EUROPEAN COMMISSION
DIRECTORATE GENERAL
ECONOMIC AND FINANCIAL AFFAIRS

Brussels, 9 July 2002
ECFIN/334/02 – EN

QUARTERLY REPORT ON THE EURO AREA

No II / 2002

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Editorial

Since the start of the year, the euro-area economy has experienced a gradual recovery. Recent data confirm that the recovery is broadly following the course predicted in the Commission's Spring Forecasts and the first issue of the Regular Report released in March. Nevertheless, the anticipated improvement of domestic demand has not yet materialised. However, the stronger than expected global economic environment has largely compensated for the weakness in domestic demand.

Price uncertainty relating to the changeover to euro notes and coins appears to have had a significant impact on private consumption. Surveys indicate that more than ever before, consumers have had a different perception of price developments from the actual inflation figures. Apparently, they have considerably overestimated the magnitude of inflation and postponed consumption because of price uncertainty. If the high perceived inflation does not spill over into excessive wage claims, thereby dampening employment prospects, the accumulation of pent-up demand could result in strong growth in consumption, when perception of price trends once again converges with actual inflation. This could happen soon as headline inflation in the euro area seems to have dropped to a two-year-low of 1.7% year-on-year in June.

Although downside risks to the external environment and uncertainty in financial markets remain, conditions are favourable for gradual, domestically-led acceleration in growth during the second half of the year in response to restored confidence, the dissipation of growth-depressing factors and supportive economic policies. It is likely too that consumer demand will be bolstered by an improving labour market situation and increasingly optimistic employment prospects. The continued downward trend in headline inflation underpins consumers' purchasing power.

The recent upsurge in the exchange rate of the euro, mirroring the weakness of the US-dollar, further improves the outlook for price stability. A stronger euro is in line with fundamentals; it will also shift demand to the domestic sector and provide the foundation for sustainable and balanced global economic recovery. If the stronger euro exchange rate is maintained, it will not only improve consumers' purchasing power, but it will also leave more room for manoeuvre for monetary policy to be more favourable to domestic-led growth than would otherwise be the case. These forces may outweigh the effects on competitiveness and exports. As the euro was significantly undervalued, euro-area exporters will be able to cope with the overdue appreciation, provided it is fairly gradual.

Policies should continue to be geared towards further enhancing the adaptability of the EU economy to changing economic conditions. This will enable Europe to reap the full benefits of the opportunities provided inter alia by the creation of the monetary union, the imminent enlargement of the EU and technological developments. Economic reforms and the removal of impediments to growth and employment need to be supported by sound and stability-oriented macro-economic policies to set the stage for sustainable economic performance. This is also reflected in the recommendations by the EU's overarching instrument for economic policy coordination, the Broad Economic Policy Guidelines adopted on 21 June by the Ecofin Council in Sevilla.

In this context, the rapid completion of the transition towards medium-term budgetary positions of "close-to-balance or in surplus" is of great importance. It is against the economic background of a gradual pick-up in growth that euro-area Member States are implementing and planning their budgets for 2002 and 2003. It is crucial to make renewed efforts to consolidate public finances and improve the quality of expenditures so as to further increase the resilience and internal dynamism of the euro-area economy.

It is worrying that the latest information available on the implementation of budgets confirms a weakening of budgetary positions in several Member States. The likely shortfalls to budgetary targets are not only the result of cyclical developments in the last part of 2001 and the first half of 2002, which were less positive than expected, but reflect some discretionary loosing of fiscal policies and significant data revisions in some cases. The budgetary slippages which accumulated over the 2001-2002 period mean that several Member States, particularly those with a significant deficit, will have to make further adjustment efforts to meet their commitments.

In the Broad Economic Policy Guidelines adopted in Sevilla, those Member States that had not yet achieved a budgetary position of “close-to-balance or in surplus”, reiterated their commitment to meet this target by 2004.

The required fiscal adjustment need not be costly in terms of loss of output and might coexist with high - above potential - growth. A fiscal adjustment that is credible can lead to a more balanced policy mix throughout the period. Moreover, the medium- to long-term benefits of swift completion of the budgetary transition are undisputedly of a much larger magnitude than any costs or benefits in the short term, both in terms of credibility and the proper functioning of the macro-economic framework.

Pedro SOLBES

MEMBER OF THE EUROPEAN COMMISSION

I. Economic situation in the euro area

Positive GDP growth in the first quarter of 2002 confirmed the assessment that the euro area has smoothly overcome the short-lived contraction of GDP in the final quarter of 2001. The labour market has weathered the growth pause relatively well. Inflation is receding after an unexpected hike at the beginning of the year and the overdue appreciation of the euro will contribute to containing inflationary pressure. These two factors augur well for the awaited rebound in private consumption, which is instrumental in achieving a balanced growth pattern. The macroeconomic policy mix has continued to be supportive to growth. The policy mix might see some adjustment, though, as the euro appreciation is likely to result in monetary conditions more favourable to domestic-led growth than would otherwise be the case and, against the background of a strengthening recovery, fiscal consolidation is expected to resume next year.

