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Editorial

The global as well as the euro-area economy is deteriorating fast. It becomes increasingly likely that the global recession might continue for some time. Global trade is in free fall and output is contracting sharply. Unemployment is projected to rise significantly. After some improvement at the end of 2008, the crisis in financial markets intensified again at the beginning of 2009.

Global as well as EU economic linkages are important through international trade, finance and investment. To maximize the effects of the different policy measures put in place to overcome the current crisis, our responses have to be coordinated globally. Our priorities should include the need to restore the functioning and integrity of international financial markets, to provide macroeconomic support, and the imperative to keep global markets open.

Macroeconomic policies need to provide active support to the economy at this juncture. EU leaders met in Brussels on 19 and 20 March and reviewed the considerable fiscal stimulus now being injected into the EU economy (over €400 bn). The Council emphasised that concerted action and coordination were an essential part of Europe's strategy for recovery. A first assessment of the implementation of the December European Economic Recovery Plan (EERP) at the Member State level indicates that the fiscal and structural policy measures are well-targeted and coordinated across the EU, taking into account the different economic and budgetary conditions of Member States. As the measures gain traction in the coming months they will tangibly support aggregate demand. Social safety nets and progressive tax systems are putting a powerful break to the fall in demand in the EU and will provide further substantial support should the economy deteriorate further. The working of these automatic stabilisers plays an important role for EU Member States, and their viability is essential for public confidence in the future. With the Stability and Growth Pact, the EU has an effective framework in place that combines the short-term flexibility required to counter the crisis with the credible commitment to fiscal sustainability. On the monetary front, the European Central Bank has lowered interest rates to historically low levels and is providing ample liquidity to the financial system. In light of receding inflation risks, the possibility of further monetary easing is not excluded. Overall, EU macroeconomic policies contribute sizeably to the global recovery.

The EU is committed to keeping markets open and opposed to any form of protectionism. Our policies preserve the integrity of the internal market and ensure that rescue packages in the financial as well as non-financial sectors do not distort competition in the single market. Moreover, we contribute constructively to maintaining and enhancing free trade in the framework of the WTO and support progress in the Doha round. We also support initiatives to secure availability of trade financing.

Restoring the functioning of credit markets and facilitating the flow of lending to the real economy is essential for the recovery of our economies. The EU has taken ambitious measures to stabilise the financial sector. These measures have helped to avoid a melt-down of global financial markets, but the process of financial deleveraging continues impairing the functioning of financial markets. Following common EU guidelines and monitored by the Commission, governments are re-capitalising distressed banks and providing large-scale guarantees for their credit operations. To ensure the level playing field in the EU, the European Commission has adopted further detailed guidelines for Member States regarding the design and implementation of asset-relief measures. In addition to the need for transparency and disclosure, the Commission's guidelines stress the importance of ex ante burden sharing agreements between the beneficiaries and the government and clear rules regarding the eligibility of assets in order to minimise the risk of moral hazard.

Financial market participants are forward-looking actors. Short-term financial rescue action and regulatory reform of the financial sector must therefore go hand in hand to bolster confidence in the financial system. The EU has embarked on

reforms to ensure appropriate regulation and oversight of credit rating agencies, hedge funds and private equity as well as complex financial products. Moreover, the Commission will make proposals to reinforce the quality and quantity of prudential capital of banks in order to limit the level of leverage and mitigate excessive pro-cyclicality of existing capital requirements. Finally, the EU will improve its supervisory system, building on the recommendations of the de Larosière Group. The supervisory system will combine much stronger oversight at EU level with a clear role for national supervisors. The Commission backs the Group's proposal to set up an early warning body under ECB auspices to identify and tackle systemic risks. Steps towards closer cooperation among EU supervisors include for example the establishment of supervisory colleges by the end of 2009. In our view, global action on regulation and supervision is urgently needed to keep the financial system integrated and assure its efficiency.

The current economic crisis highlights the general need for broader and more in-depth macroeconomic surveillance. Global imbalances are among the root causes of the current crisis. Significant imbalances have also built up within the euro area, raising the exposure of some Member States to the global financial turmoil. In our EMU@10 report, we have argued the case for monitoring intra-euro area macroeconomic imbalances and underlying competitiveness developments. In the special report of this Issue, we build on this agenda and provide a comprehensive review and assessment of competitiveness developments in the euro area since the launch of the euro in 1999. Some Member States have seen significant falls in their domestic prices vis-à-vis the rest of the euro area while others have registered sharp rises. The diverging trend has also been visible in a steady widening of the differences in Member States' current account positions, which are at historical height.

While some of the divergence can be explained by benign factors such as Balassa-Samuelson effects, differences in the business cycle and improved access to financing for catching up economies, the divergence trend also has more worrying causes. Wages have responded inappropriately to country-specific shocks in some Member States. Divergences of current accounts also reflect the build-up of domestic imbalances such as losses of non-price competitiveness, excessive domestic demand, high private sector and external debt and surges in house prices. Furthermore, foreign capital inflows to catching-up economies have not always been channelled to the most productive uses. Some of the domestic imbalances underlying the competitiveness problems – particularly excessive private-sector debt and elevated house prices – have also increased the vulnerability to financial market conditions and have aggravated the exposure to the current crisis.

The adjustment of these external imbalances will involve reductions in production costs and prices in the export sector. It will also imply significant changes in the domestic part of the economy, including a re-allocation of demand and productive resources between the sheltered sector and the export sector as well changes in relative prices. The speed and the economic cost of the adjustment will depend on price and wage flexibility as well as the ease with which resources can be re-allocated across sectors.

While the economic crisis is projected to lead to some adjustment in external imbalances, price adjustments are lagging behind, at least in some Member States. This suggests that the economic cost in terms of unemployment could be significant in the years to come, unless more decisive policy action is taken, in particular regarding the adjustment capacities of markets.

Eurogroup finance ministers agreed that competitiveness developments in the euro area are a matter of common concern that warrants a broader surveillance. Such macroeconomic surveillance should identify risks of divergence early on and contribute to their orderly unwinding.

We live in difficult times. I am, however, convinced that we have the right institutions and capacities to make the EU emerge stronger from the crisis.

MARCO BUTI

DIRECTOR GENERAL

I. Economic and financial situation in the euro area[1]

After some improvement at the end of 2008, the crisis in financial markets intensified again at the beginning of 2009. This was reflected in falling stock prices, widening credit market spreads and strong safe haven flows. Loans to the private sector have moderated considerably, reflecting very weak growth in household credit and the first signs of deleveraging in the non-financial corporate sector. Although some markets have recently shown some signs of improvement, conditions in the financial sector remain extremely fragile.

Financial market sentiment is now clearly being hampered by the worsening real economy. In the last quarter of 2008, euro-area GDP fell by 1.5% (q-o-q), the worst performance in decades. With the notable exception of inventories, all GDP components were down, with investment exhibiting the sharpest drop (-2.7% q-o-q) and construction and business investment both strongly hit. World trade has been severely affected by the collapse in global demand, which is also starting to weigh heavily on emerging economies. Short-term prospects are not encouraging. In February all euro-area survey indicators showed another drop to new record lows. A few global and euro-area sentiment indicators sent very modest signs of improvement in, respectively, February and March but more solid evidence is needed before concluding that the economy is stabilising.

Headline inflation came sharply down in 2008Q4 and stood at 1.2% in February. This was the result of falling energy and food commodity prices, weakening demand and base effects. These base effects will last for some months and may lead to negative inflation rates during the first two quarters of 2009.

In response to the ongoing crisis, major policy measures have been put in place in the EU. Last autumn, EU Member States agreed on coordinated European action to recapitalise and guarantee banks across the EU. These measures, together with considerable liquidity injections by the ECB and other EU central banks, have prevented the meltdown of the banking industry. Nevertheless, additional measures are needed to clean up banks' balance sheets. The Commission has therefore adopted detailed guidelines on the design and implementation of asset-relief measures. As regards the European Economic Recovery Plan adopted in December, the full impact will only become visible in the coming months but the early signs are encouraging; most of the measures taken by Member States, as requested, being well targeted to stimulate demand.

Following a two-month period of gradual improvement at the end of 2008, the crisis in financial markets intensified again at the beginning of 2009. This was reflected in falling stock prices, widening credit market spreads and strong safe haven flows. In exchange markets, the renewed increase in risk aversion supported the US dollar and the Japanese yen. In recent weeks, some markets have shown signs of relief, in particular interbank markets, partly as a result of important policy measures undertaken by governments and central banks. Some improvements have also been seen in stock markets with prices rebounding significantly in March and volatility ebbing somewhat from its very high level. Yet, conditions in the global financial system remain extremely fragile, not least because the interaction between financial markets and the real economy works in both directions, and financial market sentiment is hampered by the worsening real economy.

Significant monetary loosening

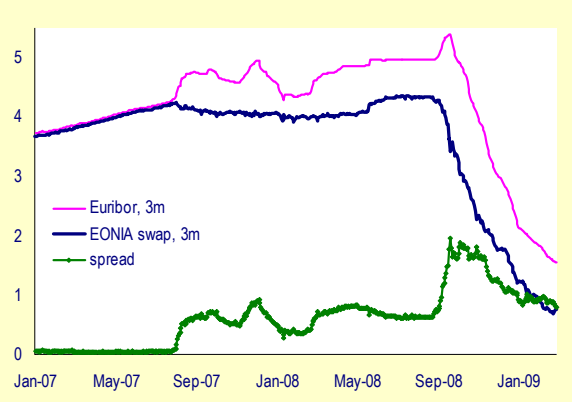
Monetary policy has been significantly loosened in the last quarter. With reduced inflationary pressure amid the intensification of the financial market turmoil and the weakening in economic activity, the Governing Council of the ECB reduced the main refinancing rate from 3.25% at the beginning of December 2008 to 1.5% in March 2009. The lower policy rates, in combination with comprehensive liquidity injections and government guarantees, helped to calm interbank markets. Euro-area interbank rates have steadily declined since December. The 3-month Euribor has come down from 3.25% in mid-December 2008 to 1.54% on 25 March 2009 (Graph 1).

The decline in rates on the interbank market mainly reflects a relatively continuous downward movement in risk-free rates, as 3-month

[1] The cut-off date for the statistics included in this issue was 25 March 2009.

interbank spreads, measured as the difference between unsecured money market rates and risk-free interest rates with similar maturity, have been decreasing only slightly to around 80 bp since the end of January. This is significantly lower than the peak of 200 bp in October, but much higher than in the pre-crisis period. Although there is a large amount of liquidity in the system, banks reported in the ECB January Bank Lending Survey that their access to money markets remained hampered at elevated levels due to the financial turmoil.

Graph 1: **Euro-area money market**
(in %, 1 Jan 2007 to 25 Mar 2009)

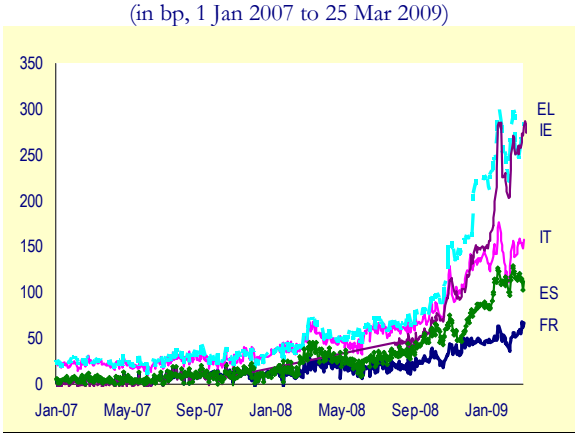


Source: EcoWin.

In the bond markets, sovereign bond yields have fluctuated strongly in recent months. Yields on the German 10-year Bund reached a low of 2.88% in mid-January 2009, before increasing to 3.42% on 9 February, amid speculation that the ECB policy rate may not be cut much further and in anticipation by the market of higher government borrowing in the coming quarters. Since then the 10-year Bund yield has registered a marked fall to 3.13% on 25 March 2009, related to lower growth forecasts.

In some euro-area countries, government borrowing costs have climbed more markedly since mid-January as yield spreads relative to the German Bund have widened further (Graph 2). The spread increase reflects both liquidity-risk and credit-risk premiums and has been amplified by the announcement of a coordinated EU rescue package for banks, which has different implications for Member States' credit quality, depending on the scale of the problems in their banking sectors and their capacity to meet the implied budgetary obligations. A downgrade of long-term credit ratings for Greek, Portuguese and Spanish sovereign debt contributed further to the increase in spreads in January. In addition, euro-area banks' exposure to former Eastern European countries has added to the spreads in some euro-area countries. On 25 March, the sovereign spreads over the German Bund were highest in Greece (264 bp) and Ireland (253 bp) .

Graph 2: **10-year government bond spreads to Germany**
(in bp, 1 Jan 2007 to 25 Mar 2009)



Source: EcoWin.

The deceleration in bank lending spreads to non-financial corporations

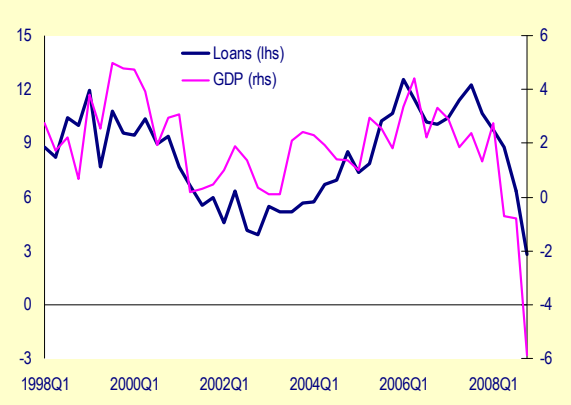
The intensification of the financial turmoil since mid-September, including its substantial spill-over effects to the real economy, increasingly affects the pace of monetary expansion. Whereas up to the third quarter 2008 no signs of deleveraging by banks could be observed, in recent months clear evidence of deleveraging activities has been visible. These are reflected in the considerable reduction in the external asset position.

Households reacted to the increased financial stress by shifting, for precautionary reasons, assets into more liquid and safer assets. This portfolio rebalancing relates to government guarantees for bank deposits, but it has also been driven by the diminishing opportunity costs of holding more liquid assets due to monetary policy loosening. By contrast, non-financial corporations have had to reduce their liquidity holdings due to worsening profit developments.

Up to February 2009, broad money growth declined to 5.9% year-on-year, down from 7.5% in December 2008 and 12.3% at its peak in

October 2007. The three-month average of the annual growth rate of M3 is currently at 6.5%. Against that, the flow of loans granted to the private sector has moderated considerably. The annual growth rate for loans to the private sector decreased to 4.2% in February, from 5.8% in December. The slowdown is likely to be mainly influenced by demand factors such as the moderation of economic activity and the contracting housing market.[2] Looking at euro-area GDP growth and loan growth to the private sector (Graph 3), the co-movement for the last ten years is striking. The strong slowdown in loan growth in the fourth quarter of 2008 reflects the comparable downturn in GDP growth.

Graph 3: **Private sector loans and real GDP**
(annualised q-o-q growth in %– 1998Q1 to 2008Q4)



Source: EcoWin.

Supply-side factors as measured by banks' credit conditions may also have contributed to the moderation in lending. The January 2009 ECB bank lending survey for the euro area reported a further sharp tightening of credit standards for loans to non-financial corporations and to households – by a similar magnitude as in the third quarter of 2008. Moreover, banks' cost of funds increased and the tightening in non-price terms and conditions remained high, reaching levels similar to those prevailing in 2003.

[2] For determinants of money demand in the euro area, see R. Setzer and G.B. Wolff, 2009, 'Money demand in the euro area: new evidence from disaggregated data', *European Economy, Economic Paper*, No 373; a specific study on housing is C. Greiber, R. Setzer, 2007, 'Money and housing: evidence for the euro area and the US', Deutsche Bundesbank, Discussion Paper 12-2007.

The deceleration in bank lending is now affecting both non-financial corporations and households. Annual growth in lending to non-financial corporations still stands at a high level, with 7.6% year-on-year in February, however, the lending cycle has shifted towards deceleration. The 2 percentage-point monthly deceleration registered between November and December 2008 was the largest since 2000. To a certain extent, however, this figure overstates the slowdown since it is partly attributable to window dressing operations by banks at the end of the year. Monthly flows turned positive again in January. Bank lending to households has been restrained for some time already, largely as a result of the moderate increase in lending for house purchase. Over the 12 months to January 2009, it grew by just 0.7%.

Overall, this suggests that the feedback loop from economic activity on financial markets has materialised. However, there is as yet no clear indication of any immediate drying-up of the availability of loans.

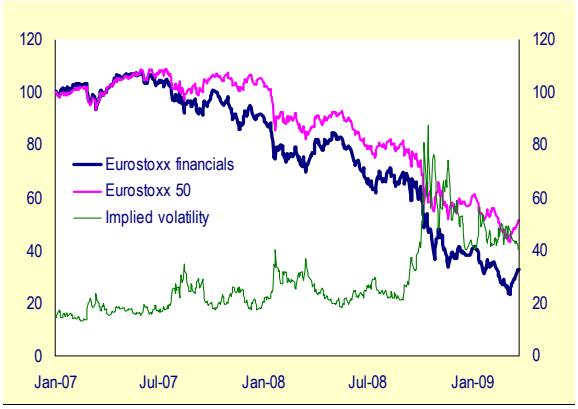
Despite their recent rebound, equity prices are down compared with end-2008

The current bank loan data may be biased somewhat to the upside as alternative sources of funding (in particular equity financing) have dried up. Euro-area equity prices have fallen in the period under review amidst weak data releases for the real economy and disappointing company results (Graph 4). Volatility in stock markets remains very high, reflecting heightened risk aversion amid the ongoing uncertainty surrounding the financial markets and the real economy. As at 25 March 2009, the Eurostoxx50 had declined by 16% in 2009, but had remarkably recovered from its low on 6 March, providing a very tentative sign that the worst of the crisis could be over.

Since the beginning of the crisis, the Eurostoxx sub-index for financial institutions has in general underperformed against the overall index. This negative performance gap has not widened in recent months, suggesting that markets are not expecting a further relative deterioration in the outlook for banking-sector profitability. Still, share prices of financial institutions with significant exposure to Central and Eastern

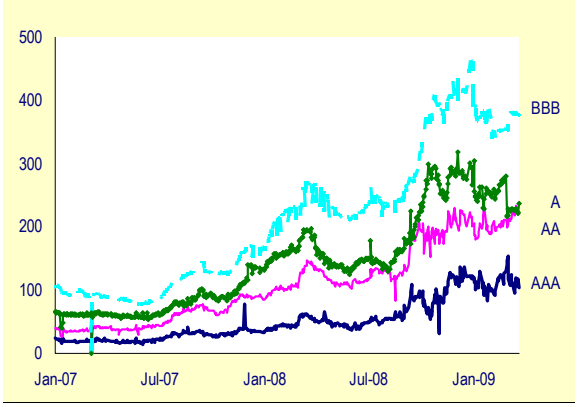
European countries have been particularly affected, as the heavy reliance on short-term foreign funding makes some countries in this region vulnerable to sudden capital stops. Measured in terms of GDP, euro-area banks from Austria, Sweden and Belgium have the largest exposure to the new EU countries and the other European emerging markets.

Graph 4: **Stock prices and implied volatility of stock prices (**Index Jan 2007 = 100 for stock prices, data for 2 Jan 2007 to 25 Mar 2009)



Source: EcoWin.

Graph 5: **Corporate bond spreads, euro area** (in bp, 1 Jan 2007 to 25 March 2009)

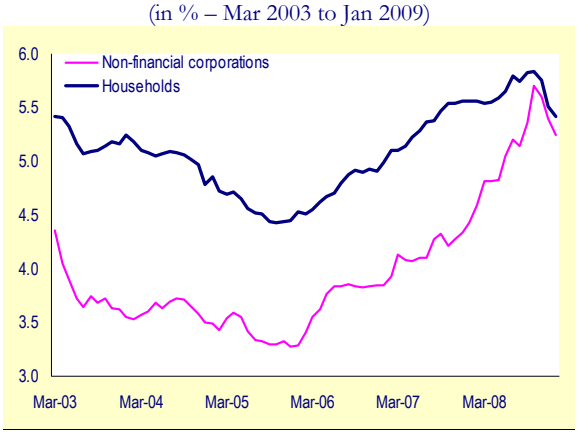


Source: Ecowin.

The fall in demand and the ongoing correction in asset prices put corporations' balance sheets under financial strain and lead to a deterioration in borrowing conditions. Default expectations for the corporate sector have stabilised at peak levels, suggesting that significant concerns over credit quality remain. Yet, corporate bond spreads seem to have reached a ceiling with spreads on the more risky corporate bonds receding moderately in the last two months. On 25 March, AAA spreads were around 104 bp above the government benchmark, and BBB spreads were at 376 bp (Graph 5).

According to the European Commission's Composite Financing Cost Indicator (CFCI), euro-area financing costs for non-financial corporations and households have both declined by more than 40 bp since the peak in October (Graph 6). For non-financial corporations, the declining costs of bank loans and market debt exceeded the rising costs of equity capital due to lower stock prices. For households, the fall in both retail and market interest rates has caused financial costs to decline significantly, offsetting the rise in financing conditions in the previous quarters. As a result, the CFCI for households is currently at its lowest level since July 2007.

Graph 6: **Composite financial indicator, euro area** (in % – Mar 2003 to Jan 2009)



Source: Ecowin.

Restoring the functioning and integrity of financial markets

A stable financial sector is a prerequisite for building sustainable recovery. Last autumn, EU Member States agreed on coordinated European action to recapitalise and guarantee banks across the EU. These measures, together with considerable liquidity injections by the ECB and other EU central banks, prevented the meltdown of the European banking industry and helped to restore some of the liquidity in interbank markets. In particular, the aggregate level of bank capital in the EU increased slightly during the second half of 2008 as government capital injections more than offset asset write-downs.

