QUARTERLY REPORT ON THE EURO AREA

Volume 8 N° 3 (2009)

Highlights in this issue:

– Recent economic and financial developments
– Global current-account imbalances and implications for the euro area
– The interrelations between household savings, wealth and mortgage debt
– Focus: The slump in world trade and its impact on the euro area

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS

ISSN

Table of contents

EDITORIAL

The euro-area economy has entered a phase of stabilisation. Determined and concerted policy action successfully prevented the economy from falling into depression. Signs of improvement in the economic situation have become increasingly apparent since the start of this autumn. Growth in both Germany and France surprised on the upside in the second quarter and pulled the euro area up. More good news is likely to be in store as the global economic environment is improving, the inventory cycle is set to turn and further, already planned, discretionary policy measures are becoming effective. There is reason for caution, however.

It is only a year ago that shock waves from financial markets inflicted the biggest shock to the global economy in post-war history. What is at stake now is the successful transition from still fragile recovery to self-sustained, durable growth and to avoid a protracted period of subdued growth. I see five issues that need careful consideration.

First, the repair of the financial sector still remains unfinished business. We must seize the momentum of the recovery to complete the restoration of stable, competitive and efficient financial markets. This calls for further cleaning of impaired assets from balance sheets and the provision of additional capital if needed. The amounts potentially needed are high, but manageable as the results of the recent EU-wide stress-test have shown.

The global economy is the second aspect I have in mind. The G-20 Heads of State and Government in Pittsburgh agreed to a new framework to rebalance global growth in an orderly manner. For deficit countries like the US this means supporting private savings, undertaking fiscal consolidation and avoiding protectionist measures. And for surplus economies like China it means the reorientation of attention from the tradable to the non-tradable sector. Such reorientation is highly welcome. But it can only be the result of a longer adjustment process. Together with our international partners we will have to ensure that this process moves forward and that the euro area, altogether broadly balanced, does not bear an unfair burden of adjustment.

The third consideration relates to labour markets. While the full impact of the crisis on employment is yet to come, in a number of countries unemployment has increased less than expected given the severity of the crisis. As confidence in the recovery is gaining momentum, there is hope that in some Member States the rise in unemployment may be less marked than feared earlier this year. In particular those economies that undertook labour market reforms in line with the Lisbon strategy in the past may benefit from a faster turnaround in the labour market when the economy picks up. Others still have considerable work to do. The euro-area economy cannot afford to leave the newly unemployed permanently excluded from the labour force.

Fourth, within the euro area the crisis has put the spotlight on important domestic economic imbalances which need correction. We analysed these aspects in depth in our EMU@10 report last year. In some Member States the correction ahead implies the downsizing and adjustment of oversized sectors, including in particular construction, but also the reduction of high private-sector debt and the adjustment of unsustainable current-account imbalances. It will take time for countries with entrenched current-account deficits to restore competitiveness. But also current-account surplus economies face the need to undertake reforms in order to boost domestic demand. Euro-area members must embrace these challenges in a constructive and coordinated manner to ensure the euro area's recovery is balanced and not a source of new distortions.

Finally, we need to remain concerned about potential growth. If not adequately addressed, the protracted economic restructuring, the risk of rising structural unemployment, the fall in investment, and the likely higher financing costs for R&D and innovation will take their toll on growth and productivity growth in the years to come. We reported in detail about the potential impact of the crisis on growth potential in our June edition of the Quarterly Report on the Euro Area and concluded that policies matter. Ultimately, boosting potential growth is the aim of the EU 2020 Strategy put forward by President Barroso.

So, what do these considerations mean for policy making at this juncture? First, we need to complete implementing the support measures for our economies. At this stage, much of the highly welcome stabilisation of the economy is the result of the extraordinary public support put in place under the umbrella of the European Economic Recovery Plan. A premature policy withdrawal would jeopardise the still fragile recovery.

At the same time, as highlighted in our recent European Economy report on "Economic Crisis in Europe", we need to start broadening our focus beyond short-term demand management to redress the supply-side forces of our economies. It is time to work out a comprehensive exit strategy from the crisis and the extraordinary fiscal, monetary and financial support provided to the economy. At the informal Ecofin meeting in Gothenburg on 1-2 October, Ministers started the discussion of a comprehensive policy strategy beyond the crisis. It is aimed at sustaining the recovery; ensuring fiscal sustainability; rebuilding a stable and viable financial sector; strengthening potential growth; and contributing to the tackling of macro-economic imbalances. Structural reform, enhancing the quality of public finances and strengthening the incentives for raising the productive capacity of the economy will have to play a prominent role in our strategy for recovery.

Public deficits have increased sharply in the course of the crisis, reflecting a combination of steep falls in revenues, the operation of automatic stabilisers, the stimulus measures undertaken and the financial market interventions. This has been the right choice. As a result, debt is rising fast. Eventually fiscal tightening will have to begin and to be sustained for a number of years to ensure a return to sustainable public finances.

Key issues that require attention include the timing, intensity and sequencing of policy withdrawal. To be successful in this process, close coordination among Member States will be needed to ensure optimal cross-country differentiation but also cross-policy consistency. Withdrawal of the fiscal stimulus, accompanied by structural fiscal consolidation measures, would improve the conditions for price stability and so allow for an appropriate macroeconomic policy mix. Ambitious reforms of labour, product and financial markets are essential and should be an integral part of a consolidated exit strategy. The euro area faces specific coordination challenges in this context, given the stronger interdependences between its members.

In this Quarterly Report on the Euro Area, we address some of the economic trends mentioned above. First, in assessing the economic situation, we take a look at the implications of a reduction in global current-account imbalances on the euro area. Besides the direct implications in the form of reduced export opportunities, the euro area may come under significant price pressure. Although the euro area as a whole did not contribute to the global imbalances, it will have to be part of the solution. The main task of policy makers is to bring structural reform forward with a view to fostering adjustment and boosting potential growth.

In the Focus section, we investigate the slump in world trade and its implications for euro-area exports. World trade fell at a rate not seen since the Great Depression and much faster than world economic activity. This sharp fall can be related to the increased internationalisation of production chains, difficulties with trade finance and the strong impact of the recession on the demand for trade intensive goods, like investment in equipment. The slump had a strong impact on the euro area but the effect differed across Member States, depending on the size and structure of exports. Recent data point towards a stabilisation of world trade falls but the overall prospects remain subdued and euro-area exports might not return to the dynamics recorded before the crisis.

House-price and balance-sheet adjustments are a prominent feature of the current crisis. We show that the interaction between financial wealth, house prices and indebtedness plays a crucial role for euro-area household spending. There is evidence that mortgage debt had overshot prior to the crisis. The correction of this debt overhang, but also the fall of equity prices during the crisis, are taking their toll on consumption in the euro area. In the absence of further falls in asset prices, we expect these negative effects to progressively wear off, but tightening credit constraints remain a risk to consumption.

The transition from today's nascent recovery to sustained growth is a delicate balancing act. By addressing these challenges with determination the euro area has the potential to emerge stronger and more united from the crisis.

MARCO BUTI

DIRECTOR-GENERAL

I. Economic situation in the euro area

The euro area has entered a phase of stabilisation. But uncertainty about the strength and sustainability of the recovery remains. Important policy actions have allowed some stabilisation in the financial system and have provided support to economic activity during the last few months. The marked improvement in financial markets is reflected in declining risk premiums in money and credit markets and rising stock markets. Some financial indicators have even come back to pre-crisis levels. Real economic activity also witnessed substantial improvement during the second quarter; growth only fell by 0.1%. The slight contraction was driven by continued inventory adjustment and another fall in investment, though much more moderate than in previous quarters. Looking forward, there are signs that the economy is gathering positive momentum. The global economy seems to be picking up, the inventory cycle is set to turn and confidence continues to improve. These positive signs should, however, be seen in a context of high uncertainty, with in particular the full impact of the crisis on employment still to come. All in all, some further improvement will probably materialise in the third quarter but the sustainability of the recovery is not yet guaranteed. The Commission's September interim forecast projects growth at 0.2% and 0.1% q-o-q respectively for 2009Q3 and 2009Q4 and, for 2009 as a whole, the fall remains unchanged at -4%, compared to the spring forecast.

Over the last decade, significant current-account imbalances have built up in the global economy. Some of these imbalances are now unwinding as a reaction to the economic and financial crisis. The unwinding is partly cyclical but also has some more durable features. Countries with large current-account deficits such as the US are likely to experience lasting downward pressures on demand as the private sector undergoes a protracted process of balance-sheet repair. The euro area has not contributed to the build-up of global imbalances but could be significantly affected by an asymmetric unwinding in deficit countries, where debt leads to a reduction in demand. In such a scenario, the euro area could face real exchange rate appreciation pressures. Structural reforms, such as service sector reforms, support adjustment inter alia by facilitating resource allocation from the tradable to the non-tradable sector. Moreover, stepped-up euro-area representation in global macroeconomic and financial affairs could contribute to facilitating an orderly adjustment of global imbalances.

The interaction between net wealth and indebtedness plays an important role in the determination of household spending in the euro area. Past trends in savings can largely be explained by financial wealth effects and the interaction between credit constraints and house prices. Credit constraints translate into a positive link between savings and house prices: when house prices increase, households need to save more to pay for the share of their acquisition that is not covered by the mortgage. There is also evidence that mortgage debt had overshot the level determined by its fundamentals already before the onset of the financial crisis. The correction to this debt overhang and past sharp falls in equity prices are currently taking their toll on consumption in the euro area. In the absence of further falls in asset prices, these negative effects should, however, wear off progressively in 2010 and give way to a gradual recovery of consumption. Nevertheless, a possible increase in credit constraints in the wake of the financial crisis still remains a serious risk to a consumption rebound.

1. Recent economic and financial developments [1]

The situation in financial markets has improved during the last six months with risk premiums in money and credit markets declining and stock markets rising, partly reflecting unprecedented steps taken by central banks and governments. Several financial indicators have now reached pre-crisis levels. However, money and credit growth to enterprises and households remains subdued on the back of low asset prices and weak demand and more restrictive credit supply by financial institutions as rising loan defaults continue to weigh on banks' balance sheets. All in all, the recent stabilisation in financial markets appears to be fairly robust although the risk of a negative feedback loop from the real economy is still present, in particular if employment continues to deteriorate and the number of insolvencies continues to rise.

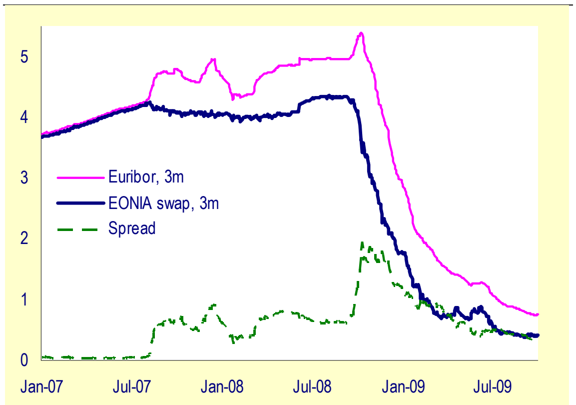
Money and bond markets

Conditions in euro-area money markets have improved markedly. The euro-area 3-month (unsecured) money market rate declined to around 0.75% by the end of September 2009, from 1.11% by the end of June 2009 and 5.39% at the peak in October 2008. The low interest rate reflects easing global economic and financial risk perceptions as well as low policy rates and large liquidity injections by the ECB. However, the

(1) The cut-off date for the statistics included in this issue was 1 October 2009.

very low money market rates (currently below the ECB's 1% interest rate on the main refinancing operations) also indicate that banks have a high liquidity preference and prefer to lend short term. Interbank spreads, measured as the difference between unsecured money market rates and risk-free interest rates with similar maturity, have continued to decline during the last three months to levels only moderately above pre-crisis levels. The 3-month interbank spread was around 35 basis points at the beginning of October 2009, which compares to nearly 200 basis points in mid-October 2008.

Graph I.1.1: **Euro-area money market**
(in %, spread in pp — 1 Jan 2007 to 1 Oct 2009)



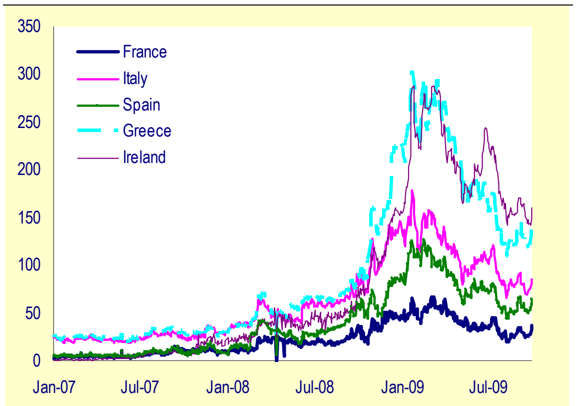
Source: EcoWin.

German 10-year government bond yields have fallen considerably over the last three months, and they seem to embody a more cautious assessment of the growth outlook than that reflected in stock price developments over the same period. Moreover, sustained buying of government bonds by the banking sector and institutional investors may have supported bond prices, despite strong issuance. The 10-year Bund yield stood at 3.15% by the beginning of October 2009, compared to 3.38% by the end of June 2009. Other euro-area government bond yields generally declined more strongly, implying that yield spreads on euro-denominated government bonds relative to the German Bund narrowed amid lower risk aversion in general. However, these spreads still remain at high levels compared to the pre-Lehman situation. The spread is highest in Ireland (160 bps), Greece (137) and Malta (126).

Financing costs decline further

The overall cost of finance has declined in recent months, as retail lending rates have followed market interest rates on their downward path. Moreover, corporate bond yield spreads over the German Bund have narrowed since the beginning of 2009. In particular, spreads on the more risky bonds have declined significantly, with spreads on BBB-corporates down by nearly 90 bps during the last three months, to 174 bps. Spreads on AAA-corporates recorded more limited declines of around 20 bps over the review period. The lower spreads reflected the decline in general risk aversion since March 2009.

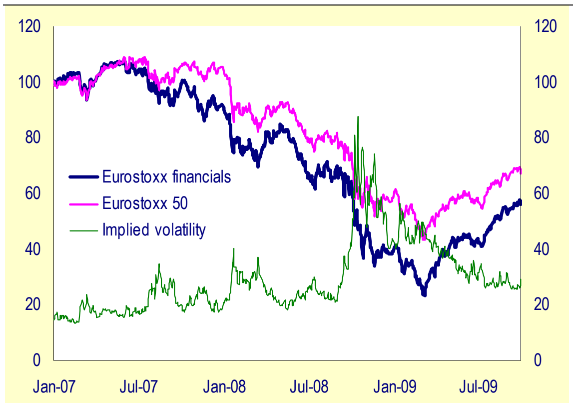
Graph I.1.2: **Corporate bond spreads, euro area**
(in bps — 1 Jan 2007 to 1 Oct 2009)



Source: EcoWin.

Moreover, the ECB initiated its covered bond purchase programme in July 2009, in which euro-denominated covered bonds for approximately EUR 60 billion were purchased. According to the programme, the bonds must be eligible for use as collateral for Eurosystem credit operations, have an issue volume of about EUR 500 million and have, as a rule, a minimum rating of AA by one or more of the main rating agencies.

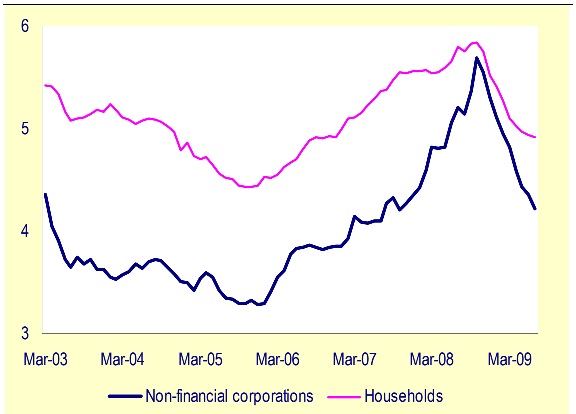
Graph I.1.3: **Stock prices and implied volatility of stock prices**
(2 Jan 2007=100, 1 Jan 2007 to 1 Oct 2009)



Source: EcoWin.

By stimulating demand for corporate bonds, the programme added further to the narrowing of corporate bond spreads. Nevertheless, overall conditions in corporate bond markets still remain relatively tight compared to the pre-crisis situation. Euro-area equity prices have risen sharply in the last six months amidst evidence of an inflexion point in the business cycle and improved earnings results. Although stock prices retrenched somewhat in June and the first half of July, the Eurostoxx50 increased as of mid-July and onwards and by 1 October 2009 it was 55% above its March 2009 trough.

Graph I.1.4: **Composite financial indicator, euro area** (in %, Mar 2003 to July 2009)



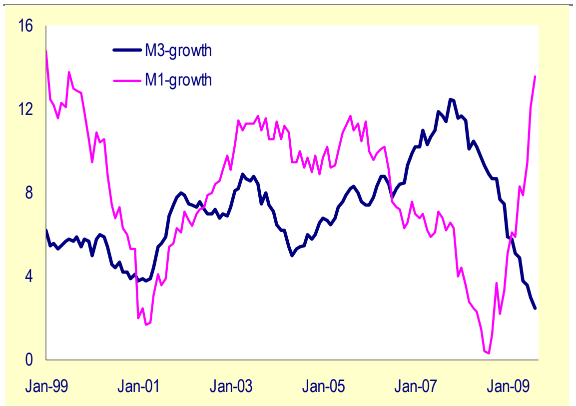
Source: EcoWin.

The European Commission's Composite Nominal Financing Cost Indicators (CFCI) for non-financial euro-area corporations and households declined by around 1.5 pp. and 1 pp., respectively, since their peak in October 2008. For non-financial corporations, the cost of bank loans, equity capital and market debt all declined thanks to lower interest rates, rising stock prices and narrowing corporate bond spreads. For households, the cost of all types of loans continued to decline as both retail and market interest rates fell further. As a result, the July CFCI for households stood at its lowest level since December 2006.

Credit growth still subdued

Money and credit growth continued to decline over the last three months on account of the weak economic activity and the steepening of the euro-area yield curve. The steepness of the yield curve, reflecting the low ECB key interest rates, increased incentives to shift out of monetary assets. An overall lower degree of investors' risk aversion might also have contributed to outflows from money holdings towards assets with longer maturities. Growth in the broad monetary aggregate, M3, was only 2.5% in August, down from 3.6% in June, thus continuing on its downward trend.

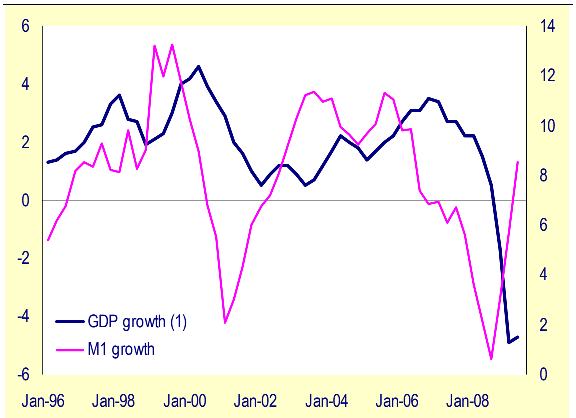
Graph I.1.5: **Monetary aggregates** (in y-o-y % change, Jan 1999 to Aug 2009)



Source: EcoWin.