1. Economic activity in the euro area gradually picking up speed[1]

As expected, the euro area has experienced gradual recovery since the beginning of the year, which according to the information content in recent economic surveys firmed up during the spring and is set to accelerate as the year progresses. In its Spring 2002 forecast, the Commission expected annual GDP growth to rebound to 1.4% in 2002 as confidence returns, international trade picks up and depleted inventories are rebuilt. Two out of these three driving forces have already materialised and only the inventory correction is still awaited.

According to Eurostat's latest estimate, quarterly growth in the euro area reached 0.3% in the first quarter of this year, which is broadly in line with the Commission forecast. However, revisions to growth in 2001 yield a negative base effect. This automatically reduces the annual rate of growth in 2002 by 0.1 percentage point.

One particular factor which held back growth in the first quarter of 2002 was weak domestic demand. Among the domestic demand components, only government consumption contributed positively to GDP growth. Private consumption growth was flat and fixed investment contracted, albeit only marginally.

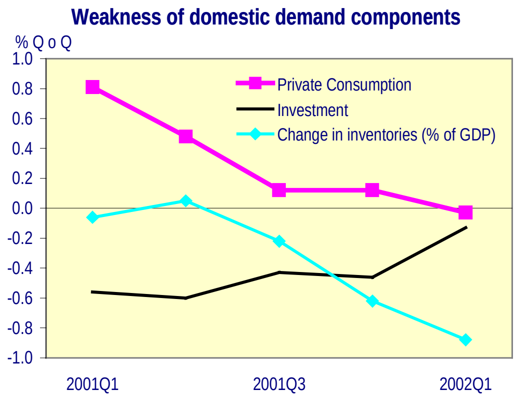
Table 1: Euro-area growth components

	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1
% change on previous quarter, volumes					
GDP	0.4	0.1	0.2	-0.3	0.3
Private consumption	0.8	0.5	0.1	0.1	0.0
Government consumption	0.7	0.4	0.3	0.7	0.6
Gross fixed capital formation	-0.6	-0.6	-0.4	-0.5	-0.1
Changes in inventories (% of GDP)	-0.1	0.1	-0.2	-0.6	-0.9
Exports* of goods and services	-0.2	-0.9	-0.3	-1.3	0.5
Imports* of goods and services	-2.0	-0.1	-1.5	-1.6	-0.8
% contribution to change in GDP					
Private consumption	0.5	0.3	0.1	0.1	0.0
Government consumption	0.1	0.1	0.1	0.1	0.1
Gross fixed capital formation	-0.1	-0.1	-0.1	-0.1	0.0
Changes in inventories	-0.7	0.1	-0.3	-0.4	-0.3
Net exports	0.7	-0.3	0.4	0.0	0.5

* Including intra-euro area trade.

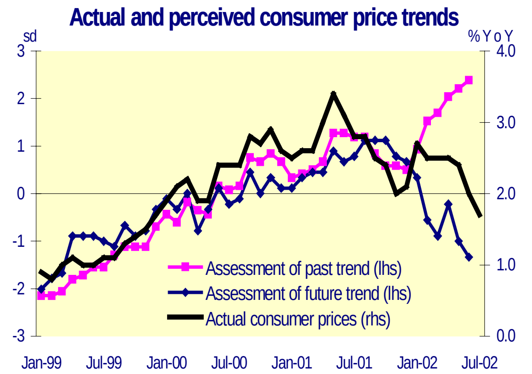
[1] The cut-off date for statistics included in this issue was 8 July, 2002.

Price uncertainty appears to have had a major negative impact on private consumption. The Commission's business and consumer surveys bear out anecdotal evidence that points to a clear change in the way households' perceive price developments. For example, when asked for their assessment of price trends, consumers gave the most negative assessment of past developments since the survey started in 1985. This stands in marked contrast to the moderate increase shown by official inflation figures (see below). Whereas previously the survey replies have tended to closely follow actual developments, a wedge has built up between assessment of past and expected price trends.[2] This suggests that consumers have considerably overestimated the magnitude of HICP inflation and, because they expect prices to fall in the future, seem to have postponed consumption.[3]



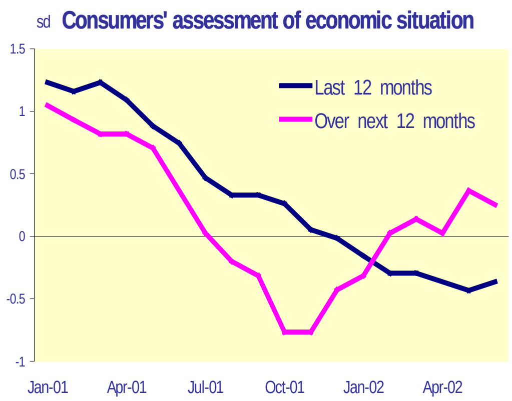
Source: Commission services.

At this stage, however, it is unclear whether this wedge indicates the accumulation of pent-up demand, which could yield strong consumption growth once the reduction in actual inflation impacts positively on the perception of price trends. Conversely, it is possible that the perceived high inflation could result in excessive wage claims, which would induce second-round effects and thereby dampen both employment and consumption in the future.