Table 1: **Euro-area growth components**

	2008 Q1	2008 Q2	2008 Q3	2008 Q4	Carryover to 2009	Forecast (1)	
						2009 (2)	2010 (2)
	Percentage change on previous period, volumes						
GDP	0.7	-0.2	-0.2	-1.5	-1.3	-1.9	0.4
Private consumption	0.1	-0.3	0.2	-0.3	-0.2	-0.1	0.3
Government consumption	0.5	0.9	0.8	0.1	0.7	1.6	1.2
Gross fixed capital formation	1.2	-1.2	-0.6	-3.7	-3.4	-5.5	-0.7
Exports of goods and services	1.6	-0.1	-0.1	-6.4	-5.0	-4.3	1.2
Imports of goods and services	1.2	-0.5	1.3	-4.7	-3.1	-2.6	0.9
	Percentage point contribution to change in GDP						
Private consumption	0.1	-0.2	0.1	-0.2	-0.1	-0.1	0.2
Government consumption	0.1	0.2	0.2	0.0	0.1	0.3	0.2
Gross fixed capital formation	0.3	-0.3	-0.1	-0.8	-0.7	-1.2	-0.1
Changes in inventories	0.1	-0.2	0.2	0.3	0.4	-0.1	0.1
Net exports	0.2	0.1	-0.6	-0.8	-0.9	-0.8	0.0

(1) Annual change in %. (2) European Commission January 2009 interim forecasts.
Source: Commission services.

Nevertheless, confidence has remained low in financial markets. The Commission has presented legislative proposals to improve protection for bank depositors, make credit ratings more reliable, get the incentives right in securitisation markets, and reinforce the solidity and supervision of banks and insurance companies. Adjustments to the accounting rules were rapidly agreed in order to limit excessive pro-cyclicality and put European financial institutions on a level playing field with their international competitors.

Further efforts are needed to clean up banks' balance sheets. To restore confidence, banks with impaired assets should disclose them to the competent authorities. Building on the guidance already given on the application of State aid rules to measures to support and recapitalise financial institutions, the Commission presented a Communication in February to help Member States design measures for dealing with impaired assets. Options include asset purchase ("bad bank"), asset insurance, asset swap and hybrid solutions. It is for the Member State to decide whether or not to use these tools and how they are designed. However, the commission has provided guidance on the basis of a number of principles: i) full transparency and disclosure of impairments prior to government intervention; ii) a coordinated approach to the identification of assets eligible; iii) a coordinated approach to valuation of assets, based on common principles; iv) adequate burden-sharing of the costs between the State, shareholders and the creditors; and v) appropriate restructuring with a view to the long-term viability and normal functioning of the banking industry.

But a common and coordinated European framework, based on the principles of ex ante full transparency and disclosure prior to State intervention, a coordinated approach to the identification of assets eligible for asset relief measures and their valuation, burden sharing and adequate remuneration for the State will help to ensure asset relief measures have the maximum effect. The framework will ensure a level playing field between banks, facilitate compliance with State aid rules, limit the impact on public finances and help prepare for the necessary restructuring of the sector.

Looking ahead, it is important for the EU economy, to ensure that financial markets function efficiently and reliably. The Commission will therefore propose later this years an ambitious reform of the European financial system, which will ensure that all stakeholders and all types of financial instrument are subject to appropriate regulation and oversight. It will be grounded in the values of responsibility, integrity, transparency and consistency.

The downturn in real activity has accelerated and deepened

In the last quarter of 2008, the euro area experienced the sharpest fall in activity since the start of EMU and the worst performance in decades. GDP fell by 1.5% (q-o-q) after having contracted by 0.2% in 2008Q2 and 0.2% in

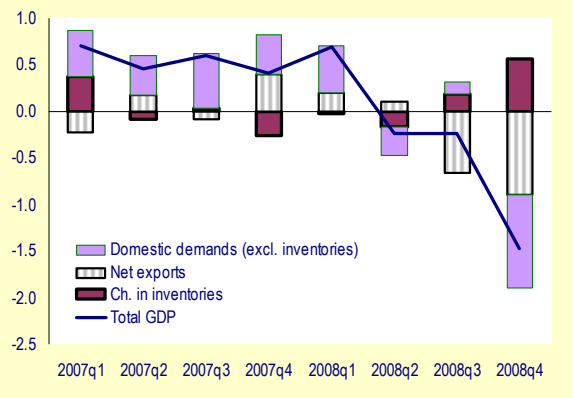
Table 2: **Selected euro-area and national leading indicators, 2008-2009**

	SENT. IND[1)]	BCI[2)]	OECD[3)]	PMI Man.[4)]	PMI Ser	IFO[6)]	NBB[7)]	ZEW[8)]
Long-term average	101	0.00	85.4	52.8	55.0	96.8	-9.5	26.5
March 2008	100.5	0.83	110.4	52.6	53.1	101.2	1.1	-32.0
April 2008	98.1	0.49	110.3	52.8	50.6	98.7	-7.4	-40.7
May 2008	98.5	0.62	110.2	52.3	52.3	98.3	0.0	-41.4
June 2008	95.9	0.21	109.9	52.0	51.6	95.1	-6.4	-52.4
July 2008	90.9	-0.10	109.6	50.7	52.0	90.1	-8.1	-63.9
August 2008	89.9	-0.16	109.2	50.6	50.6	87.4	-5.6	-55.5
September 2008	88.9	-0.67	108.7	49.2	49.1	85.7	-15.8	-41.1
October 2008	81.6	-1.18	108.0	47.4	48.3	78.8	-14.9	-63.0
November 2008	76.8	-1.93	107.2	47.6	48.5	74.1	-27.1	-53.5
December 2008	68.9	-2.95	106.4	45.0	48.4	74.0	-36.5	-45.2
January 2009	67.2	-3.03	105.5	41.1	45.8	79.4	-30.3	-31
February 2009	65.4	-3.51		33.5	39.2	82.6	-36.8	-5.8
March 2009				34.0*	40.1*	83.7	-33.6	-3.5

1) Economic sentiment indicator, DG ECFIN. 2) Business climate indicator, DG ECFIN. 3) Composite leading indicator. 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) ZEW Indicator of Economic Sentiment, Germany
* Flash Estimates

2008Q3. The contraction was broad-based across euro-area countries, with only Cyprus, Greece and Slovakia exhibiting positive growth rates. The magnitude of the contraction was, however quite different depending on the Member States considered. The sharpest falls were recorded in Ireland (-7.1%), Slovenia (-4.1%), Germany (-2.1%) and Italy (-1.8%). In France, GDP fell by 1.2% and in Spain by 1%. In the euro area as whole, all GDP components but inventories and government consumption were down in the fourth quarter, with investment exhibiting the sharpest drop. Changes in inventories surprised on the upside and contributed positively to growth (Graph 7). Destocking could therefore add substantial downside pressures on activity in the first months of 2009.

Graph 7: **Contributions to real GDP growth, euro area**
(q-o-q contributions in pp – 2007q1 to 2008q4)



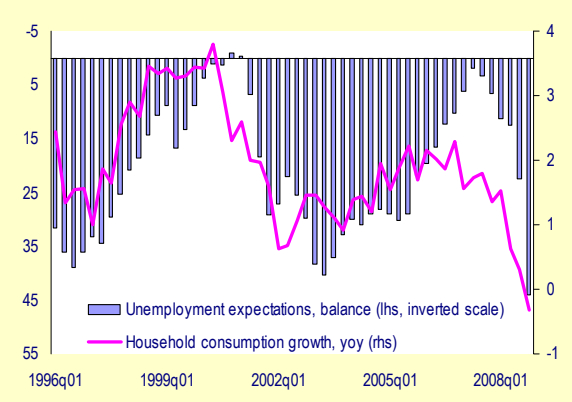
Source: Commission services.

Strong contraction in domestic demand

Household consumption, which had increased slightly in Q3, contracted by 0.3% in the last quarter of 2008, in line with a strong deceleration in consumer credit during that same period. The contraction in consumption reflects deteriorating economic conditions and, particularly, negative developments on the labour market. Job losses in the euro area amounted to 540 000 in 2008Q4 and the unemployment rate increased from 7.5% in the third quarter to 8% in the last quarter of 2008. Data on household savings are not available for the fourth quarter yet but the fact that consumption experienced a smaller contraction than GDP is probably mostly due to a strong fall in consumer price inflation (which pushed consumption by more than 0.5% q-o-q) and some support from household disposable income. The latter benefited from automatic stabilisers and the fact that wages generally respond to a downturn with a significant lag.

Prospects for consumption at the beginning of 2009 appear rather gloomy. Unemployment increased further in January (8.2%) and industrialists' employment expectations have dropped sharply in both industry and the services sector since the end of last year. Consistent with these negative developments, consumer confidence fell to new all-time lows in February, with unemployment expectations increasing again strongly (Graph 8).

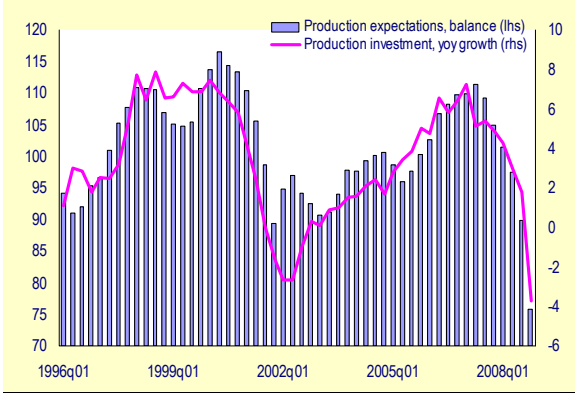
Graph 8: **Household consumption and unemployment expectations, euro area** (1996q1 – 2008q4)



Source: Commission services.

Together with trade, investment was the most important source of demand contraction in the fourth quarter. Gross fixed capital formation contracted by 3.7% (q-o-q); this was the third consecutive negative growth rate. In the third quarter of 2008, the contraction in investment had mainly been the result of the fall in housing investment. In the fourth quarter, the strong investment contraction in 2008Q4 was the result of the combined effect of a fall in housing and productive investment (i.e. mostly business investment). Graph 9 shows a relatively strong correlation between business investment and production expectations in the manufacturing sector. It points to a further sharp contraction in investment during the first months of 2008.

Graph 9: **Business investment and production expectations in the manufacturing sector, euro area** (1996q1 – 2008q4)



(1) Total investment minus residential constructions.
Source: Commission services.

The ongoing slump in business investment is the response of firms to vanishing demand and decreasing profits. Firms are facing falling capacity utilisation. In January, the capacity utilisation in the euro-area manufacturing sector was 75%, the lowest rate since the beginning of the surveys in 1990. Recent falls in interest rates have made it cheaper for euro-area firms to borrow, but the reduced availability of credit and tighter lending conditions are likely to have also contributed to the contraction in investment.

Inventory accumulation added 0.3 pp to GDP growth in the fourth quarter but this comes with downside risks to activity in the months ahead. Rapid inventory built-up at times of sharp GDP contraction suggests that producers have been surprised by the scale of the slump in demand and have accumulated more inventories and unsold goods than usually. The interpretation is also in line with the high level of stocks reported in manufacturing surveys. This means that further larger production cuts will be needed in 2009Q1 in order to bring stocks down.

Hard and soft data point to another strong contraction in 2009Q1

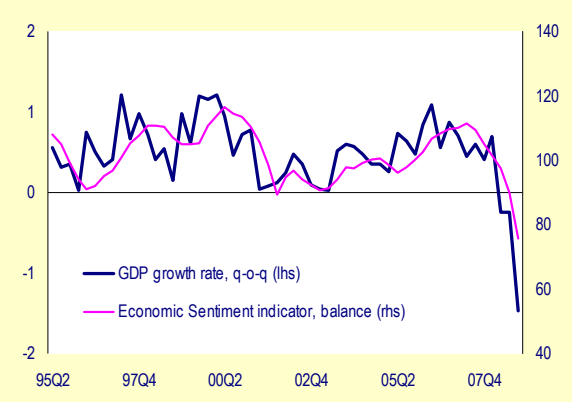
For the euro area, the short-term economic prospects are not encouraging. While some indicators gave some hope of stabilisation in January, the February reading of all survey indicators concurred to show another drop in confidence. In February, the Commission's Economic Sentiment Indicator (ESI) fell again, albeit at a slower pace than in the last months of 2008, and reached another record low. In December, the ESI had already fallen below the trough reached during the 1992-93 recession. The fall in the ESI in February was the result of a general decline in confidence in all sectors, except for retail trade, which improved slightly. The PMIs for both manufacturing and services in the euro area fell again in February, reaching new record lows.

More recently, some indicators have begun to improve very modestly. The Flash estimate for March shows a slight increase in the PMIs for both manufacturing and services although the indexes remain close to their February trough. The IFO index eased again in March. But while the assessment of current conditions declined

further, business expectations rose for the third consecutive quarter. These improvements are obviously positive but further data will be needed before concluding that the economy is stabilising.

The ESI level for January and February is consistent with a contraction in growth of -1.0% in the first quarter of 2009. The ESI has generally been a good GDP growth tracker (Graph 10). However, a gap seems to have opened lately between what confidence indicators suggest and quarterly GDP growth. For example, in 2008Q4, the ESI was consistent with a q-o-q GDP contraction of 0.6%, far from the -1.5%. This could be explained by the fact that the ESI is currently at unprecedented low levels and that the familiar linear relation between the two variables no longer holds good in the current circumstances. Therefore, downside risks to the estimated 2009Q1 growth rate are quite high. These risks are confirmed by the first 2009 reading of industrial production. In January, the speed of contraction of industrial output accelerated further, with a drop of 17.3% compared to a year before. This was the fifth consecutive negative growth rate. Judging by these figures, the pace of GDP contraction in 2009Q1 could be substantially larger than predicted by the ESI.

Graph 10: **GDP growth and the Economic Sentiment Indicator, euro area** (in % – 1996q2 – 2008q4)



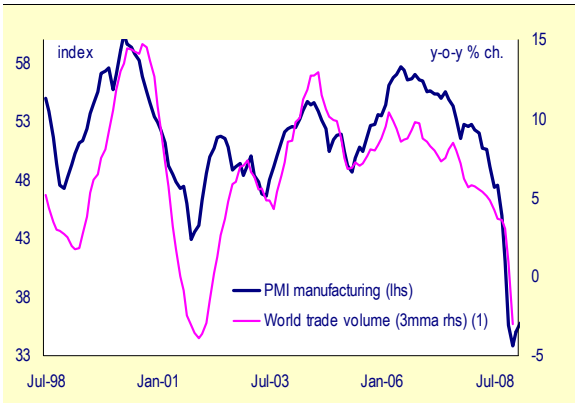
Source: Commission services.

Rapidly deteriorating global trade

The global economy deteriorated significantly in 2008Q4. Major advanced economies contracted sharply: the US GDP fell by 1.6% (q-o-q) and the Japanese by 3.3%. The collapse in global commodity prices and the sharp decline in external demand have started to weigh heavily on emerging economies. In China, q-o-q GDP growth decelerated to 6.8% in 2008Q4, after 9% in the third quarter. In Korea, GDP contracted by 5.6% in 2008Q4 and in Brazil by 3.6%.

The rapidly deteriorating global economy has severely affected international trade (Graph 11). According to estimates by the Netherlands Bureau of Economic Analysis, world trade contracted strongly in the fourth quarter (-6% q-o-q) after moderate but still positive growth in the third quarter (2.1%). This was the largest q-o-q contraction in the history of this series. Among the main industrialised economies, exports contracted by 15.2% (q-o-q) in Japan and by 10.8% in the US. Emerging economies also experienced a large drop in their exports (5.8%). The decline in volume was accompanied by a fall in USD trade prices of more than 16% (q-o-q) following the strong fall in commodity prices, in global demand and the appreciation of the USD.

Graph 11: **World trade and PMI** (July 1998 to December 2008)



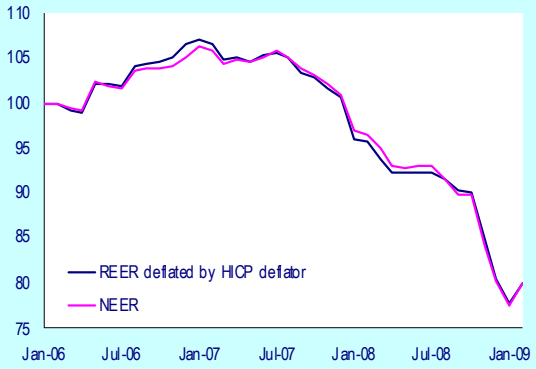
(1) World trade data cover the period Jul.1998 to Dec. 2008.
Source: CPB Netherlands Bureau of Economic Policy Analysis and Reuters.

In the euro area, exports and imports also collapsed in the fourth quarter (-6.4% q-o-q and -4.7% respectively), leading to a negative contribution to GDP growth of 0.8%. While the contraction in trade was broad-based across countries, there were large differences in the declines in exports and imports and the trade performance played an important role in the variation of GDP growth outcomes across Member States. It explains, for instance, the large

Box 1: Impact of the depreciation of the UK pound on the euro area economy

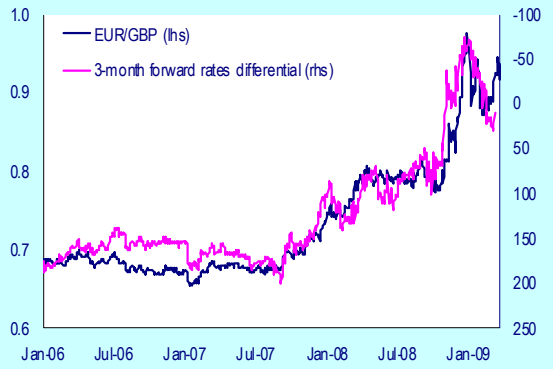
The British pound has been one of the major currencies most negatively affected by the global deleveraging flows since the onset of the financial market crisis. The pound's real effective exchange rate depreciated by 20% in 2008 and by 23% since July 2007. Against the euro, the fall has been even stronger: The euro rose to a record high of 0.98 against the pound on 30 December 2008, up from 0.73 a year ago (+34%). Half of the pound's depreciation occurred in December 2008. The key factors underpinning the broad-based weakness of the pound were related to concerns about the United Kingdom's twin deficit (a large trade deficit coupled with a growing budget deficit, including large contingent liabilities), fears that the recession in the United Kingdom will be deeper than in other advanced economies, and sharp interest rate cuts by the Bank of England. In 2009, speculation about whether the euro-pound rate could reach 1.00 has faded. The euro-pound rate has remained volatile, but declined to 0.93 (25 March).

REER and NEER of the UK Pound vs 41 countries
(Jan 2006 to Feb 2009, Jan 2006 = 100)



Source: Ecowin.

EUR/GBP and interest rate differential
(daily data, interest rate differential in basis points)



Source: Ecowin.

There are three potential channels of transmission by which the sharp pound depreciation exerts an impact on the euro-area economy. The first relates to a change in international price competitiveness. The UK is an important trading partner for the euro area, receiving 15.3% of all extra-euro-area exports of goods. The UK, in turn, is the source of 11.3% of euro-area imports (data as at 2007). Estimated export and import equations for the euro area suggest that the pound's depreciation since the end of 2006 might lead to a 1% drop in the level of total euro-area exports compared to the baseline after one year and a 1.25% drop after two years. The exchange rate elasticity of euro-area imports is considerably lower than for exports. The pound's depreciation will therefore only entail a 0.3-0.35% increase in extra-euro-area imports. At Member State level, Ireland is by far the country most exposed to UK trade flows, but also Cyprus, Malta, the Netherlands and Belgium have a sizeable part of their trade with the UK.

Second, the pound's depreciation exerts some downward pressure on consumer prices via reduced import prices. In the current low-inflation environment, the degree of exchange rate pass-through to prices is, however, likely to be minor since price adjustment costs could prevent small changes in prices. Moreover, the bulk of the euro area-UK trade is in highly differentiated manufactured products for which the exchange rate pass-through is generally assumed to be lower than for homogenous products, such as primary commodities. These considerations are also in line with the recent development in UK export prices, which have reacted only sluggishly to the sharp pound depreciation.

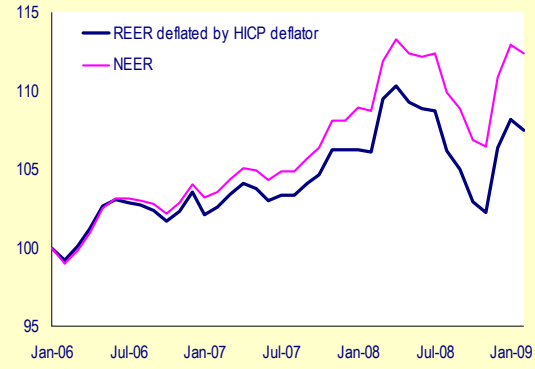
The third transmission channel operates though the balance sheets of the euro-area corporate sector. Euro-area investors have invested heavily in the UK. An appreciation of the euro vis-à-vis the pound results in a loss of value of these investments as well as in the revenue stream from these investments. Euro investors held 3 027 bn euro of assets (FDI, portfolio and other assets) in the UK as at 31 December 2006.* This amounted to 52% of total foreign holdings of UK assets (compared to 24% for the US). The 20% appreciation of the euro against the pound from the end of 2006 to March 2008 could then have led to substantial wealth losses of around 600 bn euro. It should be noted, however, that euro-area investors can hedge against the risk of pound depreciation and thus the valuation losses could be less than proportional to the total depreciation of the pound against the euro.

* See UK Statistics authority, 'The pink book', 2008.

difference in growth between Germany and Spain in 2008Q4. The main causes of the strong deterioration in international trade were evidently the fall in global demand, but also the drying-up of trade financing and, possibly, high exchange rate volatility.

