are being recycled back into the euro-area economy via the trade channel than was the case during the 1970s. This substantial recycling of oil revenues appears to have contributed, among other factors, to strengthen the resilience of the euro-area economy to the increases in oil prices.

<sup>16</sup> The threshold price for the Russian Stabilisation Fund was raised from USD 20 to USD 27 per barrel in 2006, and the threshold for the State Oil fund of Azerbaijan was also raised from USD 25 to USD 35 in the 2006 budget.



## Focus

### Labour market developments in the euro area

*Despite sluggish economic growth, the euro-area economy has created more than five millions jobs in the past five years. This remarkable performance by historical standards can be explained by a conjunction of several factors including persistent wage moderation, the beneficial effect of structural reforms on labour supply and demand and, to a lesser degree, shifts in the economy's sectoral composition. Amid signs of improvement in labour supply, particularly among older workers, econometric estimates also point to a structural break in euro-area employment demand since the late 1990s. An increase in the job content of growth has since then provided an extra 0.6 percentage points of employment growth per year. Nevertheless, notwithstanding recent improvements, there is substantial scope for further progress in the performance of the euro-area labour market. In particular, structural and long-term unemployment remain high while employment rates are still well below the Lisbon targets. It is important that national governments do not rest on their laurels and take advantage of the job opportunities provided by the ongoing cyclical recovery to bring outsiders back into the labour market and lift the remaining hindrances to job creation in the euro area.*

The objective of this focus section is to report on recent trends in euro-area labour markets, at a time when growth is strengthening and conditions are set for a cyclical improvement of employment in the euro area.<sup>17</sup> The focus first reviews the latest developments in employment and reports evidence of improvements in the functioning of the labour market (Section 1). It then assesses trends in wages, exploring possible reasons for the lasting wage moderation observed in the euro area (Section 2). Finally, it discusses the reasons behind the resilience of employment in the latest cyclical downturn (Section 3).

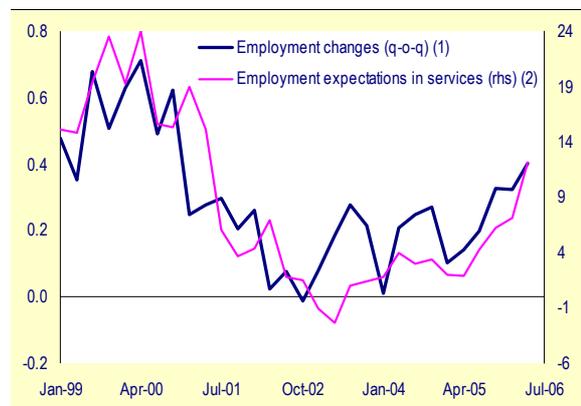
#### 1. Recent developments in employment

##### Signs of a cyclical recovery in employment...

The euro-area labour market has been sending signs of a gradual recovery in recent quarters, with job creation picking up and unemployment edging down. Quarter-on-quarter employment growth, which had averaged 0.1% since the beginning of 2002, has improved gradually since the end of 2005, reaching 0.4% in the second quarter of 2006 (Graph 19).<sup>18</sup> Furthermore,

employment prospects as reported in business surveys suggest that job creation maintained robust momentum in the summer.

Graph 19: **Employment growth, euro area**  
(in % – 1999Q1 to 2006Q2)



(1) National accounts data available to 2006Q1.

(2) Balance between positive and negative answers in DG ECFIN's survey of services.

Source: Commission services.

Sectoral data indicate that the pick-up in job creation is both broad-based and mostly attributable to the private sector (Table 8). Much of the acceleration of employment growth originates in the market services sector – which

<sup>17</sup> This focus section is based on an in-depth analysis of labour markets prepared by DG ECFIN and presented in 'Labour market and wage development in 2005, with special focus on labour market adjustment in the euro area', European Economy, Special Report No. 4. 2006.

<sup>18</sup> Employment data presented in this Focus are measured in number of jobs rather than hours worked. Quarterly

employment data on hours worked are not yet available for the euro area. However, the trend decline in working time reported in labour surveys suggests that employment growth would likely be somewhat slower if measured in hours worked.

accounts for about 40% of total employment in the euro area. However, there were also improvements in the manufacturing industry and construction. In particular, industry reported its first increase in payroll after 19 successive quarters of contraction. In contrast, the pick-up in employment growth in the non-market services sector – a significant source of job creation in recent years – has been more modest in the last few quarters.<sup>19</sup>

**Table 8: Sectoral contributions to employment growth, euro area (in %)**

	Share in total employment (2005)	Q-o-q changes		
		2005 Q3	2005 Q4	2006 Q1
Agriculture	4	0.00	-0.01	-0.01
Industry	18	-0.02	-0.04	0.01
Construction	8	0.00	0.08	0.03
Market services	40	0.08	0.19	0.18
Non-market services (1)	30	0.08	0.07	0.12
Total	100	0.14	0.29	0.33

(1) Non-market services cover government services, education, health and social work and also other community and personal service activities.

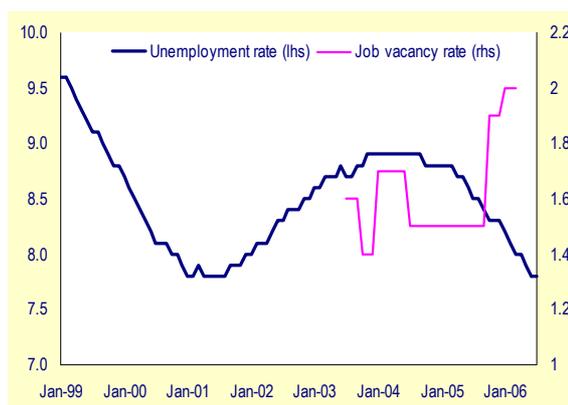
Source: Commission services.

The unemployment rate has been on a steady downward trend since spring 2005. In July 2006, unemployment stood at 7.8% of the labour force, a full percentage point below the peak level registered in 2004 and early 2005. The unemployment rate is now back at the level reached before the beginning of the latest downturn and the ebbing of unemployment has picked up speed since the beginning of 2006. It is also encouraging to note that, according to the latest Labour Force Survey, unemployment has improved despite a substantial increase in labour

supply and is, therefore, entirely attributable to job creation.<sup>20</sup>

Finally, the renewed dynamism of the labour market is also visible in job vacancy statistics, which point to a significant rise in the rate of job vacancies in the last quarter of 2005 and the first quarter of 2006 (Graph 20).