Note: *The zero line on the left hand scale signifies the long-term average (1985-2002) and the scale is expressed in standard deviations (sd).*
Source: Commission services.

Concerning the outlook for private consumption, it is striking that there has been an increasing discrepancy between consumers' assessments of the past and prospective economic situation in the Commission surveys since the beginning of 2002. Business cycle analysts refer to such a wedge as an expectation bubble. The main worry is that if actual developments fails to live up to the positive expectations, it may be the expectations that adjust downwards. Given the usual lag of 2-4 months between the trends in consumers' assessments of past and expected economic situation, recovery in the former is now overdue.



Note: *The zero line on the left hand scale signifies the long-term average (1985-2002) and the scale is expressed in standard deviations (sd).*
Source: Commission services.

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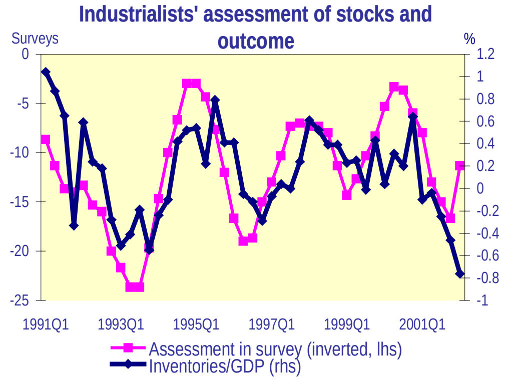
2 Admittedly, the questionnaire is on the costs of living, which could be interpreted in terms of either the price level or the inflation rate.

3 Given that consumers' assessment of the general economic outlook and unemployment prospects has turned increasingly optimistic, it is unlikely that uncertainty in these areas has been an important factor in stifling private consumer demand.

Inventories and investment have fallen steeply for the fifth quarter in a row. The depletion of inventories (–0.9% of GDP) combined with unchanged private consumption means that corporate demand expectations have not been reversed. The pattern of investment (–0.1% quarter-on-quarter) is yet more evidence of still muted corporate prospects at the beginning of this year.

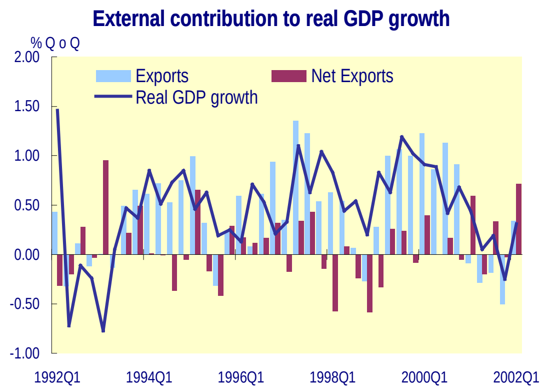


Source: Commission services.

The large negative contribution from inventories was an unwelcome surprise. It was at odds with survey data, which normally gives a reliable indication of the direction of changes in inventories. Given that now inventories have been reduced for three quarters in a row, the probability that the second quarter of 2002 will see the start of a re-stocking is quite high.

As was typical previously in Europe, exports are instrumental in fuelling the early stage of recovery. In the first quarter of 2002, real exports posted a positive rate of growth for the first time since the first quarter of 2001, and this rate is expected to accelerate once international trade has fully recovered the dynamism seen in the past.

GDP growth in the first quarter of 2002 was driven entirely by net exports. Its contribution to growth was sufficiently positive to more than offset the contribution from domestic demand.



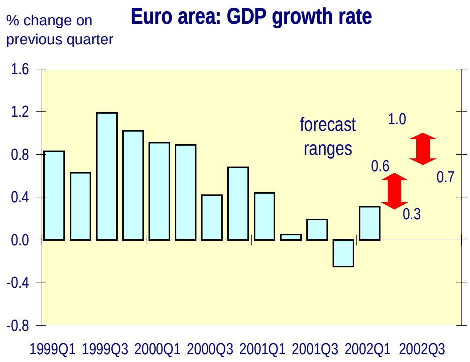
Source: Commission services.

According to DG ECFIN's indicator-based model, real GDP should show quarter-on-quarter growth in the range of 0.3 to 0.6% in the second quarter of 2002, accelerating to 0.7 to 1.0% in the third quarter of 2002. This picture supports the view underlying the Commission's Spring forecasts that economic activity would catch up with potential growth in the course of 2002.