Exchange rate developments in recent months have indeed been marked by high volatility and sudden trend reversals. With the financial, economic and fiscal outlook deteriorating further worldwide, repatriation and flight to safety flows have risen again in 2009. In February, the effective exchange rate of the euro against its 41 major trading partners stood about 5% above its value in November 2008 (Graph 11). In real effective terms, i.e. taking into account inflation differentials between the euro area and its trading partners, the effective exchange rate of the euro has increased by 6% in the last three months. The real effective exchange rate of the euro is currently some 7% above historical averages.

Graph 12: **Nominal (NEER) and real (REER) effective exchange rate of the euro**
(Jan 2006 to Feb 2009, index Jan 2006=100)



Source: EcoWin.

The rise in the external value of the euro in the last quarter is the result of significant movements in the bilateral exchange rates of the euro against the world's major currencies. The euro appreciated significantly against the British pound (see Box 1 on the 'Impact of the depreciation of the UK pound on the euro-area economy') and the new EU Member States with a flexible exchange rate system as sentiment towards Eastern European countries has turned negative due to collapsing exports and the drying-up of capital inflows. By contrast, the euro depreciated against the US dollar in 2009 (by 3% up to 25 March 2009) amid the rapid scaling down of prospects for the euro-area economy, the lowering of euro-area policy interest rates, credit rating downgrades of some euro-area sovereigns and spill-over effects from Eastern European difficulties. More recently, there have, however, also been downward pressures on the US dollar due to increasing concerns about the sustainability of the currency, in particular since the Federal Reserve announced its programme of asset purchases including treasuries.

Looking ahead, developments in trade are not expected to improve in the very near future. The latest World Economic Survey, for example, showed further deterioration in February mainly due to a worsening of assessments of the current economic situation. On a slightly more upbeat note, however, a few indicators have recently begun to send more positive signals while remaining close to their all-time troughs. In February, both the expectations component of the World Economic Survey and the Global Manufacturing PMI improved somewhat while remaining in contraction territory. The Baltic Dry Index, another leading indicator of global trade activity, also increased slightly in February and March. It is clearly much too early to tell whether these modest improvements presage some kind of stabilisation in the global economy.

Another steep decline in inflation

Weaker domestic and external demand accompanied by falling energy and food commodity prices has led to a steep decline in inflation in the euro area. Headline HICP inflation came down sharply to 2.3% in the last quarter of 2008, down from 3.8% in Q3. It decelerated further at the beginning of 2009, reaching 1.1% in January before picking up slightly to 1.2% in February. The steep decline in annual inflation in recent months is partly due to the 'unusually' strong price increases experienced a year ago, which constitute the point of

Box 2: Accounting for the impact of base effects on current and future inflation developments

Developments in the annual inflation rate depend on both current and past price developments. The change in annual inflation between month t-1 and month t can be approximated by the following expression:

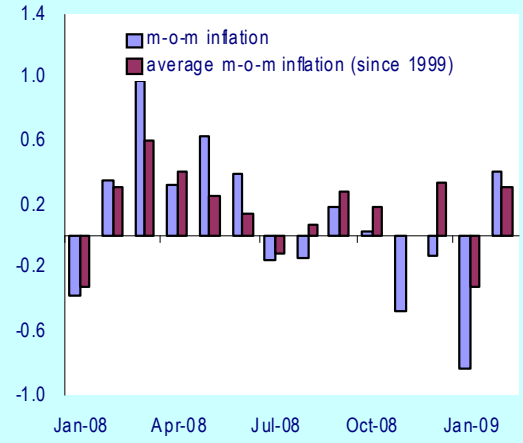
$$\pi_t - \pi_{t-1} = \mu_t - \mu_{t-12} \ ,$$

with $\mu_t = [\ln P_t - \ln P_{t-1}] \times 100$,

where π, μ and P are annual inflation, monthly inflation and the price index respectively*. The first term on the right-hand side is thus month-on-month inflation in month t, which is added to the annual inflation rate of month t-1, while the second term corresponds to the month-on-month inflation a year earlier (i.e. between month t-12 and t-13), which drops out from the year-on-year price level comparison in month t. This latter term is the so-called base effect. This equation highlights two relevant points: 1) fluctuations in the annual inflation rate can be attributed either to current price developments (i.e. between t and t-1) or to past price developments (i.e. between t-12 and t-13). In particular, strong price level growth between consecutive months a year earlier, implying that $\mu_t < \mu_{t-12}$, will cause annual inflation to fall. A 'low' – and possibly negative – rate of inflation can thus be the result of 'low' m-o-m inflation in the current month or 'high' m-o-m inflation a year earlier; 2) in month t, the 'base effect' is known for the next 12 months, as the current m-o-m inflation will become next year's base effect. The current January 2009 m-o-m inflation will thus become the base effect of the January 2010 annual inflation.

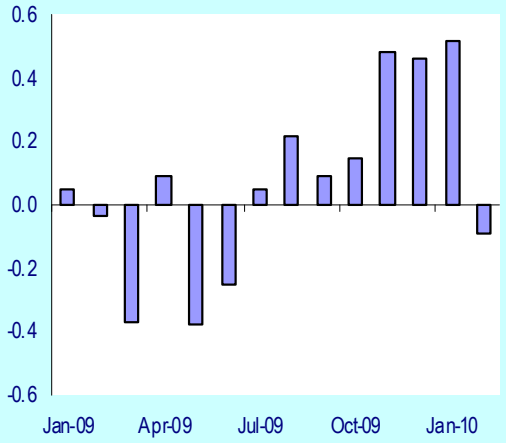
Base effects can be considered to be 'strong' if they reflect some 'unusual' price changes in a given month. There are various techniques to identify deviations from the 'usual' m-o-m rate change. In this analysis, the 'usual' m-o-m inflation is defined as the average m-o-m price change for each calendar month, observed since 1999. The difference between the non-seasonally adjusted m-o-m inflation rate and this average then constitutes the part of the base effect that entails the fluctuations in the annual inflation rate. The left graph below shows the evolution of m-o-m inflation between January 2008 and February 2009 as well as the average m-o-m inflation for each calendar month. It illustrates quite clearly that m-o-m inflation between March and June 2008 was exceptionally high (due to rising food and energy prices). The graph on the right shows that this upward deviation will have a strong downward impact in the form of negative base effects on the y-o-y inflation one year later, i.e. between March and June 2009. With a low initial level of inflation and m-o-m price changes close to their usual level, this implies that inflation rates may become negative during that period. Conversely, m-o-m inflation was unusually low in the second part of 2008, as food and energy prices came down sharply. Consequently, base effects will have a positive effect on y-o-y inflation from July 2009 onwards that will become particularly strong towards the end of the year.

Euro-area m-o-m inflation
(in % – Jan 2008 to Feb 2009)



Source: Commission services.

Contribution of base effects to euro-area HICP inflation (in pp – Jan 2009 to Feb 2010)



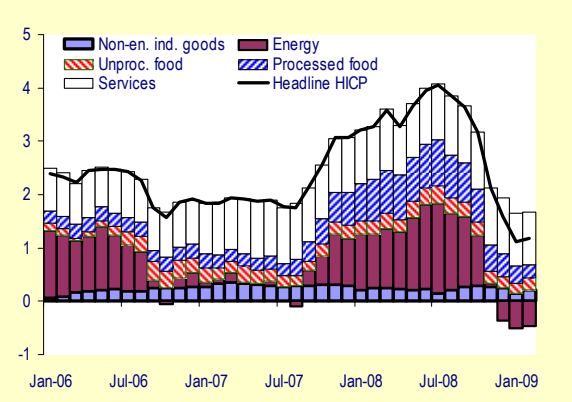
Source: Commission services.

*see ECB Monthly Bulletin, January 2005 (Box 3) for a more detailed presentation.

reference for measurements of the annual price growth. The negative contribution to the inflation rate of these so-called base effects will last for some months, possibly implying some months of negative inflation rates, before adding again to inflation as of summer 2009 (see Box 2).

The decrease in inflation observed in the second half of 2008 mainly reflects a sharp drop in commodity prices. Energy inflation stood at 17.1% in July 2008 and subsequently plunged to -4.8% in February 2009, a development that can be attributed to the fall in oil prices. The price of a barrel of Brent crude oil plummeted from a high of USD 134.7 (EUR 85.4) on average in July 2008 to USD 43.6 (EUR 34.1) in February. Processed and unprocessed food price inflation also fell during the two last quarters of 2008 from their peaks of July 2008 (7.2% and 4.4% respectively). Figures for January and February 2009 show that this downward trend continued at the beginning of the year, with processed and unprocessed food inflation at 1.9% and 3.2% respectively.

Graph 13: **Euro-area HICP inflation: composition**
(in % – Jan 2006 to Feb 2009)

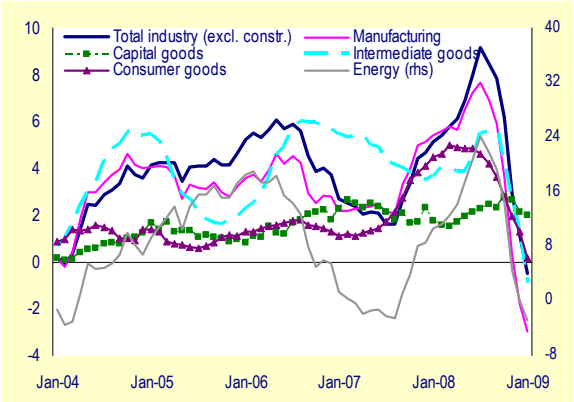


Source: Commission services.

Inflation in non-energy industrial goods and in services remained stable at around 0.8% and 2.6% respectively throughout all four quarters of 2008. Accordingly, some price aggregates capturing core inflation, such as HICP excluding energy and unprocessed food, and the trimmed mean, remained quite stable throughout 2008 even if a slight deceleration can be seen in the last quarter of the year. In February, annual growth in the two price aggregates was 1.7% and 2.3% respectively.

The euro-area inflation pattern in 2008 is mimicked in the individual Member States and, compared to the previous year, annual inflation in February 2009 was lower everywhere. Over the past year, inflation has declined by more than the euro-area average of 2.1 percentage points in eight euro-area Member States (Ireland, Greece, Spain, France, Cyprus, Luxembourg, Portugal and Slovenia). In February, the highest annual inflation was registered in Slovakia (2.4%), Finland (2.7%) and Malta (3.5%). The lowest annual inflation rates were recorded in Ireland and Portugal (both 0.1%), and Cyprus (0.6%).

Graph 14: **Producer prices on the domestic market, euro area**
(y-o-y changes in %, Jan 2004 to Jan 2008)



Source: Commission services.

As far as the supply side is concerned, producer prices in the euro area increased by an average of 6.1% during 2008, with a peak of 9.1% in July and a low of 1.2% in December. The producer price index fell by 0.5% in January 2009 (y-o-y) The variation observed over the course of 2008 essentially reflects changes in energy prices. The energy producer price sub-index increased by 17.4% in Q2 and 21.7% in Q3, before decelerating to 6.3% in Q4. The worsening of the economic climate also induced falls in manufacturing and intermediate goods price inflation towards the end of 2008. Manufacturing price inflation fell from 7.3% in July to -3% in January, while intermediate goods price inflation fell from 5.5% to -0.9% over the same period.

The fiscal policy response is being put in place

Against the background of a rapid deterioration in economic activity, another priority of the EU policy response to the crisis – on top of restoring the functioning of financial markets – is to provide adequate macroeconomic support to uphold demand. In December 2008, acting on proposals from the Commission, EU governments adopted an ambitious European Economic Recovery Plan (EERP) consisting of two pillars: a major fiscal boost aimed at reviving demand and a set of structural reforms aimed at directing short-term action to bolstering Europe's adjustment capacity and competitiveness.[3]

The full impact of the EERP will only become visible in the coming months, but the early signs are encouraging, in terms of both the volume of the stimulus and the direction of reforms. Most Member States have now adopted or announced fiscal stimulus measures. Overall support as measured by the increase in government debt amounts to 2.8% of GDP over the period 2009 and 2010. This figure does not include purchases of assets from the financial sector in connection with the bank rescue packages. A large part of the fiscal support comes from the operation of automatic stabilisers, which are particularly strong in the EU. But it also comes from a discretionary fiscal stimulus of about 1.2% of GDP. A further 0.3% of GDP has been made available from EU sources. Overall, the total fiscal support to the EU economy in 2009 will be larger than at any time since the 1970s.

Most of the Member States' measures are well targeted to stimulate demand: support for households, business and employment, public investment and the modernisation of infrastructure. At the same time, most of the measures are consistent with the longer-term objectives identified in the country-specific recommendations under the Lisbon strategy for growth and jobs – such as building Europe's knowledge base, boosting energy security and adapting to a low-carbon economy. A comparison of policy responses across Member States shows significant differences, reflecting, at least in part, differences in Member States' respective economic and budgetary conditions. In particular, countries with large deficits and sizeable risk premiums on their sovereign debt have not gone in for sizeable fiscal stimulus packages.

The EERP called for the stimulus measures to be timely, temporary and targeted. With a large part of these measures taking effect in 2009, the timeliness of the budgetary stimulus at political level appears to have been ensured. However, beyond any political decisions, the measures adopted are subject to implementation lags and further time will elapse before economic agents fully adjust their behaviour.

Regarding structural reforms, Member States started to adjust priorities in response to the economic slowdown. Action generally centres on areas highlighted as potentially relevant in the EERP (e.g. improving active labour market policies and training) and appears to be in line with priorities under the Lisbon Strategy for Growth and Jobs. In particular, Member States are looking at a variety of measures to improve access to credit for businesses (e.g. credit guarantees) or to bolster their working capital (e.g. temporary deferrals of tax payments, reducing payment delays by the public sector).

Moreover, Member States in general are paying attention to the design of structural reform measures with a view to optimising their impact and avoiding distortionary side-effects. For example, measures related to tax and benefits systems are often targeted at the lower end of the wage scale, which is likely to maximise their short-term impact on demand and is compatible with ensuring appropriate incentives to work over the longer term. There is no apparent indication of rolling back past reform measures or repeating previous policy errors, such as widening access to early retirement schemes.

[3] See 'A European Economic Recovery Plan', Quarterly Report on the Euro Area, Vol.7 No 4 (2008) for more details.

Special report

II. Competitiveness developments within the euro area

This special report provides a comprehensive review and assessment of competitiveness developments in the euro area since the launch of the euro in 1999. Over that period, the euro area has experienced significant divergence in the external economic performance of its individual Member States. This trend has been particularly conspicuous for competitive positions as measured by real effective exchange rate indicators. Some Member States have seen significant falls in their domestic prices vis-à-vis the rest of the euro area while others have registered sharp rises. The diverging trend has also been visible in a steady widening of the differences in Member States' current account positions. The dispersion of current account balances within the euro area has increased steadily since the mid-1990s and is now at an all-time high.

The divergence in competitiveness and current accounts can be ascribed to a range of factors. Some of them reflect the normal functioning of the euro-area economy. For example, changes in price competitiveness partly reflect cross-border convergence in the price level of tradable goods, Balassa-Samuleson effects and a healthy response to cyclical differences between Member States. Similarly, the euro has facilitated the divergence in current accounts by giving euro-area catching-up economies better access to international capital markets and allowing them to run larger trade deficits than in the rest of the OECD.

However, this divergence trend also has less benign causes which warrant close monitoring. Differences in price competitiveness have been partly driven by an inappropriate response of wages to country-specific shocks in some Member States. As for current accounts, the divergence trend also reflects the build-up of domestic imbalances in some Member States. These imbalances, which are mostly linked to excessive domestic demand pressures, include high private sector and external debt, a surge in house prices and increased vulnerability to abrupt changes in financial market conditions. Furthermore, although catching-up economies in the euro area have benefited from large capital inflows, foreign capital has not always been channelled to the most productive uses. Finally, in some Member States, the deterioration of current account positions can in part be traced back to substantial losses in non-price competitiveness.

Adjusting to these external imbalances will not only involve cuts in production costs and prices in the export sector, it will also imply changes in the domestic part of the economy concerned. It particular, there will be a need for a reallocation of demand and productive resources between the sheltered sector and the export sector and for changes in relative prices between these two sectors. The speed and the economic cost of the adjustment will therefore depend both on the degree of price and wage flexibility and on the ease with which resources can be reallocated across sectors in the countries considered.

The ongoing financial turmoil seems to be speeding up adjustment to external imbalances within the euro area but it is only doing so partially and at a high cost. According to the most recent forecasts, some moderate convergence in current accounts should take place in 2009-10 as the financial turmoil forces the correction of some of the domestic imbalances that underlie external imbalances. However, the convergence in current accounts is taking place with only limited rebalancing in price competitiveness and will therefore come at a high cost in terms of underutilisation of labour and capital.

This special report reviews and analyses divergences in competitiveness among euro-area Member States since the launch of the euro. The economic literature does not provide a single and commonly-agreed definition of competitiveness. The concept sometimes relates to a country's capacity to attract foreign investment or to its long-term growth performance and its technological potential. In this report, competitiveness should be understood in a more traditional macroeconomic sense and in close connection with a country's external performance and its capacity to sell its output on the world market. The report therefore reviews developments in Member States' price and cost competitiveness together with changes in their current account positions, net foreign asset positions and export market shares.

The European Commission's extensive review of the first 10 years of the euro, published last year,[4] showed that there is a need to broaden surveillance in Economic and Monetary Union beyond budgetary issues in order to address macroeconomic imbalances, including external

[4] See European Commission – DG ECFIN (2008), 'EMU@10: Successes and challenges after 10 years of Economic and Monetary Union', European Economy 2/2008.

imbalances at an early stage. Due to spill-over effects and the growing interdependence of euro-area economies, macroeconomic imbalances within a Member State are a concern not just for the country in question but also for the euro area as a whole. There is therefore a need to monitor divergences in competitiveness and current accounts within the euro area in order to assess the extent to which they reflect the build-up of underlying imbalances which could prove to be costly to resolve both for the countries concerned and for the rest of the euro area.

The report is structured as follows. Section 1 presents key stylised facts of Member States' external performance since the launch of the euro. Section 2 reviews the causes of observed divergence in competitiveness and current accounts within the euro area. Section 3 discusses differences between harmful and benign developments in external performance in order to identify scope for policy intervention. Section 4 provides a quantitative assessment of necessary price adjustments within the euro area. Section 5 examines the impact of the financial turmoil on external adjustment in the euro area and Section 6 concludes.

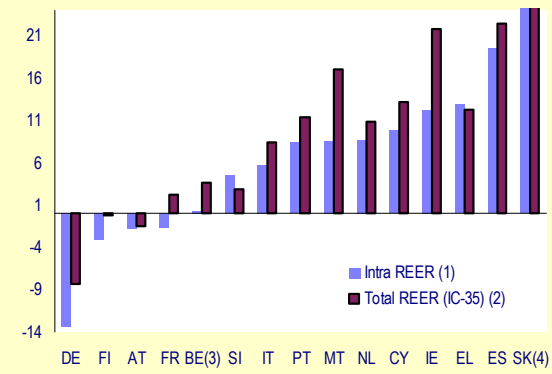
1. *Rising divergence of Member States' external performance*

Steady divergence in price competitiveness...

Since the launch of the euro, the euro area has experienced significant divergences in its Member States' price and cost competitiveness as measured by real effective exchange rates (REER). This is true both for indicators of intra-area REER - for which a Member State's competitiveness is assessed relative to its euro-area trading partners - and for indicators of total REER - for which the reference group of trading partners is larger than the euro area (Graph 15).[5]

The current level of divergence in competitiveness does not appear extremely large by historical standards but its persistence does. Based on standard measures of dispersion, episodes of higher divergence in REER were observed before the launch of the euro, particularly in the 1970s and 1980s. Nevertheless, these episodes were generally associated with high inflation and followed by nominal exchange rate realignment. Since the launch of the euro, changes in intra-area competitive positions have tended to be slower, but steady and increasingly persistent. As shown in Graph 16, the average autocorrelation coefficient of the REER – i.e. the extent to which the REER is determined by its past values – reached a peak in 2007 and has remained historically high since.

Graph 15: **Changes in REER (intra and total), euro-area Member States** (in % - 1998 to 2008)



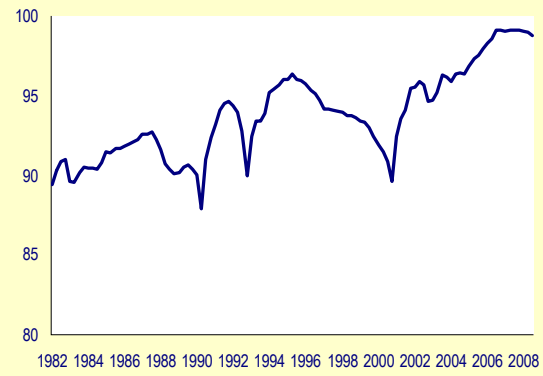
(1) REER (GDP deflator) against other EA countries (EA 16).
(2) REER (GDP deflator) against other industrial countries (35).
(3) Belgium + Luxembourg.
(4) SK is off scale. True rise in REER is 68% (intra), 61% (IC35).
Source: Commission services.

Based on intra-area measures of the REER, three groups of countries can be distinguished.

- Some Member States have improved their price competitiveness vis-à-vis the rest of the euro area since 1999 (mostly DE, but also FI, AT and FR).
- Others have maintained their competitive position at a broadly stable level compared with the euro-area average or incurred limited competitiveness losses (BE, SI, IT).
- The remaining Member States have experienced a more substantial deterioration in their price competitiveness, with particularly sharp losses in four countries (IE, EL, ES and SK).

[5] REER indicators compiled by the European Commission are available for groups of 26, 35 and 40 trading partners. http://ec.europa.eu/economy_finance/db_indicators/db_indicators8642_en.htm.