**Graph 20: Unemployment in the euro area**  
(in % of the labour force – Jan 1999 to June 2006)



Source: Commission services.

### ...amid evidence of better functioning labour markets

Besides the recent cyclical recovery in employment, there is also evidence of continued structural improvements in euro-area labour markets.

**Favourable trends in labour supply.** Euro-area labour supply has expanded by more than 1% annually since the late 1990s. The sustained expansion in the labour supply is due both to relatively sustained expansion in the working age

<sup>19</sup> Nevertheless, growth in employment in the private sector is due to some extent to special subsidy schemes put in place in some Member States (most notably Germany and France). When assessing recent employment developments, it is difficult to disentangle the respective effects of economic recovery from these subsidies. However the evidence available suggests that the subsidy schemes have only made a limited contribution to job creation since the beginning of the year.

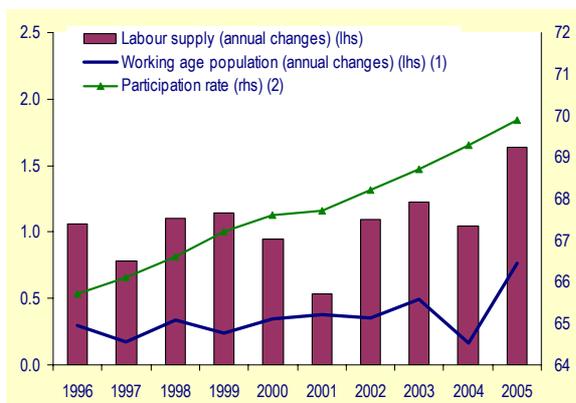
<sup>20</sup> The latest Labour Force Survey (LFS) data cover 2005. It is worth stressing that there is a significant discrepancy in employment data between the LFS and National Accounts for that year. While national accounts report an increase of about 1 million jobs, LFS figures point to an increase of more than 2 million jobs. Most of the difference is due to a change in methodology in the LFS in Germany. More generally, it is worth bearing in mind that, in the last few years, employment data in several Member States have been affected by country-specific methodological changes that complicate their interpretation (e.g. better account of immigrant workers in Spain and Italy). See ECB Monthly Bulletin January 2006, Box 5, p 44.



population and a steady rise in the participation rate (Graph 21). Remarkably, the pace of expansion in the participation rate has not been affected by the latest cyclical downturn. In other words, there is no evidence of any strong flow of discouraged job-searchers out of the labour market as was generally the case in previous downturns.

Positive developments in the participation rate reflect favourable socioeconomic trends – mostly women's increasing involvement in the labour market. They are also evidence that labour market reforms introduced since the 1990s in accordance with the Lisbon agenda are progressively bringing workers back to the labour market. In this regard, a noteworthy recent development is the rapid rise of labour supply of older workers. Between 2000 and 2005, the participation rate of older workers increased from 37.5% to 43.7%.

Graph 21: Annual changes in the labour supply, euro area (in % – 1996 to 2005)



(1) Population aged 15 to 64.

(2) Ratio of labour supply to working age population.

Source: Commission services.

Table 9 provides an estimation of the contributions of various age groups to the recent changes in the participation rate. The contribution was obtained from a shift-share analysis which broke down the total change in the participation rate into three effects:

- changes in the participation rates of each individual age group,
- changes in the weights of the age groups in the total active population (the demographic effect),

- an interaction effect which is positive when those age cohorts where participation rates increase tend to gain in importance in total population. This effect is small in the euro area.

These estimates show that, between 2000 and 2005, increased participation by older workers (i.e. those aged 55 to 64) accounted for half of the rise in the overall participation rate, a share that is well above the weight of older workers in the working age population (about 10%). Remarkably, the increase in the labour supply of older workers has been matched by an even larger increase in the employment of older workers, making for a slight decline in the unemployment rate of older workers in 2005.

Table 9: Contributions of age groups to the changes in the participation rate, euro area (in %)

	2000-2004		2004-2005	
<b>Changes in the total participation rate</b>				
	<i>(in pp)</i>	<i>(share)</i>	<i>(in pp)</i>	<i>(share)</i>
	1.53	100%	0.64	100%
<b>Due to shifts in the participation rates of individual age group:</b>				
<b>Young</b>	-0.12	-8%	0.01	2%
<b>Prime age</b>	0.83	54%	0.24	37%
<b>Older</b>	0.74	48%	0.34	53%
<b>Due to demographic effect:</b>				
<b>Young</b>	-0.23	-15%	0.01	1%
<b>Prime age</b>	0.19	12%	0.11	17%
<b>Older</b>	0.11	7%	-0.06	-10%
<b>Due to interaction effect:</b>				
	0.02	1%	0.00	0%

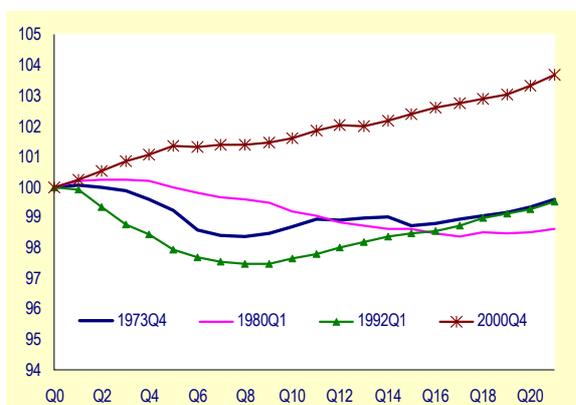
Source: Commission services.

Overall, this suggests that recent reforms in pension systems that have put back the statutory retirement age and cut incentives for early retirement have resulted in a reversal of the structural decrease of supply and demand for older workers in many Member States.