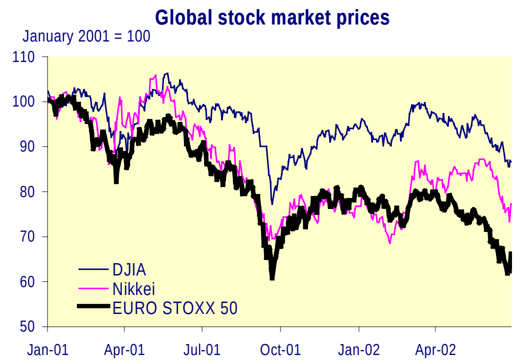
Table 2: Selected euro area and national leading indicators, 2001-2002

	SENT. IND[1)]	BCI[2)]	OECD[3)]	PMI[4)]	IFO[5)]	NBB[6)]
Long-term average[7)]	99.2	-0.2		53.1	100.2	-9.7
September 2001	100.1	-0.53	-5.6	45.9	90.6	-21.1
October	99.1	-1.09	-5.6	42.9	89.6	-17.0
November	98.6	-1.18	-3.7	43.6	91.1	-19.0
December	98.8	-1.16	-1.9	44.1	94.5	-16.9
January 2002	99.1	-1.00	-0.3	46.3	96.2	-14.1
February	99.2	-0.85	1.1	48.6	101.1	-9.9
March	99.5	-0.59	2.2	50	106	-8.3
April	99.4	-0.64	3.8	50.7	104.7	-1.6
May	99.9	-0.20	4.6	51.5	106.2	-5.5
June	99.6	-0.43		51.8	104.9	

1) Economic sentiment indicator, DG ECFIN. 2) Business climate indicator, DG ECFIN. 3) Composite leading indicator, six monthly change. 4) Reuters Purchasing managers index, manufacturing. 5) Business expectations, West Germany. 6) National Bank of Belgium indicator for manufacturing. 7) Jan-92 till last observation available, for PMI (manufacturing) since beginning of series in June-97.



Source: Commission services.



Source: Commission services.

Although the global economy is starting to spring back, there continue to be downside risks. These lie in the large US imbalances and the underlying strength of private demand in the US. Furthermore, the Japanese economy may be coming out of the trough, but there are still serious issues to be addressed, like its financial system and the level of public debt (see Box 4). The strong decline in global equity prices witnessed since March represents a further important risk factor. The quantitative impact is currently not yet foreseeable because of the unique mixture of fraudulent accounting practices and the uncertainty surrounding the assessment of future corporate profits.

Downside risks appear to be relatively less significant in the euro area thanks to the absence of domestic imbalances. The conditions are in place for sustained growth, provided that the expected rebound in private consumption materialises, that wages remain in line with productivity developments and that confidence and credibility are not negatively affected by the conduct of economic policies.

Whereas economic activity in the euro area has traditionally been less exposed to stock market developments, it is likely that the effects of stock market prices on private wealth and therewith on consumption have increased in recent years. Moreover, an increasing number of enterprises in fast-growing sectors have increasingly relied on equity financing and have therefore become more vulnerable to a sustained period of low stock market prices.

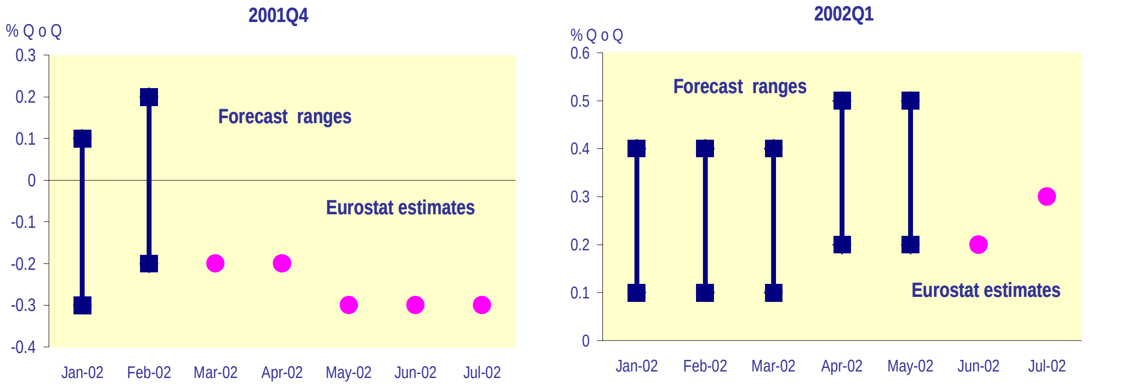
There is an upside risk that the recovery could be stronger than expected, since the forces of global interdependence, which last year caused a sharper and deeper slowdown than was expected, could this year work in the opposite direction.

Box 1: **Indicator-based forecast quarterly GDP growth in the euro area**

The model developed by the Directorate-General for Economic and Financial Affairs of the European Commission, which produced these forecasts, consists of separate single equations for each forecasted quarter. The explanatory variables describe real economic activity or its assessment in opinion surveys and financial variables, in both the euro area and the US. The model was introduced in June 2001 and forecasts have been published since January 2002.

The real variables are: (1) car sales in the euro area; (2) private consumption in the euro area as reflected in the opinion survey on the present business situation in the retail sector; (3) the construction sector in the euro area, as reflected in the construction confidence survey indicator; and (4) the US Institute of Supply Management (previously the National Association of Purchasing Managers) survey index of the manufacturing industry, which reflects the importance of economic integration at world level. There are two financial variables: (1) the relative yield spread between the euro area and the US, which represents monetary conditions and international financial links; (2) the real effective exchange rate, which is an indicator of the competitive position of euro area exporters.

Track record of previous forecasts



Source: Commission services.