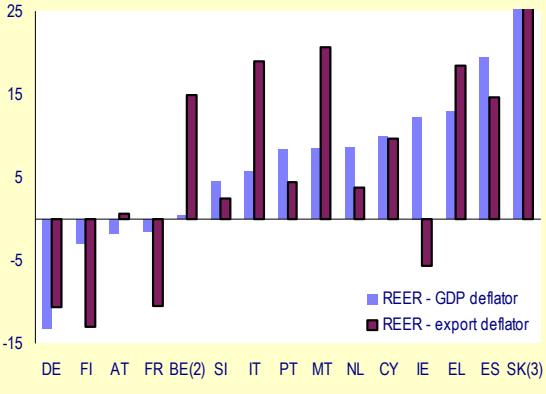
Graph 16: **Average persistence of the intra-area REER, euro-area Member States** (1)
(in % – 8-year rolling window – 1982Q1-2008Q3)



(1) Based on EA 12 data. Persistence measured by the average first-order autocorrelation of countries' REER based on GDP deflator.
Source: Commission services.

The competitiveness ranking remains broadly similar if, instead of intra-euro-area REER measures, it is based on measures that also encompass price and exchange rate developments outside the euro area. However, reflecting different currency exposure outside the euro area, a few Member States, such as Ireland and Malta, show significantly stronger real appreciation when non-euro-area trading partners are also considered.

Graph 17: **Changes in the intra-area REER (broad and narrow measures), euro-area Member States** (1)
(in % – 1998 to 2008)



(1) REER against other euro-area Member States (EA 16).
(2) Belgium + Luxembourg..
(3) SK is off scale. True rise in REER is 68% (GDP deflator), 48% (export deflator).
Source: Commission services.

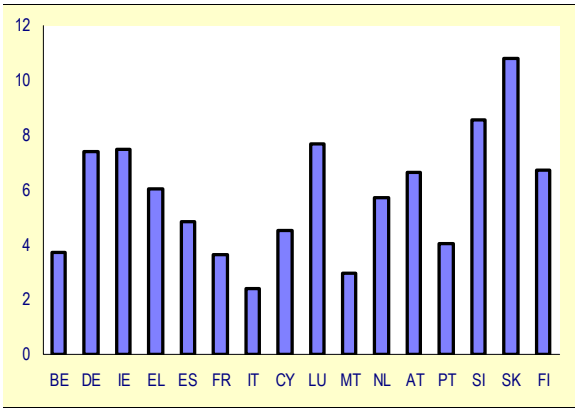
On the whole, the country grouping also holds for a range of broad measures of the REER, i.e. measures based on indices of costs or prices that cover the entire economy, such as unit labour costs or GDP deflators. However, it differs significantly for narrow measures of the REER, i.e. those based on prices in specific segments of the economy, such as export prices or manufacturing prices. For example, some Member States post a much better competitiveness performance with the export-based REER than with the broad measures (IE, FR, SK, FI) while the opposites holds true for other Member States (BE, IT, MT) (Graph 17). The differences between broad and narrow measures reflect sharp movements in relative prices within the countries concerned and in particular changes in the relative prices of tradable and non-tradable goods and services.

… coupled with losses in export market shares…

Divergence in price and cost competitiveness has gone hand in hand with divergence in export performance. Some Member States have benefited from a surge in exports of goods and services over the past ten years, with annual growth averaging 7-8% or more (DE, IE, LU, SI, SK). In contrast, other Member States have posted a rather dismal export performance, with average annual growth in the 2-4% range (BE, FR, IT, CY, MT, PT) (Graph 18).

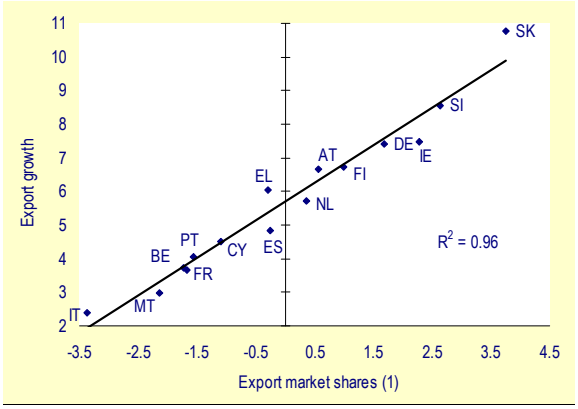
To some degree, this disparity reflects differences in geographical specialisation, with some Member States being better positioned in traditionally fast growing export destinations such as Eastern Asia or Eastern Europe. Geographical specialisation, however, can only explain country differences in annual export growth of up to 1 or 2 percentage points. The heterogeneity is therefore mostly attributable to differences in market share developments. There has been indeed a very strong cross-country correlation between gains in export market shares and export growth over the past decade (Graph 19). Some countries have lost considerable market shares and posted sluggish export growth over the past decade (BE, FR, IT, MT, PT) while others have been much more successful (DE, IE, SI, SK) on both counts.

Graph 18: **Exports of goods and services, euro-area Member States (**average annual growth in % – 1999-2008)



Source: Commission services.

Graph 19: **Exports market shares and export growth, euro-area Member States**
(average annual growth in % – 1999-2008)

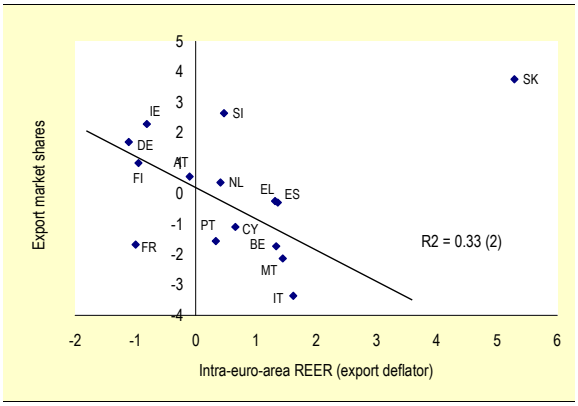


(1) The export market share variable is an index calculated by comparing exports from the country considered to import demand in its main trading partners.
Source: Commission services.

Disparity in trade performance has been compounded by significant differences in non-price competitiveness. Non-price competitiveness is not a simple concept lending itself to easy measurement. From the broad macroeconomic perspective adopted here, it can be viewed as the sum of all factors other than prices and costs that impact on trade performance (e.g. product quality, the efficiency of sales networks, industry specialisation, etc.).

One way of getting a sense of the relative importance of price and non-price competitiveness is to look at apparent price elasticities of export demand. A low elasticity can be interpreted as evidence of strong non-price competitiveness. Graph 20 relates export market shares to the real effective exchange rate of euro-area countries over the period 2003-2007. The graph shows a significant correlation between the two variables, suggesting that differences in price competitiveness go a long way in explaining differences in export performance within the euro area. However, the chart also includes clear outliers. Some Member States have clearly benefited from strong non-price competitiveness over the past decade (DE, SI, SK) while the opposite holds true for others (FR, IT). In all these Member States, factors other than costs and prices seem to have been instrumental in driving export performance in recent years.

Graph 20: **Export market shares and intra-REER, euro-area Member States**
(average annual growth in % – 1999-2008) (1)



(1) The export market share variable is an index calculated by comparing exports from the country considered to import demand in its main trading partners.
(2) R-squared and correlation line are for the EA excl. SK.

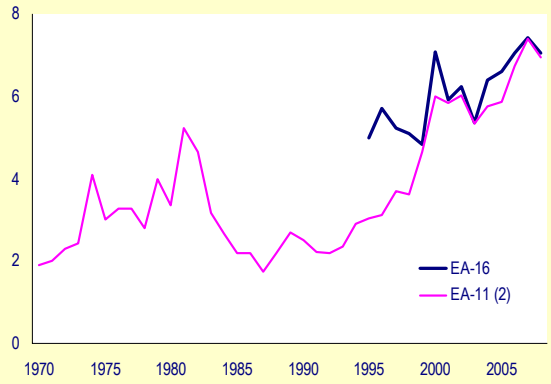
Source: Commission services.

… and large differences in current accounts and external asset positions

Divergence in price and cost competitiveness has also been associated with a steady widening of current account differences within the euro area. The dispersion of current account positions across euro-area Member States has increased continuously since the mid-1990s and is now at an all-time high (Graph 21).

Some Member States now post large surpluses (DE, LU, AT, NL, FI) while others post large or very large deficits (primarily EL, ES, PT and CY but also IE, MT, SI, SK) (Graph 22). These positions have mostly built up since the launch of the euro, although some countries entered Stage 3 of EMU with an already sizeable deficit (EL and, above all, PT). A few countries have experienced significant drops in their current account in recent years although their balance remains in surplus or in comparatively moderate deficit (FR, IT and BE).

Graph 21: **Dispersion of current account positions, euro-area Member States** (1)
(standard deviation in % – 1970-2008)

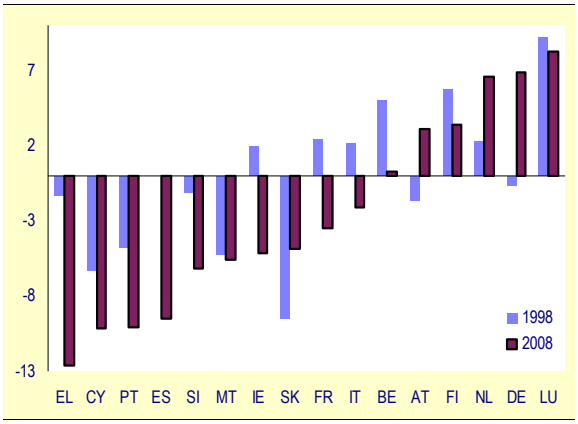


(1) Dispersion is measured by the standard deviation of the balance of current transaction of individual Member States (in % of GDP).
(2) EA excluding CY, LU, MT, SI and SK.
Source: Commission services.

Increasing current account deficits is not a purely euro-area trend and has been observed in a number of advanced economies over the past decade. However, there appears to be a euro-area dimension to this phenomenon: although current account deficits have also climbed substantially in the US, Australia and New Zealand, these have been well below the levels reached in Greece, Spain and Portugal.

In addition to a historically high level of dispersion of current account positions in the euro area, the divergence in current accounts observed in recent years has also been remarkable in terms of its persistence. While large surpluses or deficits were occasionally registered in the 1970s and 1980s, they tended to be rather brief.

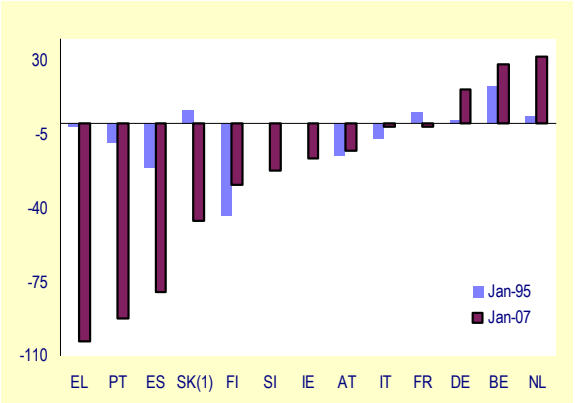
Graph 22: **Current account positions, euro-area Member States** (in % of GDP – 1999 to 2008) (1)



(1) Net lending and borrowing from national accounts for all Member States except LU (bal. of current transactions).
Source: Commission services.

The counterpart to the accumulation of large current account deficits in some Member States has been the build-up of large negative net foreign asset positions (NFA) (Graph 23). In 2007, Spain, Portugal and Greece posted net external liabilities ranging between 80 and 100% of GDP, levels which may be considered as high relative to those reached in other indebted OECD countries. Slovenia and Slovakia have also registered a rapid fall in their NFA in recent years, although their external liabilities still remain well below those recorded in Spain, Portugal and Greece. A few euro-area countries also enjoy comfortable positive NFAs (BE, DE and NL), but the orders of magnitude involved (15 to 30% of GDP) are much lower than in the case of countries with large external liabilities.

Graph 23: **Net foreign asset positions, euro-area Member States** (1) (in % of GDP – 1995-2007)



(1) 2006 data for SK. ***Source:*** Commission services.

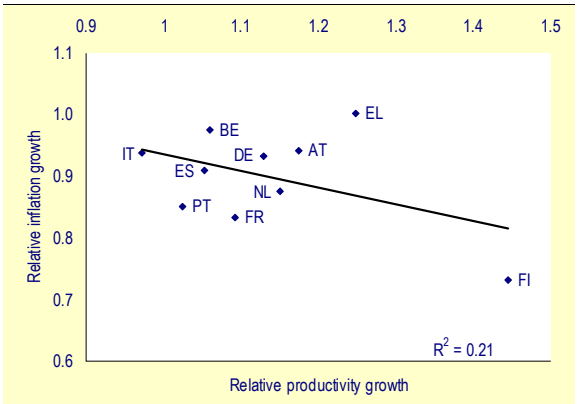
2. Sources of increasing divergence in external performance

This section discusses successively the possible sources of increasing divergence in the real effective exchange rates and the current accounts in the euro area.

Evidence of Balassa-Samuelson effects is mixed

Economic theory proposes a large range of possible drivers of the real effective exchange rate. The analysis presented here discusses the three 'usual suspects', namely the Balassa-Samuelson effect, convergence in price levels and cross-country differences in the business cycle. It shows that differences in competitiveness developments across euro-area Member States in recent years can only partly be explained by these three factors.

Graph 24: **Productivity and inflation – tradable vs. non-tradable sector, euro-area Member States** (1998-2005) (1)



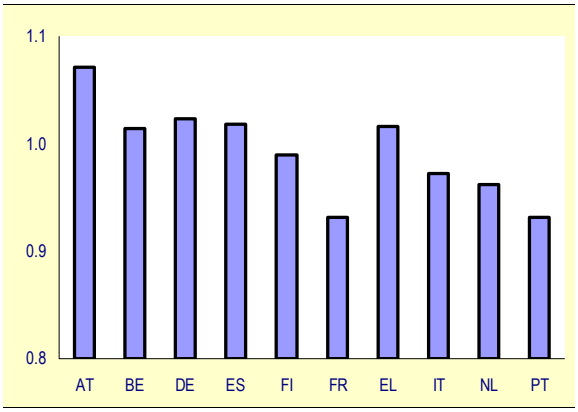
(1) Relative inflation refers to average inflation in the tradable sector divided by average inflation in the non-tradable sector. A value of 1 indicates equal average inflation rates during 1998-2005. Relative productivity growth is constructed in a similar way.
Source: EU KLEMS, Commission services.

The Balassa-Samuelson (BS) hypothesis predicts that price levels will increase when relative productivity rises in the tradable sector. If prices in the tradable sector are fixed because purchasing power parity holds and if wages equalise across sectors, then wages will increase both in the sector with productivity gains (tradable sector) and in the sector without productivity gains (non-tradable sector). As a consequence, the cost of producing non-tradables will rise and thereby the general price level will increase.

However, there is only weak evidence in the euro area that relative productivity increases have been a major determinant of relative inflation rates across sectors and therefore of overall inflation and real effective exchange rates. As shown in Graph 24, the link between relative inflation (in the tradable vs non-tradable sector) and relative productivity (in the tradable vs non-tradable sector) is weak. The correlation in the chart is negative as the BS hypothesis would predict but turns positive when Finland, a clear outlier, is omitted. Furthermore, the euro-area economies that have experienced rapid REER appreciation in recent years appear to have had relatively low productivity growth rates in the tradable sector.

To gain a better understanding of why the BS effect is weak in the euro area, it is necessary to investigate its central underlying assumptions. Graph 25 shows wide variance of sectoral wage growth in most countries (without a clear pattern). This contradicts the wage equalisation hypothesis, which is a central assumption underlying the BS effect.

Graph 25: **Wage growth – tradable vs. non-tradable sector, euro-area Member States** (1998-2005) (1)

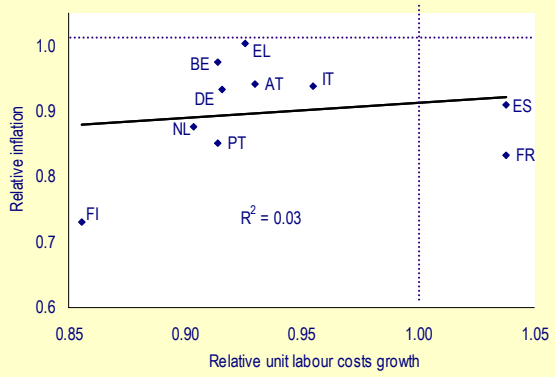


(1) Average wage growth rate in the tradable sector divided by average wage growth in the non-tradable sector during 1998-2005. A value of 1 indicates equal growth while a value larger than 1 shows higher wage growth in the tradable sector.
Source: EU KLEMS, Commission services.

Graph 26 shows another factor hampering the BS effect, namely differences in profit margin changes across sectors and countries. The graph shows a relatively loose connection between

relative unit labour costs (again in the tradable vs non-tradable sector) and relative inflation rates. In line with the BS effect, the graph indicates that countries in general have lower growth in unit labour costs in the tradable sector. However, the graph does not reveal any systematic link between relative unit labour costs and relative inflation, indicating that profit margin dynamics are quite different in the tradable and non-tradable sectors. These differences in margin behaviour have further loosened the link between relative productivity and inflation or real exchange rates.

Graph 26: **Unit labour costs and inflation – tradable vs. non-tradable sector, euro-area Member States** (1998-2005) (1)



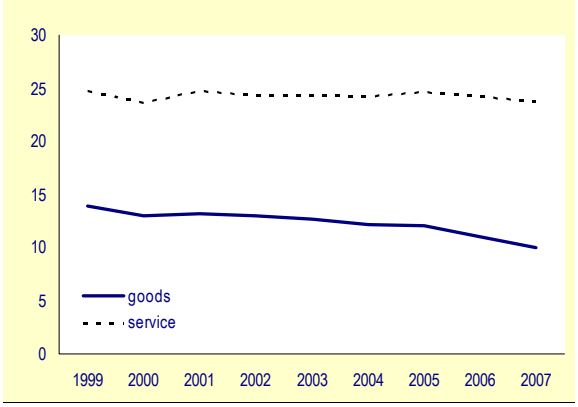
(1) Relative inflation refers to average inflation in the tradable sector divided by average inflation in the non-tradable sector. A value of 1 indicates equal average inflation rates during 1998-2005. Relative unit labour costs growth are constructed in a similar way.
Source: EU KLEMS, Commission services.

Overall, the analysis shows that there is only mixed evidence in favour of the BS effect in the euro area. Relative productivity differentials have little explanatory power for REER developments in the euro area. This can be explained by several factors, including limited wage equalisation and large differences in margin behaviour across sectors

Price convergence in the euro area

Prices have converged in the euro area over the past decade. Countries with comparatively low price levels in 1999 have seen larger average price increases than countries with price levels close to the euro-area average. The convergence in prices has mostly occurred in the tradable sector. As Graph 26 shows, the price dispersion across countries has fallen in the goods sector, while in the less tradable services sector the price dispersion has not changed substantially. Increasing market integration in the euro area could be the central factor driving the observed tradable price convergence. Overall, however, the extent of price convergence has remained rather limited and can only explain a fraction of observed REER developments. In those Member States where it was the most pronounced, convergence in tradable prices can only explain a loss in price competitiveness of a couple of percentage points over the entire past decade.

Graph 27: **Convergence in the price levels of goods and services, euro area** (in % – 1999-07) (1)



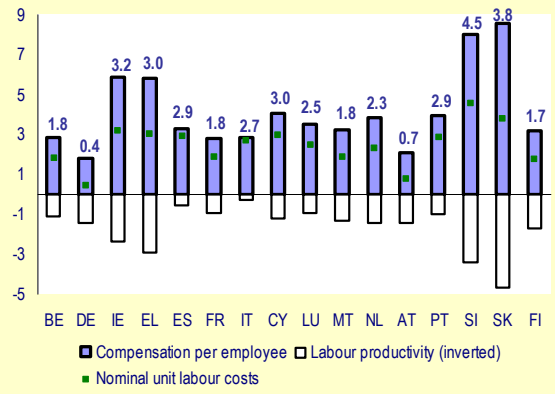
(1) Standard deviation of price levels of euro-area countries compared to the euro-area average.
Source: Commission services.

Divergence in REER partly reflects the response of labour costs to business cycle developments...

Divergence in competitiveness can be traced back to differences in labour cost developments across euro-area Member States. Over the past decade, annual average nominal unit labour cost growth has ranged from around zero in Germany to 2.5% or more in some Member States (IE, EL, ES, IT, CY, PT, SI) (Graph 28). This has translated into wide divergence of ULC-based REERs, with Germany's REER depreciating by about 15% while other Member States appreciated by 10 to 15%.

Differences in competitiveness developments partly respond to differences in cyclical conditions. In the face of a positive asymmetric demand shock, unit labour costs in the country affected by the shock should increase faster than in the rest of the euro area. The increase in ULC implies competitiveness adjustment. This is the so-called competitiveness channel of EMU.

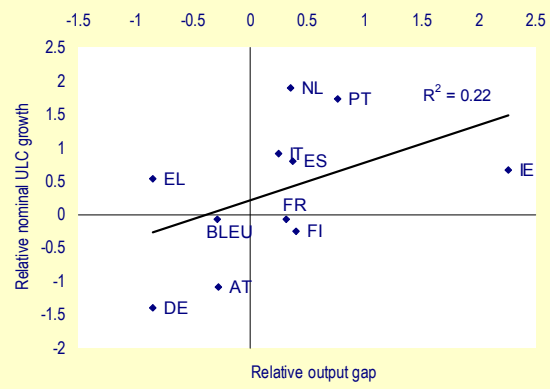
Graph 28: **Compensation per employee, labour productivity and nominal unit labour costs (1999-2008)**
(average annual changes in %)



Source: Commission services.