***Favourable trends in labour demand.*** The moderate scale of the deterioration in unemployment observed in the latest downturn, at a time of both sluggish economic growth and expanding labour supply, is suggestive of resilient labour demand. Since 2001, the euro-area

economy has created more than 5 million jobs, a remarkable performance by historical standards. Graph 22 displays a comparison of employment developments during the 4 major downturns registered in the euro area since the 1970s. The comparison shows that the current employment performance is substantially better than what was observed at similar stages of previous business cycles. The difference cannot be attributed to differences in activity as the latest downturn, although initially relatively shallow, has been protracted, leading to a cumulative GDP growth gap broadly similar to that of its predecessors.<sup>21</sup>

Graph 22: **Employment after a cyclical peak, euro area** (index cyclical peak in Q0=100) (1)



(1) Employment indices are shown for the 4 major cyclical downturns registered since the 1970s. Q0 marks the cyclical peaks. The peaks were calculated on the basis of detrended GDP data.

Source: Commission services.

Overall, employment demand appears to have been remarkably strong in recent years. The likely causes of this resilience will be discussed in Section 3.

**But further structural progress is still needed**

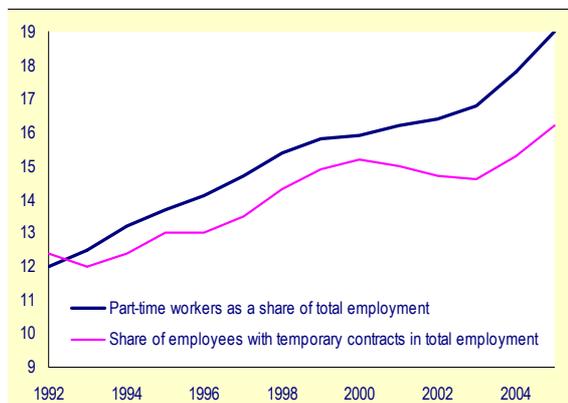
Nevertheless, despite some improvements in recent years, the functioning of the euro-area labour market still remains far from being satisfying and there is clearly scope for further structural progress:

- Structural unemployment is still high. At about 8%, DG ECFIN's estimate of the

NAIRU suggests that there is already little slack on the labour market at this juncture.

- Although estimates of the NAIRU generally point to a trend decrease in structural unemployment since the late 1990s, progress remains slow. According to DG ECFIN's estimates, the NAIRU has dropped by only 1 percentage point since 1997.
- The share of long-term unemployed in total unemployment, which had showed a steady downward trend between the late 1990s and 2002, has not given any sign of further improvement since.
- The euro-area labour market is increasingly of a dual structure, with job creation mostly taking the form of temporary or part-time jobs.<sup>22</sup> Temporary contracts accounted for three quarters of net job creation in 2005. After a pause in the early 2000s, the share of employees with temporary contracts has once again been on a clear upward trend in the past two years (Graph 23).
- Employment rates remain well below the Lisbon targets.

Graph 23: **Share of flexible forms of contracts in total employment, euro area** (in % – 1992 to 2005)



(1) Population aged 15 to 64.

(2) Ratio of labour supply to the working age population.

Source: Commission services.

<sup>21</sup> With the notable exception of the 1973 recession which was followed by an earlier and stronger cyclical rebound compared to subsequent downturns.

<sup>22</sup> According to the latest Labour Force Survey, 22% of part-time employment was involuntary in 2005.



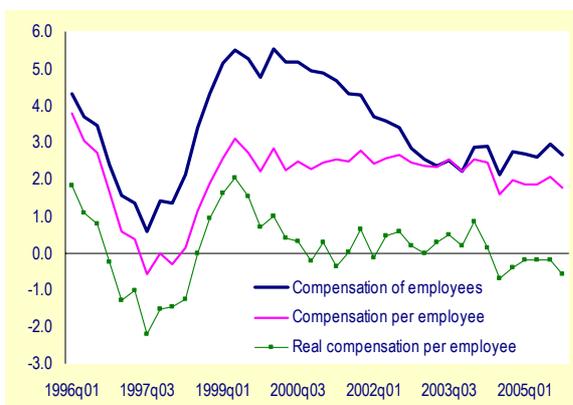
## 2. Recent wage developments

### Continued wage moderation

Wage growth in the euro area, defined in national accounts as total compensation of employees divided by the total number of persons employed, has slightly decelerated over the past three years. While it hovered around 2.5 % from 1999 to 2002, it gradually decelerated to below 2% in 2005 (Graph 24).

Recent data point to a modest pick-up of wages since the middle of last year. According to National Accounts, year-on-year growth in compensation per employee increased from 1.5% in the second quarter of 2005 to 2.0% in the first quarter of 2006. Available indicators for the second quarter suggest a continuation of this slight upward trend with both the ECB's indicator of negotiated wages and Eurostat's indicator of hourly labour costs showing a mild acceleration that quarter (respectively from 2.1% to 2.3% and from 2.2% to 2.4%). The recent upward drift in wage growth should not be over-interpreted. It should be assessed against the low wage growth registered during the second half of 2004 and first half of 2005. Furthermore, notwithstanding the recent pick-up, wage growth currently remains below its average of the last 5 years and below productivity gains. Nevertheless, in light of possible second-round wage effects of pas price increases, wage indicators will need to be monitored closely in the coming quarters.

Graph 24: Wage growth, euro area (y-o-y in %)

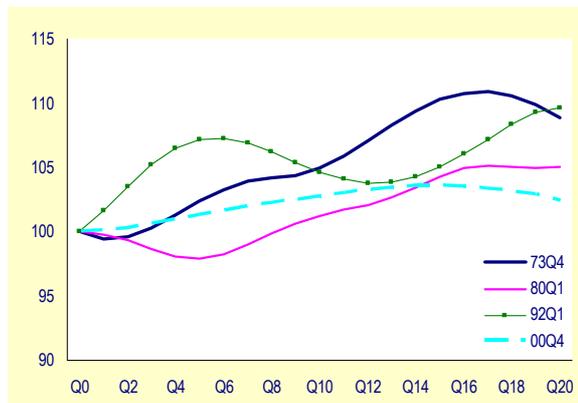


Source: Commission services.

Real wages in the economy, obtained by dividing total compensation per employee by the deflator of private consumption, have maintained a largely flat trajectory over the past few years. In 2005, they remained stable, as surging energy prices weighed on purchasing power.

As a result of wage moderation, developments in households' total labour income have been driven by employment growth rather than wages in recent years. Owing to robust job creation, total labour compensation has been expanding annually by about 1 percentage point faster than wages since the late 1990s.

Graph 25: Nominal wage developments after a cyclical peak, euro area (index cyclical peak in Q0 = 100) (1)



(1) Wages were calculated as the compensation per employee and were de-trended using an HP filter.