In contrast, the growth rate of the narrow monetary aggregate, M1, increased strongly, to 13.6% in August. In August 2008, M1 growth was as low as 0.3%. M1 growth is often considered as one of the best forward-looking leading indicators for economic activity in the euro area, although this relationship might have been affected by the financial crisis. Indeed, the very low opportunity costs of holding short-term liquidity as well as investors' preference to hold liquid assets for precautionary reasons have contributed to the extensive increase in the annual growth rate of M1.

Graph I.1.6: **M1 as a leading indicator for GDP** (y-o-y % change — 1996Q1 to 2009Q2)



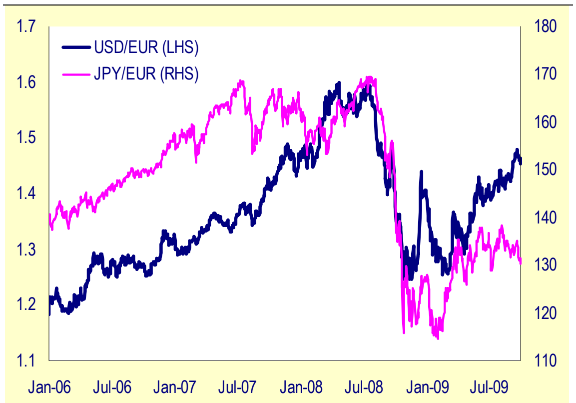
(1) GDP growth is lagged by 4 quarters
Source: EcoWin.

The annual growth rate of loans to non-financial corporations dropped to 0.7 per cent in August, down from 2.8 per cent in the previous month, along the downward trend that started in March 2008. Loans growth to households contracted by 0.2 per cent (y-o-y) in August, compared to 0.2 per cent in June. According to the July ECB Bank Lending Survey, lower demand for credit due to the deteriorating economic outlook, economic uncertainty and the ongoing de-leveraging process in non-financial corporations have been the main explanatory factors behind the decline in loan growth, rather than supply-side restrictions. Nonetheless, access to finance remains subdued. In particular small and medium-sized enterprises as well as households report a deterioration in banks' willingness to provide loans. They highlight above all the worsening of non-interest rate costs and conditions and more restrictive collateral requirements.

Exchange rate developments

The euro has seen large swings against its major trading partners' currencies in recent quarters. Since mid-September 2008, foreign exchange markets have been largely driven by portfolio shifts as a result of changes in risk aversion. In nominal effective terms (NEER), the euro continued to appreciate by 7% between November 2008 and March 2009, but stabilised somewhat thereafter. Over the last three months, the NEER has appreciated slightly. In real effective terms (REER), the euro is slightly stronger than a year ago. The euro CPI-deflated REER is currently almost 8 per cent above historical averages (1994-2008). ECFIN's estimates of the euro equilibrium exchange rate also point to a strong euro.

Graph I.1.7: **Euro, dollar and yen exchange rates** (2 Jan 2006 to 1 Oct 2009)

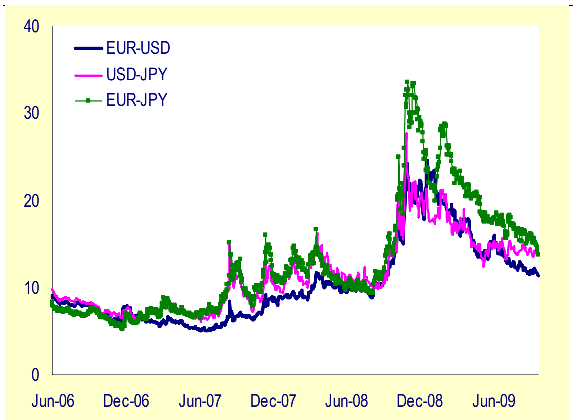


Source: EcoWin.

Developments in the effective euro exchange rates mask different evolutions in bilateral exchange rates. The euro appreciated / depreciated against the US dollar (and the yen) whenever risk aversion decreased / increased. Appreciations of the dollar were largely driven by its safe-haven status and the high liquidity of dollar-denominated securities.

Since March 2009, the euro has steadily appreciated against the dollar as stock markets rose, exchange rate volatility declined and overall risk aversion receded. By 1 October 2009, the euro traded at 1.45 vis-à-vis the dollar, which compares to 1.41 in late June and around 1.25 in early March 2009.

Graph I.1.8: **Exchange rate volatility** (1 Jun 2006 to 1 Oct 2009)



Source: EcoWin.

The yen appreciated vis-à-vis the euro following the intensification of the financial crisis in the autumn of 2008 when risk aversion in financial markets increased, leading to an unwinding of carry trades and Japanese investors repatriating funds. In March 2009, however, the yen started to depreciate against the euro as risk sentiment improved and carry trades were resumed. In late September 2009, the yen traded at 130 vis-à-vis the euro, only little changed compared to the end of June 2009.

The pound sterling has depreciated around 8% vis-à-vis the euro since June 2009 on more favourable indicators for economic activity in the euro area than in the UK and concerns that the pound's long-run value may have been fundamentally undermined by the financial crisis. Central European currencies have recently recovered part of the sharp depreciation that occurred between September 2008 and March 2009. In particular, the Polish zloty appreciated by about 10% against the euro in July while the Hungarian forint appreciated around 7% during June and July. Since then, both currencies have been relatively stable.

Table I.1.1: **Euro-area growth components**

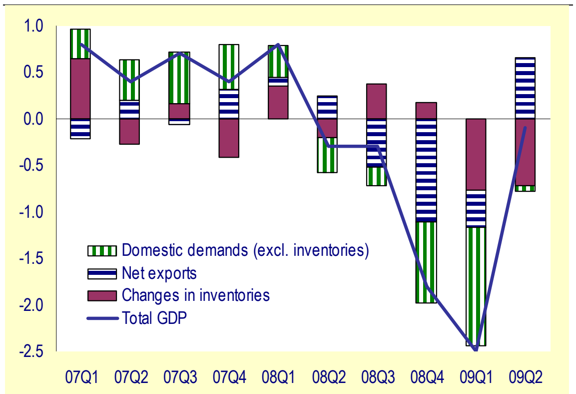
	2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2	Carryover to 2009
	Percentage change on previous period, volumes					
GDP	-0.3	-0.3	-1.8	-2.5	-0.1	-4.1
Private consumption	-0.4	0.0	-0.5	-0.5	0.2	-0.8
Government consumption	0.9	0.5	0.6	0.7	0.4	1.9
Gross fixed capital formation	-1.4	-1.4	-3.4	-5.3	-1.3	-9.6
Exports of goods and services	-0.5	-0.9	-7.2	-8.8	-1.1	-15.0
Imports of goods and services	-1.1	0.3	-4.7	-7.8	-2.8	-13.1
	Percentage point contribution to change in GDP					
Private consumption	-0.2	0.0	-0.3	-0.3	0.1	-0.5
Government consumption	0.2	0.1	0.1	0.1	0.1	0.4
Gross fixed capital formation	-0.3	-0.3	-0.7	-1.1	-0.3	-2.1
Changes in inventories	-0.2	0.4	0.3	-0.7	-0.8	-0.9
Net exports	0.3	-0.6	-1.2	-0.5	0.7	-1.1

Source: Commission services.

The euro-area economy is starting to stabilise

The euro-area economy contracted by 0.1% q-o-q in the second quarter of 2009. This was the fifth consecutive quarterly decline, but it marked a substantial improvement on the previous quarter when the euro-area economy had suffered its worst rate of contraction (-2.5%) since at least the 1970s. This data confirms the view that an inflection point might have been reached during the first quarter.

Graph I.1.9: **Contribution to real GDP growth, euro area** (q-o-q contributions in pp — 2007Q1 to 2009Q2)



Source: Commission services.

Among euro-area countries, growth was however fairly uneven. Germany and France posted an unexpected 0.3% q-o-q growth while activity continued to contract, though more moderately than in the previous quarter, in Italy (-0.5%), the Netherlands (-0.9%) and Spain (-1.1%). Most of the countries, except Italy and Spain, surprised positively compared to the projections in the Commission Spring Forecasts. With the exception of stock-building, all GDP components experienced some improvement compared to the first quarter.

Stimulus measures and low inflation boosted consumption

Household consumption grew by 0.2% q-o-q in the second quarter of 2009, contributing significantly to the stabilisation. Growth was particularly strong in Germany (0.7% q-o-q). This was due to a large extent to higher car purchases as a result of the scrappage premium. Household consumption in France (0.3%) also benefited from the financial incentive introduced to scrap old cars.

In addition, household consumption was boosted by very low inflation. Euro-area annual HICP headline inflation stood on average at 0.2% y-o-y during the second quarter. It declined to -0.6% y-o-y in July and jumped back to -0.2% in August; the third consecutive negative month. According to Eurostat's flash estimate, euro-area inflation is expected to be -0.3% y-o-y in September. These negative readings are largely due to high negative base effects from the strong increase in oil prices last year. With these base effects turning positive and with oil prices picking up, headline inflation is expected to return to positive territory in the autumn but should remain low. Low inflation should maintain a stimulating effect on household consumption in the months ahead.

Table I.1.2: **Selected euro-area and national leading indicators, 2008-2009**

	SENT. IND[1)]	BCI[2)]	OECD[3)]	PMI Man.[4)]	PMI Ser [5)]	IFO[6)]	NBB[7)]	ZEW[8)]
Long-term average	100.6	-	84.5	52.3	54.4	96.4	-10.6	22.4
September 2008	88.9	-0.5	97.4	45.0	48.4	92.5	-11.8	-41.1
October 2008	81.6	-1.0	96.0	41.1	45.8	90.0	-16.3	-63.0
November 2008	76.6	-1.6	94.8	35.6	42.5	85.8	-25.0	-53.5
December 2008	68.7	-2.5	93.9	33.9	42.1	82.7	-31.3	-45.2
January 2009	67.2	-2.6	93.5	34.4	42.2	83.1	-29.0	-31.0
February 2009	65.3	-3.1	93.6	33.5	39.2	82.6	-32.5	-5.8
March 2009	64.6	-3.3	94.1	33.9	40.9	82.2	-34.3	-3.5
April 2009	67.3	-3.1	95.1	36.8	43.8	83.8	-30.7	13.0
May 2009	70.2	-3.0	96.4	40.7	44.8	84.3	-29.8	31.1
June 2009	73.2	-2.9	97.9	42.6	44.7	86.0	-24.3	44.8
July 2009	76.0	-2.7	99.5	46.3	45.7	87.4	-21.9	39.5
August 2009	80.8	-2.2	-	48.2	49.9	90.5	-19.2	56.1
September 2009	82.8	-2.1	-	49.3	50.6*	91.3	-19.8	57.7

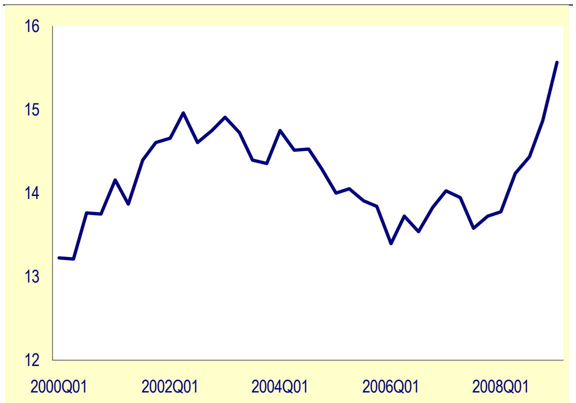
Sources: 1) Economic sentiment indicator, DG ECFIN. 2) Business climate indicator, DG ECFIN. 3) Composite leading indicator. 4) Bloomberg Purchasing Managers Index, manufacturing. 5) Bloomberg Purchasing Managers Index, services. 6) Business expectations, West Germany. 7) National Bank of Belgium indicator for manufacturing. 8) ZEW Indicator of Economic Sentiment, Germany. * Flash estimate.

Though holding up relatively well, household consumption has suffered from the deterioration of the labour market in the second quarter. Despite the various schemes to avoid a sharp drop in employment, employment contracted by 0.5% q-o-q in the second quarter. This contraction was lower than the one recorded in the first quarter (-0.7%). But this easing mainly reflects the policy measures put in place to support employment. The latest data on unemployment is consistent with the contraction in employment. The euro-area unemployment rate ticked up to 9.3% in the second quarter, compared to 8.8% in the first quarter. The rise was widespread among countries, with Ireland and Spain experiencing the largest increases (+1.6pp and 1.4pp respectively).

Looking ahead, the July and August data show further increases of euro-area unemployment to 9.5% and 9.6% respectively. At the same time, employment expectations derived from the Commission surveys improved in both manufacturing and services in July and August compared to the second quarter of 2009. However, surveys are still pointing to job reduction going forward. Given that the labour market tends to lag business cycle recoveries, it would therefore be premature to expect employment levels to increase any time soon. The evolution of the labour market could thus put a drag on the recovery.

The increasing household saving rate could also delay the recovery. Due to high economic and financial uncertainty, the household saving ratio has been on a steep upward trend since 2008Q1. It has risen to 15.6% in 2009Q1. Until now, consumption remained relatively resilient at a time when the saving ratio was on the rise. This was thanks to the disinflation process and relatively favourable developments in disposable income. However, the still high uncertainty of the recovery coupled with the poor employment prospects and the loss in wealth experienced by households could translate into an even higher saving rate in the next few quarters. With inflation picking up and disposable income falling, a higher propensity to save would inevitably lead to subdued consumption.

Graph I.1.10: **Household saving ratio, euro area** (in % of real disposable income — 2000Q1 to 2009Q1)



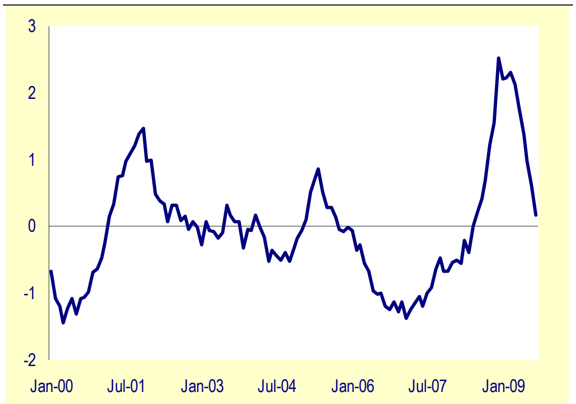
Source: Commission services.

Car scrappage schemes in several euro-area countries may still boost consumption in the very short term. However, their withdrawal in the coming quarters coupled with a high level of uncertainty and deteriorating labour market conditions put the sustainability of the consumption recovery into question. In line with this, consumer confidence remains low by historical standards, despite the continuous increase since April.

Investment and trade stabilising but remaining weak

Gross fixed capital formation declined by 1.3% q-o-q in the second quarter, a milder contraction than in the past two quarters (-3.4% and -5.3% in 2008Q4 and 2009Q1 respectively). The breakdown of investment spending by sectors shows that the contraction in the second quarter was again the result of decreases in non-construction investment (machinery and transport equipment essentially). Investment in the construction sector registered its smallest fall since 2008Q1, contracting by only 0.6%, with non-housing investment showing its second consecutive increase (0.6% q-o-q). Housing investment, while still declining (-1.9% q-o-q), showed a lower rate of contraction than in the past four quarters, which could be read as a sign of possible bottoming-out on the housing market.

Graph I.1.11: **Assessment of stocks, euro area** (balance normalised, Jan 2000-Sept 2009)

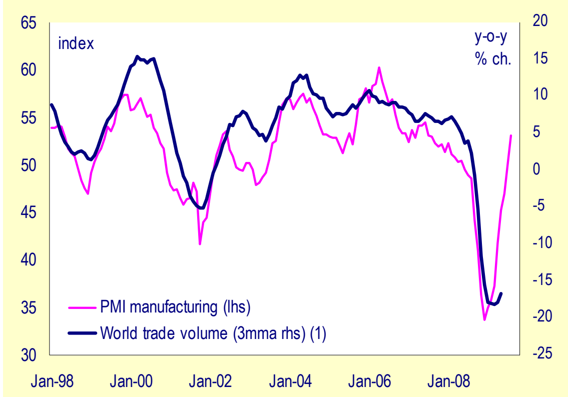


Source: Commission services.

The weakness in business investment in the euro area is explained by weak demand and depressed profits. The capacity utilisation rate has fallen to record lows over the past few quarters. The July 2009 reading of the quarterly manufacturing survey shows that capacity utilisation continued to decrease, although at a more moderate rate. In July, capacity utilisation was estimated at 69.5%, the lowest level since the series began in 1990. The surveys also show that insufficient demand has increasingly been the main factor limiting production in the euro area during the past three quarters, followed by financial constraints, which gained in importance during the last three months.

Inventories continued to make a significant negative contribution to growth in the second quarter. A heavy process of destocking took place in the first and second quarters of 2009, with firms adjusting production to the weak demand after the massive build-up at the end of 2008. Looking ahead, there are reasons to think that the pace of destocking may have slowed down in the third quarter. The latest Commission survey indicators indeed show a marked improvement in the level of stocks compared to the peak reached in December 2008 (Graph I.1.11). As a result, a positive contribution of inventories to GDP growth in the next quarters can be expected.

Graph I.1.12: **World trade and PMI** (Jan 1998 to Aug 2009)



(1) World trade data cover the period up to July 2009
Source: CPB Netherlands Bureau of Economic Policy Analysis and Bloomberg.

The moderation of the decline in euro-area GDP growth in the second quarter can partly be attributed to the net exports performance. (2) Exports growth contraction eased significantly in the second quarter (-1.1% q-o-q compared to -8.8% in the first quarter), as did import growth (-2.8% q-o-q compared to -7.8%). This sign of stabilisation is backed up by encouraging developments in world trade. According to estimates by the Netherlands Bureau of Economic Analysis, world trade fell by only 0.7% q-o-q in the second quarter, after contractions of 7.1% in 2008Q4 and 11.2% in 2009Q1. Furthermore, in July, world trade rose by 3.5% m-o-m, the strongest increase in a year. Recent data on industrial production and trade, notably from Asia, are also encouraging and some signs of further stabilisation are coming from the US as well. The Global PMI in the manufacturing sector has also improved markedly recently. In August,

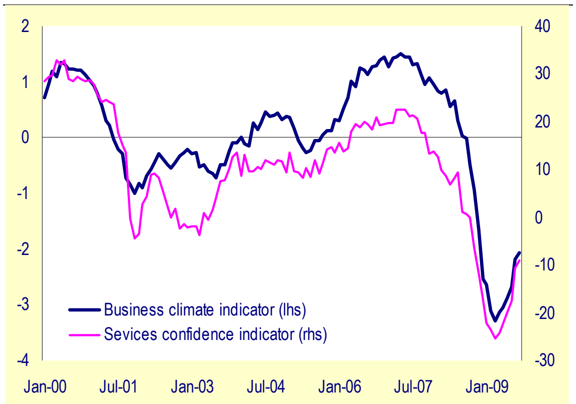
(2) For a detailed analysis on trade, see Focus section 'The slump in world trade and its impact on the euro area'.

having reached 53.1 points, it moved into expansion territory (i.e. above the neutral 50 points). This was the highest reading in more than two years.