In line with the competitiveness channel, a positive relation between the cyclical position and the REER can be observed within the euro area for some periods of time as, for instance, is the case in the previous downturn (Graph 29)

Graph 29: **Unit labour costs and relative output gap, euro-area Member States**
(1999-2003 - period averages in %) (1)



(1) All variables are expressed in relative terms, i.e. they are normalised with respect to the weighted average of the remaining euro-area countries.
Source: Commission services.

…but the business cycle cannot explain all of the divergence in labour costs

However, a comparison of productivity and wage developments for different sub-periods of EMU also shows certain limits to how the competitiveness channel works. This is the case, for example, when looking at the 1999-03 and 2004-08 periods, which correspond broadly to the previous cyclical downturn and upturn:[6]

- The decline in unit labour costs in Germany which prevailed in 1999-03 continued its downward path during the 2004-08 period, due to persistent wage moderation in spite of an improvement in the country's cyclical position relative to the rest of the euro area.

- The comparatively outstanding growth performance in Ireland during 1999-2003 was only partially reflected in unit labour costs, as the country witnessed a structural positive shock in productivity. The vanishing of the advantage in productivity growth in 2004-08 resulted in a sizeable increase in relative unit labour costs and is unrelated to the country's almost neutral cyclical position.

- Greece experienced marked increases in labour productivity in the early years of EMU but not thereafter. Unchanged wage behaviour meant sizeable increases in unit labour costs over 2003-2007.

More generally, movements in unit labour costs over the longer term relative to the remaining euro-area Member States cannot be explained by asymmetric cyclical positions. Cyclical effects are, in most cases, broadly neutral over relatively long periods of time. Over 1999-2008, Member State differences in competitive positions have widened considerably despite minimal cyclical differences over the period as a whole.

[6] For an extensive discussion of labour cost developments and their relation with competitiveness, see European Commission - DG ECFIN (2008), 'Labour market and wage developments in 2007', European Economy 5|2008, pp.103-109.

Table 3: **Current account composition**
(in % of GDP)

	Balance of goods and services		Net primary income		Net current transfers		Current transactions		Capital transactions		Net borrowing	
	(1)		(2)		(3)		(1)+(2)+(3)=(4)		(5)		(4)+(5)=(6)	
	2008	Ch. 98-2008	2008	Ch. 98-2008	2008	Ch. 98-2008	2008	Ch. 98-2008	2008	Ch. 98-2008	2008	Ch. 98-2008
BE	-0.2	-4.6	0.6	-1.2	-1.1	0.0	-0.7	-5.8	-0.3	-0.2	-1.0	-6.0
DE	6.6	5.2	1.7	2.7	-1.2	-0.2	7.1	7.8	0.0	0.0	7.1	7.8
IE	11.9	0.0	-16.4	-5.0	-1.2	-1.5	-5.7	-6.6	0.0	-1.1	-5.7	-7.6
EL	-9.6	-2.0	-3.1	-5.6	-0.7	-2.6	-13.4	-10.1	1.7	-0.2	-11.7	-10.4
ES	-6.0	-5.8	-2.5	-1.6	-0.9	-1.0	-9.4	-8.3	0.4	-0.6	-9.0	-9.0
FR	-2.8	-5.4	0.5	-0.3	-1.5	-0.5	-3.8	-6.1	0.0	-0.1	-3.8	-6.2
IT	-0.3	-3.3	-1.0	-0.3	-1.0	-0.5	-2.2	-4.2	0.0	-0.2	-2.2	-4.4
CY	-7.3	-6.4	-5.5	-11.6	-0.6	10.9	-13.4	-7.1	0.2	0.2	-13.2	-6.9
LU	30.4	13.9	-21.2	-13.2	-1.2	-1.9	8.0	-1.1	N/A	N/A	N/A	N/A
MT	-3.8	1.7	-2.4	-0.7	-0.3	-1.4	-6.5	-0.5	1.0	0.2	-5.5	-0.3
NL	7.9	3.2	1.9	2.9	-1.3	-0.2	8.4	5.9	-0.7	-0.5	7.7	5.5
AT	5.7	5.2	-1.9	-0.5	-0.7	0.0	3.1	4.7	0.0	0.2	3.2	4.8
PT	-8.7	0.2	-4.4	-3.0	1.4	-1.7	-11.8	-4.5	1.6	-0.9	-10.2	-5.4
SI	-2.7	-1.2	-2.5	-2.7	-0.8	-1.0	-6.0	-4.9	0.3	0.3	-5.7	-4.6
SK	-1.0	9.8	-3.8	-3.9	-1.2	-2.5	-6.0	3.4	0.6	0.7	-5.4	4.1
FI	4.1	-4.7	1.0	3.3	-0.9	-0.2	4.2	-1.6	1.0	0.9	5.2	-0.6

Source: Commission services.

Current account divergence can be traced back to a range of factors

The balance of goods and services is the largest component of the current account and, therefore, explains most of the fluctuations and country differences in the current account (see Table 3). However, other components have, to a lesser degree, also contributed to the divergence of current accounts in recent years. In particular, there have been significant changes in the balances of primary income (mostly reflecting changes in net foreign asset positions) and in the balances of transfers (mostly current but also in capital). The latter are probably related to changes in flows of EU funds but may also reflect changes in migration flows.

The current account reflects aggregate savings and investment decisions of firms, households and the government in the economy. To the extent that the economy is saving (dissaving) as a whole, it will exhibit a current account surplus (deficit). Empirical analyses of the current account generally attempt to capture the determinants of the underlying savings and investment decisions. Central determinants identified in the economic literature include demographic factors, fiscal policy, the state of economic development and the business cycle.

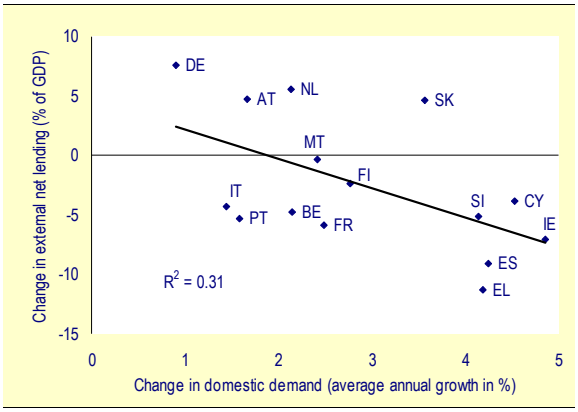
Domestic demand is an important driver of the current account…

According to conventional wisdom, external factors such as price competitiveness are seen as major drivers of current accounts. However, a large part of the divergence in the current account in the euro area since the late 1990s can be traced back to domestic demand. There have been considerable and persistent differences in domestic demand across Member States since the launch of the euro. Stronger relative demand pressure in a Member State will tend to fuel import demand and depress the current account.

As shown in Graph 30, growth in domestic demand over the past decade is indeed closely correlated with changes in current account positions. The link between domestic demand and the current account is also backed by the regression analysis presented in Box 3, which

attempts to quantify the role of a range of determinants of the trade balance. The analysis suggests that changes in domestic demand could account for as much as 40-50% of the differences in current accounts observed in the euro area since the launch of the euro.

Graph 30: **Domestic demand and the current account, euro-area Member States**
(1998-2008)

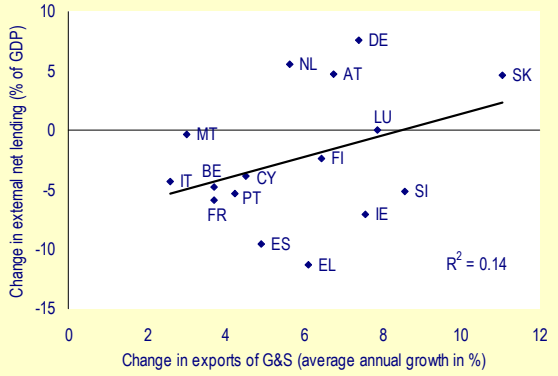


Source: Commission services.

…while export performance plays a relatively small role

External factors such as differences in export price competitiveness, external demand or oil exposure also play a role in explaining the divergence of current accounts, but it appears to be of secondary importance compared with domestic demand factors. Export growth is only loosely correlated with changes in the current account (Graph 31), and differences in export performance can only explain a fraction of cross-country differences in current accounts. Furthermore, in some Member States, developments in current accounts and export performance have shown quite different time patterns. In Spain and Greece, in particular, the deterioration in current accounts in the late 1990s preceded – rather than followed – a deterioration in exports performance by several years. This suggests a pattern where strong domestic demand first drives the current account down and is associated with a progressive weakening of competitiveness, which later weighs on export performance. Other countries (BE, FR and IT), however, have experienced a simultaneous deterioration in their export performance and their current account.

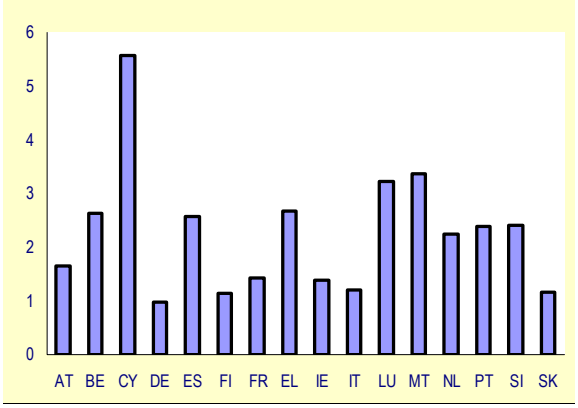
Graph 31: **Exports and the current account, euro-area Member States**
(1998-2008)



Source: Commission services.

Similarly, differences in dependence on oil imports can only account for a fraction of the divergence in current accounts (Graph 32). Net imports of oil have increased in all euro-area Member States since 1999, accounting for a drop in the trade balance of around 1-1.5 % of GDP. EL, CY, MT and LU have seen comparatively stronger rises in imports of oil but, even in these countries, the associated drop in the trade balance has not exceeded 3% of GDP (except for CY).

Graph 32: **Increase in net import of oil, change in % of GDP, euro-area Member States**
(1999-2007)



Source: Commission services.

Fiscal policies and demographics are not the major drivers of current account divergence in the euro area

Fiscal policy can dampen or aggravate fluctuations in private sector demand and thereby mitigate or compound the impact on the current account. Available empirical evidence – including the regression results reported in Box 3 – suggests that government deficits are a meaningful determinant of current account positions, although their impact is partly offset by Ricardian equivalence effects (i.e. offsetting private sector savings).

Decomposing the current account into its underlying household, corporate and government savings and investment balances for the 1999-2008 period shows that fiscal policy helped to contain demand pressures from the private sector in several catching-up countries (ES, CY, MT, SI), thereby helping to contain the deterioration of the current accounts in those Member States.

In contrast, in a few other catching-up economies, fiscal policy did little to offset demand fluctuations or even compounded them (EL, PT). In Member States with large current account surpluses (DE, NL, FI), changes in the government saving/investment balance were either limited or of the same sign as changes in private sector surpluses and therefore did little to reduce external surpluses.

Overall, changes in public saving/investment balances in most Member States have remained relatively small compared with changes in the current account in recent years. Fiscal policy has therefore not been the main driver of the divergence in current account in the euro area over the past decade. Nevertheless, it has proved to be an important tool for cooling off demand pressures in some catching-up economies, although it could have been used even more in that direction than has actually been the case.

In economies where the share of the population that does not work – because it is either too young or too old – is rising, private savings tend to fall, driving current accounts positions downwards. Accordingly, current account positions should be negatively correlated with the so-called dependency ratio. This is indeed the case in the regression results presented in Box 3. They suggest that when the ratio of non-working-age population to working-age population increases by 10 pp, the current account worsens by 1.4% of GDP. However, changes in the dependency ratios of euro-area countries since the late 1990s have remained small and are unlikely to account for a significant part of the current account dynamics over that period. In the countries which registered the largest increase in the dependency ratio over 1999-06 (DE, IT), the fall in the current account is estimated at less than 1%.

The link between current accounts and catching-up processes is generally weak in broad sets of countries…

In theory, catching-up economies should run current account deficits for two reasons: high profitability of investment projects and consumption smoothing. On the one hand, low capital-to-labour ratios imply that the marginal return on capital is high.[7] This should make investment in low income countries relatively attractive, leading to significant inflows of capital and current account deficits in these countries. In addition, as households in the economy expect their future income to be higher than today's, they will want to shift consumption to the present.[8] As a result, consumption and investment will have a tendency to exceed output, resulting in a current account deficit.

7 Solow, R. (1956), 'A contribution to the Theory of Economic Growth', *Quarterly Journal of Economics*, Vol. 70, pp. 65-94.

8 According to the standard intertemporal approach to the current account, consumption is smoothed over time by lending and borrowing abroad. Obstfeld, M. and K. Rogoff (1994), 'The intertemporal approach to the current account', Chapter 34 in *Handbook of International Economics*, 1995, vol. 3, pp 1731-1799, Elsevier.

Box 3: **Determinants of trade balance**

The table below reports the results of a panel analysis, along the lines of Chin and Prasad (2003), of the determinants of the balance of goods and services (trade balance) in OECD countries.

The base model (column A) tests the impact of the dependency ratio, a measure of the business cycle, the budget balance and income per capita.

- Societies with a higher number of dependents tend to run lower external balances.
- The balance of goods and services correlates positively with the government's budget balance, indicating the presence of non-Ricardian effects. The empirical estimate might be on the low side of the true effect since the regression is a reduced form, which does not control for endogeneity problems. However, in the literature there is no general consensus on the size of the fiscal multiplier. It is often found to be between 0.5 and 1 (see, for example, Perotti (2005), Tenhofen and Wolff (2007) and Ramey (2006)).
- Regarding relative per capita income, it is significantly connected to the goods and services balance for the entire sample. An increase in relative per capita GDP of 1 pp will entail an improvement in the trade balance of 0.15% of GDP.

In regression B, we find strong evidence that, in the euro area, relatively rich countries tend to have more pronounced surpluses than outside the euro area, the effect increases to 0.28 (almost twice as large). This suggests that the euro could indeed have facilitated trade balance deficits for catching-up economies that previously would not have been able to run deficits to the same extent. In the euro area, net financial flows therefore run more strongly 'downhill', i.e. from rich to poor countries.

Panel estimates of the determinants of trade balance (as a share of GDP) in OECD countries, 1973-2007

	A	B	C	D
Dependency ratio	**-13.59*** **	**-11.12*** **	**-18.06*** **	**-17.43*** **
	-4.8	-3.95	-5.68	-7.29
Budget balance as a share of GDP	**0.23*** **	**0.19*** **	**0.19*** **	**0.01**
	6.37	5.35	5.31	0.35
Business cycle	**-47.60*** **	**-47.06*** **	**-50.76*** **	
	-14.22	-14.72	-15.52	
Relative GDP per capita (2)	**15.53*** **	**12.24***	**12.15** **	**16.87*** **
	8.3	6.73	6.96	7.52
Relative GDP per capita (2) * EMU		**15.66*** **	**17.22*** **	**8.17*** **
		7.67	8.46	4.85
House price			**-0.02*** **	**0.00**
			-3.31	-0.81
House price * EMU			**-0.05** **	**-0.03*** **
			-3.99	-2.88
Domestic Demand (1)				**-0.32*** **
				-17.85
EMU		**-14.30*** **	**-9.01*** **	**-3.68***
		-6.87	-3.51	-1.75
N	685	685	606	569
r2	0.41	0.47	0.58	0.54

In regression C, we test the effects of house prices on the trade balance. The results suggest that house prices have an effect on the trade balance; the effect is larger in the euro area. An increase in house prices of 100% would lead to a deterioration of the trade balance of more than 7% of GDP in the euro area, while outside the euro area it would amount to 2%.

In regression D, we control for relative domestic demand as an additional variable to capture longer demand cycles. While demand is an endogenous variable, which, from an econometric point of view, has to be interpreted with caution, it is nevertheless useful in capturing demand effects and separating them from supply effects. Relative demand is a quantitatively important determinant of the trade balance. An increase of 1% would lead to an increase in the trade deficit of 0.3% of GDP.

While the general significance of house prices disappears when domestic demand is included, in the euro area house prices remain a significant determinant of the trade balance. One of the main reasons for the relevance of house prices in the euro area might therefore be on the supply side. It could relate to the internal shift of resources from the tradable sector to the non-tradable construction sector. In fact, when we control for construction investment relative to total investment (or relative to GDP) to capture a shift of resources to the construction sector, the house price variable is significantly weaker. Shifts in resources to the non-tradable construction sector therefore appear to be a major factor of trade balance deficits as they potentially reduce the supply of tradable products. Moreover, the effect of house prices on the trade balance also appears to go beyond the real interest effect, as the result remains significant when including the real interest rate.

References:

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

Perotti, R. (2005) 'Estimating the effects of fiscal policy in OECD countries', Proceedings, Federal Reserve Bank of San Francisco.

Tenhofen, J. and G.B. Wolff (2007), 'Does anticipation of government spending matter? Evidence from an expectation augmented VAR', Deutsche Bundesbank discussion paper, No.14.

Ramey, V. A. (2006), 'Identifying Government Spending Shocks: It's All in the Timing', mimeo.

…but it is stronger in advanced economies and sizeable in EMU

While the theory of catching-up growth has found widespread support in the empirical literature, the catching-up process is generally not reflected in current accounts.[9] Nevertheless, Box 3 provides some evidence that the link between current account deficits and catching up may be more in line with theory when advanced economies are considered separately. This could be evidence that more integrated financial markets are playing a role in facilitating convergence processes in these countries.

As shown in more detail in Box 3, euro-area countries with comparatively low GDP per capita typically have larger trade deficits. The order of magnitude involved is sizeable: according to the estimates, participation in EMU is associated with a 1.6% reduction in the current account for a country with a GDP per capita of 90% of the euro-area average. This comes on top of the 1.2% reduction for countries outside the euro area. The estimate suggests that the euro has allowed catching-up Member States to tap international capital markets more successfully.[10]

9 Lucas formulated the famous 'Lucas paradox', showing that capital does not flow from rich to poor countries as the theory presented above would suggest. Lucas, R. (1990), 'Why doesn't capital flow from rich to poor countries?', *American Economic Review*, Vol.80, pp. 92–96.

10 Two caveats are necessary, however. First, the regression framework presented in the box does not allow the euro effect to be disentangled from the possible lagged impact of financial market integration resulting from the Internal Market process. Second, the estimated euro effect is based on a relatively short period which does not cover a full economic cycle. It is therefore impossible to say to what extent the estimate reflects a sustainable effect or some form of overshooting linked

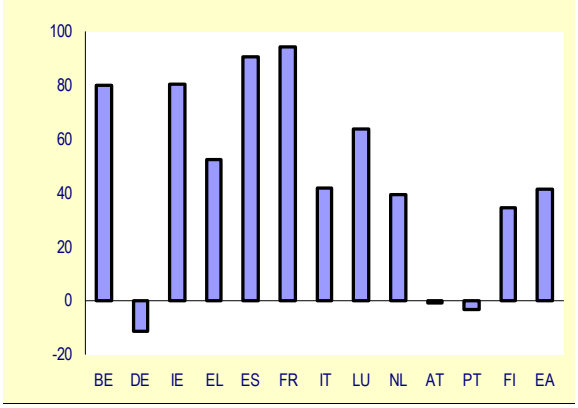
In particular, the introduction of the euro led to a strong decrease in risk premiums in euro-area countries that formerly exhibited a comparatively high exchange rate risk. In addition to the elimination of exchange rate risks, the single currency has also spurred financial integration and competition, further facilitating households' and corporations' access to finance and further easing credit constraints. In most catching-up Member States, the ensuing reduction in interest rates entailed an economic boom driven by buoyant domestic demand. Demand pressures led to the emergence of significant current account deficits alongside increased inflation pressures.

In addition, the financial integration effect of the euro was reinforced by diverging inflation and real interest rates. Indeed, the booming economies of the euro area received further stimulus as their above-average inflation rate led to lower real interest rates in the face of virtually identical nominal interest rates across the euro area. The combination of further demand stimuli from falling real interest rates and the progressive appreciation of the real exchange rate fostered further increases in the current account deficit. Conversely, countries with below-average inflation rates, in particular Germany, faced relatively high real interest rates. High real interest rates reduced domestic demand and imports while gains in competitiveness enhanced the export performance, with both effects driving the current account upwards.[11]

Housing markets have played a pivotal role in the divergence of current accounts within the euro area

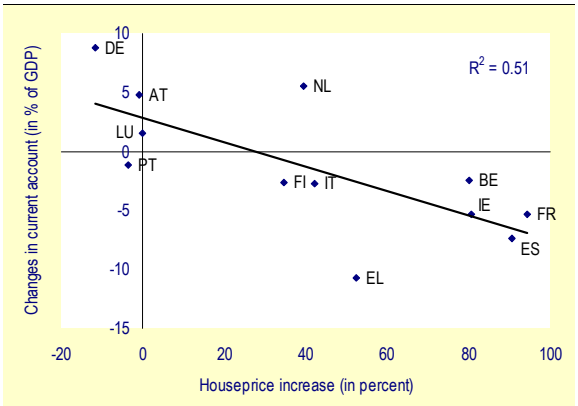
Euro-area countries have seen significant divergences in house prices (Graph 33). Based on ECB statistics, the residential property price indicator for the euro area as a whole has increased by 66% in nominal terms or 41% in real terms since the introduction of the euro. In the most extreme cases, France and Spain, house prices have nearly doubled. At the other end of the spectrum, Germany's real house prices have fallen by more than 10%.

Graph 33: **Real house prices, euro-area Member States** (change in % - 1999-2007)



Greek data cover 1999-2006. Luxembourg data give the increase over 1999-2005. Nominal house price data are deflated by GDP deflator.
Source: ECB, Commission services.

Graph 34: **Changes in real house prices and current accounts, euro-area Member States** (1999-2007)



Greek data cover 1999-2006. Luxembourg data give the increase over 1999-2005. Nominal house price data are deflated by GDP deflator. ***Source:*** ECB, Commission services.