The graphs display the track record of previous forecasts published. Reflecting the unavoidable uncertainty surrounding any prediction, the forecasts are presented as ranges rather than as point estimates. An in-sample mean absolute forecast error of 0.15 % was used to calculate the ranges. For a better interpretation of the forecasts, it is useful to know that the average quarterly growth rate in the euro area in the nineties was 0.5%. The sharpest fall was –0.7% (first quarter of 1993) and the fastest increase 1.5% (first quarter of 1992). Tests suggest that the success rate in forecasting acceleration/deceleration/no change is likely to be 76% for the first quarter and 68% for the following quarter.

The model is described in detail in DG ECFIN's Economic Paper No 154 of June 2001, which is on DG ECFIN's website. The next publications are scheduled for 8 August, and 10 September 2002 (after 12:00) at

http://europa.eu.int/comm/economy_finance/indicators_en.htm

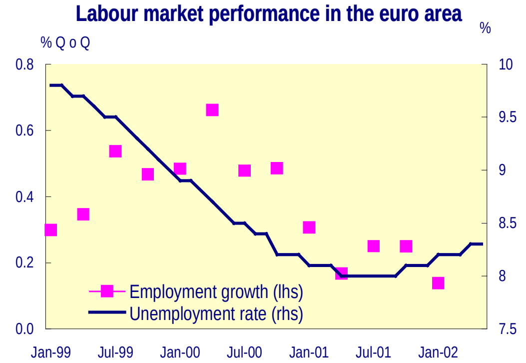
2. Labour market resilient

In the course of 2001, employment growth decelerated and compared to the decline in economic activity weathered the growth pause relatively well. So, it remained positive at the time of shrinking economic activity in the fourth quarter. In the first quarter of 2002, it is estimated to have grown by a seasonally-adjusted 0.1% quarter-on quarter.

Consumers have become increasingly optimistic when asked for their assessment of (un-) employment prospects. According to the Commission's Business Surveys, employers expectations for employment have also gradually improved in manufacturing and especially in services, albeit remaining flat with the most recent releases.

The rate of unemployment crept up to 8.3% in April 2002, according to Eurostat's revised

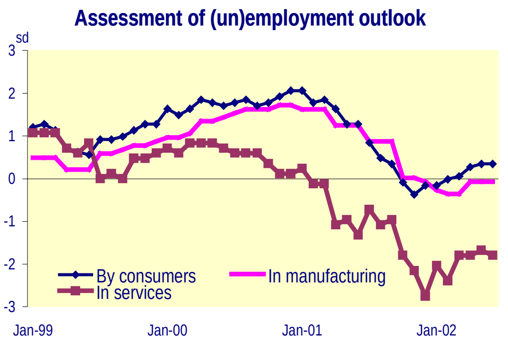
Labour market performance in the euro area



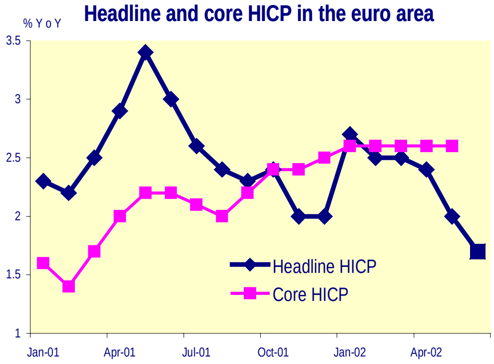
Source: ECB, Commission services.

series,[4] remaining at this level in May. This implies an increase of 0.3 percentage point since the trough in summer 2001.

4 Unemployment data is usually revised when updates in the labour force surveys become available. The April 2002 revision is special in that it also incorporated the changes in the definition of unemployment introduced



Note: *Numbers above the zero line indicate a more optimistic assessment than on average (1985-2002, since 1996 for services). The scale is expressed in standard deviations (sd).*
Source: Commission services.



June 2002 := Flash estimate
Source: Commission services.

3. Inflation perceptions exceed actual trend

Following a noticeable up-tick in January 2002 to 2.7%, headline HICP inflation has shown a gradually declining trend since then. The initially slower-than-expected decline was mainly due to developments in energy prices, with oil prices in particular increasing markedly in April. In May 2002, headline inflation declined to 2.0% from 2.4% in the previous month. Eurostat's latest flash estimate points to a further decline of headline inflation to 1.7% in June 2002.

Core consumer price inflation (HICP excluding energy and unprocessed food) has been stable since the beginning of the year at 2.6% year-on-year. Decomposition of core inflation reveals that all three main components (non-energy industrial goods, services, processed food) have displayed an upward trend since mid-2000. This indicates that the persistence and size of previous hikes in oil prices, which were compounded by the depreciation of the euro, have affected non-energy consumer prices too.

The inflation spike at the turn of the year was essentially due to special factors. However, although the euro changeover actually contributed by less than 0.2 percentage points, consumers tend to perceive it as an inflationary event.[5] A possible explanation is that the items that have registered unusually high price increases since the turn of the year are precisely those bought frequently by consumers, who then extrapolate these price developments to their overall perception of prices in the economy. A possible second reason relates to so-called "menu costs" considerations. That is, the presence of fixed costs for changing prices could have led an unusually high proportion of firms to change prices at the turn of the year. This may have added to the perception by consumers that the changeover had a marked inflationary impact.

by Commission Regulation (EC) No. 1897/2000, which aims at more compatibility with the definition recommended by the International Labour Organisation ILO. In consequence, the 2001 rate of unemployment is now 0.3 percentage points lower than before the revisions. For more details on the methodological changes and their impact see Eurostat's press release on the April 2002 rate of unemployment at http://europa.eu.int/comm/eurostat/.