Business surveys point to further improvement ahead

The latest survey indicators point to encouraging short-term prospects for the euro area. The Economic Sentiment Indicator (ESI) rose further in September, registering the sixth consecutive increase since the trough in March. The improvement in September was, however, more moderate and the level remains below the long-term average. The increase in the ESI in the third quarter compared to the second one was the result of a general increase in all sectors, except for the construction sector where confidence remained broadly stable compared to the second quarter. The improvement was also broad-based across euro-area countries.

Graph I.1.13: **Business and services confidence, euro area**
(balances in % — Jan 2000 to Sept 2009)



Source: Commission services.

In the industry and services sectors, the pick-up in confidence was the result of an increase in expectations but also in the recent trends observed by firms. This is in contrast with the second quarter when only expectations were driving up confidence. It suggests that activity picked up some momentum in the third quarter. The PMIs for both manufacturing and services in the euro area send a similar message. They continued to increase during the third quarter. The PMI for services even breached the 50 mark in September, suggesting expansion in the sector, for the first time since May 2008. Manufacturing PMI, however, only rose to 49, showing another contraction in activity. Similar improvements have been visible in other national business sentiment indicators. While constantly rising since January, the IFO business expectations recorded a marked increase during the third quarter and so did the ZEW. The Belgian business confidence index (NBB) also improved further in July and August but experienced a small drop in September.

Overall developments in confidence surveys suggest that the euro-area economy has entered a phase of stabilisation. In contrast, data on industrial production remains very weak. In July, industrial activity contracted further by 16.2% y-o-y compared to an average decline of 18.2% in the second quarter.

Short-term outlook and risks

The Commission's September 2009 interim forecasts project 0.2% and 0.1% q-o-q growth respectively for the third and fourth quarters of 2009. The growth momentum for the second half of the year has thus been revised up compared to the Spring Forecast. For 2009 as a whole, however, the fall in GDP remains unchanged at -4%. This is the result of downward revisions to the previous estimates for 2008 and the first quarter of 2009. The outlook for inflation also remains unchanged at 0.4% for 2009.

The risks to the growth outlook for 2009 appear broadly balanced. On the downside, further adverse feedback loops between a slowly recovering real sector and a still fragile financial sector cannot be ruled out. On the upside, policy interventions may be more effective than expected in sustaining demand, improving sentiment and restoring the soundness of the financial sector. The risks to the inflation outlook also appear largely balanced. Higher commodity prices and improving economic conditions suggest some upside risks, balanced by considerable slack in the economy which may hold down inflation more than expected.

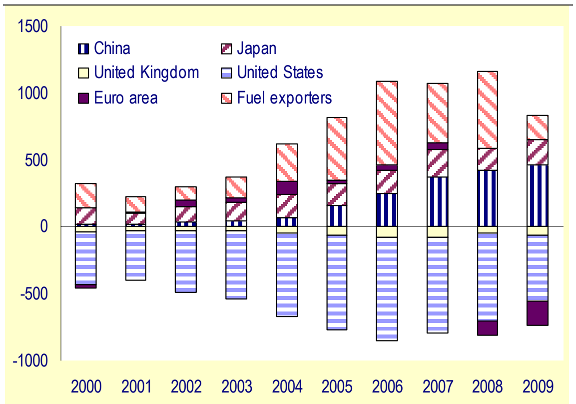
2. Global current-account imbalances and implications for the euro area

Over the last decade, significant global imbalances have built up. Some of the imbalances are currently unwinding, due in part to developments related to the ongoing economic and financial crisis. This section discusses the implications of this unwinding process for the euro area. It argues that although the euro area has not contributed to global imbalances, it could be severely affected by their unwinding depending on economic developments and policy decisions.

Global imbalances increased until 2007 …

Global current-account imbalances built up in the world economy starting in the late 1990s. On the back of massive capital inflows, the United States and some other countries such as the UK developed large and increasing current-account deficits. On the other hand, other key economies characterised by substantial trade surpluses and capital exports, notably China, Japan and the oil-exporting countries, increased their surpluses (see Graph I.2.1).

Graph I.2.1: **Current-account balance**
(billion US$ - 2000-2009)



Source: Eurostat and Commission services.

… but are currently being reduced.

The ongoing financial and economic crisis is accompanied by a considerable correction in the magnitude of global imbalances. This reflects the early and relatively sharp decline in domestic demand in the key deficit countries. High exposure to trade of some of the surplus countries and the plunge in oil prices has led to a substantial reduction of surpluses as well. Current-account deficits narrowed in the US and UK in 2008, and the current-account surplus narrowed in Japan. In China, during 2008 the crisis seems to have had a limited impact on the surplus. In most of the oil-exporting countries, the surpluses widened in 2008 because of the steep increase in oil prices in the first half of the year, but this hides a marked reduction in the surpluses in the second half of the year.

Graph I.2.1 shows the European Commission latest available current-account forecasts for 2009. (3) Current-account deficits in the US and the UK are expected to narrow further in 2009. Japan's surplus is forecast to remain stable while China's surplus is forecast to increase slightly. In most of the oil-exporting countries, the forecasts show the surpluses disappearing, driven by low oil prices.

The first data for 2009 are broadly in line with these forecasts. The US current deficit narrowed further from 4.4% of GDP in 2008Q4 to 2.9% in 2009Q1 and continued to narrow in 2009Q2 to 2.8%. In the UK, the current account remained broadly stable in 20091Q1. In Japan, the current-account surplus remained stable in 2009Q1, after having shrunk considerably in the previous quarters. Regarding oil-exporting countries, trade data for the Gulf Cooperation Council countries suggest a further reduction of the surpluses in the first quarter of 2009, but the recent increase in oil prices may reverse this trend. Regarding China, current-account data for the first half of 2009 showed a significant decrease in the surplus compared to the same period in the previous year. This is in line with developments in trade (see Box I.2.1) and suggests that the current-account surplus in 2009 could turn out to be weaker than the Commission Spring Forecast. (4)

The euro area has switched from a broadly balanced current account to a moderate deficit. As Graph I.2.1 shows, the euro area had a very small surplus during 2002-2007 but in 2008 this turned into a deficit of around 70 billion euros. This indicates that, during the crisis, export demand has collapsed even more strongly than import demand. In relative terms, domestic demand has kept up well, driven by relatively resilient consumer spending. The euro area has thus provided a net demand stimulus to the world economy. Overall, the role of the euro area in global imbalances was negligible. However, the ongoing unwinding might have significant implications for the euro area.

(3) The forecast dates from the spring of 2009.
(4) Data of the IMF spring forecast point in the same direction.

Box I.2.1: **Recent Chinese trade data**

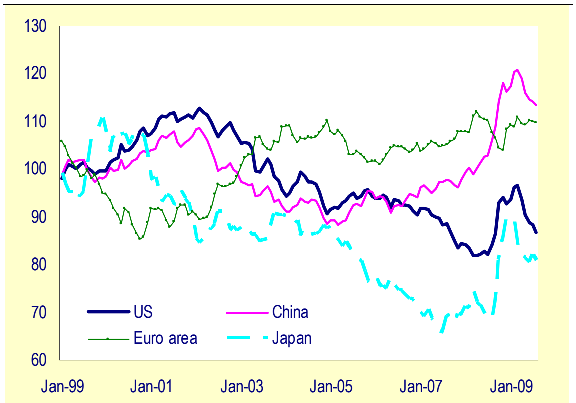
China's trade surplus appears to have declined in the first half of 2009. It narrowed by about 13% in value in the first seven months of 2009 compared to the first seven months of 2008. This change, however, hides much more significant movements in both exports and imports. Both export and import growth has fallen dramatically from positive values of around 20 to 30 % year-on-year to staggering negative numbers. The graph below shows annual growth rates for both exports and imports in value terms. The fall was particularly sharp at the peak of the crisis. More recently, the growth rates have stabilised at negative values of around -20%. Looking at the dynamic of imports relative to exports, in December and January, imports fell more significantly than exports. In contrast, in June and July, the pace of contraction slowed down more markedly for imports than for exports.

Source: EcoWin, value data.

The different dynamic of imports relative to exports could in part be related to the price of raw materials. Unfortunately, Chinese trade data are not available in volume terms. According to World Bank estimates, raw material import volumes have increased substantially since early this year.* Part of this increase may be due to increased stocking in times of low prices. Falling prices, however, have masked this increase so that values of imports have been falling. This suggests that the Chinese stimulus was effective in supporting import demand. However, the fall in prices more than offset the positive effects of the stimulus on import volumes in the first quarter. More recently, the values of trade imports have picked up with the prices of raw materials increasing again. Recently, the trade-balance deficit therefore narrowed and contributed to the reduction of the current-account deficit.

* http://eapblog.worldbank.org/content/chinas-import-surge-standard-economic-theory-common-sense-prevails

Graph I.2.2: **Real effective exchange rates** (1999=100, Jan 1999 to Aug 2009) (1)



(1) Real effective exchange rates against 41 major trading partners, based on the HICP.
Source: Commission services.

Prior to the current crisis, real effective exchange rates of many major economies, in particular the US, had been moving in the direction required to narrow current accounts. After the intensification of the crisis in the second half of 2008, there has clearly been a dramatic shift in this pattern. The US dollar's real exchange rate appreciated due to flight-to-safety capital flows, reversing the longer-run trend temporarily. In contrast, the Asian currencies moved in the right direction. More recently, these trends have partly reversed again. Overall, the picture is therefore rather heterogeneous and we conclude that exchange rates have not always adjusted the way they should adjust to reduce current-account imbalances.

Part of the correction might prove lasting …

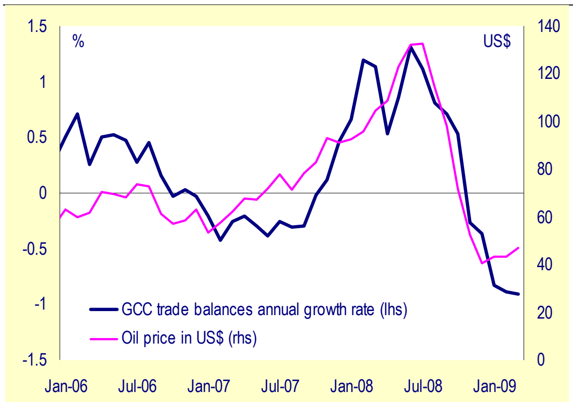
Part of the recent correction in current-account imbalances may be sustained. In the US, the crisis appears to lead the private sector to increase savings rates to adjust to excessive leverage and a massive deterioration of balance sheets in the wake of falling asset prices. The US households saving rate has, since last year, partly reversed its 20-year-decling trend, reaching 5% of after-tax income in the second quarter, the highest quarterly rate since 1998. At the same time housing investment has slowed markedly, further reducing borrowing. US households have seen the value of their assets shrink markedly due to the collapse in house and stock prices, while at the same time the value of their (mortgage) debt has remained. The savings rate is therefore expected to remain high for some years to allow households to repair their balance sheets. This has already led to a significant reduction in the US current-account deficit. At the same time, the strong reduction in private demand has, so far and to some extent, been offset by unprecedented fiscal expansion. With a fiscal deficit of around 11 % of GDP for 2009, ([5]) public finance sustainability concerns become increasingly prevalent and the fiscal deficit is likely to be reduced substantially in the future. As a consequence, the US current-account deficit could fall even further.

… while cyclical elements of the correction could revert.

However, some of the recent improvements could unwind when the global recovery takes hold. This is for two reasons.

First, to some degree the recent correction has been the result of the sharp fall in the price of oil from its peak in 2008. If oil prices continue to rise as the world economic recovery takes stronger hold, then at least some of the imbalances will tend to widen again.

Graph I.2.3: **Trade balance in Gulf Cooperation Countries and oil prices** (Jan 2006 to March 2009)



Source: Reuters EcoWin and Gulf Cooperation Council (GCC).

Graph I.2.3 shows the high degree of correlation between the trade balance in the Gulf Cooperation Countries and oil prices. The correlation suggests that trade surpluses in oil-producing countries are likely to increase again substantially with rising oil prices.

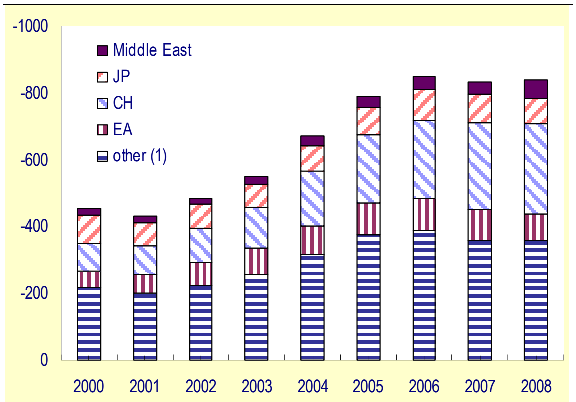
Second, in the non-oil producing surplus countries, the decline in surpluses reflects the collapse in foreign demand for consumer durables and capital goods. A recovery in the deficit countries could lead to some bounce-back in spending on these items. Imbalances could therefore re-emerge unless surplus countries raise their domestic spending. Overall, however, a significant part of the reduced demand in deficit countries might turn out to be structural and last over the medium run.

The remainder of the section explores what could be the implications for the euro area of a reduction in the US current account deficit.

A permanent reduction in US demand will directly affect its main trading partners …

The US produced 23.5 % of global GDP and absorbed 13 % of global exports in 2007. A reduction of US demand has therefore direct and quantitatively significant implications for its main trading partners. The magnitude of the impact depends inter alia on the intensity of the trade relationship and the size of the bilateral deficit or surplus.

Graph I.2.4: **The US trade deficit — Breakdown by trading partners** (billion US$)



(1) Among the 'other' regions, Africa, Mexico and emerging Asian economies figure most prominently.
Source: BEA.

Graph I.2.4 shows the breakdown of the US trade deficit with its main trading partners. The single most important bilateral trade deficit is run with respect to China while the trade deficit with the

([5]) Projection taken from the Congressional Budget Office, August 2009.

euro area is comparatively small. The trade deficit relative to China has been increasing strongly since 2001. A reduction in US demand will therefore lead to a significant shortfall in demand for Chinese but also Japanese and euro-area products. Suppose a permanent reduction in US demand went as far as to fully eliminate the US trade deficit of more than 800 billion US$ recorded in 2008. Then, the direct effect on the euro area could amount to around 90 billion US$ or a reduction of US absorption of euro-area products of around 0.7 % of euro-area GDP.

… but indirect effects also matter.

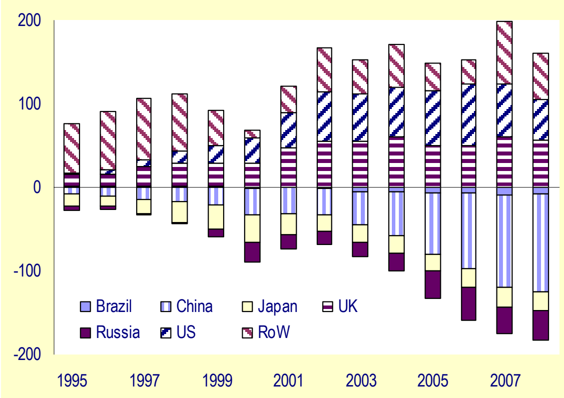
Beyond the direct effects, a reduction of US demand has significant indirect implications via relative price effects. In particular, it will put downward pressure on the US real exchange rate. The reduction of domestic absorption entails a relative excess supply of US-produced goods. ([6]) As a consequence, the supply of US goods will become relatively abundant on the world market. Such a relative excess supply will translate into a depreciation of the real exchange rate of the US.

The implications of a reduction in US demand and a depreciation of the real US exchange rate for the euro area depend on policy actions and economic developments in other parts of the world. In order to gauge the potential impact of current-account adjustment on the euro area, it is useful to illustrate the mechanics with different scenarios. At least two basic scenarios can be distinguished.

A benign scenario

Let's first assume a benign scenario and then turn to a less benign scenario. In a benign (or symmetric) scenario, surplus regions and in particular China are assumed to massively step up domestic absorption to compensate fully the decrease in the US trade deficit. Since there would be no world excess supply, world output would remain at its potential. To achieve such an outcome, surplus countries would have to take the necessary structural measures needed to boost domestic demand. Such structural change would have to be associated with an appreciation of the real effective exchange rate. The appreciation would have to combine an increase in the relative price of non-tradable to tradable goods (appreciation of the internal exchange rate) and a nominal appreciation relative to the dollar. The internal appreciation is needed to re-direct consumption to the tradable sector and re-allocate production to the non-tradable sector. The nominal appreciation relative to the US$ would help to increase the share of US goods in imports, in particular in China. ([7]) The price changes would likely have to be accompanied by substantial structural measures, for example, in China, health care or social security could lower the savings rate. Also other surplus regions such as Japan and the oil-producing exporters would step in and increase domestic absorption.

Graph I.2.5: **The euro-area trade balance** (billion euros)



Source: Eurostat.

In this scenario, the euro-area trade balance level would remain largely unchanged. There would, however, be a change in its composition. As Graph I.2.5 shows, the euro area is running trade surpluses with respect to the US and the UK, while recently the deficit relative to China has massively increased. Strong Chinese expansion would likely reduce the trade deficit with China. At the same time, the trade surplus with respect to the US could fall due to exchange rate appreciation relative to the US. Also the euro-area trade deficit relative to Japan could fall.

([6]) Since the US government as well as US households have a home-bias in consumption, the absorption of US goods will fall more strongly than the absorption of foreign-produced goods.

([7]) The mechanics of the internal and the total real exchange rate are discussed in Obstfeld and Rogoff (2007), 'The unsustainable US current account position revisited', in R. Clarida (ed.), *G7 current account imbalances: sustainability and adjustment*, University of Chicago Press. Empirical evidence for the relevance of the internal exchange rate has recently been provided by Ruscher and Wolff (2009), 'External rebalancing is not just an exporters' story: real exchange rates, the non-tradable sector and the euro', European Economy, Economic Papers 375.

An asymmetric scenario …

It is, however, possible that the euro area will have to shoulder a more significant share of the burden of the adjustment for several reasons.