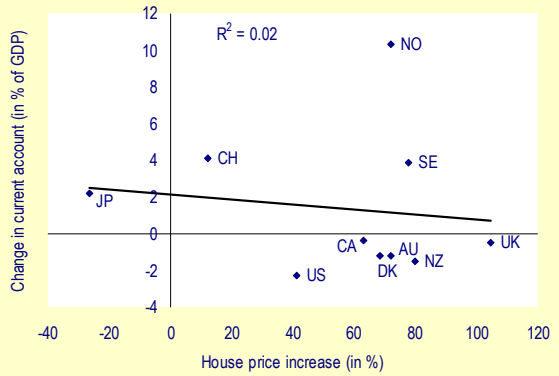
In the euro area, higher house prices have been associated with higher current account deficits (Graph 34). Interestingly, this link between housing and the external position appears to be much stronger in the euro area than in other advanced economies (Graph 35). The special role of house prices as a determinant of current

to the fact that economic agents still need to come to grips with the full implications of the euro.

11 It is important to note that the euro effect estimated in the box remains significant when real interest rates are introduced as a control variable, indicating that the results capture more than the effect of inflation differences on real interest rates.

accounts in the euro area is also backed by the econometric evidence provided in Box 3.

Graph 35: **Changes in real house prices and current accounts, non-euro-area countries** (1999-2007)



Source: OECD, Commission services.

Several factors may explain the link between house prices and current accounts.

First, house prices and real interest rates are strongly correlated. Housing markets have been an important transmission mechanism between real interest rates and domestic demand in the euro area (the so-called real interest rate channel). However, the fact that housing markets have acted as a major transmission mechanism raises the question of the relative weakness of alternative transmission mechanisms, such as corporate investment or equity prices. Why have Member States with low interest rates seen housing booms rather than corporate investment booms? Further work is needed here to relate observed current account developments to the structural characteristics of the housing sector or the productive sector.

Second, the identified housing market effect goes beyond real interest rates. In the regressions presented in Box 3, the house price effect remains meaningful even when controlling for real interest rates, suggesting that the house price variable captures additional determinants of the current account which are not reflected in real interest rates. These could include financial deepening and better access to mortgages for credit-constrained households.

Finally, the impact of house prices on the current account also seems to reflect supply-side effects. These are probably related to the shift of productive resources from high-productivity fast-growing tradable sectors to the low-productivity housing sector. The regression results presented in Box 3 show that the effect of house prices in the euro area goes beyond increased domestic demand and is therefore probably related to supply factors.

3. Distinguishing between 'benign' and 'harmful' developments in competitiveness

Indentifying underlying domestic imbalances is key for policy intervention

Changes in competitiveness and current accounts are not bad per se. For example, current account deficits can facilitate income convergence processes by allowing comparatively low income countries to import the capital needed to finance growth. Similarly, temporary changes in relative REER positions in response to differences in Member States' cyclical positions may be an indication that the so-called competitiveness adjustment channel is operating effectively.

Against this background, a major challenge is to distinguish between 'harmful' and 'benign' changes in external performance. The former require some form of policy intervention while adjustment to the latter should be left to market forces. Economic theory suggests that the distinction largely depends on the extent to which changes in external performance are driven by market dysfunction or policy mistakes. Blanchard (2007) discusses the issue with the help of a simple model based on a fully flexible and competitive economy. He shows that a temporary demand shock will be accompanied by a temporary current account deficit and successive phases of real exchange rate appreciation and depreciation. These swings in competitiveness can, however, be considered to be 'benign'. Scope for welfare improving policy action only exists if market distortions – e.g. price and wage rigidities – are introduced in the model.[12]

Overall, it is therefore crucial from a policy perspective to assess the extent to which developments in competitiveness and external performance within the euro area can be related to policy mistakes, market failures or any form of domestic macroeconomic imbalance at Member State level.

Looking at the past decade, and as discussed in the previous section, divergence in competitiveness can in part be traced back to benign factors such as Balassa-Samuelson effects, price convergence or cyclical differences. BS and price convergence effects can be considered to be largely neutral as regards export performance and the current account while competitiveness changes have, to some extent, helped to reduce cyclical differences within the euro area.[13] In the same vein, the discussion in the previous section showed that current account dispersion within the euro area is partly a sign of increased financial market integration, with the euro acting as a catalyst.

However, the analysis in the previous section also pointed to less 'benign' drivers of the divergence in external performance. In particular, it indicated that differences in cost competitiveness can in part be ascribed to inappropriate responses of wages to productivity shocks. Furthermore, as discussed below, losses in competitiveness and the accumulation of large current account deficits can, in a number of Member States, be related to a range of domestic macroeconomic imbalances that warrant close surveillance. These include sluggish productivity performance, the accumulation of high private sector debt and the emergence of housing bubbles.[14]

[12] Blanchard, O. (2007), 'Current account deficits in rich countries', *NBER working paper*, No. 12925.

[13] Assuming Cobb-Douglas preferences, a rise in the real exchange rate driven by a BS effect will leave the current account unchanged. This will also be the case for price convergence in the non-tradable sector, to the extent that it is driven by BS effects. Price convergence in the tradable sector may also be considered to be 'benign', to the extent that it results from market integration or product quality upgrades.

[14] For space reasons, the discussion on domestic imbalances that underlie competitiveness problems has to remain relatively succinct. For a more in-depth analysis of key domestic issues in some Member States, see, for example:

Buti, M. (ed) (2009), 'Italy in EMU – The challenges of adjustment and growth', Palgrave Macmillan.

Cabrero, A., Maza, L. A. and J. Yaniz (2007), 'Spain's external deficit: how is it financed?', European Commission, DG ECFIN, Country Focus, No 7, June.

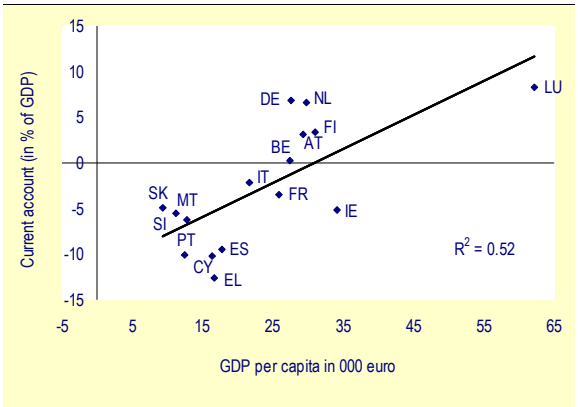
Malzubris, J.(2008), 'Ireland's housing market: bubble trouble', European Commission, DG ECFIN, Country Focus, No 9, September.

Abreu, O. (2006), 'Portugal's boom and bust: lessons for euro newcomers', European Commission, DG ECFIN, Country Focus, No 16, December.

Disappointing productivity performance in some indebted and converging countries

Countries running large current account deficits in the euro area typically have a GDP per capita below the euro-area average (Graph 36). In theory, their growth should therefore be driven by a catching-up process which should, in future, facilitate the repayment of accumulated external debt. In practice, only Greece, Slovenia and Slovakia have been on a clear convergence path since 1999. Spain's strong GDP growth performance has been largely matched by rapid population growth, leading to limited real convergence in GDP per capita. Convergence has also remained small in Cyprus and Malta whereas Portugal has seen its level of GDP per capita fall compared with the rest of the euro area.

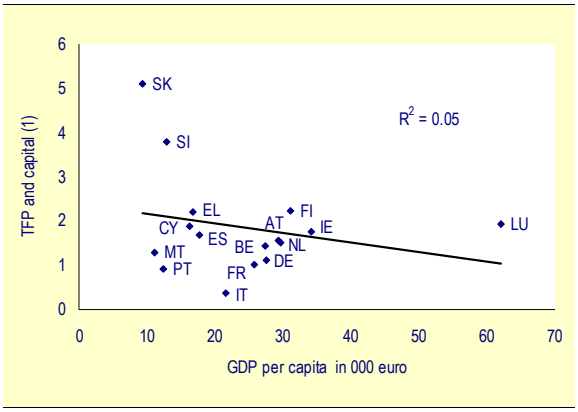
Graph 36: **GDP per capita and the current account, euro-area Member States**
(2008)



Source: Commission services.

Capital and productivity data provide further evidence of the limitations of some of the convergence processes in recent years. Investment and technical progress, as captured by total factor productivity (TFP), are the two main channels through which a convergence process impacts on growth. Graph 37 displays the contribution of capital accumulation and TFP to potential growth over the past 10 years. Only about half of the countries with GDP per capita below the euro-area average show the traditional convergence pattern of rapid capital accumulation and strong TFP growth (EL, SI, SK). For the other half, the TFP performance is weaker than in the euro area as a whole (ES, PT, CY and MT), offsetting slightly faster capital accumulation than in the euro area as a whole.

Graph 37: **Contribution of capital and TFP to potential growth, euro-area Member States**
(2008)



(1) Sum of the contribution of capital and trend TFP to potential growth.
Source: Commission services.

Capital inflows into converging countries were not always channelled to the most productive uses…

Thanks to the euro and EU financial integration, converging economies in the euro area generally benefited from large capital inflows over the past decade. Nevertheless foreign capital was not always channelled to the most productive uses and therefore not always very conducive to growth. Most notably in Spain and Portugal, current account deficits were driven to a large extent by the household sector, either through lower household savings or higher housing investment. The record is more balanced in Greece where capital inflows were channelled both to households and to the corporate sector.

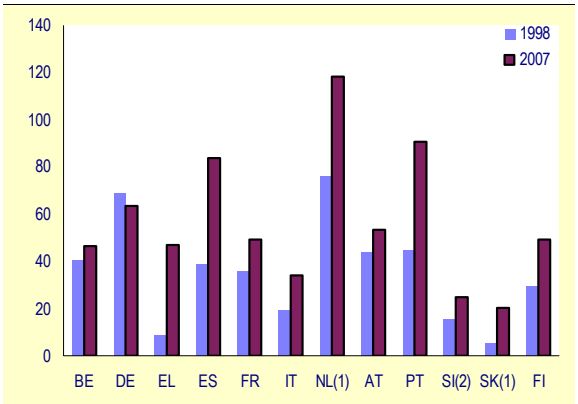
While the association between current account deficits and household spending is not necessarily bad, the instrumental role played by household spending and, in particular, housing in the growth process of some euro-area converging countries is not without its pitfalls. Consumption obviously has no impact on production potential. In addition, although housing investment helps to raise the capital stock, it is unlikely to have positive spill-over effects on TFP and its contribution to the economy's long-term production potential is

therefore limited. Finally, a large shift in labour resources to a low productivity sector such as construction weighs negatively on overall productivity performance.

… and sometimes contributed to surges in private sector debt and to housing bubbles

In Member States with large current account deficits, the main counterpart to the build-up of negative net foreign asset positions has been soaring household and non-financial corporate sector debt. The household sector in Greece, Portugal and Spain significantly increased its financial liabilities over the past decade (Graph 38). In the non-financial corporate sector, debt increased in particular in Spain and Portugal (Graph 39). Overall, private sector debt now appears high relative to the euro-area average in Spain and Portugal while it remains close to the average in Greece.

Graph 38: **Household loans, euro-area Member States** (% of GDP)

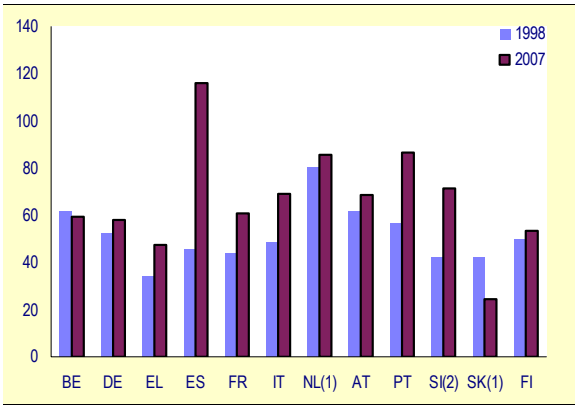


(1) Data for 1998 and 2006. (2) Data for 2001 and 2007.
Source: Commission services.

The government sector played no role in the accumulation of external debt in ES but a more significant one in EL and PT.[15]

In some Member States, capital inflows, by facilitating the rise in household debt, have contributed to the formation of housing bubbles. While it is notoriously difficult to assess the extent to which assets are priced correctly, house prices in several euro-area countries have increased during much of the past decade by more than can be readily justified by fundamentals. In several Member States price-rent ratios are now well above the average levels in the 1970s and 1980s. While parts of the increase in prices in some countries can be explained by lower real interest rates and demographic trends, studies suggest that there have been excesses.[16]

Graph 39: **Non-financial corporation loans, euro-area Member States** (% of GDP)



(1) Data for 1998 and 2006. (2) Data for 2001 and 2007.
Source: Commission services.

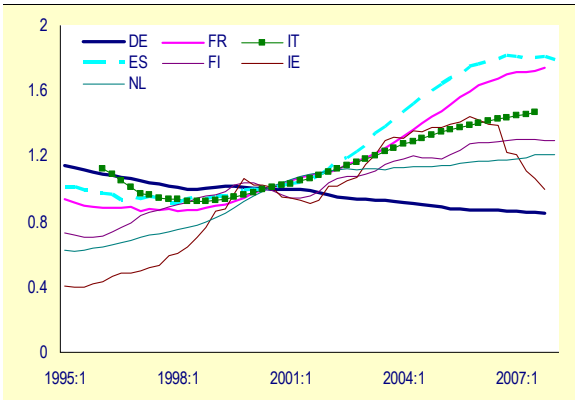
The combination of surging private-sector debt and likely house price overvaluation is an indication of possible overshooting in the level of private sector debt. There is therefore a risk that, in some Member States, large capital inflows in recent years have been associated with an excessive accumulation of debt. This would reflect over-optimistic private-sector expectations regarding the future capacity to service debt and the underlying strength of balance sheets. History suggests that periods of marked structural changes in the financial sector may be associated with spells of excessively optimistic expectations, as economic agents (including policymakers) need time to fully understand the implications of their changing environment.[17]

15 Changes in the government deficit were relatively small over the past decade in EL and PT but still compounded somewhat the increase of the current account deficit.

16 See, for example, IMF (2008), 'World Economic Outlook - Housing and the Business Cycle', April 2008, International Monetary Fund.

17 This may have been the case in the UK and Nordic countries in the 1980s. See Debelle, G. (2004), 'Macroeconomic implications of rising household debt', *BIS Working Paper*, No 153, June.

Graph 40: **Ratio of house prices to rents, selected euro-area Member States**
(1995Q1-2008Q1)

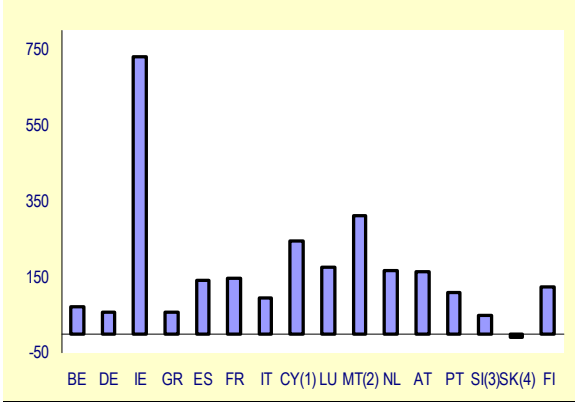


Source: OECD, Commission services' calculation.

Large external liabilities increase exposure to financial shocks

For the Member States concerned, the competitiveness problems and macroeconomic imbalances discussed in this special report also tend to aggravate the exposure to the current financial turmoil, for several reasons, including the central role played by banks in the transmission of capital inflows into converging countries, a rise in short-term financing and risks associated with high leverage.

Graph 41: **Increase in the size of the balance sheet of monetary and financial institutions**
(% of GDP, Jan. 1999 – Jan. 2009)



(Monetary and financial institutions, excluding the Eurosystem. Change since (1) Nov. 2005, (2) Jan. 2005, (3) Jan. 2004, (4) Jan. 2006.
Source: ECB, Commision services' calculation.

In countries with large current account deficits, the banking sector has acted as an intermediary, turning inflows of capital into household and corporate debt.[18] In contrast, shares have not contributed substantially to the expansion of balance sheets of non-financial corporations in these countries. Accordingly, the balance sheet size of banks has increased significantly in Member States running current account deficits, in particular in IE, ES, MT and PT (Graph 41). In other words, in Member States with large external liabilities, the exposure of the private sector to the banking sector is now generally much higher than at the end of the previous decade.

A range of indicators also suggest that short-term financing has taken on an important role in the funding of a number of large current account deficits in the euro area:

First, relatively short-term financing in the form of deposits from the rest of the world is visible in several countries. As Table 4 shows, Greece and Portugal have financed more than half of their increases in net external liabilities since 1998 by currency and deposits. In Spain, currency and deposits amounted to 25% of the increase in financing over the period. Increases in foreign deposits have also been particularly large in Ireland. While domestic deposits are usually regarded as a stable source of finance for banks, cross-border deposits are easy to withdraw and can be considered to be a more volatile source of finance.

Second, while cross-border portfolio investments are mainly in long-term debt securities, the share of short-term securities has increased in recent years. Short-term debt securities represent a very small proportion of total cross-border debt but intra-euro-area cross-border investment in short-term debt securities as a percentage of GDP has increased in Greece, Spain and notably in Portugal, from 1.3% of GDP in 2001 to 4.1% in 2006 according to IMF statistics.

[18] The financial data of national accounts unsurprisingly reveal that households have increased debt by taking up loans from the banking sector (EL, ES, PT). Non-financial corporations have predominantly relied on bank loans to fund their liabilities in PT and most notably in ES. The analysis of national account data is however limited by the lack of complete balance sheet data in some Member States (CY, MT and to a lesser degree IE).

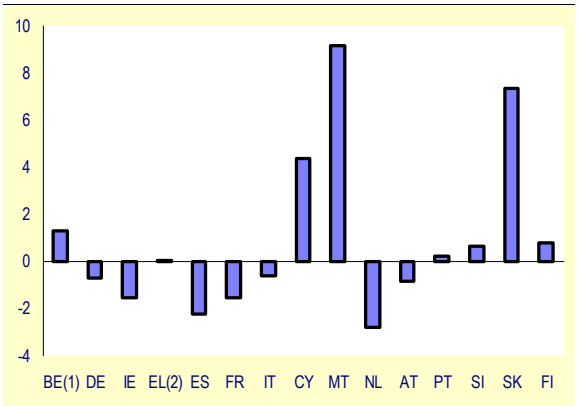
Table 4: **Financial account balance sheet - Net liabilities with the rest of the world**

(changes 1998-2007 as a share of GDP) (1)

Balances:		Total	Securities other than shares	Loans	Shares and other equity	Currency and Deposits	Insurance technical reserves	Other accounts receivable/ payable
Current account deficit countries	IE	-5.2	19.2	-119.9	-20.1	75.8	19.0	20.7
	EL	70.0	18.5	-2.2	15.4	37.3	0.0	1.0
	ES	49.6	43.1	10.6	-14.8	10.4	-0.2	0.4
	FR	10	-2.3	-2.8	-11.5	24.7	0.1	1.9
	IT	-0.9	14.9	-1.2	-15.6	2.4	-1.4	-0.1
	PT	62	16.3	9.9	3.9	33.2	0.2	-1.3
	SI	17.7	-14.8	14.5	-6.2	20.4	-0.3	4.1
	SK	31.5	-7.8	-0.8	32.8	12.0	n.a.	-4.7
Current account surplus countries	BE	4.8	-7.0	-54.7	34.3	17.1	-1.8	16.9
	DE	-19.0	7.1	-3.2	-8.8	-17.2	3.9	-0.9
	NL	-57.9	33.4	-26.3	-66.8	1.2	0.7	-0.1
	FI	-44.3	-26.8	-6.0	-13.4	2.6	-0.2	-0.6
	AT	-3.6	12.6	-8.8	-9.3	-1.3	-0.2	3.3

(1) Data for Cyprus, Malta and Luxembourg are not available; Netherlands and Slovakia are for 1998-2006, Slovenia and Ireland for 2001-2007.
Source: Commission services

Graph 42: **Net FDI flows, euro-area Member States**
(average 2001-2007 in % of GDP)



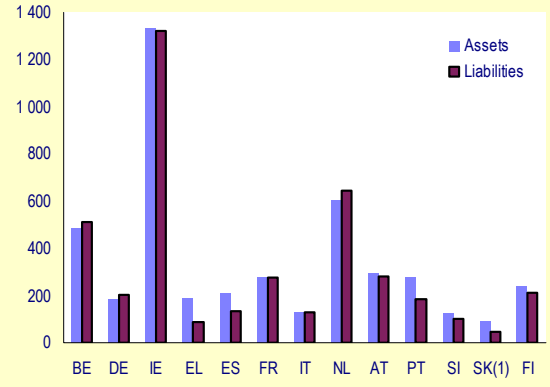
(1) 2002-07 average for BE. (2) 2001 and 2004-07 average for EL. (3) LU omitted for scale reasons (LU FDI balance is -35% of GDP for 2001-07).
Source: Commission services.

Finally, foreign direct investment (FDI) – arguably the most long-term form of finance – has played only a limited role in the funding of current account deficits of some catching-up economies in recent years. Since 1999, net FDI inflows have been negative in Spain and Greece – averaging a substantial -2.2% annually in the case of the former – and have been only slightly positive in Portugal. They have, however, been significantly positive in other catching-up countries (SI, MT, CY and SK).