Source: Commission services.

From a historical perspective, the wage developments registered in the past few years appear quite remarkable. In particular, wages have shown little sensitivity to cyclical fluctuations: neither the expansion of 1998-2001 nor the latest slowdown seem to have significantly affected the course of wage growth. A comparison of developments in de-trended wage data after various cyclical peaks reveals that wage growth in recent years has been both smoother and significantly more moderate than in previous cycles (Graph 25).

**Some statistical considerations related to aggregate wage data**

In theory, slow aggregate wage growth in the euro area could be partly a statistical artefact related to shifts in the economy's sectoral structure. Reallocation of jobs away from sectors with high and fast growing wages would mechanically dampen aggregate wage developments.

In practice, however, available data (broken down into 6 sub-sectors) point only to a small negative effect of sectoral change on wages in the euro area (less than 0.1% per year during the last decade). Relative job losses in manufacturing have been matched by a rise in employment in services, but the wage differentiation between sectors is not wide at aggregate level and some service sub-sectors have a higher wage growth than manufacturing. As a result, the net effect on total wage growth of job re-allocation from manufacturing to services is rather limited.<sup>23</sup>

**Possible causes of wage moderation**

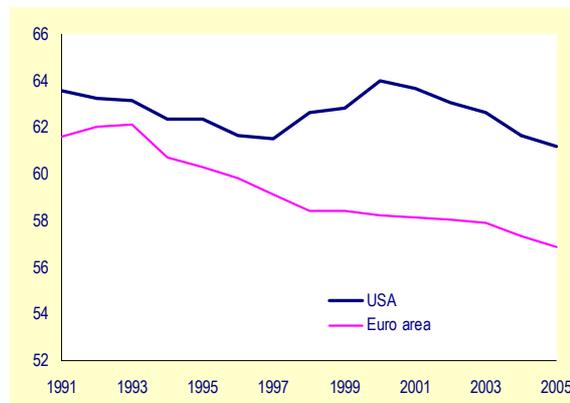
Wage moderation in the euro area can be explained by a set of factors, including sluggish productivity growth, the increased credibility of monetary policy, structural changes on the euro-area labour market and structural developments related to globalisation.<sup>24</sup>

Wage moderation is in part the consequence of the *sluggish productivity performance* of the euro area in recent years. Since the late 1990s, annual growth in labour productivity has averaged a meagre 1%, which is close to 1 percentage point less than during the period spanning the 1980s and the first half of the 1990s. The sharp slowdown in labour productivity has virtually capped workers' wage claims.

To some extent, wage moderation can also be seen as the by-product of the *increased credibility of*

*monetary policy*, which has successfully steered economic agents' expectations in the medium term towards inflation figures consistent with the ECB's objective of price stability. Enhanced credibility also means that economic agents have a lower propensity to overreact to developments which affect headline inflation temporarily, such as a rise in energy prices. In line with this assessment, the surge in oil prices in 1999-2000 was associated with contained nominal wage pressures and a substantial deceleration of real wages. The more recent hike of 2004-05 also seems to have been met with a similarly muted wage response, although lags in the wage setting process call for a cautious assessment. It is not unusual for wages to respond with some stickiness in the short term to changes in economic conditions as wage bargaining rounds typically occur at fixed periods and usually cover a period of at least one year. Second-round wage effects in the coming quarters therefore remain a possibility.

Graph 26: Wage share, euro area and USA (% of GDP)



Source: Commission services.

Nevertheless, wage moderation cannot be solely explained by sluggish productivity and successful monetary policy. This can be seen by examining developments in the wage share. The wage share is an estimate of the share of income that goes to labour, as opposed to that of capital. It is measured by dividing total compensation of employees (corrected for changes in the share of self-employment in total employment) by total value added. The wage share decreases when real wage growth expands less rapidly than productivity. Graph 26 shows that this has been

<sup>23</sup> This result should, however, be interpreted with prudence given the low level of disaggregation on which it is based.

<sup>24</sup> An additional factor relates to wage moderation in Germany. Wage moderation in Germany, which was necessary to regain the competitiveness lost after unification, has weighed on average wage growth in the euro area.



the case in the euro area since the early 1990s. Whereas successful monetary policy may have contributed to contain rises in the wage share in recent years, it cannot explain its gradual decrease.

Trends in the wage share also suggest that wage moderation is not a recent feature of the euro-area economy and is, at least partly, attributable to structural factors that had already started to exercise an influence before the start of EMU.

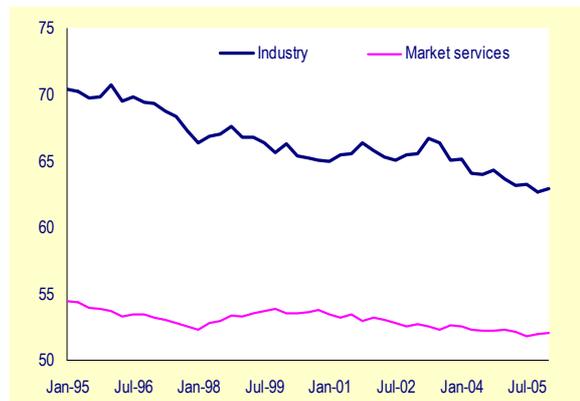
A first set of possible explanatory factors relates to *structural changes in the euro-area labour market*. To some extent, wage moderation can be seen as a temporary consequence of reforms in the labour market that have been gradually put in place in most Member States since the 1990s. These reforms include, for instance:

- Measures aimed at bringing the longer-term unemployed back into the labour market through training programmes to help match supply and demand in terms of employment, and measures aimed at enhancing the participation rate of the labour force (development of child care facilities, withdrawal of early retirement schemes, regularisation programmes of migrant workers). As already noted, these measures have had a visible effect on participation rates in the euro area.
- Measures designed to make the labour market less rigid (development of alternative forms of employment and increased decentralisation of wage bargaining).
- Efforts by national governments to reduce non-wage labour costs, i.e. to reduce the 'tax wedge' between take-home pay and effective costs borne by employers, especially for low-skilled workers. According to OECD calculations, the tax wedge decreased by 1 percentage point of labour costs from 2000 to 2005 in the euro area.