First, China could resist increasing absorption of US products and appreciation with respect to the US$. This policy would aim to keep its trade surplus relative to the US and avoid negative wealth effects on assets denominated in US dollars held by Chinese authorities due to price effects. As a consequence, US exporters would be required to lower prices even more strongly with respect to other trade partners to find a market to sell their products. This could lead to a euro-area trade deficit relative to the US and stronger appreciation of the euro real exchange rate to the dollar.

Second, China could allow an appreciation of the renminbi with respect to the US$ but be unable to increase its domestic absorption to the extent needed. This would increase Chinese imports of US goods and reduce Chinese exports to the US but would force Chinese companies to raise exports to other markets, in particular to the euro area. To achieve this, prices of Chinese products would have to be lowered and the euro-area trade balance with China would move further into the red. Moreover, the euro would appreciate in real terms relative to China.

In both cases, a substantial euro-area trade deficit would emerge. The euro-area tradable sector would come under significant price pressures as foreign-produced goods would become cheaper. Euro-area consumers would increasingly substitute domestic with foreign-produced tradable goods.

... would be less benign for the euro area.

A situation where a substantial trade deficit emerges in the euro area appears less beneficial to the euro area than the benign scenario, in which surplus countries and in particular China would massively step up domestic absorption. Two reasons can be given.

First, the associated real appreciation of the euro would ultimately pressure euro-area companies to reduce the production of export goods. Depending on the flexibility of the euro-area economy, time would be needed to re-allocate resources from the tradable to the non-tradable sector. In the transition phase, the euro-area output gap would be affected negatively and unemployment could rise, in particular in the tradable sector and, particularly so, in Member States more heavily reliant on exports. Limited labour mobility in the euro area would further slow adjustment and aggravate the negative effects.

Second, large current-account deficits are probably not desirable in Europe's ageing societies. Countries facing an ageing problem should typically run current-account surpluses in order to accumulate foreign assets for the times when more people retire. ([8])

Likelihood of scenarios depends on policy choices.

Overall, the jury is still out on which scenario will materialize as this will depend on policy choices. Implementing the benign scenario involves a number of policy challenges to global partners. In particular, appropriate policies would need to be put in place to successfully boost domestic absorption in key surplus countries, in particular China. A reduction of the US current-account deficit by 3 pp of US GDP would amount to an excess of world supply of around 430 billion US$. Given the size of the Chinese economy at around 4 400 billion US$, Chinese absorption would need to increase by around 10 % of Chinese GDP, essentially eliminating the Chinese current-account surplus. From a policy point of view, this would require a substantial decrease in the (private sector) corporate and household savings rate. While China has increased the credit supply to its economy in the first half of the year and also stepped up efforts to introduce health care insurance, ([9]) these measures might not be enough to increase Chinese absorption by that magnitude, in the next couple of years. More recently, Chinese credit expansion has slowed again, possibly because of fears of the emergence of bubbles in equity markets. This suggests that investment demand could slow again. There is also concern that heavy capital investment might ultimately increase excess capacities of tradable goods and thereby aggravate the surplus. In addition, Chinese authorities themselves recognise the difficulty in raising consumption in the short to medium term. ([10]) A further policy angle

([8]) However, China too will face growing ageing pressures in the next decades. These, however, can be offset to some extent by higher growth rates.

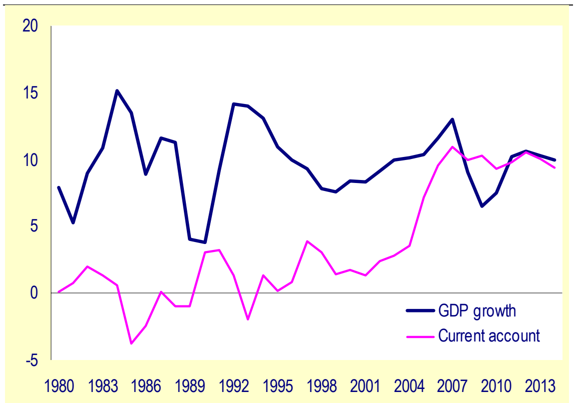
([9]) See e.g. Geoff Dyer, 'Sickness of the savers', Financial Times, FT.com, 12 May 2009.

([10]) See address by Governor Zhou Xiaochuan of the People's Bank of China at the global think-tank summit in Beijing on consists of financial development policies, which would be instrumental in facilitating access to credit for relatively small private companies, helping to reduce corporate saving rates.

Among the other surplus countries, Japan faces significant policy constraints to create substantial extra demand. The oil-producing economies will, in general, see their surplus increase with rising oil prices and are unlikely to generate sufficient domestic demand to offset rising exports. On a more positive note, Brazil and India are both forecast to increase their trade deficits (or reduce their surplus) with the rest of the world. However, in absolute terms, the figures are comparatively small.

Last but not least, Chinese as well as US authorities might take into account implications in international capital markets of adjusting their exchange-rate policies. Such an adjustment would, on the one hand, affect the value of existing US dollar-denominated assets held by Chinese authorities. On the other hand, it might also affect the financing conditions of the US government.

Graph I.2.6: **China's GDP growth rate and current account to GDP ratio** (in %)



Source: IMF, World Economic Outlook.

Consistent with these arguments, the IMF forecast suggests that Chinese surpluses will continue to increase and a global excess supply could emerge given a no-change exchange rate scenario. Graph I.2.6 shows that the Chinese current account to GDP ratio is forecast to reach levels similar to the time prior to the crisis. Since GDP is also forecast to grow strongly, the current-account surplus will strongly increase in absolute terms.

Thus, at this stage significant policy challenges exist to reduce the implications of an unwinding of global imbalances in deficit countries (in particular the US) for the euro area. Rising oil prices could put further pressure on the US consumers' budget constraint. Given the relatively inelastic demand for oil in the short to medium run, US households would have to further cut non-oil consumption to pay for the increasing energy bill. This, in turn, would further reduce demand for typical euro-area exports.

Conclusions

The above analysis suggests that attention should be paid to the process of how global current-account imbalances unwind. Its potential implications for the euro-area economy are significant, even though the euro area had a balanced current account prior to the crisis. Thus, while the euro area as a whole has not contributed to global imbalances, the resolution of these imbalances could affect it significantly. From a policy perspective, the euro area as a whole would benefit from an increase in domestic absorption across surplus countries, in particular China, and from an appreciation of the Chinese currency relative to the US dollar.

If the scenario of an asymmetric unwinding of imbalances eventually prevails, the euro area will have to prepare itself by fostering policies that facilitate resource reallocation from the tradable to the non-tradable sector. Services sector reform should therefore remain high on the agenda. Increasing price pressure on tradable goods would affect in particular those Member States that rely heavily on exports for growth. Policies increasing labour mobility across countries and sectors could be beneficial in this context. Such policies would also be instrumental in facilitating the adjustment to imbalances existing within the euro area.

The G-20 Summit in Pittsburgh agreed to launch a new framework for strong, sustainable and balanced growth.([11]) This will be a cooperative process of mutual assessment of the G-20 members' policies in order to evaluate whether national policies are collectively consistent with more sustainable and balanced global growth.

3 July 2009. In his speech, the Governor raised the prospects of redirecting excess capacity to developing countries through China's 'Going Global' strategy. Such a redirection, however, is likely to be successful only in the medium to long run.

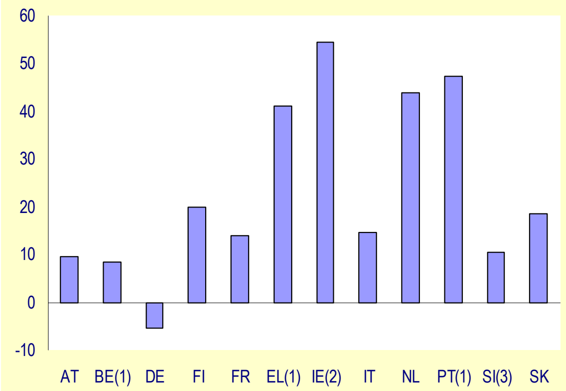
([11]) The final G20 communiqué can be found at http://www.g20.org/Documents/pittsburgh_summit_leaders_statement_250909.pdf

Coordination among major economies is necessary to make sure that the recovery does not lead to the re-emergence of global imbalances and asset price bubbles. In this framework, the IMF will provide the basic surveillance, looking at the global consistency of policies while the G-20 will contribute to increase the policy traction of the IMF advice. The new framework will be launched by G-20 Finance Ministers and Central Bank Governors at their meeting in St. Andrews on 7-8 November while leaders will review the results at the next Summit in Canada in June 2010.

3. The interrelations between household savings, wealth and mortgage debt

This section sheds some light on balance sheet adjustment in the household sector and possible consequences for the recovery in the euro area. Rapid accumulation of mortgage debt in some Member States over the past decade (Graph I.3.1) and recent sharp falls in equity and house prices may have altered household balance sheets, forcing a balance-sheet consolidation that may weigh on the recovery of private consumption. Despite their recent rally, equity prices are still about 50 % lower than at the beginning of 2008. House prices have also come down, although more moderately, by 1.5 % in real terms over the past year (Graph I.3.2).

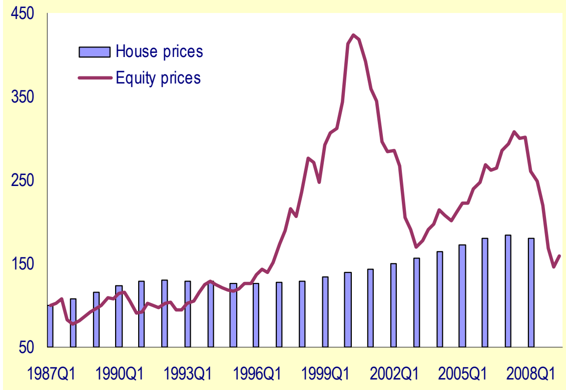
Graph I.3.1: **Change in household debt to GDP ratio, euro area** (in pp, 1998-2007)



(1) BE, EL, PT (1998-2008); (2) IE (2001-2008); (3) SI (2001-2008).
Source: Commission services.

Changes in asset prices may have important implications for households' savings via the traditional wealth effects, personal spending being directly affected by changes in net wealth. But they also alter the composition of household balance sheets and may affect savings decisions of credit-constrained households (i.e. households to whom banks lend less than the total value of their assets). For instance, a rise in house prices may boost the consumption of house owners, who see their wealth and the value of their collateral increase accordingly. However, it may also force credit-constrained households to save more in order to acquire a house as it raises the value of the share of the acquisition that will not be covered by the mortgage. Against this background, the possible interactions between asset prices, mortgage decisions and consumption are best analysed in a single framework.

Graph I.3.2: **House and equity prices, euro area** (1987Q1=100) (1)



(1) Data for house prices is annual (1987-2008), while the data for equity prices is quarterly (1987Q1-2009Q1).
Source: Commission services.

According to the permanent income theory, savings decisions should depend on households' permanent disposable income and their net wealth. However, housing wealth effects are notoriously difficult to identify empirically in the euro area, with housing wealth variables generally coming out as statistically insignificant in consumption equations. Therefore, in order to disentangle the housing wealth effects in the euro area, an important role is given in this analysis to the interaction between net wealth and mortgage indebtedness.

The medium-term interrelations between households' savings and mortgage decisions

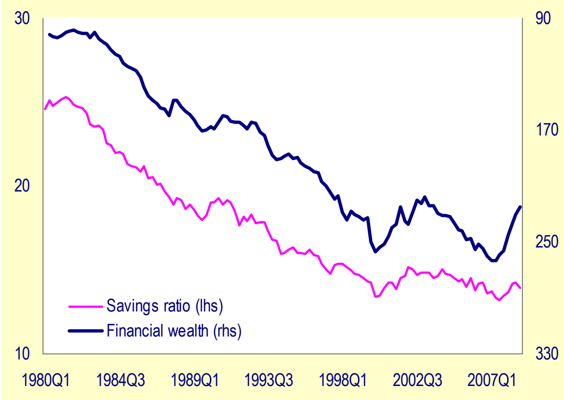
The interrelations between households' mortgage debt and savings are estimated econometrically in a common co-integrating framework which relates savings and mortgages to their respective fundamental determinants in a system of two medium-term equations (Table I.3.1).

Estimation results show that, in the medium term, the savings ratio is determined by the financial wealth and housing wealth ratios, the ratio of mortgage to housing wealth, the long-term real interest rate and inflation (Table I.3.1, Col.1). Financial wealth effects are present in the euro area, with a 10 % increase in financial wealth boosting consumption by about 0.9 %. The estimated elasticity of financial wealth is in the range of the estimates generally reported for the euro area in the available empirical literature. [12]

[12] See for instance: Sousa, M. Ricardo (2009), 'Wealth effects on consumption. Evidence from the euro area', ECB Working Paper Series No 1050; Skudelny, F. (2009), 'Euro

It corresponds to a marginal propensity to consume of about 3 cents to the euro (i.e. an increase in financial wealth of one euro is associated with an increase in consumption of 3 cents). This remains on the low side compared with similar estimates reported for the US. Rising financial wealth has nevertheless played an important role in the fall of the savings ratio in the euro area since the late 1980s. The strong rise in financial wealth in the 1990s was accompanied by a simultaneous sharp drop in household savings, while the broad stagnation of financial wealth since the early 2000s reflects a similar development in the savings ratio as evidenced by the close historical correlation between the two variables (Graph I.3.3).

Graph I.3.3: **Savings ratio and net financial wealth ratio, euro area** (1980Q1-2008Q3) (1)



(1) Inverted scale on the right hand side. Savings and net financial wealth are expressed as a share of gross disposable income.
Source: Commission services and ECB.

Table I.3.1: **Estimated medium-term relationships** (1980Q1-2008Q3)

Variables	Medium-term elasticities	
	Col. 1	**Col. 2**
Savings/Yd	1	-
Mortgage/Yd	-	1
Net financial wealth/Yd	0.56	-
Mortgage/Net housing wealth (1)	0.43	
Net housing wealth/Yd	0.24	-0.71
Short-term real interest rate	-	3.46
Long-term real interest rate	5.66	8.89
Inflation	3.34	6.86

Yd = household gross disposable income. All estimated coefficients are significant at 1 %. (1) This is not a variable used in the actual estimation; it just illustrates the interpretation of the estimated coefficients on the mortgage and net housing wealth ratios in the savings equation. See Box I.3.1 for a more detailed discussion.
Source: Commission services.

Estimation results also show that, in the medium term, mortgage demand is determined by the level of interest rates (short and long), inflation and housing wealth (Table I.3.1, Col.2). Long rates play a somewhat bigger role than short rates, a finding which is in line with the structure of most Member States' mortgage markets, where fixed-interest-rate contracts tend to dominate. Higher inflation comes with lower mortgage demand, indicating the existence of some front-loading effect. ([13]) Higher net housing wealth (i.e. housing wealth minus mortgage) is associated with higher mortgage, pointing to the existence of collateral effects.

An interesting and novel finding of the estimated model is that it points to interactions between housing wealth, mortgage and consumption that are more complex than generally reported in the empirical literature on the euro area. Indeed, the estimated medium-term equation for savings (Table I.3.1, Col.1) suggests that housing affects consumption via two offsetting channels: a rise in house prices tends to push consumption up via the traditional housing wealth effect but it also tends to depress consumption via a credit constraint channel. The second effect translates the fact that, when house prices increase, credit-constrained households need to save more to pay for the share of their acquisition that is not covered by the mortgage. In the regression, this is implicitly captured by a negative relationship between the savings ratio and the ratio of mortgages to housing wealth. ([14]) The estimated coefficients on the mortgage and net housing wealth ratios are interpreted as a small but significant housing wealth effect combined with a credit-constraint effect captured by the ratio of mortgage to housing wealth (Table I.3.1, Col.1).

The identified credit constraint channel appears to be quite sizeable in the euro area. ([15]) As evidenced by a large increase in the mortgage to

area private consumption. Is there a role for housing wealth effects?' ECB Working Paper Series No 1057.

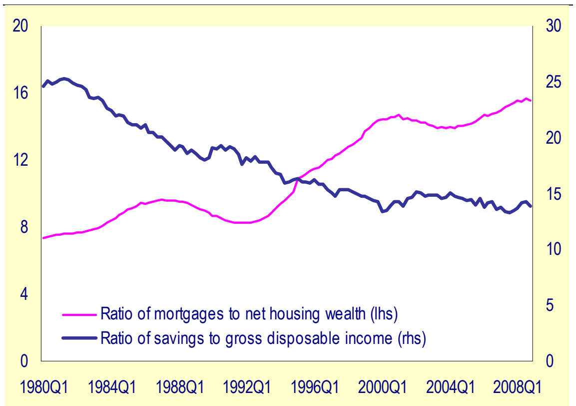
([13]) With fixed mortgage instalments, inflation is associated with a progressive erosion of the real burden of debt over time. This partial transfer of the real burden of debt to the early stages of a mortgage's lifetime is higher when inflation is higher.

([14]) This ratio can be considered as being correlated with past average loan-to-value ratios and, therefore, capturing the extent to which the credit-constrained households need to save in order to pay for the share of the acquired property value not covered by the mortgage.

([15]) In the literature, other forms of credit constraints have also been identified. In general, they refer to the collateral effects of house price changes (e.g. the increase in value of the collateral, following a rise in house prices, would ease the credit constraints).

housing wealth ratio, credit constraints have probably eased significantly over the past two decades (Graph I.3.4). Given the large size of the estimated elasticity of savings with respect to the mortgage to housing wealth ratio, the easing of credit constraints has contributed as much as the increase in financial wealth to the fall in the savings ratio in the euro area in the 1990s.

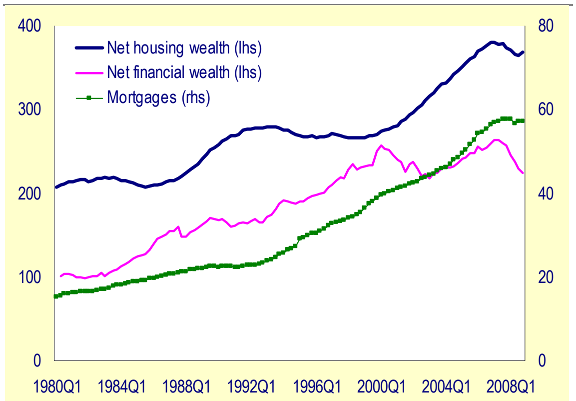
Graph I.3.4: **Ratios of mortgage to net housing wealth and of savings to gross disposable income** (1980Q1-2008Q3)



Source: Commission services.

In contrast, the more traditional housing wealth channel appears small in the euro area. The estimated coefficient corresponds to a marginal propensity to consume out of housing wealth of only 1 cent in the euro, which is considerably lower than estimates usually reported for the US economy.

Graph I.3.5: **Net housing wealth, net financial wealth and mortgages, euro area** (in % of gross disposable income, 1980Q1-2008Q3)



Source: Commission services and ECB.