In addition to the net financial position, the exposure of countries to financial shocks also depends on the absolute level of assets and liabilities. A country with a high ratio of assets or liabilities to GDP is more vulnerable to abrupt changes in financial market conditions than a country with a relatively low ratio – for two reasons. First, if creditors quickly withdraw funds, ensuing wealth and balance sheet effects will be larger than in low-ratio countries. Second, unless asset and liability types, for example regarding term structure and quality, match exactly, any change in credit conditions can result in increased payment obligations. As shown in Graph 43, gross exposure is particularly high in

Member States such as Ireland (and to a lesser degree Belgium), with assets and liabilities with respect to the rest of the world more than 13 times the annual GDP (5 and 6 times in the case of Belgium and the Netherlands)

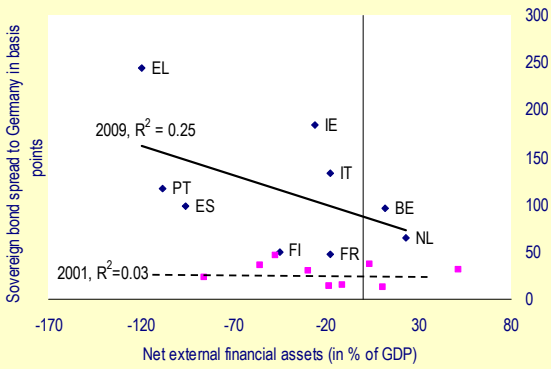
Graph 43: **External assets and liabilities, euro-area Member States**
(share of GDP in % – 2007)



(1) 2006 data for NL and SK. (2) EA excluding CY, LU, MT.
Source: Commission services.

Finally, it is worth stressing that there is some evidence that financial markets have recently become more responsive to the net external financial asset position of euro-area countries. While significant proportions of net external financial assets are related to the private sector, the public sector, to the extent that it is perceived as a lender of last resort, can be affected by private sector debt. As Graph 44 shows, in the first two months of 2009, sovereign bond spreads appear to relate negatively to net external financial asset positions. Countries with greater external liabilities have significant sovereign spreads over Germany. External financial liabilities can explain 25% of the cross-section variation of spreads relative to Germany in the sample of the first 12 euro-area Member States. In contrast, prior to the current financial crisis, no significant relation between net external financial assets and sovereign bond spreads is visible in the euro area.[19]

Graph 44: **Net external financial assets and sovereign bond spreads, euro-area Member States**
(2001 and 2009) (1)



(1) For the 2009 observations, NFA assets are for 2007 while the spread refers to the first two months of 2009. NFA are measured in difference to Germany, which had positive net assets of 16% of GDP in 2007 and had slightly negative net external assets in 2001.
Source: Commission services.

[19] For a study on the determinants of sovereign bond spreads prior to the crisis, see M. Hallerberg and G.B. Wolff, 2008, 'Fiscal institutions, fiscal policy and sovereign risk premia in EMU', *Public Choice*, 136(3), 379-396.

4. Assessing the size of the competitiveness adjustment ahead

This section assesses the degree of over (or under)-valuation of real effective exchange rates in the euro area. As the extent of a competitiveness problem also depends on the speed and ease with which a country is able to correct it, the section also discusses possible differences in the capacity to adjust prices and competiveness.

Measuring exchange rate misalignment

Real effective exchange rate movements by themselves provide limited information on over- or undervaluation. Assessing the extent of competitiveness misalignments requires the computation of a benchmark against which actual developments in REER can be compared. A standard approach in the economic literature is to take as a benchmark some form of equilibrium real exchange rate that satisfies specific medium- to long-term macroeconomic conditions. There are a rather wide range of possible methodologies to estimate equilibrium REER, all of which have pros and cons.[20] In this section, we follow two approaches developed mostly at the IMF: the current account norm approach (CAN) and the net foreign asset stabilisation (NFAS) approach. The two methodologies are based on an estimated benchmark "equilibrium" current account. The possible REER misalignment is then estimated as the change in the REER required to close the gap between the equilibrium and the actual value of the current account. The difference between the two approaches lies in the notion of the equilibrium current account concept used.

- In the CAN approach, the current account that would prevail over the medium-to-long term is estimated on the basis of fundamentals related, for example, to the determinants of the saving-investment balance of the economy.[21]

- In the NFAS approach, the benchmark current account is the one that guarantees the stabilisation of the NFA / GDP ratio at its current level.

Table 5 displays the resulting estimates of the benchmark current accounts and the real exchange rate over-/undervaluation for the two methodologies.

The CAN approach suggests, not entirely surprisingly, that the countries with the largest observed current account imbalances are also the ones that exhibit the most pronounced REER misalignments. The REERs for Greece and Spain and Portugal are estimated to be overvalued by about 12-13% and for France by around 7%. Conversely, countries with large current account surpluses tend to be undervalued. Germany's REER is estimated to be undervalued at around 13% below its equilibrium level and the Netherlands, Austria and Finland at around 6-7%.

The over-/undervaluations estimated with the NFAS approach are broadly in line with the ones obtained by means of the current account norms. Not only is the sign of the misalignment the same, the order of magnitude is also generally relatively similar. Using the NFAS approach, the largest overvaluations are found for Greece, Spain and Portugal, while the undervaluations are largest for Germany and Finland. Overall, the results suggest that there is no major contrast between the predicted current account in line with fundamentals and the one obtained from the requirement of stabilising NFAs.[22]

20 For further information on the various methods, see, for example:

Clark, P., and R. McDonald (1998), 'Exchange rates and economic fundamentals: A methodological comparison of BEERs and FEERs', *IMF Working* Paper, 98/67,

Hansen J. and W. Roeger (2000), 'Estimation of real equilibrium exchange rates', *Economic Papers*, 144, DG ECFIN, European Commission,

Isard, P. (2007), 'Equilibrium exchange rates: Assessment methodologies', *IMF Working Paper,* No 296.

21 See, for example:

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

and Lee, J., G.M. Milesi-Ferretti, J. Ostry, A. Prati, and L. Ricci (2008), 'Exchange rate assessments: CGER methodologies', *IMF Occasional Paper*, No 261.

22 The NFA stabilisation approach yields equilibrium current account surpluses for countries with a positive NFA stock, and equilibrium current account deficits for

Table 5: **Current accounts (CA), current account norms according to the CAN and NFAS approaches and estimated over-/undervaluation of the REER, euro-area Member States** (1)

	Actual CA (% of GDP)	**Current account norms** (% of GDP)		**Estimated over-/undervaluation of the REER** (in %)		**Overall assessment** (2)
		CAN approach	NFAS approach	CAN approach	NFAS approach	
BE	-0.7	1.0	0.6	0.2	-0.1	
DE	7.1	-1.3	0.5	-12.4	-9.9	--
IE	-5.7	-0.1	-0.5	4.0	3.7	
EL	-13.4	-7.0	-5.3	12.8	16.7	++
ES	-9.4	-2.9	-3.2	13.3	12.5	++
FR	-3.8	-0.6	0.1	6.3	7.8	+
IT	-2.2	-2.0	0.0	0.2	4.4	
NL	8.4	1.8	1.4	-6.5	-6.9	-
AT	3.1	-1.5	-0.6	-5.9	-5.0	-
PT	-11.8	-5.3	-3.0	11.5	15.5	++
SK	-6.0	-4.5	-3.1	-2.5	-1.6	
SI	-6.0	-1.9	-1.3	1.9	2.4	
FI	4.2	-0.7	-0.8	-7.5	-7.6	-

(1) No estimates for CY and MT due to lack of adequate data.
(2) + (++) indicates (significant) overvaluation, while – (- -) indicates (significant) undervaluation.

Source: Commission' services.

Summing up, the results of the different approaches robustly indicate strong overvaluation in some Member States (EL, ES, PT) and moderate overvaluation in others (FR), but they also point to cases of significant undervaluation (DE) and to more moderate undervaluation (NL, AT, FI). The last column of Table 5 provides a qualitative summary of the results of the two methods. While equilibrium real exchange rates and over- and undervaluation are notoriously difficult to compute, the fact that the two types of estimates shown in the table give similar results suggest that the results are fairly robust.

countries with a negative NFA stock on condition that the NFA stock is to be stabilised at the current level. This is the outcome of the basic algebra of NFA dynamics: the stabilising current account is proportional to their NFA/GDP ratio. The adjustment need is thus at the lower end since adjustment to a common NFA level for all Member States would imply significantly greater misalignments.

Competitiveness adjustment is not just an exporters' story

Price adjustments to external imbalances do not only involve the export sector, they also implicate the domestic non-tradable (sheltered) sector. Current accounts and REER are not only connected via the direct impact of the exchange rate on the capacity of exporting companies to compete on the world market but also via changes in the allocation of internal resources and demand.

Indeed, economic theory ascribes a potentially important role to the non-tradable sector (i.e. the sector that is not directly exposed to foreign trade) in current account adjustments to external imbalances.[23] The relative price of tradables and non-tradables within a country – the internal exchange rate – is a central variable for households' consumption choices and the allocation of productive factors at sectoral level.

23 See, for example, Obstfeld M. and K. Rogoff (2004), 'The unsustainable US current account position revisited', *NBER working paper*, No 10869.

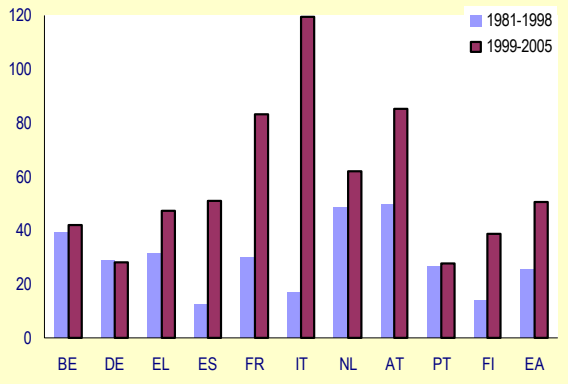
In principle, a decrease in the relative price of non-tradable goods and services or housing makes investment and production in the tradable sector comparatively more profitable, thereby improving the current account. At the same time, the fall in prices makes the consumption of services and housing relatively more attractive, which reduces the demand for imported tradable goods. Furthermore, lower non-tradable goods prices can also reduce prices in the tradable sector since they act as important inputs.

The non-tradable component of the real exchange rate accounts for a significant share of observed fluctuations in real exchange rates. REER measures based on broad price/cost indicators such as the CPI, unit labour costs or the GDP deflator can be decomposed into a tradable and a non-tradable component. The first component – the so-called external exchange rate – measures the competitiveness of the tradable sector whereas the second – the internal exchange rate – captures changes in relative prices in the non-tradable and tradable sectors within a country.[24] Available empirical studies for the US or the OECD show that non-tradable goods and service prices play a significant role in exchange rate fluctuations.[25]

The issue of the role of non-tradables is particularly relevant for the euro area where, due to the elimination of intra-area nominal exchange rate fluctuations, the non-tradable component of the REER tends to be a comparatively larger source of fluctuations in the broad measures of the REER. This is shown in Graph 45, which displays the relative magnitude of the fluctuations in the tradable and non-tradable component of the intra-area REER. Since the introduction of the euro, the relative importance of non-tradable prices as a driver of the real exchange rate has increased significantly in most Member States.

There is empirical evidence that non-tradable prices – the internal exchange rate – do not only play an important role in fluctuations in the overall real exchange rate but also in developments in the current account and the trade balance. In fact, developments in the current account are much easier to explain when non-tradable prices are also taken into account. This can be illustrated in a simple correlation analysis, which shows that in the euro area the export-price-based REER is closely linked to the performance of the export sector but it is less strongly correlated with the current account than the broader measures of the REER (Table 6).

Graph 45: **Relative volatility (1) of the tradable and non-tradable components of the intra-area REER(2), euro-area Member States** (in %).



(1) Ratio of volatility of the non-tradable component to volatility of the tradable component. Volatility is measured by the standard deviations of the annual changes in the corresponding components.
(2) The REER is based on value added deflators. Non-tradable sectors are those with a trade intensity (i.e. [(imports + exports)/2]/value added) of less than 20%.
Source: Commission services.

Table 6: **Correlations between various measures of the REERs and export growth or current accounts**

(Cross-sectional correlations across euro-area countries in %)

	Export growth		Changes in the current account	
REER based on:	**1994-2008**	**1998-2008**	**1994-2008**	**1998-2008**
GDP deflators	18.3	-30.4	-63.2	-59.7
Export prices	-53.2	-63.3	-38.9	-33.3

Source: Commission services.

[24] More precisely, the REER can be decomposed into the equations:

$REER = REER_T \times REER_{NT}$

with: $REER_T = e \times P_T / P^*_T$

and $REER_{NT} = [(P / P_T) / (P^* / P^*_T)$

where P stands for prices and the subscripts T, NT and * denote tradables, non-tradables and the world respectively.

[25] See, for example, Burstein, A., M. Eichenbaum and S. Rebelo (2005), 'The importance of non-tradable goods prices in cyclical real exchange rate fluctuations', CEPR discussion paper No 5306, October.

Box 4: Real effective exchange rates and the trade balance

To assess the relationship between real exchange rates (and particularly the prices of non-tradables relative to tradables) and the balance of goods and services, a panel of EU-15 countries plus AU, CA, CH, JP, NZ and the US in the period 1973-2007 is used. The data are taken from the Commission's AMECO database. The time-series properties of the data are investigated and indicate co-integration. As a co-integration framework is appropriate, we perform the estimation by dynamic ordinary least squares with one lead and one lag (DOLS(-1,1)), see Stock and Watson (1993), Kao and Chiang (2000) and a similar application in Lane and Milesi-Ferretti (2002).

The estimation results show that a significantly negative long-run relationship exists between the balance of goods and services and the real effective exchange rate. A one percent of GDP improvement in the balance of goods and services is associated with a depreciation in the real effective exchange rate based on GDP deflators of 0.9 percent (regression A). In contrast, for the narrow, export price-based REER, no significant relation to the balance of goods and services can be found (C). In other words, if non-tradable prices become relatively cheap, the balance will improve, while a depreciation of only tradable prices will not improve the current account. An increase in the relative GDP per capita level is associated with an appreciation. Regression B shows that the underlying relations between the balance of goods and services and the real exchange rate have not changed with EMU. Overall, the regression results show that broad measures of the exchange rate are significantly related to the balance of goods and services, while narrow ones are not. This suggests that non-tradable prices, which are included in broad measures but not in narrow ones, play a significant role for current account developments. Moreover, EMU does not appear to have changed these underlying relationships (see Ruscher and Wolff (2009) for details).

Panel estimates of determinants of the real effective exchange rate in OECD countries (1973-2007)

	REER based on GDP deflator		REER based on export price deflator
	A	**B**	**C**
Balance of goods and services	**-0.009*** **	**-0.009*** **	**0.000**
	-3.58	-3.25	0.2
EMU* balance of goods and services (2)		**-0.003**	
		-1.2	
Log of relative real per capita GDP	**1.16*** **	**1.15*** **	**0.627*** **
	7.91	9.03	5.37
Relative productivity (3)	**0.001**	**0.001**	**-0.002** **
	0.45	0.71	-2.52
Oil exposure	**-0.008** **	**-0.004**	**-0.008** **
	-2.39	-1.19	-2.46
Sample92 *log of relative real GDP pc (5)		**-0.35*** **	
		-6.04	
Sample92 (5)		**0.05*** **	
		3.35	
EMU (2)		**-0.04*** **	
		-3.08	
N	504	504	504
r2	0.62	0.66	0.54

*** (**) indicate 1 (5)% significance. (1) Difference is the log difference between the broad and the narrow measure of the REER. (2) EMU is a dummy variable equal to one if a country has the euro in a given year. (3) Productivity of the economy relative to trading partners. (4) Domestic productivity of the industrial relative to the service sector. (5) Sample92 is a dummy that takes the value of 1 as of 1992 for all countries. t-values below the coefficient.

References

Kao, C. and M.H. Chiang (2000), 'On the estimation and inference of a cointegrated regression in panel data', in: Baltagi B. (ed.), 'Nonstationary panels, panel cointegration, and dynamic panels', *Advances in Econometrics*, Vol. 15, Amsterdam: JAI Press, 179-222.
Lane, P.R. and G. Milesi-Ferretti (2002), 'External wealth, the trade balance, and the real exchange rate', *European Economic Review*, 46, 1049-1071.
Ruscher, E. and G.B. Wolff (2009), 'External rebalancing is not just an exporters' story: real exchange rates, the non-tradable sector and the euro', European Commission, *European Economy - Economic Paper*, No 375
Stock, J. and M. Watson (1993), 'A simple estimator of cointegrating vectors in higher order integrated systems', *Econometrica*, 61(4), 783-820.

Furthermore, econometric analysis shows that measures of the real exchange rate that include only tradable prices are not significantly connected with the trade balance in OECD countries (Box 4). An improvement of the current account is not significantly related to a depreciation of the narrow, export price-based, REER. In contrast, broad measures of the REER, which include the relative price of non-tradable goods, are significantly connected with the trade balance. An improvement of the trade balance is associated with a significant depreciation of the REER based on the GDP deflator and a fall in the relative price of non-tradable goods and services. These results indicate that competitiveness and current accounts do not depend solely on the performance of exporting companies but are also closely connected with the internal allocation of resources and demand across the tradable and non-tradable sectors.[26]

Adjustments to external imbalances will require a reallocation of resources and demand

Based on the estimates of competitiveness misalignments presented in the previous section, significant adjustments in competitiveness and current accounts appear necessary in several euro-area Member States. In addition to changes in prices, the adjustment processes will involve significant reallocation of resources together with shifts and changes of aggregate demand. For example, a reduction in current account deficits involves both reductions in domestic demand and reallocations of supply and demand between the tradable and the non-tradable sectors. In some Member States, the need for such a reallocation process will be compounded by the fact that current account deficits have been associated with internal imbalances on the housing market and excessive use of resources in that sector.

The ease with which resources can be reallocated in the economy will therefore play an instrumental role in determining the speed and the cost of adjustment. In principle, the more flexible markets are, the more easily the adjustment will take place. Flexibility in labour and product markets appears particularly important for workers and other resources to be moved easily from downsizing sectors to other sectors. However, the existence of significant fixed capital stocks and sector specific human capital may hinder smooth adjustment processes. For example, a construction sector that has grown far above its long-run sustainable level has a significant capital stock that cannot readily be used productively in other sectors of the economy. Germany's experience after the reunification boom shows that it can take time to downsize an oversized construction sector. The adjustment can put a negative drag on economic growth for significant periods of time.

Recent econometric evidence backs the idea of a link between labour market flexibility and competitiveness adjustment. In particular, it shows that the response of prices to changes in activity are either smaller or slower when the level of employment protection legislation, the minimum wage, the union density and the generosity of the unemployment benefits are higher.[27] Tight product market regulations have a similar effect. This would suggest that competitiveness will adjust more quickly towards equilibrium in economies with lower levels of employment protection and product market regulation.

Countries with the greatest adjustment needs are relatively regulated and faced with downward wage rigidities

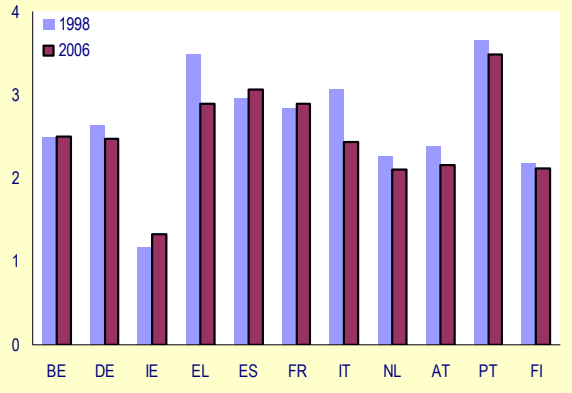
Adjustments ahead might therefore be particularly slow and costly in those countries with the highest adjustment needs and the most regulated labour markets. Indeed, countries with the highest level of labour market regulation in 2006 also have the highest current account and exchange rate misalignments (Graph 46). Portugal, Greece and Spain still have relatively

[26] For more details see Ruscher, E. and G.B. Wolff (2009), 'External rebalancing is not just an exporters' story: real exchange rates, the non-tradable sector and the euro', European Commission, European Economy - Economic Paper, No 375

27 See European Commission - DG ECFIN (2008), 'EMU@10: Successes and challenges after 10 years of Economic and Monetary Union', European Economy 2, Brussels, Belgium, p. 183.

regulated labour markets, which might actually lead to more protracted adjustment processes. [28]

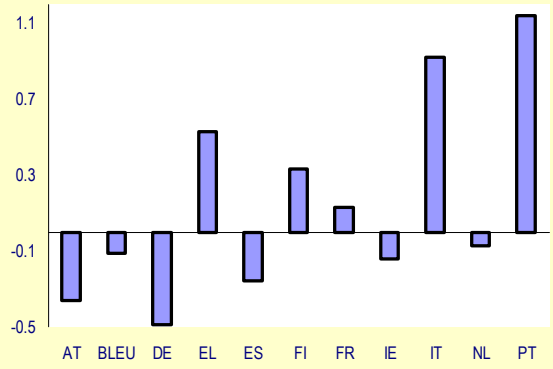
Graph 46: **Labour market regulation in euro-area countries** (Index of employment protection legislation – 1998 and 2006)



Source: OECD Employment Outlook 2004, OECD, Going for Growth, 2007.

Moreover, there is some evidence that downward rigidity of wages may hinder adjustment processes, as it implies an asymmetric response of unit labour costs over the cycle. The response of the REER to cross-country differences in cyclical positions is asymmetric, responding more strongly to excess demand than to excess supply. In particular, econometric evidence shows that relative unit labour costs are more reactive over the cycle during expansions than during downturns in some Member States (e.g. EL, FR, IT, PT, and FI) while, in others, they react broadly symmetrically over the cycle (e.g. BE, IE, LU) or are even more reactive to downswings than upswings (AT, DE) (Graph 47).[29] Since the introduction of the euro, downward rigidity of wages has contributed significantly to the divergence of real effective exchange rates. Overall, downward rigidity of wages implies that higher increases in unemployment are needed to achieve a required improvement in competitiveness. It also implies that adjustment to an overvalued exchange rate could be protracted and could involve significant cost in terms of temporary unemployment.