5 The latest eurobarometer reveals that 68.5% of the respondents believe that prices have been generally rounded up, against 11.4% who think that prices were neither rounded up nor down. Comparing prices in services and restaurants, 80% think that prices were rounded up in services and almost 85% think that was the case in cafés and restaurants.

Box 2: **Services inflation in the euro area**

The steady upward trend observed in services inflation in the euro area over the last two years is becoming a source of concern among analysts and policy-makers. Firstly, given that the services sector is the single most important component of the euro-area HICP basket with a weight of close to 40%, its rising inflation trend could be responsible for the high level of core inflation and make it difficult for headline inflation to come down rapidly. Secondly, services tend to be less exposed to the international environment and hence benefit less from the increase in competition generated by the physical introduction of the euro.

Documenting the upward trend in service inflation

In May 2002, year-on-year services inflation stood at 3.3%, the highest rate in the last five years; by comparison, inflation in non-energy industrial goods was 1.6%. Inflation in services related to recreation has been by far the most important element behind services inflation, generally contributing half of the registered year-on-year inflation rates over the last two years. The services most likely to experience a marked effect from past energy and food price shocks (namely, services related to transport as well as the sub-index restaurants and hotels included in the recreation services, i.e. tourism services) represent 40% of the overall services aggregate. It is thus not surprising that they contribute substantially to the upward trend for total services.

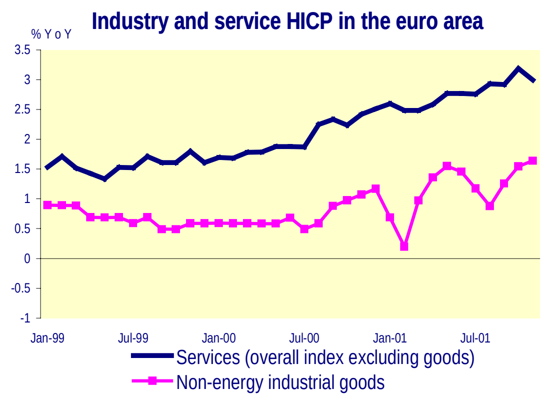
Table: HICP service inflation euro area

	Annual change in %			Contribution to HICP change in ppts.		
	Jan-May 2002	2001	2000	Jan-May 2002	2001	2000
HICP	2.4	2.5	2.4			
Services (overall index excluding goods)	3.1	2.5	1.7	1.2	1.0	0.7
Services related to						
- communication	-1.0	-2.8	-4.5	-0.0	-0.1	-0.1
- housing	2.4	1.9	1.6	0.2	0.2	0.2
- recreation and personal care	4.1	3.2	1.9	0.5	0.4	0.2
- package holidays and accommodation	4.0	4.0	4.4	0.1	0.1	0.1
- transport	3.5	3.6	2.6	0.2	0.2	0.2
- miscellaneous	3.2	2.6	2.4	0.2	0.2	0.1
For comparison						
- Non-energy industrial goods	1.7	1.2	0.7	0.6	0.4	0.2

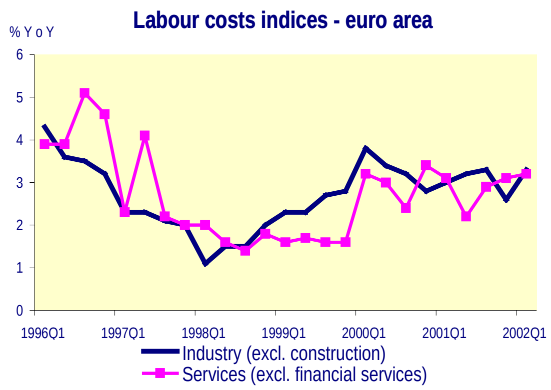
Factors behind the increase in service inflation

Pass-through. The lagged pass-through of increases in import prices, particularly energy, is generally regarded as one of the main elements responsible for the upward trend in core inflation in the euro area over the last two years. Clearly, even the behaviour of the core components of HICP inflation - despite their relatively lower exposure to changes in energy prices - is bound to be affected by the abrupt rise in import prices, and particularly the tripling of oil prices, experienced in the course of 1999-2000.

Productivity differentials between the services and industrial goods sectors. Assuming broadly similar wage developments across sectors, productivity differentials imply higher cost pressure (i.e. higher unit labour costs) in the sector with the lowest productivity gains, which is generally thought to be the services sector. In consequence, a country with large differences in productivity increases across sectors will tend to display higher inflation rates than in economies where the gaps are narrower. This basic mechanism is indeed a plausible explanation of recent developments in euro area services inflation. However, it would largely explain the inflation differential vis-à-vis non-energy industrial goods, which is not necessarily a change in trend. In effect, while the chart below shows that developments in labour costs are broadly similar in the services and industry sectors, data on hourly productivity with a sectoral breakdown for the euro area is not available yet.