As a result of the large size of the credit constraint channel and the small size of the housing wealth channel, the medium-term net effect of a rise in house prices on savings (consumption) is positive (negative) in the euro area. This stands in sharp contrast with data for the US, where house prices and the savings ratio are negatively correlated. ([16])

The interaction between credit constraints and house prices sheds some light on the root causes of the sluggish developments of consumption in the euro area in the present decade. Contrary to the US, the significant increase in net housing wealth in the period 2000-2007 (Graph I.3.5) did not fuel a consumption boom. This can be explained by the small size of housing wealth effects in the euro area but also — and above all — by credit constraints. Over 2000-2007, the ratio of mortgages to net housing wealth did not increase significantly (Graph I.3.4) as the rapid rise in house prices largely offset the relaxation of loan-to-value constraints by banks. This, in turn, led to a near stagnation of the savings ratio. In contrast, slower rises in house prices in the second half of the 1990s allowed a surge in the ratio of mortgage to housing wealth over that period and, thereby, a significant fall in the savings ratio.

Complex short-term interactions between mortgage, savings and house prices

Deviations of savings and mortgage from their fundamental determinants trigger short-term correction forces (see Box I.3.1, right part of the table). Two features of this short-term correction mechanism are worth stressing: First, when mortgage demand overshoots the level dictated by its fundamental determinants, correction takes place via an increase in savings. The result is fairly intuitive: if the mortgage level turns out to be too high relative to fundamentals (for instance because households have embarked on an episode of irrational exuberance regarding their future income prospects), the cash needed to scale back debt is obtained by raising savings. A 1% increase in the deviation of the mortgage ratio from its medium-term value would cause a short-run rise in the savings ratio of 0.11% (see Box I.3.1, right-hand part of the table, Col I). Second, an increase in house prices can have a relatively strong positive effect on consumption in the short term due to the existence of temporary confidence effects (see Box I.3.1, right part of the table, Col. I). However, the associated increase in consumption tips the medium-term savings

([16]) Which is in line with conventional wisdom according to which credit constraints are higher in the euro area than the US.

Box I.3.1: **Household savings and net housing wealth**

Savings and mortgage debt (as ratios of gross disposable income) have been related to their respective medium-term determinants in a system of two co-integrating relations estimated in a VEC model with 7 variables. The analysis has been carried out for the period 1980Q1-2008Q3 for the euro area. All variables are in logarithms except the two interest rates and inflation. The latter are just scaled by 100. Net housing wealth is defined as housing wealth minus mortgage loans. Net financial wealth is defined as financial wealth plus mortgage loans. The results are presented in the table below.

The medium-term savings equation (left-hand part of the table, I). Net financial wealth, as a percentage of gross disposable income, comes out as the main determinant of the savings ratio in the medium term in the euro area. A 1% increase in net financial wealth as a share of gross disposable income will lead to a decrease of about 0.6% in the savings ratio, boosting consumption by about 0.09%. This is equivalent to a marginal propensity to consume out of the net financial wealth of 0.03. The mortgage ratio and the net housing wealth ratio have a combined effect on savings: a small but significant housing wealth effect combined with a credit-constraint effect implicitly captured by the ratio of mortgages to net housing wealth. The latter ratio can be considered as being correlated with past average loan-to-value ratios and, therefore, capturing the extent to which credit-constrained households needed to save in order to pay for the share of the acquired property value not covered by the mortgage. Therefore, the estimated coefficients are interpreted as follows: (1) a 1% increase in the ratio of mortgage to net housing wealth will decrease the savings ratio by 0.43%; (2) a 1% increase in the net housing wealth leads to a 0.24% decrease in the savings ratio (i.e. 0.43*log(Mortgages/Yd) - 0.19*log(Net housing wealth/Yd) = 0.43*log(Mortgages/Net housing wealth) +0.24*log(Net housing wealth/Yd). This shows small wealth effects from an increase in housing wealth at the level of the euro area, equivalent to a marginal propensity to consume out of the net housing wealth of 0.01.

The medium-term mortgage equation (left-hand part of the table, II). The medium-term determinants of mortgages as a percentage of gross disposable income have been found to be the net housing wealth as a percentage of gross disposable income, the short-term real interest rate, the long-term real interest rate and inflation. In the medium-term, a 1% increase in net housing wealth increases mortgages by 0.71%, showing the extent of the collateral effect of net housing wealth on mortgages. An increase in interest rates and inflation decreases the mortgage ratio as expected. A 1pp increases in the short-term real interest rate and the long-term real interest rate decreases the mortgage ratio by about 4% and about 9% respectively. This shows that long-term interest rates are playing a bigger role in the euro area in accordance with the euro-area mortgage markets, where fixed-interest-rate contracts dominate. A 1pp increase in inflation decreases the mortgage ratio by about 7%.

The estimated short-run elasticities are presented in the right-hand part of the table. The short-term dynamics link changes in savings and mortgage ratios to the lagged deviations of savings and mortgage ratios from their medium-term determinants (the error-correction terms) and the lagged changes of all the other variables in the system. Changes in net financial wealth, net housing wealth and inflation are also included contemporaneously as these variables are found not to adjust to the deviations from the medium-term equilibrium (i.e. the null hypothesis of zero short-run adjustment coefficients for the growth in net real financial wealth ratio, net real housing wealth ratio and inflation cannot be rejected). This is called 'no levels feedback' or long-run weak exogeneity.

The results show that that a 1% increase in the deviation of the mortgage ratio from its medium-term value (determined by the net housing wealth ratio, the real interest rates, and inflation), would cause an increase in the short run of the savings ratio by 0.11%. This effect on consumption was found to be asymmetric. The correction due to overshooting was much higher than the correction during the undershooting (i.e. 0.15% as compared to 0.09%). By comparing the actual mortgage ratio to that predicted by the co-integrating equation for mortgages, there seems to have been an overshooting in the mortgage ratio over the period 2006Q4 to 2008Q3. Debt overshooting due to an increase in mortgages also triggers the savings ratio to overshoot, pulling the savings ratio down through the offsetting effect from the first error-correction term (i.e. a 1% increase in the deviation of the savings ratio from its medium-term value decreases the savings ratio growth by 0.28%). However, this latter effect is smaller than the debt overshooting effect.

The short-run dynamics also indicate that a 1% increase in housing wealth growth decreases contemporaneously the savings ratio by about 0.7%, decrease that is offset in the following quarters through the error correction term and the lagged change in net housing wealth. This gives the traditional confidence effect on wealth captured by the contemporaneous change in net housing wealth ratio to disposable income and, respectively, the lagged effect on the credit-constrained households captured by the lagged change in the mortgages to net housing wealth ratio — the

(Continued on the next page)

Box (continued)

decrease in this ratio has a positive effect on savings. This latter effect dominates the confidence effect in the euro area, the overall response becoming positive after 3 quarters.

Positive changes in net financial wealth decrease the savings ratio growth, effects that are reinforced over the next quarters. A 1% increase in financial wealth growth decreases the savings ratio in the short run by 0.17%, suggesting that positive developments on the stock market have confidence effects.

Co-integrating equations (1):
(19980Q1-2008Q3)

	I	II
Variable (2)	**Elasticities – savings equation**	**Elasticities – mortgage equation**
Savings/Yd	1.00	-
Mortgages/Yd	0.43	1.00
Net financial wealth/Yd	0.56	-
Net housing wealth/Yd	-0.19	-0.71
Short-term real interest rate	-	3.46
Long-term real interest rate	5.66	8.89
Inflation	3.34	6.86
Constant	-6.51	-0.12

(1) The variables are all non-stationary. The Johansen approach was used to test for the number of co-integrating relations and to estimate the equations. Over-identifying restrictions were tested, LR test for binding restrictions (rank=2), chi-square (7) =5.42, probability 0.60.
(2) All estimated coefficients are significant at 1%. Yd = household gross disp. income.
Source: Commission services and ECB data.

Short-run elasticities (1)**:**
(19980Q1-2008Q3)

	I	II
Variable (2)	**Change in Savings/Yd**	**Change in Mortgages/Yd**
Error-correction term I (savings equation)	-0.28***	-0.05**
Error-correction term II (mortgage equation)	0.11*** Overshooting 0.15*** Undershooting 0.09***	-0.005 Overshooting 0.003 Undershooting -0.009
Change in Savings/Yd *(lagged 1 quarter)*	-0.04	-0.005
Change in Mortgages/Yd *(lagged 1 quarter)*	-0.41**	0.16**
Change in Net financial wealth/Yd	-0.17**	0.06*
Change in Net financial wealth/Yd *(lagged 1 quarter)*	-0.09	0.05
Change in Net housing wealth/Yd (3)	-0.70***	0.54***
Change in Net housing wealth/Yd *(lagged 1 quarter)*	0.88***	-0.44***
Change in inflation	0.05	-0.46**
Change in inflation *(lagged by 1quarter)*	-0.21	-0.15

(1) The VAR in first differences is a partial system (i.e. conditioned on the current changes in the weakly exogenous variables) that has 1 lag and includes a constant, the error correction terms, the lagged changes in all variables, and the contemporaneous changes in net financial wealth, net housing wealth and inflation.
*(2) ***, ** and * denote respectively statistical significance at 1, 5 and 10%.*
(3) This coefficient could be slightly over-estimated due to some remaining endogeneity of the change in the net housing wealth in the system.
Source: Commission services and ECB data.

equation out of balance and equilibrium is progressively restored by raising savings. After 4-6 quarters, consumption falls below the level prevailing before the rise in house prices (see Box I.3.1 for a detailed discussion).

What are the risks for consumer spending in the recovery?

Unlike its two predecessors of the early 1990s and early 2000s, the current recession is characterised by a simultaneous slump in housing and equity markets. The model presented in this section suggests that consumer spending will be subject to conflicting forces in the quarters to come.

On the negative side, past falls in house and, especially, equity prices are weighing significantly on consumption via the traditional wealth effect. Furthermore, euro-area consumers entered the recession with a debt overhang that has exerted a significant drag on consumption growth over the past two years and should continue to rein in spending for about one more year. ([17]) The model suggests that the ratio of mortgage to disposable income has overshot its fundamental level since 2006Q4 with a peak of 15% in 2007Q4. Recently, the extent of the

([17]) In 2007-08, the correction in the debt overhang caused an average decrease of about 0.4 pp in the annual growth of consumption and the overshooting was in 2008Q3 still half way from its peak.

overhang has been aggravated by the negative effect of the fall in house prices on the medium-term debt level.

On the positive side, a permanent decrease in house prices could provide some support to consumption in the medium term as households have to save less for housing acquisition. The ongoing fall in house prices will not be reverted rapidly, and a return of the surge in house prices observed in the 2000s is unlikely in the years to come.

While negative effects linked to equity prices and the debt overhang are currently dominating, the dynamics of consumer spending over the two years to come will obviously depend on the dynamics and sizes of the asset price shocks, in particular the extent to which they prove permanent. Two features of the model are worth mentioning in this context. First, a shock to house prices must be about four times larger than the shock to equity prices for the positive effect of a fall in house prices to prevail in the medium term, or the shock to equity prices must be temporary. Although equity prices have rallied in recent months, a full rebound in equity prices has clearly not been the case so far. Second, the estimated lags in the model are relatively short. Falls in asset prices and debt adjustment are likely to weigh substantially on consumption growth in 2009 but should wear off progressively in 2010 provided that asset prices stabilise end of 2009 or beginning of 2010.

Nevertheless, the analysis also points to serious downside risks to the consumption recovery related to credit constraints. The savings ratio will depend on future developments in the loan-to-value (LTV) ratios practised by banks. If the financial crisis induces banks to adopt more restrictive practices in terms of loan-to-value ratios ([18]) and, as a result, the drop in mortgages proves to be faster than the drop in house prices, the savings ratio will have to increase. The potential magnitude of this effect is difficult to assess. ([19]) However, the large contribution of the changes in the mortgage to housing wealth ratio to the drop in the savings ratio in the euro area in the 1990s suggests that the effect could be large and persistent.

([18]) If LTV ratios are above a certain level, mortgage loans receive a higher risk weight, requiring banks to hold more (costly) capital against those loans.

([19]) Due to lack of adequate data, structural changes in LTVs are not modelled explicitly and are only captured indirectly via their effects on the ratio of mortgages to net housing wealth.

Conclusions

The interaction between net wealth and indebtedness seems to play an important role in the euro area. While net financial wealth, as a percentage of gross disposable income, comes out as the main determinant of the savings ratio in the medium term in the euro area, the relationship between housing wealth and consumption is complex. A rise in house prices tends to push consumption up via the traditional housing wealth effect, but it also tends to depress consumption because of credit constraints. The second effect reflects the fact that, when house prices increase, credit-constrained households need to save more to pay for the share of their acquisition that is not covered by the mortgage.

Past trends in savings in the euro area can largely be explained by financial wealth effects and the interaction between credit constraints and house prices. In contrast, traditional housing wealth effects remain limited. The drop in the savings ratio in the 1980s and 1990s can be traced back to large gains in financial wealth and an easing of credit constraints (mostly in the latter decade). Its broad stabilisation since the turn of the century reflects a similar development in financial wealth and the fact that a further easing in banks' credit practices (e.g. in terms of loan-to-value ratios) has been largely offset by surging house prices, leading to only limited further gains in households' effective credit constraints.

There is evidence that the ratio of mortgage to disposable income had overshot the level dictated by its fundamental determinants since 2006Q4. The correction of this debt overhang and past sharp falls in equity prices are currently taking their toll on consumption in the euro area. In the absence of further falls in asset prices, these negative effects should, however, wear off progressively in 2010 and give way to a recovery of consumption. Nevertheless, the analysis also points to a serious risk to the consumption recovery which relates to a possible increase in credit constraints in the wake of the crisis (i.e. a reduction of loan-to-value ratios).

Focus

II. The slump in world trade and its impact on the euro area

World trade has fallen at an unprecedented rate in the past year, declining much faster than world economic activity. Although global trade tends to be more volatile than economic activity, the slump in world trade over the past quarters has been particularly marked, suggesting that special factors have been at play. The most important factors appear to be the fact that the crisis has hit particularly hard the industrial sector and the components of demand with high import content, the reduced availability of trade finance, and the internationalisation of production. A factor that also seems to have played a role is the rise in transportation costs.

The slump in world trade has led the G-20 to put in place a multilateral trade finance initiative worth USD 250 billion. G-20 Leaders have also reaffirmed their commitment to open markets and trade, refraining from protectionism.

The deep fall in trade had a strong impact on the euro area. Euro-area exports fell in line with falling trade activity worldwide but there were large differences between Member States. These differences stem to a large extent from differences in the product structure of exports.

Recent data point towards stabilisation of world trade flows. This raises hopes that trade can be a supporting factor in the recovery. Although short-term prospects for the euro-area export markets are rather subdued, structural factors might play a supporting role in the recovery.

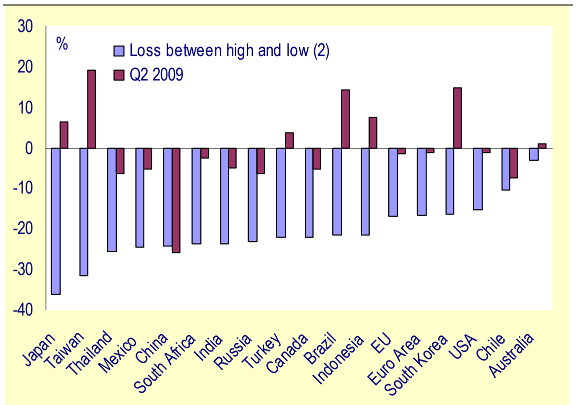
1. The slump in world trade

Recent developments and projections

Between 2001 and 2008, world trade grew strongly at an average yearly rate of 6½% in real terms. Since April 2008, however, world trade has fallen at an unprecedented rate. Between April 2008 and June 2009, it fell by 19% in real terms. ([20]) This fall in world trade volume over the past year has been at a faster pace than during the first year of the Great Depression, when it declined by approximately 10%. ([21]) In nominal terms, the decline in trade has been even more marked than in volume terms owing to an especially sharp contraction in commodity prices (see Graph II.1).

The fall in trade has been highly synchronised across countries around the world. After having reached record levels in the first three quarters of 2008, exports of many countries experienced losses of over 20% (see Graph II.1). Asian countries were hit harder than countries from the Western Hemisphere or the European Union but have also seen a larger improvement of export growth since their respective troughs in exports. Asian countries were also among the first to report renewed export growth.

Graph II.1: **Developments in exports of selected countries, the euro area and the EU**
(in %, q-o-q) (1)



(1) Real exports goods and services, National Accounts.
(2) Difference between the maximum and minimum level of exports since 2008Q1.
Source: Commission services.

For 2009 as a whole, projections are for the steepest fall in world trade volume since the Great Depression. In its Spring Forecasts, the European Commission projects world exports to decline by 11.5% in 2009. The IMF predicts a fall of 11% and the OECD 13%. ([22])([23])

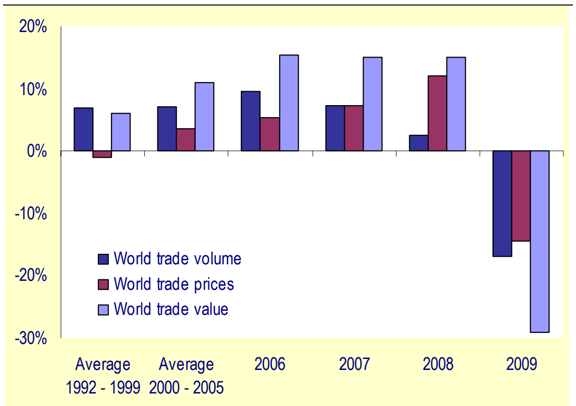
([20]) See CPB Netherlands World Trade Monitor June 2009.
([21]) See Eichengreen and O'Rourke (2009), 'A tale of two depressions', September 2009, VoxEU.

([22]) IMF World Economic Outlook, April 2009.
([23]) OECD Economic Outlook, March 2009.

Why trade has historically been more volatile than economic activity in global downturns

Both the recent and projected fall in world trade is much larger than that of world output, which the IMF expects to decline by 2.5% in 2009. In general, trade tends to be more volatile than global output. Trade openness ratios ([24]) tend to rise during expansionary phases of the world economy and decline during global downturns.

Graph II.2: **World trade developments** (y-o-y % change)



Source: Commission services.

This volatile nature of trade can be seen in Graph II.3, which shows developments in the world's output and trade over the last three decades. Trade's volatility in global downturns can typically be attributed to several factors.

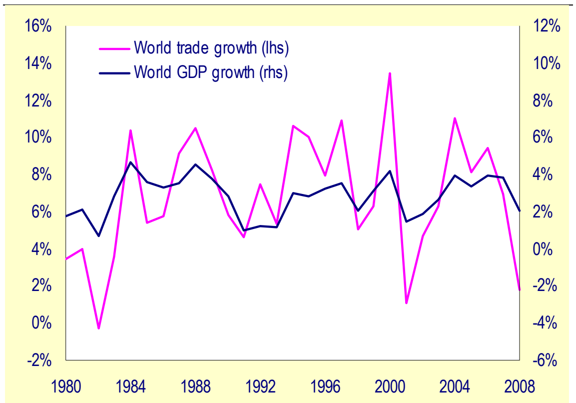
Firstly, trade falls more than economic activity because tradable goods, which include a relatively high share of capital goods and durable consumer goods, have a higher income elasticity than non-tradable goods and services. A fall in income, therefore, affects the external sector of the economy more than it affects domestic demand, where the share of services tends to be much higher.