A second set of possible explanatory factors relates to *global structural trends*. The decline in the wage share is not limited to the euro area and can be observed in many industrial countries. It is visible in the USA in particular, although it has been much less marked there, the steady erosion of wages and salaries being partially counteracted

by the rise in non-wage labour costs, such as health care provided by companies to their employees. A possible global structural factor that may have weighed on wages in industrialised countries is the emergence of developing countries as major trading partners and the attendant increase in the world pool of labour, especially for low-skilled workers. The fact that, since the mid-1990s, the wage share has dropped more significantly in industry (directly exposed to competition from emerging markets) than in services (which are still somewhat more sheltered from this competition) lends some support to this hypothesis (Graph 27).

Graph 27: Wage share in industry and services, euro area (% of value added)



Source: Commission services.

In an environment of monopolistic competition, wage developments can be interpreted as the result of a bargaining process between firms and their workers. In this setting, the structural factors listed above, whether euro-area specific or global, can be interpreted as having tipped the balance of the process in favour of firms. In theory, this effect should however be of a short-term nature. In the long term, higher profits should induce more firms to enter the market, pushing profits down and restoring the wage share to its previous level. For such a balancing mechanism to work, though, product market reforms and reforms aimed at improving the contestability of markets should go hand-in-hand with labour market reforms by way of an integrated approach.<sup>25</sup> The comparatively larger

<sup>25</sup> See Blanchard and Giavazzi (2003), 'Macroeconomic effects of regulation and deregulation in goods and labour

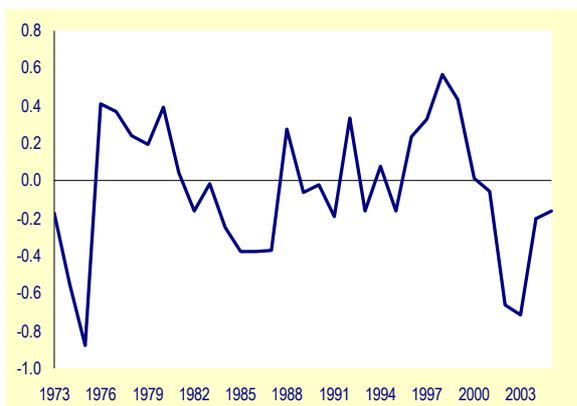
decrease of the wage share in the euro area than in the USA could be a symptom of a lack of competition on product markets.

### 3. Explaining the resilience of employment in the latest downturn

#### Some evidence of labour hoarding...

Several factors may have contributed to boost the euro-area's employment performance in recent years. At cyclical level, labour hoarding may have played a role in the early stages of the latest downturn. More flexible working time arrangements and the rising importance of part-time jobs allow companies to respond to a temporary softening in output growth by making less intensive use of the existing workforce.

Graph 28: Cyclical component of average annual hours worked, euro area (% of trend) (1)



(1) Excluding EL, LU, AT and PT. Annual average hours are detrended with an HP filter.  
**Source:** Commission services.

Graph 28 highlights some evidence of labour hoarding in 2002-03. A substantial cyclical cut in the average annual hours worked per person was in fact registered in those two years.<sup>26</sup> The cyclical adjustment in working time appears to be of a similar order of magnitude to that recorded during the recession of the 1970s and much

markets', *Quarterly Journal of Economics*, August, Vol. 118/No. 3.

<sup>26</sup> This cyclical reduction comes on top of a trend reduction of hours worked of 0.5%.

sharper than during the recessions of the 1980s and the 1990s. However, the adjustment was short-lived and offset by a cyclical increase in working time in 2004-2005.

#### ... but the resilience of employment is more structural than cyclical

Graph 28 suggests that labour hoarding and cyclical factors only provide a partial explanation of employment resilience in recent years, indicating that structural factors have also been at play.

To test for the possibility of a structural change in the behaviour of employment, an employment demand equation was estimated (see Box 2).<sup>27</sup> The equation relates employment to its traditional determinants, namely activity, real wages and technical progress (captured by a time trend). Regression results suggest that there has been a structural upward shift in employment demand since 1997. The structural shift – captured by a break in the equation intercept – corresponds to a permanent increase in the long-term level of employment. In other words, since 1997, economic activity has become more intensive in labour. Given that labour demand only adjusts slowly, a structural shift in the employment level entails higher employment growth during a transitory period to reach the new employment-rich regime. The resulting boost to annual employment growth is estimated at 0.6 percentage points over the period 1997-2005.

Overall, the equation indicates that the resilience of employment during the latest downturn is mainly accounted for by the job-richer economic growth already recorded between 1997 and 2001 (long-term employment pattern) rather than a change in the cyclical response of employment (short-term employment behaviour).

Finally, it is worth stressing that, in addition to a structural shift in labour demand, employment growth in recent years has also benefited from persistent wage moderation. It follows from the

<sup>27</sup> This part of the analysis is based on Mourre, G. (2006), 'Did the pattern of aggregate employment growth change in the euro area in the late 1990s?', *Applied Economics*, 38(15), pp. 1783-1807.



### Box 2: An econometric estimation of employment demand in the euro area

This box presents an update of an employment demand equation estimated by Mourre (2006). The equation is based on a CES specification of the production function and relates total employment (E) to real GDP (Y), real wages (w/p) and a time trend aimed at capturing the effect of technical progress. The model is estimated in an error correction form over the 1970-2005 period. The table below shows that adding a break in the intercept from 1997 onwards improves significantly the fit of the equation which otherwise only explains part of employment developments seen in recent years (1997-2005). The structural break, which is equivalent to a shift in the level of employment demand, is very significant from a statistical standpoint (at below 1%).