Source: Commission services.



Source: Commission services.

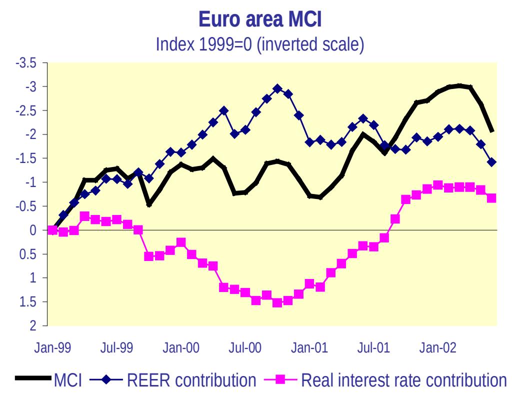
Relative demand conditions. A further explanation of the upward trend in services inflation is that higher cost pressures can be passed on to consumer prices with relatively greater ease in the services sector due to a relatively lower degree of competition and/or relatively stronger demand growth - assuming other factors remain constant. With EMU, overall competitive pressure should have increased across the euro area, an effect that is expected to be reinforced by the physical introduction of euro banknotes and coins. This change in the competitive environment is likely to be felt first in the goods sector, and less so in the services sector, where some barriers still prevent completion of the Single Market.

Administered prices. Finally, given that many prices in important services categories are regulated by public authorities (e.g. health and education, rents, etc.), administered prices and deregulation initiatives can play a potentially important role, i.e. there is a policy-driven component to services inflation. For example, education services, social protection services and medical services have registered noticeable increases in their individual contributions to overall services inflation.

4. Macroeconomic policy mix

Monetary conditions. The most pronounced financial market development that has taken place in recent months was the strengthening of the euro exchange rate. At the beginning of April, the euro was trading at around \$0.875. Mirroring the weakness of the US-dollar, it has been climbing since then, to approach almost parity at the end of June (for a more detailed assessment, see "Focus on the euro exchange rate" in this report).

The appreciation of the euro has been favourably influencing import prices. Provided the stronger euro exchange rate is maintained, it will help to improve consumers' purchasing power. Due to the usual delay before changes in monetary conditions feed through, the tightening impact of euro appreciation should begin to affect economic activity once the latter has reached sufficient speed. As the euro was



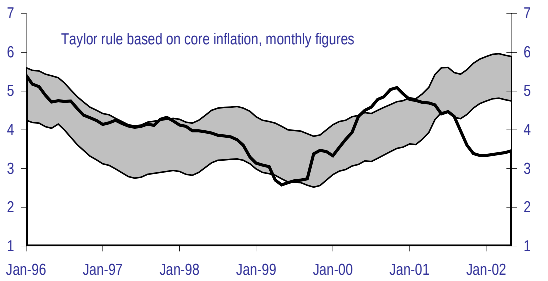
Source: Commission services.

significantly undervalued, euro-area exporters should be able to cope with the overdue appreciation, provided it is fairly gradual.

As a consequence of the euro's low external value in past years, monetary conditions have provided stimulus for exports in particular, but not so much for domestic demand.[6] A stronger euro could be instrumental in producing a set of monetary conditions more favourable to domestic demand. than would otherwise be the case. These forces may outweigh the effects on competitiveness and exports.

Prior to the euro appreciation, market participants believed that the ECB would raise interest rates in summer or early autumn this year. This assessment was in line with estimations of the Taylor rate, which indicates that money market rates are relatively low compared to the level of the output gap and the rate of core inflation in the euro area.[7]

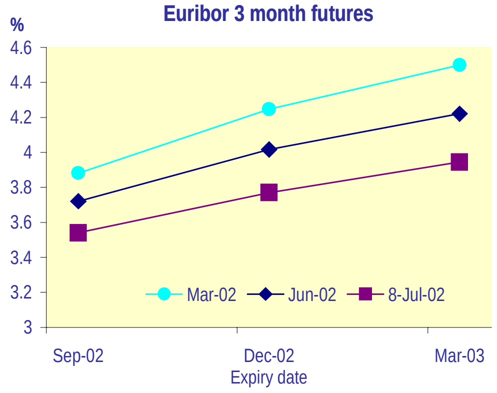
Short term interest rate: Actual and implied by the Taylor rule



Source: Commission services.

Mirroring the positive impact of the stronger euro on the inflation outlook, these expectations almost completely reverted at the beginning of July. Futures indicate that markets expect now a considerably lower level of short-term interest rates over the next 9 months.

Euribor 3 month futures

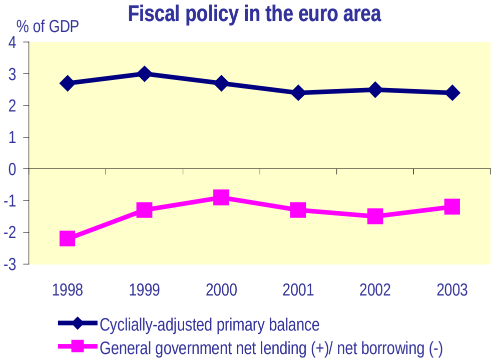


Source: Commission services.