Secondly, while foreign trade statistics account for the value of each transaction (e.g. the various parts of a vehicle), GDP data only measure the value added (e.g. assembling the vehicle). The internationalisation of production over the past decades has helped trade grow faster than GDP because of this difference in measurement. In a global downturn, particularly in a severe and synchronised downturn such as the current one, a disruption of the global supply chains can make trade fall faster than income. Box II.1 explains the workings of this statistical factor in more detail.

The third reason why trade is more volatile than GDP is the tendency towards a strengthening of protectionist policies during downturns. During downturns, governments are more inclined to introduce or increase trade barriers to protect domestic industries, preferring short-term benefits over the longer-term benefits of open trade.

Finally, although this applies only to the behaviour of trade measured in nominal terms, another reason why global trade tends to decelerate more markedly than world GDP is the sharp drop in energy prices that is generally associated with economic downturns. Fluctuations in energy prices in response to demand shocks are exacerbated by the relatively low price elasticity of energy supply. The prices of other international commodities and, in some cases, of traded manufactured goods also tend to decline during global recessions, further contributing to this effect.

Graph II.3: **World trade growth and world output growth** (y-o-y % change, 1980-2008)



Source: Commission services.

The recent fall in world trade has been without precedent

Trade is not only more volatile than output developments, for the reasons mentioned above, but the relationship between output and trade developments has changed through the years. The elasticity of trade to GDP has roughly doubled since 1960 ([25]) and tends to rise in times of worldwide economic downturns compared to more stable times. Trade growth is estimated by

([24]) The openness ratio is defined as the sum of exports and imports divided by the level of GDP.

([25]) See Irwin, D., A. (2002), 'Long-run trends in world trade and income', *World Trade Review 1*: *1*, 89–100.

Box II.1: **The internationalisation of production and the income elasticity of world trade**

It is sometimes argued that the internationalisation of supply chains and the development of intra-industry trade tends to increase the income elasticity of world trade. This is based on the fact that GDP is measured by the value added within a country while trade flows are measured by the full value of an item as it crosses the national borders. By splitting up production between different countries, the internationalisation of production may lead to a larger expansion in world trade than in world GDP because, while the latter only rises by the new value added, world trade increases by the total value of (intermediate) products crossing the border.

However, although this argument can help explain why trade in absolute terms may show larger fluctuations than output it can only explain trade's more volatile rates of growth to the extent that new supply chains are developed during upswings or disrupted during downturns.

An example may clarify this. The building of a car requires the extraction of ore (value added of 10), its smelting into iron (value added of 10) and the assembly of the car (value added of 10). Total value added is 30. However, if these processes were carried out in different countries and the cars exported for sale to another country, total world trade would add up to 60 (10+20+30).

If an extra production phase was added to improve efficiency or save costs, this would have a relatively small effect on value added but a very large effect on world trade. For instance, if the body of the car was to be moulded in yet another country (for instance a new production phase having an output worth 25), world trade would increase by the total value of the intermediate product (25, to reach 85 in our example) while the total value added would increase only by the efficiency gain (say, a gain of five percent between the second and third stage or 10*0.05=0.5). This would have a dramatic effect on the estimation of the income elasticity of world trade (world trade would increase by 25 while total value added would increase by only 0.5, implying an income elasticity of 50).

However, to the extent that the international production chain is not affected by output developments, the globalisation of production cannot explain why the observed volatility of world trade growth is higher than that of world output.

Assume that after the internationalisation of the production chain mentioned in the previous paragraph, world production declines by 10% (or by 3 in absolute terms). Assuming the new supply chains are not disrupted, although world trade would decline by 6 in absolute terms (twice as much as world GDP) in relative terms it would fall also by 10% (see table below). The income elasticity of world trade would, therefore, equal unity.

	Ore extraction	Smelting	Assembly	Total
GDP/value added	10	10	10	30
World trade	10	20	30	60
GDP -10%				
GDP/value added	9	9	9	27 (= -10%)
World trade	9	18	27	54 (= -10%)

Freund (2009) ([26]) to drop between 3.5 and 5 times as much as GDP in times of worldwide economic distress. Recently estimated standard trade models based on high demand elasticities, however, predicted a smaller decline in global world trade than actually occurred. ([27])

In previous global downturns, growth in world trade volume on average came to a standstill or

([26]) Freund, C. (2009), 'Demystifying the collapse in trade', VoxEU, 3 July 2009.

([27]) Econometric trade models such as those estimated by the OECD (see N. Pain, A. Mourougane, F. Sédillot and L. Le Fouler, 2005, 'The new OECD international trade model', OECD Economics Department Working Paper No 440) and the ECB (G. Fagan, J. Henry and R. Mestre, 2001, 'An area-wide model (AWM) for the euro area', ECB Working Paper No 42) relate trade flows to demand (foreign and domestic) and relative prices. Despite their relative high demand elasticities, these models predict, based on the observed fall in output, a less pronounced decline in trade flows in the last quarter of 2008 than actually took place.

Table II.1: **Trade and other economic developments during global downturns**
(annual change in % unless otherwise indicated)

	1975	1982	1991	2001	2009F
Openness ratio (1) (2)	-2.8	-4.3	-3.2	-4.5	-13.7
World GDP developments					
GDP growth (3)	1.9	0.7	1	1.5	-2.5
Output gap (3)	n.a.	-2	0.4	0.2	-3.3
Investment (% of GDP) (3)	-2.5	-3.7	-3.2	-2.6	-6
Consumption (% of GDP) (4)	2.1	1.6	0.1	1.1	2.5
World trade developments					
Growth in world trade (1)	-7.6	-2.3	0	-3.2	-18.5
Duration of fall in trade (quarters)	4	4	0	4	2
World oil price developments (5)					
Rise from trough to peak before crisis	135	291	103	173	366
Rise in year preceding downturn	159	-3	69	23	77
Rise in three years preceding downturn	213	138	81	58	135

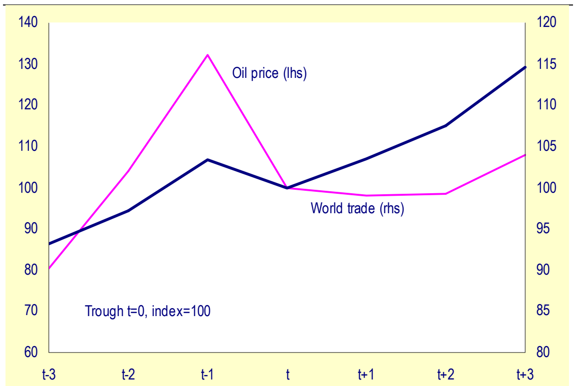
(1) Decrease from peak quarter to trough quarter; (2) Based on IMF data and smoothed over two quarters; (3) IMF WEO April 2009; (4) OECD countries average; (5) Quarterly figures.
Source: Commission services based on Reuters, EcoWin and IMF.

fell slightly. The only global downturn for which records are available and which shows a fall in world trade similar to that of the current crisis was the Great Depression. In this focus section, the analysis is concentrated on the main global downturns of the past four decades. Table II.1 shows the developments in world trade and world output in the global downturns of 1975, 1982, 1991, 2001 and 2009. ([28])

A useful way to compare the behaviour of world trade relative to world output in the five recessions under analysis is to look at trade openness ratios. As in previous downturns, world trade was more volatile than world GDP, leading to a fall in the openness ratio. Also, investment was more volatile than both GDP and world trade (reflecting the very high income elasticity of capital goods).

Another similarity that can be drawn between the current crisis and the earlier ones is that they were all preceded by a sharp increase in oil prices. The terms of trade shock associated with the increase in oil prices contributed to triggering the downturn (in oil-importing countries) and, indirectly, the deceleration of world trade. In addition, it caused a rise in transportation costs that may have exacerbated the subsequent fall in world merchandise trade. Even though most downturn episodes were subsequently accompanied by a downward correction in oil prices (the 1975 downturn being the exception), there may have been lagged effects from their previous rise, particularly since oil prices often did not return to levels that prevailed during the period of economic expansion (see Graph II.4). As discussed below, the delayed effect of the sharp increase in oil prices may have played a significant role in the current crisis.

Graph II.4: **Oil prices and trade volume averages in the 1982, 1991, 2001 and 2009 downturns** (t = year of trough, annual basis)



Source: Commission services.

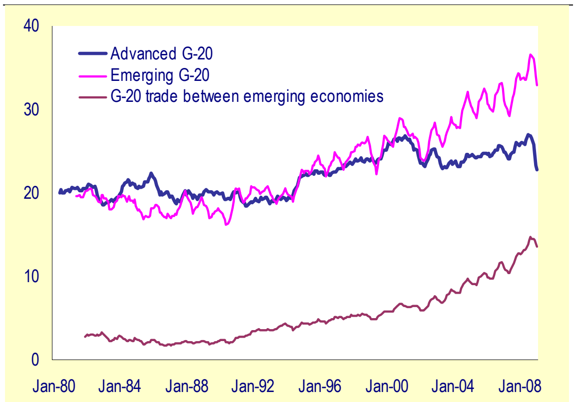
Notwithstanding the common elements, there are some important differences between the current and the previous downturns. First of all, the decline in global trade has been much more

([28]) Worldwide business cycles over the past four decades have been analysed by the IMF in its World Economic Outlook of April 2009. The IMF identifies four years during which the global economy was in recession (1975, 1982, 1991 and 2009). In the present study, 2001 is also considered as a year of global downturn. In 2001, poor economic growth in the advanced economies was compensated by better growth performance of the developing economies (especially in Asia). However, since part of the strong growth experience in these Asian countries can be attributed to the recovery from the Asian crisis and since world trade did fall in 2001, that year may still be considered as a major downturn year.

marked this time around. While in previous downturns, the decline in global trade volume never exceeded 7½% (in fact, in the 1991 downturn world trade growth did not become negative at all), world trade volume is estimated to have declined by nearly 20% in the current crisis (between the third quarter of 2008 and the second quarter of 2009).

In previous downturns, the world trade volume would return to its previous peak level within two quarters. In the current downturn, this is likely to take considerably more time. Assuming pre-crisis growth rates for trade flows, which were already high by historical standards, it would require more than three years in order to return to the pre-crisis level. More importantly, as shown by Table II.1, the average openness ratio has fallen by far more than in the previous downturns. This means that not only has trade declined more deeply but the decline has been more pronounced relative to deceleration in economic activity when compared to previous global downturns. This suggests that special factors may have been at work during the current downturn.

Graph II.5: **Openness ratios of emerging and advanced economies** (% of GDP, six months moving average, Jan 1980 to Feb 2009)



Source: Commission services based on IMF data.

One key development of the past two decades has been the rapidly rising integration of emerging market economies into the world economy. Since 1991, while the openness ratio of advanced economies has risen by 2.5 percentage points of GDP, that of emerging market economies has increased by 11.5 percentage points. Trade among emerging market economies increased even more dramatically, leading to approximately a tripling of their intra-regional trade ratios (measured in per cent of their GDP). This process further intensified between 2001 and 2008 (see Graph II.5).

This trend towards rising international integration of emerging market economies prevailed over the temporary and cyclical declines in openness ratios (or the de-globalisation process) that accompanied the global downturns. In the downturns of the past two decades, the openness ratios of emerging market economies have tended to be much less affected than those of advanced economies, reflecting their strong secular trend towards stronger international (and in particular intra-regional) integration. This phenomenon is also apparent during the current downturn, with the openness ratios of emerging market economies holding up better than those of advanced economies.

What factors may have made this cycle exceptional?

All in all, the current development in world trade stands out from previous global downturns with respect to its high elasticity to income, the severity of the contraction and its expected duration. Although research into the reasons for these extreme developments is still ongoing, several factors have been put forward to explain the current slump in world trade. Most of the factors that are discussed below were also at work in previous trade cycles but their influence may have been different in the current global crisis.

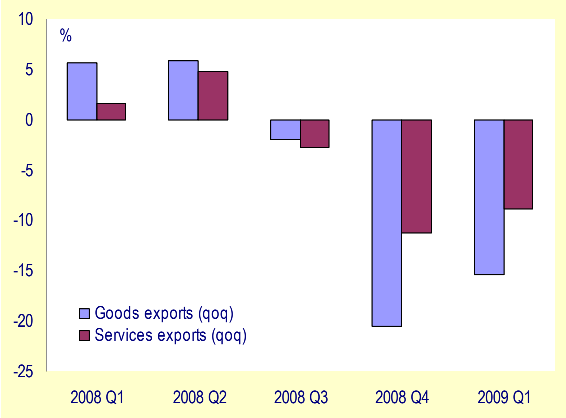
Composition of supply and demand effects

In this economic and financial crisis, the industrial sector has been particularly hard hit. ([29]) This partly reflects its relative high dependence on capital, given that the financial system debacle has severely affected the availability of credit to finance capital spending. With manufactured goods typically being tradable goods and accounting for a higher share of total exports than services, this appears to be an important explanation for the particularly strong impact of this crisis on trade flows. As Graph II.6 shows, trade in goods has been more seriously affected during the crisis than trade in services. This crisis resilience of services trade is in line with the findings of Borchert and Mattoo (2009). ([30])

([29]) Global industrial production is projected to contract by 6.3% in 2009, compared to an average of 2% in the downturns of 1975, 1982 and 1991. See World Economic Outlook, Spring 2009, Box 1.1, pp. 11-14, IMF.

([30]) Borchert, I. and A. Matto (2009), 'The crisis-resilience of services trade', World Bank Policy Research Working Paper No 4917, April 2009.

Graph II.6: **Trade in goods and services during this global downturn**
(q-o-q growth in %, 2008Q1-2009Q1)



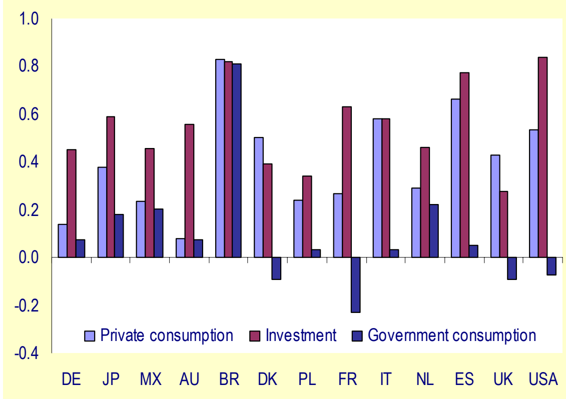
Source: Commission services based on OECD data.

This resilience of services trade to the current crisis is also consistent with the fact that countries that rely more on manufacturing goods for their export performance (e.g. Germany, some Eastern European countries, Japan and some other Asian economies) have witnessed the biggest falls in export volumes during the crisis. By contrast, countries that are relatively less dependent on exports of manufactured goods and where services account for an important share of foreign exchange receipts (e.g. India) have been relatively less affected as far as their export performance is concerned.

In addition to these so-called supply composition effects, there may be some demand composition effects helping to explain the relatively strong impact of the current downturn on trade flows. Graph II.7 displays the short-term correlation between imports and the three main expenditure components of GDP: investment (gross fixed capital formation), private consumption and government consumption. It shows that investment has the highest correlation with imports, followed by private consumption and then by public consumption. This reflects their respective import contents.

In this crisis, there has been a marked shift from high import content components of demand (in particular investment) to low import content components (government consumption), for two reasons. Firstly, in comparison with previous downturns this crisis has had a particularly strong impact on investment demand (IMF (2009), op. cit.). Secondly, it has been accompanied by an exceptional counter-cyclical fiscal stimulus by most G-20 countries.

Graph II.7: **Short-term correlations between imports and expenditure components of GDP**
(1991Q2-2009Q1)



Source: Commission services.

Because the approved fiscal stimulus packages take time to fully kick in, part of this demand re-composition effect is still to come. In other words, because of its relatively low import content, the fiscal stimulus provided to the domestic economy is unlikely to boost trade by the same magnitude as GDP in the coming quarters. This could moderate the response of trade flows to the recovery of economic activity, keeping the income elasticity of trade at a relatively low level for some time.

Trade finance

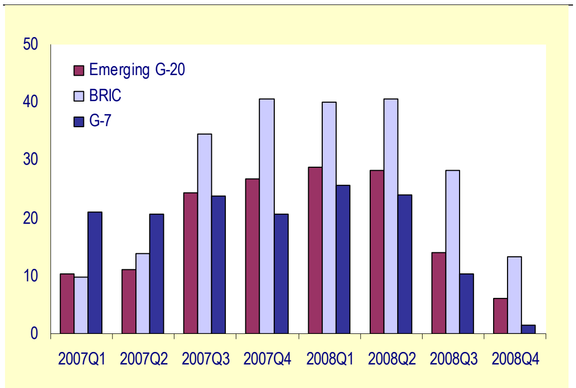
Directly related to the financial crisis is another important factor that has affected world trade: the reduced availability of trade finance. In the current global economic and financial crisis, trade finance has been reported as a constraint by companies. In a survey on the availability and pricing of trade finance, the IMF found that the decrease in the value of trade finance had accelerated between October 2008 and January 2009. ([31])

The survey confirmed the increase in the cost of trade finance instruments (particularly for export credit insurance, which doubled in price between October 2008 and January 2009 after the significant increase already recorded between October 2007 and October 2008). Another interesting finding of the survey was that after the initial months, the respondents increasingly saw the decline in the demand for trade finance, as opposed to constraints in the availability of credit, as the primary reason for the decrease in trade finance. The pricing of medium- and long-term

([31]) IMF Finance and Development, March 2009.

lending had eased slightly between October 2008 and January 2009 but remained above its October 2007 level. Graph II.8 shows how the growth in insured trade finance decelerated during the crisis.

Graph II.8: **Insured export credit exposure** (y-o-y % change, USD, 2007Q1-2008Q4)



Source: Commission services based on data from the Berne Union.