Graph 47: **Rigidity of relative unit labour costs in total economy** (EA 12 Member States) (1)



(1) "Rigidity" is the difference between the elasticity in the growth of unit labour costs relative to other euro-area Member States to positive and negative output gaps. Output gap elasticities are estimated by regressing the change in a country's competitiveness vis-à-vis the remaining euro-area countries on the relative output gap and the lagged value of the competitiveness indicator, allowing for the coefficient of the output gap to vary across countries. Data are annual and cover the period 1970-2005.
Source: Commission services.

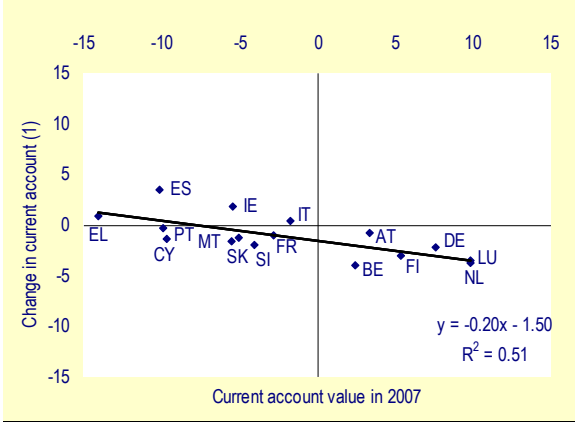
[28] For a discussion of the possible contribution of structural and fiscal policies to adjustment in Spain, see, for example, Martinez-Mongay, C. and L. A. Maza Lasierra (2009), 'Competitiveness and growth in EMU: The role of the external sector in the adjustment of the Spanish economy', *European Economy, Economic Paper*, No 355, January.

29 See 'Market adjustment: the competitiveness channel', Chapter 4 of 'The EU Economy 2006 Review', European Commission, European Economy 6/2006.

5. *Is the financial turmoil speeding up adjustment to external imbalances in the euro area?*

The economic and financial crisis is seriously affecting the euro-area economy. This section attempts to assess the impact of the crisis on the adjustment of the external imbalances identified in this special report. To do so, it uses the European Commission Interim Forecast for 2009-10 released last January. Such an assessment can, by its very nature, only be preliminary as the economic situation is changing fast and forecasts of the main underlying macroeconomic and financial variables are even more difficult and uncertain than usual. The section focuses on current account changes and some of their underlying determinants and on forecast changes in competitiveness.

Graph 48: **Current account positions in 2007 and change over 2007-10, euro-area Member States** (in % of GDP)

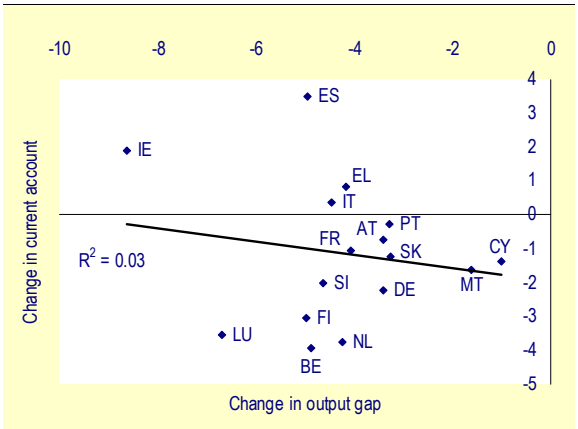


(1) Change in current account from 2007 to 2010.
Source: Commission services, 2010 data are based on January 2009 forecast.

For the crisis to lead to a reduction in the external imbalances of euro-area Member States, it should be associated with a reduction in current account deficits and surpluses. Graph 48 shows the extent to which current accounts are projected to adjust until 2010 relative to their level in 2007. The graph does indeed suggest a significant degree of adjustment. Countries with large current account surpluses are expected to observe significant falls in their surpluses. The data indicate that the ratio of the current account to GDP should drop by 2.2% in Germany, 3.7% in the Netherlands and 3.1% in Finland. In contrast, some deficit countries are forecast to improve their current accounts over the period, most notably Ireland (+1.9%) and Spain (3.5%). On average, however, the estimated changes through to 2010 correct only 20% of the existing differences in deficits and surpluses. More recent data on trade figures suggest that the current account surplus of Germany could fall more significantly than projected due to collapsing world trade and demand. The estimated adjustment of the euro area could thus be larger.

The adjustment is not primarily determined by differences in business cycle developments. Chart 48 shows that all countries are expected to see a significant worsening of their output gap, with most countries losing about 3-5% of their activity between 2007 and 2010 according to the January 2009 interim forecast. Despite these relatively similar changes in the output gap, current account developments are projected to differ substantially across countries.[30] This suggests that the adjustment observed in Graph 48 could reflect some structural rebalancing and is not entirely a temporary cyclical phenomenon.

Graph 49: **Changes in current account and output gap, euro-area Member States** (1)



(1) Current account and output gap are measured in % of GDP
Source: Commission services, 2010 data are based on January 2009 forecast.

In principle, adjustment could be driven by changes in exports as well as changes in imports. Section 2 showed that domestic demand was a

[30] The development of GDP relative to trading partners paints a similar picture.

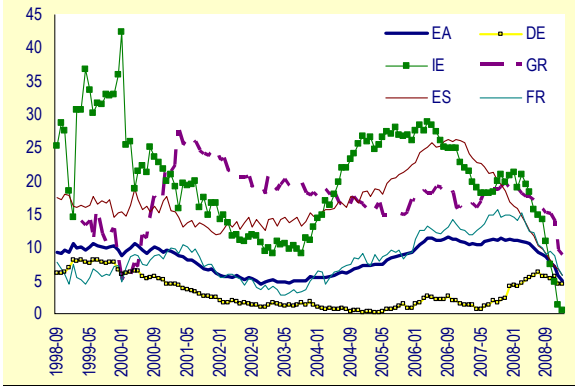
central factor driving current accounts prior to the onset of the crisis. Some countries with significant current account deficits in 2007 are projected to see a fall in domestic demand relative to the rest of the euro area over the forecast period. This holds true in particular for Ireland and to some extent for Spain and Italy. Moreover, households are very actively adjusting their savings. In Ireland and Spain, the net lending of households to the rest of the economy is forecast to increase by 12.9% and 4.7% of GDP from 2007 to 2010 (Greek data are not available). The resulting downward pressure in demand will lead to an improvement in the current account of these deficit countries.

Of the surplus countries, only Finland will experience a sizeable increase in relative domestic demand, while, for Germany and the Netherlands, relative domestic demand will increase only modestly. This suggests that some of the reduction of the current account surplus in surplus countries is significantly driven by falls in export demand rather than strong domestic demand pressures.

Moreover, the estimation results presented in Box 3 suggest a significant link between house prices and current accounts. In line with these econometric results, most countries that have experienced strong housing booms in recent years are projected to see substantial corrections in their current accounts over 2009-10.

The cooling-off of demand pressures related to housing bubbles in some Member States is also visible in credit data. A prime driver of house markets is the extension of credit to the economy. Growth of loans to the non-financial, private sector has fallen significantly in countries with large current account deficits (Graph 50). Growth of credit to household, which reflects to a large extent mortgages, has sharply decelerated over the last couple of years in some of the Member States identified in this special report as countries with competitiveness problems (BE, IE, EL and ES). The slowdown of credit has put a brake on housing and domestic demand in the countries concerned. In contrast, credit figures to the private non-financial sector gained significant momentum in Germany from mid-2007 to mid-2008 (Graph 50), although these' have subsided again since September 2008.

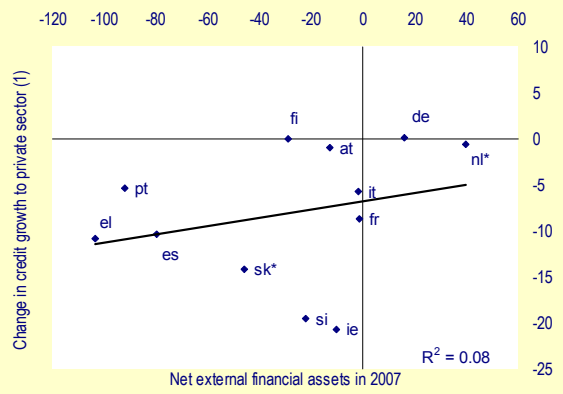
Graph 50: **Loan growth to the non-financial private sector in the EA and selected Member States**
(y-o-y growth – Sep 1998 to Jan 2009) (1)



(1) Growth of loans by monetary and financial institutions to "other euro-area residents".

Source: ECB statistics.

Graph 51: **Change in credit growth to private sector and net foreign assets, euro-area Member States**(1)



(1) Change in annual credit growth between January 2008 and January 2009. Private sector includes non-financial corporations, households, non-monetary financial intermediaries other than insurance corporations and pension funds and insurance corporations and pension funds.

Source: ECB, Commission services.

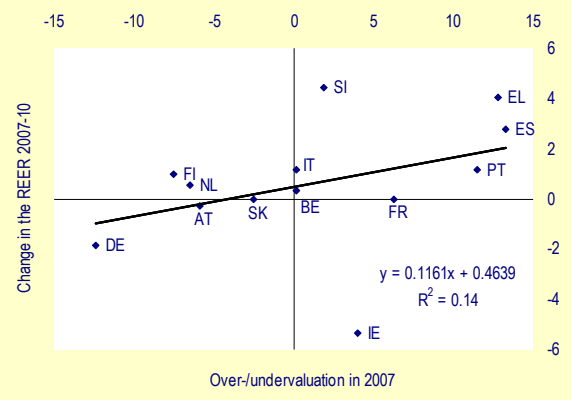
Overall, credit data point to a certain correction of some of the domestic imbalances underlying competitiveness problems. Correction of the debt overhang had started before the onset of the financial turmoil, but it has clearly been boosted by the changes in risk behaviour brought by the global crisis. There is evidence, for example, that credit in euro-area countries is now responding to the level of external debt of the countries considered. Graph 51 suggests, in particular, that countries with large net liabilities

have seen comparatively sharper falls in the credit dynamics of their non-financial private sector. Moreover, credit dynamics have also reacted to the absolute external debt levels. Credit growth has dropped sharply in both Ireland and Belgium, both of which have comparatively large gross external debt levels.[31] A likely interpretation is that the global financial turmoil is forcing a deleveraging of the private sector in those countries which post the highest international financial exposure, i.e. those which have high levels of (net) debt relative to the rest of the world. In this sense, the credit figures provide some tentative evidence of changes in leverage ratios across the euro area and therefore of the correction of some of the key domestic imbalances that underlie competitiveness problems.

The current crisis, however, has so far brought only limited adjustment in effective exchange rates. Graph 52 shows that REER are not forecast to move firmly in the direction of closing estimated over- (or under-) valuations during the period 2007-10. On the contrary, most countries with overvalued real exchange rates are expected to lose further competitiveness while undervalued economies will continue to gain competitiveness. The only exception is Ireland, which will clearly regain competitiveness and is expected to close its competitiveness gap by 2010. It is worth noting that unit labour costs (ULC) are projected to go some way to rebalancing existing competitiveness disequilibria. In particular, Germany is forecast to experience growth in ULC above the euro-area average in 2009. Conversely, France and Spain are expected to see slower growth in ULC than their main trading partners in 2009 and 2009-2010, respectively. This rebalancing of labour costs will, however, be offset by opposite movements in profit margins, leading to only limited rebalancing of the measures of REER based on prices (GDP or export deflators).

The forecast therefore suggests that ongoing adjustments in the current account are not primarily driven by price changes. Rather, the adjustment is determined by rapidly falling domestic demand in deficit countries and some reductions in exports. The absence of the necessary price adjustment suggests that the ongoing crisis will take an even bigger toll in terms of unemployment and underutilisation of capital in countries suffering from external imbalances than in the rest of the euro area.

Graph 52: **Exchange rate adjustment and over-undervaluation, euro-area Member States** (1)



(1) REER against the other euro-area Member States (EA 16) based on the GDP deflator. Over-/undervaluation as measured by the CAN approach shown in Table 5.
Source: Commission services, 2010 data are based on January 2009 forecast.

Overall, the turmoil is, to some extent, speeding up adjustment to external imbalances within the euro area although it is only doing so partially and at a high cost. According to the forecast, current account divergence within the euro area should diminish between 2008 and 2010 although Member State differences should remain high at the end of the period. This moderate convergence in current account positions reflects country differences in domestic demand developments and the extent of deleveraging in the private sector. The correction of some domestic imbalances, notably in credit and housing markets, has not, however, been associated with significant changes in price competitiveness so far. While some moderate adjustments of unit labour cost developments are forecast for 2009, country differences in price competitiveness are projected to remain high over the forecast horizon. The absence of price adjustment means that the projected (partial) correction of current account imbalances within the euro area might be achieved with high costs in terms of unemployment and underutilisation of capital.

31 However, in the Netherlands, credit growth numbers have not fallen much recently even though the absolute debt level is high.

6. Overall assessment and policy implications

Over the past decade, the euro area has experienced significant divergence in the external economic performance of its individual Member States, notably in terms of price competitiveness but also with respect to current accounts and external foreign asset positions.

The diverging trend can be ascribed to a range of factors, some of which reflect a normal and healthy functioning of the euro-area economy. For example, changes in price competitiveness partly reflect cross-border convergence in the price level of tradable goods, Balassa-Samuleson effects and a healthy response to cyclical differences between Member States. Similarly, the euro has facilitated the divergence in current accounts by giving euro-area catching-up economies better access to international capital markets and allowing them to run larger trade deficits than in the rest of the OECD.

However, the divergence trend also has less benign causes which warrant close monitoring. Differences in price competitiveness or current accounts can indeed also be related to the build-up of a range of domestic macroeconomic imbalances in some Member States. With a mix that varies depending on the countries considered, these imbalances include inappropriate responses of wages to country-specific shocks, the build-up of high private sector and external debt and surging house prices. Although catching-up economies in the euro area have benefited from large capital inflows, foreign capital has not always been channelled to the most productive uses, with capital inflows having sometimes been used primarily for consumption or housing investment. Some of the macroeconomic imbalances underlying competitiveness problems, notably surging housing prices and private-sector debt, have also increased vulnerability to abrupt changes in financial market conditions and have therefore aggravated exposure to the ongoing financial turmoil.

Estimates of equilibrium real exchange rates suggest that real effective exchange rates might be overvalued by as much as 10-15% in some Member States and undervalued by 5-10% in others. Hence, adjusting to external imbalances will probably require a substantial rebalancing of relative prices within the euro area. This adjustment will not only involve cuts in production costs and prices in the export sector, it will also imply changes in the domestic part of the economy concerned. In particular, there will be a need for reallocation of demand and productive resources between the sheltered sector and the export sector, as well as changes in relative prices between these two sectors. The speed and the economic cost of the adjustment will therefore depend both on the degree of price and wage flexibility and on the ease with which resources can be reallocated across sectors in the countries considered. In this respect, it is of some concern that Member States facing large adjustment needs generally exhibit a level of product and labour market regulation above the – already high – euro-area average. Furthermore, empirical evidence shows that wages are generally more rigid downwards than upwards, a factor which could lengthen the adjustment period in Member States that need to improve their price competitiveness.

The ongoing financial turmoil seems, to some extent, to be speeding up adjustment to external imbalances within the euro area but it is only doing so partially and at a high cost. According to the latest European Commission interim forecast, some moderate convergence in current accounts should take place in 2009-10 as the financial turmoil forces the correction of some domestic imbalances in credit and housing markets. However, the adjustment will take place with only limited rebalancing in price competitiveness and will therefore come at a high cost in terms of unemployment and underutilisation of capital.

A number of broad policy implications can be derived from the analysis presented here in terms of product and labour market functioning, and also fiscal policy and surveillance of inflows of foreign capital.

Policies geared to improving the functioning of product and labour markets would help to contain divergences in competitiveness and to facilitate adjustments. Restoring competitiveness will be easier if resources can be mobilised more efficiently in order to raise productivity and

reduce labour costs. This is true both for the export sector and also for the non-tradable sector, which will play an important role in adjustment processes. This suggests that policies should also aim to improve productivity, flexibility and/or competition outside the export sector. Against this background, policies that promote competition in the services sector (still largely non-tradable) appear to be of particular importance.

As regards fiscal policy, it is essential to avoid instances of pro-cyclicality, and to take more account of the impact of asset price developments on fiscal revenues. Experiences in the euro area so far show that fiscal policy can help to manage catching-up processes more effectively and to halt the build-up of imbalances, although this may not be enough on its own. Adjustment processes in response to large external imbalances also need to be taken into account when assessing fiscal positions in order to avoid policy mistakes that would further worsen competitiveness and the structural budgetary situation.

On the financing of current account deficits in catching-up economies, more needs to be done, in terms of both surveillance and structural measures, to avoid the build-up of competitiveness imbalances. Excessive channelling of capital inflows to households comes with two types of risks. First, massive flows of foreign capital in the housing sector can lead to the formation of housing bubbles and the build-up of excessive household debt. Such imbalances are costly and lengthy to resolve and require significant reallocation of labour and capital across sectors, in particular from the construction sector to the other sectors in the economy. They also raise the vulnerability of the economy to abrupt changes in financial market conditions. Second, even in the absence of a housing bubble, the use of foreign capital for consumption or housing investment purposes raises concerns about the missing benefits of alternative, more productive, uses of foreign capital.

Overall, there is therefore a need to take into account asset markets and private-sector balance sheets in competitiveness surveillance exercises. Furthermore, there is also a need to identify the structural and fiscal factors that may help to make the household sector more attractive to foreign capital than the corporate sector.

III. Recent DG ECFIN publications

1. Policy documents

EUROPEAN ECONOMY. 7. December 2008.
The 2009 Ageing Report: Underlying Assumptions and Projection Methodologies for the EU-27 Member States (2007-2060)
http://ec.europa.eu/economy_finance/publications/publication_summary13784_en.htm

Interim Forecast January 2009
http://ec.europa.eu/economy_finance/thematic_articles/article13727_en.htm

EUROPEAN ECONOMY. 1. January 2009.
Five years of an enlarged EU. Economic achievements and challenges
http://ec.europa.eu/economy_finance/publications/publication_summary14081_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 43. March 2009.
Recent reforms of the tax and benefit systems in the framework of flexicurity
http://ec.europa.eu/economy_finance/publications/publication_summary14274_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 44. March 2009.
Progress towards meeting the economic criteria for accession : the assessments of the 2008 Progress Reports
http://ec.europa.eu/economy_finance/publications/publication_summary14270_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. No. 45. March 2009.
The quality of public finances and economic growth. Proceedings to the annual Workshop on public finances (28 November 2008)
http://ec.europa.eu/economy_finance/publications/publication_summary14276_en.htm

2. Analytical documents

EUROPEAN ECONOMY. ECONOMIC PAPERS. 353. December 2008.
Servaas Deroose, Martin Larch and Andrea Schaechter (European Commission)
Constricted, lame and pro-cyclical? Fiscal policy in the euro area revisited
http://ec.europa.eu/economy_finance/publications/publication_summary13682_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 354. January 2009.
Gilles Mourre (European Commission)
What explains the differences in income and labour utilisation and drives labour and economic growth in Europe? A GDP accounting perspective
http://ec.europa.eu/economy_finance/publications/publication_summary13794_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 355. January 2009.
Carlos Martinez-Mongay (European Commission) and Luis Angel Maza Lasierra (Bank of Spain and European Commission)
Competitiveness and growth in EMU: The role of the external sector in the adjustment of the Spanish economy
http://ec.europa.eu/economy_finance/publications/publication_summary13757_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 356. February 2009.
Salvador Barrios (European Commission), Harry Huizinga (Tilburg University and CEPR), Luc Laeven (International Monetary Fund and CEPR), Gaëtan Nicodème (European Commission, CEB, CESifo and ECARES)
International taxation and multinational firm location decisions
http://ec.europa.eu/economy_finance/publications/publication_summary14220_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 357. January 2009.
Werner Roeger and Jan in 't Veld t (European Commission)
Fiscal policy with credit constrained households

http://ec.europa.eu/economy_finance/publications/publication_summary13837_en.htm

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Torben M. Andersen, School of Economics and Management, Aarhus University, CEPR, CESifo and IZA
Taxes and employment - is there a Scandinavia puzzle ?
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Real convergence, financial markets, and the current account - Emerging Europe versus emerging Asia
http://ec.europa.eu/economy_finance/publications/publication_summary14303_en.htm

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The EU Enlargement and Economic Growth In the CEE New Member Countries
http://ec.europa.eu/economy_finance/publications/publication_summary14313_en.htm

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Jan Babecký, Czech National Bank, Aleš Bulíř, International Monetary Fund and Kateřina Šmídková, Czech National Bank and Charles University
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http://ec.europa.eu/economy_finance/publications/publication_summary14315_en.htm

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http://ec.europa.eu/economy_finance/publications/publication_summary14322_en.htm

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Ralph Setzer and Guntram B. Wolff (European Commission)
Money demand in the euro area: new insights from disaggregated data
http://ec.europa.eu/economy_finance/publications/publication_summary14537_en.htm

3. Regular publications

Business and Consumer Surveys (harmonised surveys for different sectors of the economies in the European Union (EU) and the applicant countries)
http://ec.europa.eu/economy_finance/db_indicators/db_indicators8650_en.htm

Business Climate Indicator for the euro area (monthly indicator designed to deliver a clear and early assessment of the cyclical situation)
http://ec.europa.eu/economy_finance/indicators/business_consumer_surveys/2009/bci_2009_02_en.pdf

Key indicators for the euro area (presents the most relevant economic statistics concerning the euro area)
http://ec.europa.eu/economy_finance/publications/publication12486_en.pdf

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://ec.europa.eu/economy_finance/publications/publ_list2609.htm

Price and Cost Competitiveness
http://ec.europa.eu/economy_finance/db_indicators/db_indicators8642_en.htm

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