#### OLS Estimates of employment equations with and without break (1970Q1-2005Q4) <sup>(1)</sup>

	Equation without break	Equation with break
<i>Short-term dynamics (endogenous variable: <math>\Delta \ln E_t</math>)</i>		
$\Delta \ln E_{t-1}$	0.604*** (8.76)	0.545*** (6.89)
$\Delta \ln Y_{t-1}$	0.062* (1.75)	0.064*** (2.71)
$\Delta \ln Y_{t-2}$	0.061*** (2.65)	0.063* (1.85)
$\Delta \ln (w/p)_{t-5}$	-0.013 (-0.57)	-0.012 (-0.54)
Error Correction Mechanism <sup>(2)</sup>	-0.014** (-2.11)	-0.025*** (-3.25)
<i>Long-term relationship (endogenous variable: <math>\ln E_t - \ln Y_t</math>)</i>		
$\ln(w/p)_{t-1}$	-0.608* (-1.62)	-0.389*** (-3.25)
Time trend $t_{-1}$	0.0023 (-1.47)	0.00351* (-1.90)
Intercept	-0.016* (1.77)	-0.036*** (-6.92)
Break=Dummy (year>1996)		0.0014*** (2.65)
<i>Main statistics</i>		
R <sup>2</sup>	0.773	0.786
Adjusted R <sup>2</sup>	0.753	0.766
Serial correlation of order 1 LM (1) <sup>(3)</sup>	0.21 (0.65)	0.28 (0.60)
Serial correlation of order 4 LM (4) <sup>(3)</sup>	6.31 (0.22)	4.13 (0.39)

(1) Absolute value of t statistics in parentheses. \* Significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

As some heteroskedasticity has been detected, the t-statistics are computed with the White heteroskedasticity-consistent standard errors. The regression includes time dummy variables for 1975Q2, 1984Q1, 1989Q4 and 1992Q3.

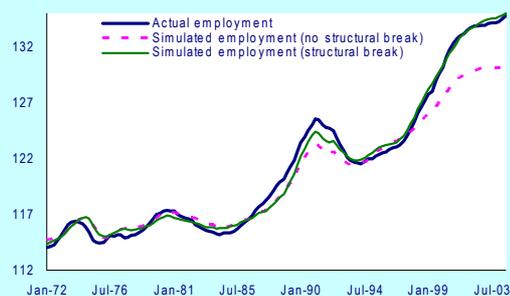
(2) The t-statistics of the ECM term should be compared with -1.61, -1.93 and -2.56 (MacKinnon critical value at 10%, 5% and 1% respectively).

(3) Breusch-Godfrey correlation LM test (asymptotic test).

**Source:** Data are from Fagan, G., J. Henry and R. Mestre, 'An Area-Wide Model (AWM) for the Euro Area', ECB working paper series, No. 42, January. The most recent quarters have been extended using Eurostat ESA95 National Accounts.

The importance of the structural break in employment demand is illustrated in the next chart which plots actual employment in the euro area and employment simulated with the two equations above. Both equations are estimated over the 1970Q1-2001Q2 period. The equation with a structural break clearly does a much better job at simulating employment creations in recent years.

#### Simulated employment (in million jobs)



Sources: Commission services.

equation that a 1% point decline in the growth of labour costs leads to a 0.4% acceleration in employment growth in the long run (with a lag of around two years). Since the beginning of the decade, real wages have expanded by 0.4% annually, which is well below the 0.9% average recorded over the previous two decades. Hence, with wage growth at its historical average, employment growth in the euro area would have been about 0.2 percentage points lower in the past few years.

### Labour market reforms and changes in the sectoral structure have boosted labour demand

Two sets of factors may have contributed to the reported structural shift in employment demand: changes in the economy's sectoral structure and the labour market reforms introduced since the mid-1990s in many euro-area Member States.

***Sectoral changes.*** A first possible explanation pertains to changes in the economy's sectoral structure. The rising importance of services, where productivity gains are, on average, markedly slower than in manufacturing, could be weighing on the economy's overall productivity performance, thereby raising the employment content of growth.

**Table 10: The contribution of the shifting sectoral structure to productivity gains, euro area**  
(average annual changes in %)

	1990-1996	1997-03
Intra-sectoral effect	1.8	1.5
Structural shift effect	0.3	0.1
Interaction effect	0.0	-0.1
Total	2.1	1.5

*Source:* Commission services, Groningen Growth and Development Centre.

Table 10 displays an assessment of the impact of changes in the sectoral structure on changes in hourly productivity. The table is based on a shift-share analysis which breaks down the growth in total labour productivity into an intra-industry effect – where the sectoral composition of the economy is held fixed –, a structural shift effect – which is positive when the economy shifts

resources to sectors where the level of productivity is high – and an interaction effect.<sup>28</sup> The calculations are made for two periods, 1990-96 and 1997-03, respectively preceding and following the structural break.

The breakdown shows that aggregate productivity developments are dominated by intra-sectoral effects with changes in the sectoral structure playing only a relatively modest role. Nevertheless, changes in the sectoral structure (as captured by the sum of the structural shift and the interaction effects) still had a positive effect on productivity growth during the 1990-96 period (0.3%) – i.e. a negative effect on employment – whereas their contribution became negligible during the period 1997-2003. Hence, the structural shift in employment demand since the late 1990s may partly be explained by the fading of the sectoral shifts that had boosted aggregate productivity gains prior to the late 1990s.

***Labour market reforms.*** The results presented in Table 10 indicate that shifts in the economy's sectoral composition can only account for an increase of about 0.3 percentage points in annual employment growth, i.e. less than half of the estimated effect of the structural break. This suggests that additional factors must have been at play. A likely explanation is that, in addition to their impact on labour supply, labour market reforms introduced since the 1990s in many Member States have also had a bearing on labour demand. While some reforms mainly impact on labour supply (e.g. changes in unemployment benefits, phasing-out of early retirement schemes), others may also have a direct impact on labour demand (e.g. those related to the reduction in tax wedge, the development in part-time work, employment protection legislation, changes in wage bargaining structures).<sup>29</sup> It is notoriously difficult to test quantitatively the impact of institutional changes on economic performance, but Mourre (2006) provides some evidence that institutional changes on the labour market can, at least partly, explain the high

<sup>28</sup> The interaction effect is positive when the economy shifts resources from sectors where productivity is growing slowly to sectors where productivity is expanding rapidly. It tends to be small in the case of the euro area.

<sup>29</sup> Reforms which raise labour supply also tend to lift labour demand indirectly via their impact on labour costs.



employment intensity of growth in the euro area since the late 1990s.

### Conclusion

The general picture of employment in the euro area has improved markedly over the past few years. Unemployment has decreased to 7.8% of the labour force despite a substantial increase in labour supply, reflecting a broad-based rise in the participation rate of the population. Since 2001, the euro-area economy has created more than five million jobs and employment has proved particularly resilient in the face of sluggish economic growth. This remarkable performance by historical standards can be explained by several factors including persistent wage moderation, the beneficial effect of structural reforms on labour supply and demand and, to a lesser degree, shifts in the economy's sectoral composition. Cyclical factors seem to have played only a limited role in the recent resilience of employment in the euro area.