In reaction to the shortage of trade finance, the G-20 has put in place a multilateral initiative to foster the counter-cyclical availability of official trade finance, from bilateral and multilateral sources (see Box II.2). This includes a commitment reached at the G-20 London Summit of April 2009 to increase the availability of short-term trade finance provided by G-20 countries and multilateral development banks by about USD 250 billion. ([32])

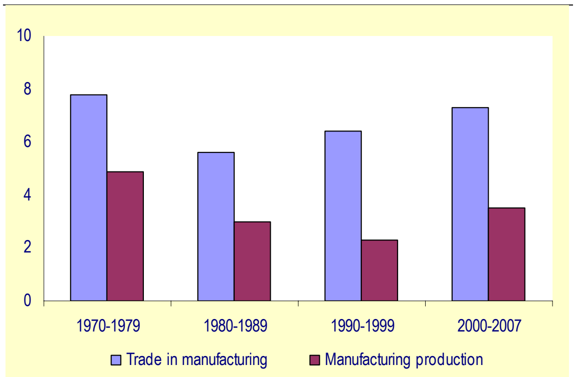
Although it is still too early to assess the impact of these policy initiatives, according to a recent survey by the IMF and the Bankers Association for Finance and Trade, the availability of trade finance appears to have improved in recent months, although the evidence is still mixed. A stabilisation of the deterioration of trade finance availability would already be a strong improvement on the responses in March, when almost half of the banks surveyed expected a further deterioration.

Internationalisation of production

The internationalisation of production has, as noted, been a key characteristic of the past decades of globalisation. Strong growth in FDI and in trade in intermediate manufacturing goods over the past decades indeed suggests that the internationalisation of production has become an increasingly important factor in world trade developments over the years. But only if international supply chains have been disrupted can this offer an explanation for the current trade slump.

Graph II.9 portrays the rising importance of internationalised production over the past five decades, divided into the periods between the global downturns. Over the past five decades, on average global trade in manufacturing goods has risen faster than the production of these goods. This is often regarded as evidence of the internationalisation of production. The difference between trade and production has been the largest between 1983 and 2007, pointing to increased vertical specialisation of nations in the period preceding the current crisis.

Graph II.9: **Growth of global manufacturing trade and manufacturing production** (average annual growth in %)



Source: Commission services based on WTO data.

Another indication of the increased role the internationalisation of production plays is the strong increase in foreign direct investment. Since 1983, world FDI inflows have more than quadrupled as a percentage of world GDP. This increase partly reflects the internationalisation of production as multinational companies increasingly divide global production between different countries and subsidiaries abroad. Global supply chains have been particularly vulnerable to the trade and financial shocks of this financial crisis. ([33]) In the global supply chain, the failure of one company has direct implications for all the other companies. It disrupts the supply higher up

([32]) The EU is one of the main contributors to this multilateral initiative, having pledged through its national official export credit agencies about EUR 100 billion to the short-term finance effort and also being active in the medium- and long-term segment of the market.

([33]) See, for instance, Yi, K-M. (2009), 'The collapse of global trade: the role of vertical specialisation', in Baldwin and Evenett (eds), 'The collapse of global trade, murky protectionism, and the crisis: Recommendations for the G-20', a VoxEU publication.

Box II.2: **The G-20's trade finance initiative**

In response to the marked decline in trade finance that accompanied the crisis, G-20 leaders put in place a trade finance initiative at their London Summit in April. The initiative was aimed at making available through a variety of national and multilateral channels an extra USD 250 billion of short term trade finance as well as increasing the support to trade through medium- and long-term trade finance ([1]). This target has been met.

The EU has been a key contributor to the G-20 trade finance initiative. EU official export credit agencies have contributed around EUR 100 billion (roughly USD 140 billion) to the short-term component of the initiative. And their medium- and long-term commitments have increased by 38% when compared to pre-crisis levels, with a particularly large increase in the second half of 2008. The EU has also established an information exchange and coordination mechanism on trade finance among its Member States and has flexibly interpreted state aid rules to facilitate their trade finance response.

An important pillar of the trade finance initiative by G-20 leaders has been the strengthening of the trade finance facilities of the multilateral development banks. The IFC doubled the ceiling for the trade finance guarantees available under its Global Trade Finance Programme and established a sizeable Global Trade Liquidity Programme, including contributions from bilateral donors. The World Bank has also expanded the budget of its Trade Facilitation Facility and its Aid for Trade Initiative. EU Member States have supported the expansion of the World Bank's trade finance instruments. The regional development banks have also considerably strengthened their trade finance facilities.

To address the lack of reliable data on overall volumes and costs of trade finance, the IMF and the Bankers Association for Finance and Trade have surveyed banks three times on trade finance developments starting in December last year. After the first survey showed a significant deterioration in the availability of trade finance and worsening of the conditions under which trade finance could be obtained, the outlook for trade finance appears to be stabilising or improving in the latest survey. However, as global trade flows appear to have stabilised and to be expanding again, demand for trade finance can be expected to pick up. With some fragility left in the banking sector and the need for expanding world trade to support a worldwide economic recovery, it is important that the guarantees for sufficient availability of trade finance remain in place until the real and financial economic developments return to normal.

([1]) The USD 250 billion for short-term trade finance is the amount of extra trade that could be financed over a period of 2 years (2009-2010) with both credit guarantees and loans by rolling over four times USD 62.5 billion in short-term finance with an average maturity of 180 days.

in the production chain (towards the final product) while it leads to a fall in demand lower down in the supply chain (towards the less processed products). The payment disruptions associated with the financial and economic crisis, such as deferred payment or non-payment, limit the possibility of the other companies to finance their inputs, their sales and their investments.

The higher international integration of the supply chain achieved during the last two decades leads to increased efficiency but it is also a transmission channel for trade and financial shocks. The fragility of the system increases with vertical specialisation as it increases complexity and interdependence. Specialisation, nonetheless, leads to higher productivity and higher welfare. In the case of serious and synchronised disruptions such as the current global crisis, an internationally segmented production chain may amplify those shocks, exacerbating negative impacts of the global downturn on global trade flows.

Transportation costs

When oil prices reached record highs in the second quarter of last year, analysts were worried that transportation costs would limit the expansion of world trade. CIBC World Markets (Rubin and Tal (2008)) made a rough calculation that the effect on trade of the oil price at USD 150 per barrel would be equivalent to the tariff rates prevailing in the 1970s. ([34])

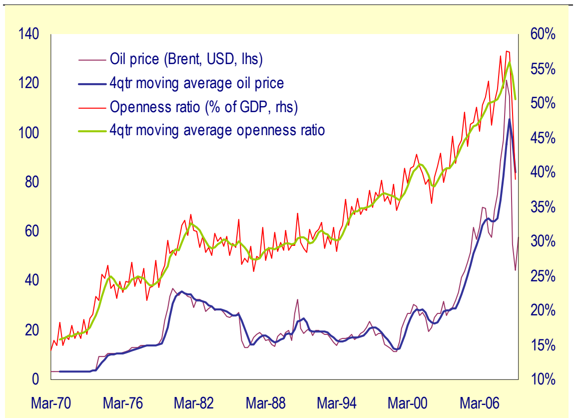
Following the subsequent fall in commodity prices, this discussion has largely disappeared. A delayed effect of the oil price hike before mid-

([34]) Rubin, J. and B. Tal (2008), 'Will soaring transport costs reverse globalisation?', CIBC World Markets StrategEcon.

2008 could, however, have exacerbated the observed decline in world trade.

Although previous global downturns were preceded by marked increases in oil prices (see Graph II.10), the hike in oil prices that preceded this crisis was particularly pronounced and intensified in the three quarters immediately preceding the downturn. Between the second quarter of 2003 and the second quarter of 2008, the oil price jumped by nearly 370%, with oil prices approximately doubling in the first half of 2008 alone (see Table II.1). This increase is much more marked than the increases (from trough to peak) in oil prices seen before the other downturns.

Graph II.10: **Oil price and openness ratios** (March 70 to June 2009)



Source: Commission services.

The effect of the large oil price increase on transportation costs was exacerbated by the scarcity of capacity. For instance, after a 400% increase in the three preceding years, freight rates, as measured by the Baltic Dry Index, peaked in the first half of 2008. The increase in the non-energy component of transportation costs during these last three years contrasted with the decline in these costs in the preceding decades. This decline was, among other things, due to economies of scale (i.e. increased size of ships) that also lead to higher fuel efficiency. The increase in transportation costs should surely be expected to have had some lagged impact on trade in the subsequent quarters and to be another factor that can explain the fall in world trade.

There are several reasons why the effect of oil price increases works with a lag. First, it takes time before transport contracts are fully adjusted to the new reality. Secondly, even once contract prices adjust, it takes time for the resulting changes to have a full impact on trade flows, due to inertia in export and import contracts and practices.

Simultaneous, widespread nature of global recession

Trade is more volatile in widespread global downturns because of the more limited possibility to let external demand act as a shock absorber. Global downturns lead to a decrease in worldwide income and therefore affect all or most countries in the world. The drop in external demand can, therefore, not be compensated for by shifting markets, because demand is globally under downward pressure. This synchronisation may also help explain the slump in world trade.

A discussion on the degree of 'decoupling' of emerging market economies from developments in advanced economies took place before the crisis and has resurfaced more recently. So far, no definite conclusion has been reached. What is clear, however, is that the current crisis has been highly synchronised and that its effects have been widespread. According to the IMF (IMF (2009), op. cit), the degree of synchronisation of the current recession is the highest of the last 50 years, with a record number of advanced economies having entered into recession.

Protectionist reactions

Protectionist reactions are a potential threat to world trade developments. In the Great Depression, it was a policy reaction that led to deeper and prolonged economic fallout. Around the downturn of 1982 significant protective measures were also taken, such as voluntary export restraints and quotas on textiles and steel.

In this crisis, however, protectionist measures seem to have been relatively limited so far, [35] which means that this is unlikely to provide a good explanatory factor for the relatively marked decline in world trade observed during this downturn. International peer pressure, in particular the standstill commitment agreed during the G-20 Washington Summit and the related monitoring mechanism put in place by the WTO, may have contributed to the restraint in installing protectionist policies.

[35] See Evenett, S.J. and B. Hoekman (2009), 'Policy responses to the crisis: implications for the WTO and international cooperation', VoxEU 6 July 2009. According to the authors, the amount of imports targeted by these measures is small and represents about 0.5% of the merchandise imports of only G-20 countries.

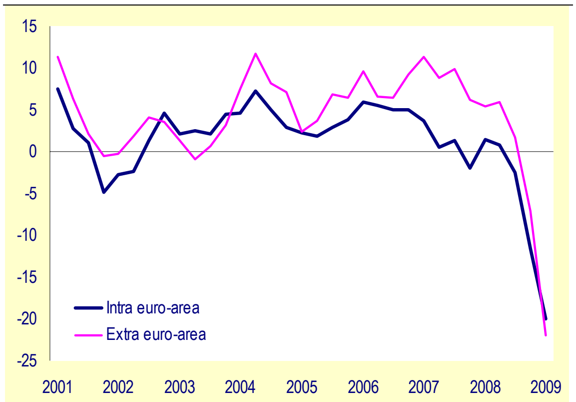
Also, the interdependencies of economies through the global supply chain may have provided a disincentive to protectionist policies. As noted, inputs into the production process, in the form of imported intermediate goods, now form an important part of international trade. There is, therefore, little incentive for a country that is part of the global value chain to limit the import of intermediate goods or the final product. It would only endanger its share in the total value added.

2. Impact on the euro area and its Member States

The euro area was hit hard by the fall in world trade

The euro area was severely affected by the slump in world trade. Euro-area exports of goods and services (based on National Accounts, comprising both intra and extra euro-area exports) fell in 2008Q4 by 6.6% compared to 2007Q4. The slump was even larger in 2009Q1 when exports fell further by 16.3% y-o-y.

Graph II.11: **Euro-area exports of goods** (y-o-y % change, 2001Q1 to 2009Q1)



Source: Commission services.

Intra euro-area trade was very weak already since mid-2007, i.e. the first wave of the financial crisis. Extra euro-area exports kept pace till mid-2008 thanks to robust exports to Eastern Europe and other emerging markets. At the turn of the year exports to the euro area as well as outside slumped in parallel, with the fall in extra euro-area exports being marginally larger in 2009Q1 (see Graph II.11 and Table II 2).

Exports to almost all markets fell, but the scale of the fall was uneven

Almost all euro-area export markets have been affected by the economic crisis. The European markets, both EU and non-EU, seem to be the main cause of the recent fall in euro-area exports. This is due to these countries' large share in euro-area exports and the large financial and economic turbulences experienced by most of them, especially in Eastern Europe. Among the EU markets, exports to Baltic countries suffered most but exports to other EU countries also recorded large drops. Exports to the UK, the single biggest trade destination, fell by 22.7% in 2009Q1.

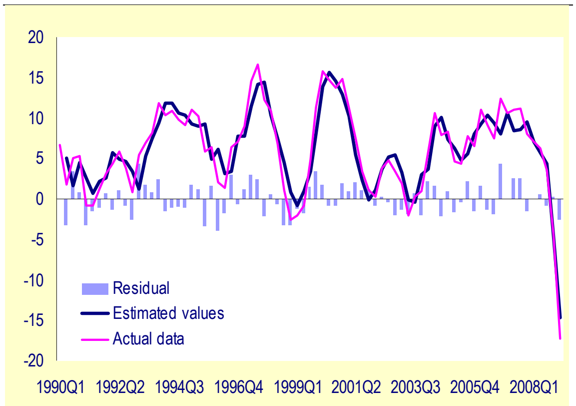
Table II.2: **Euro-area export growth to various destinations** (y-o-y % change)

	2008Q4	2009Q1
Intra euro-area	-11.5	-19.9
Extra euro-area	-7.2	-22.0
Non-euro area EU	-11.6	-23.7
UK	-13.3	-23.4
CEE-5 (1)	-8.1	-23.4
EFTA	-4.6	-10.9
CIS	-5.7	-37.6
Russia	-5.6	-38.1
Africa	9.6	1.0
North America	-12.9	-24.3
US	-14.2	-25.3
Latin America	6.8	-24.7
Middle East (2)	4.1	-17.7
ASEAN (3)	-4.9	-18.5
Japan	-7.1	-26.0
China (4)	-8.0	-15.6
India	-24.7	-23.9
Australia and Oceania	10.9	-22.8
OPEC	16.1	-5.9

(1) Poland, the Czech Republic, Hungary, Bulgaria and Romania; (2) Israel, United Arab Emirates, Saudi Arabia and Iran; (3) Brunei Darussalam, Indonesia, Cambodia, Laos, Myanmar, Malaysia, Philippines, Singapore, Thailand, Vietnam; (4) Including Hong Kong.
Source: Commission services.

Among the non-EU European countries, exports fell dramatically to countries hard hit by the crisis, such as Ukraine, Russia and Turkey. Other destinations have, on average, experienced lower falls in exports, but large differences exist even within narrow geographical regions. In North and South America, exports to the US and Argentina suffered significant drops, while shipments to Canada, Brazil or Mexico were much more resilient and weakened only in 2009Q1. Similar differences were recorded in South-East Asia, although the whole region was hit already in 2008Q4. Africa as a whole is the only geographical region to which exports were still growing, even if only marginally in 2009Q1. This resilience seems to be mainly due to fast growing exports to oil and other raw materials exporting countries. The link between export resilience and commodities is supported by the behaviour of exports to OPEC. Exports to OPEC were record high in 2008Q4 and decelerated only in 2009Q1, but the growth was still positive. However, also within OPEC, performance of individual countries was uneven, with the exports slowdown driven by the more open and developed OPEC members.

Graph II.12: **Exports of goods and services, euro area: results of estimations** (y-o-y % change, 1990Q1 to 2009Q1)



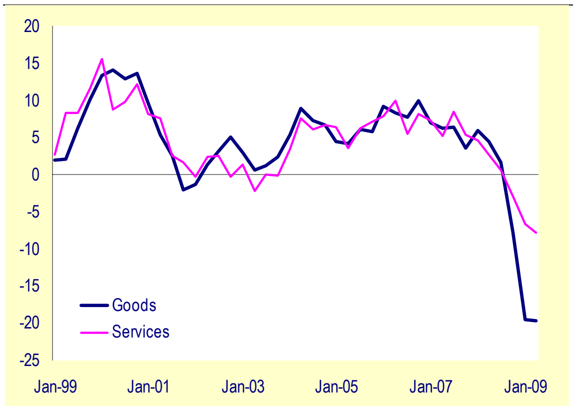
Source: Commission services, National Accounts data.

Are these developments in external demand sufficient to explain the precipitous fall in euro-area exports? A standard export equation is a useful tool to answer this question. ([36]) The results of the estimation presented in Graph II.12 show that the fall in euro-area exports is in line with past relationships between exports, world trade and the exchange rate. Although a negative residual is visible in 2009Q1, its size is not very large compared with the past.

Differences between various components of exports were significant

As mentioned above there were noticeable differences in trade developments between goods and services trade. This can also be seen in euro-area exports. Although in the past there has not been any systematic difference between export growth of goods and of services, services proved much more resilient during this slowdown (see Graph II.13). Nevertheless, the mitigating role of services was rather limited for the euro area, as services exports account for only 20% of total exports. Although goods as a whole recorded a steep fall, the breakdown of data into various goods sectors reveals significant differences (see Table II.3). Exports of food and beverages proved relatively resilient. At the same time, exports of raw materials and manufacturing collapsed.

Graph II.13: **Exports of goods and of services, euro area** (y-o-y % change, 1999Q1 to 2009Q2)



Source: Commission services, National Accounts data.

As raw materials are just a small part of euro-area exports, the manufacturing sector, due to its large share (45% of goods exports), is the main cause of the fall in euro-area exports.

Table II.3: **Euro area exports of goods: sectoral breakdown** (extra euro-area, y-o-y growth rate, volumes, in %)

	2008Q4	2009Q1
Food and beverages	-0.6	-8.1
Raw materials	-12.8	-21.1
Manufactured goods	-8.8	-25
Chemicals	-5.8	-13.9
Machinery and transport equipment	-8.8	-29.3

Source: Commission services.

Among various manufacturing sectors, machinery and transport equipment was one of the most severely affected. At the same time, it is the sector with the highest weight in euro-area exports, accounting for almost 22% of the total. The widely reported difficult situation in the world automotive sector has left a visible trace in the export data. Exports in this sector, accounting for almost 10% of total euro-area goods exports, fell by 40% in 2009Q1 (in nominal terms). Chemicals exports were comparatively resilient among manufacturing goods and this was entirely due to exports of pharmaceutical products.

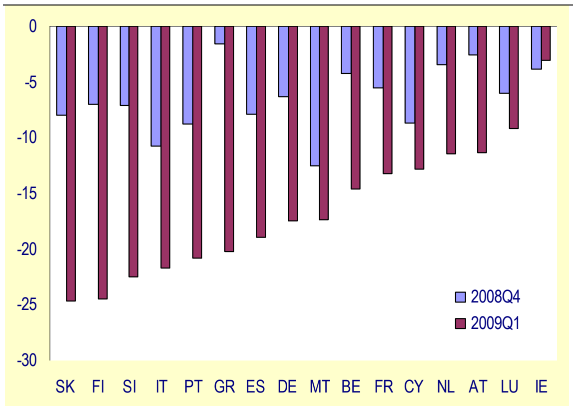
Large differences recorded by Member States

A look at export developments at the level of individual Member States reveals significant differences (see Graph II.14). On the one hand,

([36]) For a presentation of and more details on a euro-area export equation see QREA Volume 6 No 2 (2007). The estimates presented here are based on a sample 1989Q1-2008Q3 with 2008Q4 and 2009Q1 being out-of-sample forecasts. The estimated equation has the following form: $\Delta\log(X)=0.80\Delta\log(\text{world trade})-0.33(\log(X)+0.96\log(\text{world trade})+0.27\log(\text{reer}))_{-1}+2.13$.

exports (goods and services) from Slovakia and Finland fell by almost ¼ (y-o-y) in 2009Q1, while Ireland's exports slid by just 3 %.