There is little room for complacency, however. Structural unemployment remains significantly

higher in the euro area than in other major industrialised economies and employment rates are well below the Lisbon targets. Furthermore, reforms have, in many cases, tended to affect the labour market at the margin – for instance by introducing more flexible forms of employment contracts – while leaving a large share of workers unaffected. Labour market reforms should therefore be pursued in line with the Lisbon Strategy. They should be combined with reforms on product markets aimed at stimulating competition. A risk would be that the deceleration of the growth of the working-age population (turning into an outright decrease after 2011), which would lower unemployment in the short term, might induce governments to slow the pace of reforms, thereby deepening the existing segmentation between insiders and outsiders on the labour market. In fact, any improvement of labour markets in good times should be used to remove the remaining hindrances to the functioning of labour markets and exploit the leeway created by additional job opportunities to bring the outsiders back into the labour market.

### III. Recent DG ECFIN publications

#### 1. Policy documents

EUROPEAN ECONOMY. No. 6. 2005

**The EU Economy 2005 Review**

[http://europa.eu.int/comm/economy\\_finance/publications/european\\_economy/the\\_eu\\_economy\\_review\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/european_economy/the_eu_economy_review_en.htm)

EUROPEAN ECONOMY. No. 2. 2006

**Commission spring economic forecasts 2006-2007: growth rebounds**

[http://europa.eu.int/comm/economy\\_finance/publications/european\\_economy/forecasts\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/european_economy/forecasts_en.htm)

EUROPEAN ECONOMY. No. 3. 2006

**Public finances in EMU - 2006**

[http://europa.eu.int/comm/economy\\_finance/publications/european\\_economy/public\\_finances2006\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/european_economy/public_finances2006_en.htm)

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No.25. June 2006

**European Neighbourhood Policy: Economic Review of ENP Countries**

[http://europa.eu.int/comm/economy\\_finance/publications/occasional\\_papers/occasionalpapers25\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/occasional_papers/occasionalpapers25_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](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](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](http://ec.europa.eu/economy_finance/publications/european_economy/2006/eespecialreport0406_en.htm)

EUROPEAN ECONOMY. ENLARGMENT PAPERS. No. 27. 2006

**2005 Pre-accession economic programmes of acceding and candidate countries**

[http://europa.eu.int/comm/economy\\_finance/publications/enlargment\\_papers/elp27\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/enlargment_papers/elp27_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](http://ec.europa.eu/economy_finance/publications/enlargement_papers/elp28_en.htm)

#### 2. Analytical documents

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 245.

Catarina Dantas Machado Rosa and Kristiina Raade (Directorate-General for Economic and Financial Affairs)

**Profitability of venture capital investment in Europe and the United States**

[http://europa.eu.int/comm/economy\\_finance/publications/economic\\_papers/economicpapers245\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers245_en.htm)

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 246.

Klaus Weyerstrass, Johannes Jaenicke, Reinhard Neck, Gottfried Haber (Institute for Advanced Studies, Carinthia) and Bas van Aarle, Koen Schoors, Niko Gobbin, Peter Claeys (Gent University)

**Economic spillover and policy coordination in the Euro area**

[http://europa.eu.int/comm/economy\\_finance/publications/economic\\_papers/economicpapers246\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers246_en.htm)

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 247.

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

**Calculating potential growth rates and output gaps - A revised production function approach**

[http://europa.eu.int/comm/economy\\_finance/publications/economic\\_papers/economicpapers247\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers247_en.htm)



EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 248.

Edited by S. Deroose, E. Flores and A. Turrini (Directorate-General for Economic and Financial Affairs)

**Proceedings from the ECFIN Workshop "The budgetary implications of structural reforms" - Brussels, 2 December 2005**

[http://europa.eu.int/comm/economy\\_finance/publications/economic\\_papers/economicpapers248\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers248_en.htm)

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 249.

Daniel Grenouilleau (Directorate-General for Economic and Financial Affairs)

**The Stacked Leading Indicators Dynamic Factor Model: A Sensitivity Analysis of Forecast Accuracy using Bootstrapping**

[http://europa.eu.int/comm/economy\\_finance/publications/economic\\_papers/economicpapers249\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers249_en.htm)

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

EUROPEAN ECONOMY. ECONOMIC PAPERS. No. 252.

Servaa 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](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](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](http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers254_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](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](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](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](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](http://europa.eu.int/comm/economy_finance/publications/bondmarkets_en.htm)

**Price and Cost Competitiveness**

[http://europa.eu.int/comm/economy\\_finance/publications/priceandcostcompetiteveness\\_en.htm](http://europa.eu.int/comm/economy_finance/publications/priceandcostcompetiteveness_en.htm)

## V. Key indicators for the euro area

<b>1 Output</b>		2003	2004	2005	Mar-06	Apr-06	May-06	June-06	July-06	Aug-06
Industrial confidence <sup>1.1</sup>	Balance	-11	-5	-8	-1	1	2	3	4	2
Industrial production <sup>1.2</sup>	mom % ch	0.5	2.0	1.3	0.8	-0.7	1.8	-0.1		
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Gross domestic product <sup>1.3</sup>	Qtr. % ch				0.4	0.6	0.4	0.8	0.9	
<b>2 Private consumption</b>		2003	2004	2005	Mar-06	Apr-06	May-06	June-06	July-06	Aug-06
Consumer confidence <sup>2.1</sup>	Balance	-18	-14	-14	-11	-10	-9	-9	-8	-8
Retail sales <sup>2.2</sup>	mom % ch	0.1	0.2	1.0	-0.6	0.9	-0.3	0.5	0.6	
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Private consumption <sup>2.3</sup>	Qtr. % ch	1.3	1.4	1.4	0.4	0.7	0.1	0.7	0.3	
<b>3 Investment</b>		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Capacity utilization <sup>3.1</sup>	%	80.7	81.6	81.3	81.1	80.9	81.1	82.0	82.5	83.6
Gross fixed capital formation <sup>3.2</sup>	Qtr. % ch	1.0	2.1	2.7	1.2	1.2	0.4	0.9	2.1	
Change in stocks <sup>3.3</sup>	% of GDP	0.0	-0.1		0.2	0.2	0.5	0.2	0.3	
<b>4 Labour market</b>		2003	2004	2005	Mar-06	Apr-06	May-06	June-06	July-06	Aug-06
Unemployment <sup>4.1</sup>	%	8.4	8.9	8.5	8.0	8.0	7.9	7.8	7.8	
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Employment <sup>4.2</sup>	Ann. % ch	0.4	0.6	0.7	0.7	0.6	0.7	0.9		
Shortage of labour <sup>4.3</sup>	%	2.5	2.4		2.0	2.1	2.8	2.7	3.1	4.3
Wages <sup>4.4</sup>	Ann. % ch	2.5	2.2		2.2	2.2	2.2	2.2		
<b>5 International transactions</b>		2003	2004	2005	Mar-06	Apr-06	May-06	June-06	July-06	Aug-06
Export order books <sup>5.1</sup>	Balance	-24	-13	-16	-6	-2	-2	3	3	3
World trade <sup>5.2</sup>	Bn. EUR	132	146	157						
Exports of goods <sup>5.3</sup>	Bn. EUR	1056.0	1142.1	1232.5	112.0	111.9	112.5	112.9		
Imports of goods <sup>5.4</sup>	Bn. EUR	970.4	1069.1	1207.3	112.4	113.0	113.7	114.0		
Trade balance <sup>5.5</sup>	Bn. EUR	85.6	73.0	25.2	-0.4	-1.1	-1.2	-1.1		
		2003	2004	2005	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
Exports of goods and services <sup>5.6</sup>	Qtr. % ch	1.1	6.8	4.2	1.9	2.6	0.9	3.9	1.3	
Imports of goods and services <sup>5.7</sup>	Qtr. % ch	3.1	6.7	5.2	2.6	2.5	1.6	2.9	1.2	
		2003	2004	2005	Mar-06	Apr-06	May-06	June-06	July-06	Aug-06
Current account balance <sup>5.8</sup>	Bn. EUR	18.1	42.4	38.8	-1.8	0.9	-7.6	4.0		
Direct investment (net) <sup>5.9</sup>	Bn. EUR	-18.4	-39.7	-41.8	8.6	-2.5	-0.4	-8.7		
Portfolio investment (net) <sup>5.10</sup>	Bn. EUR	-9.4	39.0	32.3	48.4	-5.7	49.3	71.4		
<b>6 Prices</b>		2003	2004	2005	Mar-06	Apr-06	May-06	June-06	July-06	Aug-06
HICP <sup>6.1</sup>	Ann. % ch	2.1	2.2	2.2	2.2	2.4	2.5	2.5	2.4	2.3
Core HICP <sup>6.2</sup>	Ann. % ch	2.0	2.1	1.5	1.4	1.6	1.4	1.5	1.6	
Producer prices <sup>6.3</sup>	Ann. % ch	1.6	2.3	4.1	5.1	5.5	6.1	5.8		
Import prices <sup>6.4</sup>	Ann. % ch	102.5	97.2	104.8	112.9	113.1	113.2			
<b>7 Monetary and financial indicators</b>		2003	2004	2005	Mar-06	Apr-06	May-06	June-06	July-06	Aug-06
Interest rate (3 months) <sup>7.1</sup>	% p.a.	2.3	2.1	2.2	2.7	2.8	2.9	3.0	3.1	3.2
Bond yield (10 years) <sup>7.2</sup>	% p.a.	4.1	4.1	3.4	3.7	3.9	4.0	4.0	4.0	3.9
ECB repo rate <sup>7.3</sup>	% p.a.	3.25	2.75		2.50	2.50	2.50	2.75	2.75	3.00
Stock markets <sup>7.4</sup>	Index	2420	2805	3207	3815	3841	3731	3529	3617	3744
M3 <sup>7.5</sup>	Ann. % ch	7.8	5.9	7.4	8.4	8.7	8.7	8.3		
Credit to private sector (loans) <sup>7.6</sup>	Ann. % ch	5.0	6.0	8.1	10.8	11.4	11.4	11.0	11.1	
Exchange rate USD/EUR <sup>7.7</sup>	Value	1.13	1.24	1.24	1.20	1.23	1.28	1.27	1.27	1.28
Nominal effective exchange rate <sup>7.8</sup>	Index	106.4	109.8	109.7	109.0	110.3	111.7	112.6	112.7	112.5



Number	Indicator	Note	Source
<b>1</b>	<b>Output</b>		
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
<b>2</b>	<b>Private consumption</b>		
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
<b>3</b>	<b>Investment</b>		
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
<b>4</b>	<b>Labour market</b>		
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	Wages and salaries. Labour cost index, industry and services (excluding public administration), nominal, working day adjusted	Eurostat
<b>5</b>	<b>International transactions</b>		
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
<b>6</b>	<b>Prices</b>		
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
<b>7</b>	<b>Monetary and financial indicators</b>		
7.1	Interest rate	Percent p.a., 3-month interbank money market rate, period averages	Ecowin
7.2	Bond yield	Percent p.a., 10-year government bond yields, lowest level prevailing in the euro area, period averages	Ecowin
7.3	ECB repo rate	Percent p.a., minimum bid rate of the ECB, end of period	Ecowin
7.4	Stock markets	DJ Euro STOXX50 index, period averages	Ecowin
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 and P. Zakova*

Current financial market developments and macro-financial stability outlook

*M. Donnay*

Recycling of oil-exporting countries' oil revenues: more beneficial to the euro area than in the past

*F. Hansen*

Focus: Labour market developments in the euro area

*G. Carone, G. Mourre, M. Thiel and G. Tournemire*

Overall co-ordination and editing

*J. Kublmann and E. Ruscher*

Data assistance was provided by Danila Conte

**Comments on the report would be gratefully received and should be sent to the Editor-in-Chief:**

Servaas Deroose  
 Director – Macroeconomy of the euro area and the EU  
 Economic and Financial Affairs Directorate-General  
 European Commission  
 Rue de la loi 200 BU1 0/209  
 B-1049 Brussels

or by e-mail to [servaas.deroose@ec.europa.eu](mailto:servaas.deroose@ec.europa.eu), [eric.ruscher@ec.europa.eu](mailto:eric.ruscher@ec.europa.eu), [joost.kuhlmann@ec.europa.eu](mailto:joost.kuhlmann@ec.europa.eu)



KC-AK-06-002-EN-C