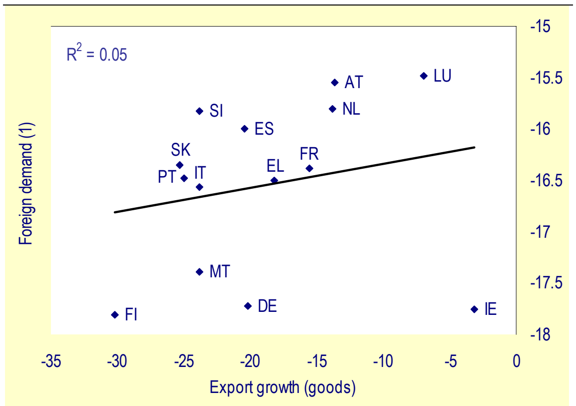
Graph II.14: **Exports of goods and services, euro-area Member States** (intra and extra euro-area exports, y-o-y % changes)



Sources: Commission services, National Accounts data.

Source:

Graph II.15: **Correlation between growth in exports and in foreign demand** (y-o-y % change, 2009Q1, exports of goods)

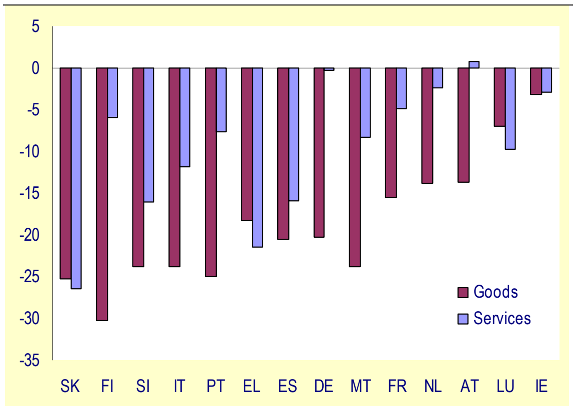


(1) Foreign demand is calculated as weighted average growth of goods imports in main exports markets.
Source: Commission services, CPB Netherlands.

Graph II.15 shows that it is difficult to relate these large differences to differences in country-specific external demand. The differences in external demand developments were very small compared to differences in exports and the correlation between the two variables was low at the turn of the year. It follows that other factors must have stood behind the large dispersion in Member States' export developments. It has been shown above that individual components of exports recorded different developments recently. The product structure of exports is therefore a potential explanatory factor behind differentiated export developments of euro-area countries.

Although goods exports account for the bulk of total euro-area exports, on a Member State level the situation differs. Services constitute more than half of total exports in Luxembourg and Greece and reach as much as 85 % in Cyprus. In contrast, in Slovakia and Germany, services exports are just around 10 % of the total. Moreover, some countries experienced rather different developments in terms of goods and services exports (see Graph II.16).

Graph II.16: **Exports of goods and services, euro-area Member States** (y-o-y % change, 2009Q1)

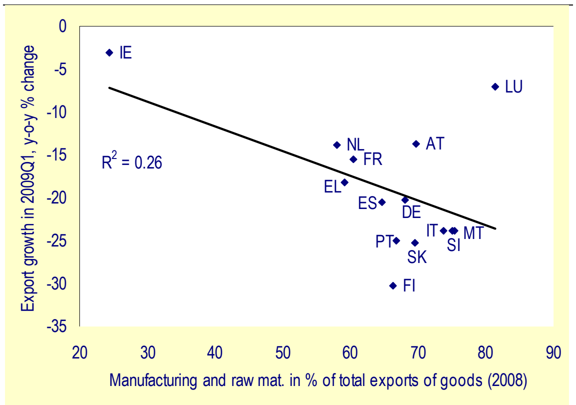


Source: Commission services, National Accounts data.

Although in most of the countries services were more resilient than goods, Greece, Luxembourg and Slovakia break this pattern. The cause of the fall in services exports in these three cases can be directly related to the characteristics of the ongoing crisis. Exports of services in Greece and Slovakia are concentrated in transport and their fall is the inevitable corollary of the slump in world trade. Luxembourg is heavily specialised in financial services and the fall in exports can be linked to the contraction of financial market activities. On the other hand, the resilience of services exports in Germany, the Netherlands and especially in Austria stands out. As trade statistics are less detailed for services than for goods, it is difficult to attribute this resilience unambiguously to a particular sector, but all of the countries where services exports have proved resilient exhibit a relatively high share of business services, including IT services.

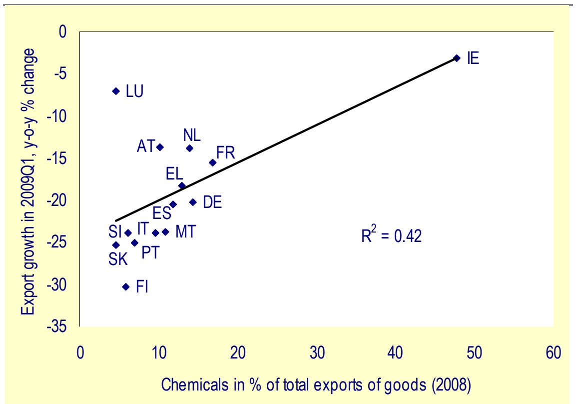
Member States' export structure differs considerably if goods exports are considered. Graphs II.17 and II.18 illustrate the influence of the sectoral specialisation of exports on the differences in export developments between Member States. Graph II.17 shows that a higher share of manufacturing goods and raw materials can on average be associated with a larger fall in exports. The reverse is true for chemicals. Graph II.18 confirms that the larger the share of chemicals in the export basket, the lower the fall in total exports.

Graph II.17: **Share of manufacturing and raw materials and export growth, euro-area Member States** (1)



(1) The share of manufacturing less chemicals and raw materials (i.e. SITC sectors 2, 3, 4, 6, 7, 8) in total exports of goods based on trade statistics. The growth rate of goods exports, y-o-y, 2009Q1, is based on National Accounts data.
Source: Commission services.

Graph II.18: **Share of chemicals and export growth, euro-area Member States** (in %, 2009Q1) (1)



(1) The share of chemicals (SITC 5) in total exports of goods based on trade statistics. The growth rate of goods exports, y-o-y, 2009Q1, is based on National Accounts data.
Source: Commission services.

The reasons for Ireland's remarkably resilient exports become clear. Ireland's exports are highly concentrated in the chemicals sector and especially in pharmaceutical products (20% of goods exports in nominal terms). This export structure explains the resilience of its exports and its far-off position in Graphs II.17 and II.18. (37) The results of this analysis mean that sectoral or product developments of world trade determined to a large extent the export performance of euro-area Member States during this period of the global downturn.

Short-term prospects

After the dreadful trade developments at the turn of the year, the most recent high-frequency trade data have shown some signs of stabilisation. Month-on-month growth rates of world trade have in fact been broadly flat already since February and jumped by almost 2.5% (m-o-m) in June. Stabilising world trade and economic activity in the world economy raises hopes that trade will be a supporting factor in the recovery. However, economic forecasts show that prospects for the world economy are uneven among regions.

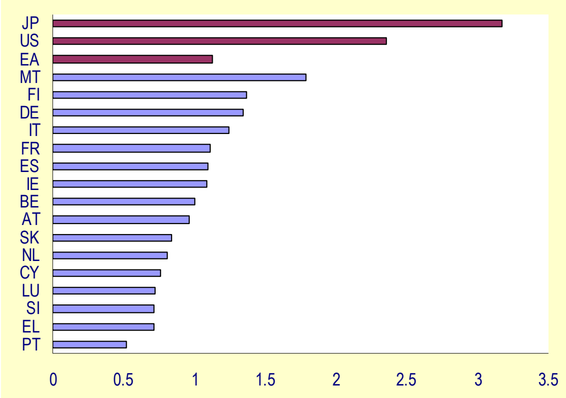
The prospects for euro-area's export markets, the US and Japan in 2010 are summarised in Graph II.19. The prospects for euro-area external demand are subdued compared with the US and Japan. Japan's exports are best placed to benefit from the 'growth engine' in South-East Asia due to its high concentration in this region. Although to a lesser extent, it is also the case for the US, which additionally is going to benefit from robust growth in Latin America. In contrast, the euro-area's exposure to these dynamic regions is only limited. Moreover, the situation in Eastern Europe — the euro-area's traditional export market — is mixed, with some countries having been severely hit by the crisis. Last but not least, as almost half of euro-area trade is internal trade, the expected slower recovery in the euro area itself will weigh on euro-area exports.

Looking beyond the short term, it seems that the crisis triggered adjustment processes in some of the euro-area's important export markets, both inside (e.g. Spain) and outside the euro area (e.g. the Baltic countries). Because some of the past growth in these countries was related to increasing imbalances, overheating and asset bubbles, the adjustment might be protracted. Exports to these markets will probably not return to the growth rates seen before some time. Although it might not weigh too much on exports from the euro area as a whole, particular Member States, which in the past benefited from high imports in these

(37) After removing Ireland and Luxembourg from the sample R^2 remains unchanged in Graph II.17 and increases to 0.57 in Graph II.18.

markets, may now be faced with durably lower growth of foreign demand.

Graph II.19: **Export markets — 2010 growth forecast** (percentage change on preceding year)



Source: Commission services based on IMF World Economic Outlook forecast, October 2009.

Nevertheless, there are also upside risks to the scenario presented in Graph II.19. Similar to the situation during the downturn, export structure can play an important role in the recovery phase and favourable export specialisation can improve external performance. Trade activity may increase faster than output during the upturn, in the same way as it fell more in the downturn, giving a boost to the open euro-area economies. The sharp decline in manufacturing trade may also bring a more forceful upturn in the manufacturing cycle, granting some growth bonus to manufacturing sectors. Also, capital and investment goods, which usually gain more in recovery, may see stronger external demand.

An interesting pattern of the recent trade developments in the euro area is that countries recording current-account surpluses saw a larger deceleration of their exports than the countries with current-account deficits. This feature, together with the contraction of domestic demand in deficit countries, brought about a significant correction in intra euro-area current-account imbalances. However, an externally driven recovery in the euro area can make this pattern partly temporary. More export-oriented Member States are likely to again benefit more from the upturn in trade. At the same time, those Member States where productive capacity was more oriented towards domestic demand may lag behind in the recovery.

Conclusions

The slump in world trade at the turn of 2008 and 2009 was unprecedented. Its depth and speed can be compared only to the developments in trade during the Great Depression. At that time, world trade spiralled down, smothered by a surge in protectionism. Fortunately, world policymakers drew the right conclusions from that experience and did not let protectionist tendencies emerge this time. The G-20 reaffirmed its commitment to open markets and trade, recognising its role in creating wealth in the world economy, especially in the poorest countries. The multilateral trade finance initiative helped to moderate problems with access to trade financing created by the turbulences in the financial sector.

All these initiatives notwithstanding, the steep fall in world trade had serious repercussions for the euro area and its Member States. The euro-area economy, highly integrated with the world economy, saw its exports fall abruptly, in parallel with the trade activity worldwide. However, individual Member States have experienced quite differentiated reactions of their exports to falling foreign demand. The differences relate to a large extent to the product composition of the export basket, as there have been noticeable differences in developments of individual components of goods and services trade.

Recent high-frequency trade data show some stabilisation or even a pick-up in world trade flows. This raises hopes that trade can again be a supporting factor in the future recovery. However, growth prospects for various regions of the world economy differ a lot. This translates into large differences between countries in the expected boost from the external sector. The euro-area's export markets are forecast to lag behind its main competitors in the near future. The product structure of exports may to some extent mitigate these negative geographical factors during recovery. Nevertheless, large adjustment needs in some important euro-area export markets imply that some euro-area countries might for a long time face more sluggish foreign demand than was the case before the crisis.

III. Recent DG ECFIN publications

1. Policy documents

EUROPEAN ECONOMY. 3. May 2009.
Economic Forecast Spring 2009
http://ec.europa.eu/economy_finance/publications/publication_summary15046_en.htm

EUROPEAN ECONOMY. 4. April 2009.
Monitoring revenue trends and tax reforms in Member States Joint EC-EPC 2008 Report
http://ec.europa.eu/economy_finance/publications/publication_summary14864_en.htm

EUROPEAN ECONOMY. 5. June 2009
Public Finances in EMU - 2009
http://ec.europa.eu/economy_finance/publications/publication_summary15289_en.htm

EUROPEAN ECONOMY. 7. September 2009
Economic crisis in Europe: causes, consequences and responses
http://ec.europa.eu/economy_finance/publications/publication_summary15885_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

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 46. May 2009.
The Western Balkans in Transition
http://ec.europa.eu/economy_finance/publications/publication_summary15159_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 47. May 2009.
The functioning of the food supply chain and its effect on food prices in the European Union
http://ec.europa.eu/economy_finance/publications/publication_summary15232_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 48. June 2009.
The Impact of the Global Crisis on Neighbouring Countries of the EU
http://ec.europa.eu/economy_finance/publications/publication_summary15400_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 49. June 2009.
Impact of the current economic and financial crisis on potential output
http://ec.europa.eu/economy_finance/publications/publication_summary15477_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 50. July 2009.
What drives inflation in the EU Members States? Proceedings of the workshop on 22 October 2008
http://ec.europa.eu/economy_finance/publications/publication_summary15564_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 51. July 2009
The EU's response to support the real economy during the economic crisis: an overview of Member States' recovery measures
http://ec.europa.eu/economy_finance/publications/publication_summary15670_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 52. July 2009
2009 Economic and Fiscal Programmes of potential candidate countries: EU Commission's assessment
http://ec.europa.eu/economy_finance/publications/publication_summary15762_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 53. September 2009
Economic performance and competition in services in the euro area: Policy lessons in times of crisis
http://ec.europa.eu/economy_finance/publications/publication_summary15839_en.htm

EUROPEAN ECONOMY. OCCASIONAL PAPERS. 54. September 2009
An analysis of the efficiency of public spending and national policies in the area of R&D
http://ec.europa.eu/economy_finance/publications/publication_summary15845_en.htm

2. Analytical documents

EUROPEAN ECONOMY. ECONOMIC PAPERS. 374. March 2009.
Martin Larch and Alessandro Turrini (European Commission)
The cyclically-adjusted budget balance in EU fiscal policy making: A love at first sight turned into a mature relationship
http://ec.europa.eu/economy_finance/publications/publication_summary14642_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 375. March 2009.
Eric Ruscher and Guntram B. Wolff (European Commission)
External rebalancing is not just an exporters' story: real exchange rates, the non-tradable sector and the euro
http://ec.europa.eu/economy_finance/publications/publication_summary14652_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 376. April 2009.
Michele Cincera (ULB, CEPR and JRC-IPTS), Dirk Czarnitzki (KUL & ZEW) and Susanne Thorwarth (KUL & ZEW)
Efficiency of public spending in support of R&D activities
http://ec.europa.eu/economy_finance/publications/publication_summary14767_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 377. April 2009.
Martin Larch (European Commission)
Achieving and safeguarding sound fiscal positions - Proceedings of the Workshop organised by the Directorate-General for Economic and Financial Affairs in Brussels on 17 January 2008
http://ec.europa.eu/economy_finance/publications/publication_summary14923_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 378. April 2009.
Simone Mezzacapo (University of Perugia)
The so-called "Sovereign Wealth Funds": regulatory issues, financial stability and prudential supervision
http://ec.europa.eu/economy_finance/publications/publication_summary15062_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 379. May 2009.
Alfonso Arpaia, Esther Pérez and Karl Pichelmann (European Commission)
Understanding labour income share dynamics in Europe
http://ec.europa.eu/economy_finance/publications/publication_summary15151_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 380. May 2009.
Emmanuel Dhyne (National Bank of Belgium and Université de Mons-Hainaut), Jerzy Konieczny (Wilfried Laurier University and Rimini Centre for Economic Analysis), Fabio Rumler (National Bank of Austria) and Patrick Sevestre (National Bank of France and Paris School of Economics, Université Paris 1 – Panthéon Sorbonne)
Price rigidity in the euro area — An assessment
http://ec.europa.eu/economy_finance/publications/publication_summary15198_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 381. June 2009.
Jan-Egbert Sturm, Ulrich Fritsche, Michael Graff, Michael Lamla, Sarah Lein, Volker Nitsch, David Liechti and Daniel Triet (KOF Swiss Economic Institute, ETH Zurich)
The euro and prices: changeover-related inflation and price convergence in the euro area
http://ec.europa.eu/economy_finance/publications/publication_summary15285_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 382. August 2009
Salvador Barrios and Andrea Schaechter (European Commission)
Gauging by numbers: A first attempt to measure the quality of public finances in the EU
http://ec.europa.eu/economy_finance/publications/publication_summary15779_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 383. August 2009
Hongyi Chen (HKIMR, Hong Kong), Lars Jonung (European Commission) and Olaf Unteroberdoerster (IMF, Washington DC)
Lessons for China from financial liberalization in Scandinavia
http://ec.europa.eu/economy_finance/publications/publication_summary15809_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 384. September 2009
This study was commissioned by Directorate-General Economonic and Financial Affairs and carried out by Jordi Suriñach, Fabio Manca, Rosina Moreno (Anàlisi Quantitativa Regional-IREA (AQR-IREA – Universitat de Barcelona)), Corinne Autant-Bernard, Nadine Massard, (Centre de Recherches Economiques de l'Université De Saint-Etienne (CREUSET))
The Diffusion/Adoption of Innovation in the Internal Market
http://ec.europa.eu/economy_finance/publications/publication_summary15824_en.htm

EUROPEAN ECONOMY. ECONOMIC PAPERS. 385. September 2009
Alfonso Arpaia, Kamil Dybczak, Fabiana Pierini
Assessing the short-term impact of pension reforms on older workers' participation rates in the EU: a diff-in-diff approach
http://ec.europa.eu/economy_finance/publications/publication_summary15867_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_05_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

Contributors to this issue are:

Economic and financial situation	*L. González Cabanillas, P. Iversen*
Global current-account imbalances and implications for the euro area	*M. Giorgio-Marrano, G. Wolff*
The interrelations between household savings, wealth and mortgage debt	*N. Balta, E. Ruscher*
Focus: The slump in world trade and its impact on the euro area	*W. Kooi, M. Żogała*
Overall co-ordination and editing	*R. Felke and E. Ruscher*
Data assistance	*G.M. Isbasoiu*

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

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

or by e-mail to servaas.deroose@ec.europa.eu, eric.ruscher@ec.europa.eu, reinhard.felke@ec.europa.eu