Budgetary prospects. In 2002, the budget deficit of the euro area as a whole is expected to be at 1.5% of GDP. This would be an increase of 0.2 percentage point compared to 2001 and 0.3 percentage point higher than forecast in the Stability programmes. Two thirds of the latter are due to a worse starting position in 2001.

Adverse cyclical conditions will continue to impede the budget balance in 2002. However, these cyclical conditions are expected to make a positive contribution again in 2003 when recovery reaches cruising speed. In cyclically-adjusted terms, the deficit of the euro area will return to its 1999/2000 level of 1.3% of GDP in 2002, which underlines the fact that the budgetary consolidation process has stalled in recent years – although this is in part due to the effects of tax cuts.

Fiscal policy in the euro area



Source: Commission services.

The context in which budgetary choices for 2003 will be taken should be made easier since the moderate recovery seen in the first half of the year should gather strength from the second

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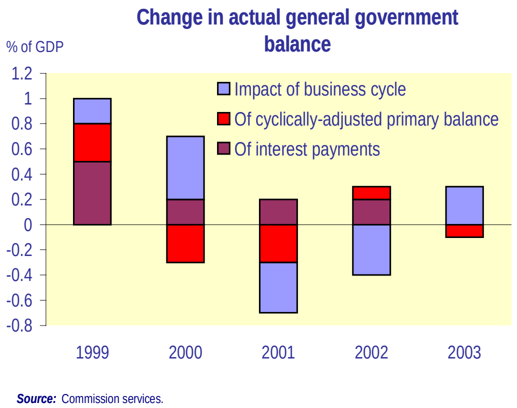
6 The MCI reflects movements in the short-term real interest rate (3-month interest rate deflated by core inflation) and the real effective exchange rate (in terms of relative unit labour cost), weighted by their respective model based impact on output.

7 According to the Taylor rule, the appropriate short-term interest rate is conditional on two variables, the actual rate of inflation and the size of the output gap. Any deviation of both variables from their target value should lead to adjustments of the short-term interest rate according to the weights of both variables in the Taylor rule. In the graph, the core inflation rate and the output gap estimates of the OECD and the Commission determine the corridor.

half of 2002. At the same time, the budgetary slippages accumulated over the 2001-2002 period, which were only partially attributable to the cyclical slowdown, will require further efforts at adjustment in several Member States in order to fully meet their commitments under the Stability and Growth Pact in addition to the measures already incorporated in the Commission forecasts.



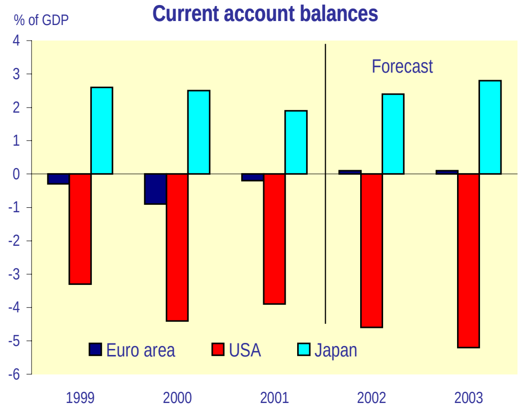
Macro-econometric simulations were conducted to quantify the economic effects of the additional fiscal effort needed to meet the targets of the updated stability programmes. While subject to the usual caveats accompanying this kind of exercises, they show that a credible fiscal adjustment need not be too costly in terms of output loss. When the adjustment is supported by a Taylor-rule-based monetary policy, the simulations show that the output gap would remain close to zero in 2003. As growth would remain above potential in both 2003 and 2004, the output gap would actually turn slightly positive in 2004.

II. Focus on the euro-area balance of payments

The euro area is well-integrated in the world economy as reflected in large gross flows in the balance of payments. Comparatively small deficits or surpluses in the current account indicate that neither an external disequilibrium nor any serious imbalances between domestic savings and investments in the euro area have been built up. The decline in world trade in 2001 affected exports and imports alike. The weak euro spurred price competitiveness and therewith exports. The value of imports was strongly determined by movements in the oil price. Whereas net outflows of foreign direct and portfolio investment dominated the first years of EMU, a reversal towards net capital inflows seem to have taken place recently.

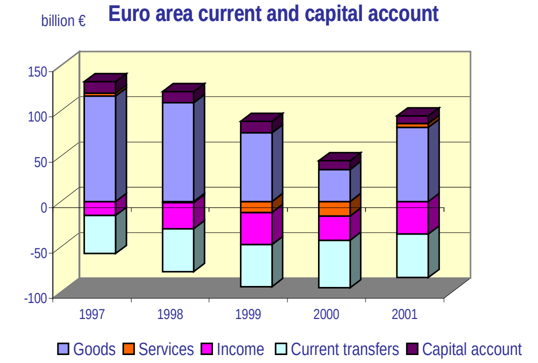
1. Structural features in the euro area current account

Analysis of the euro-area's balance of payments is complicated by the fact that the balance of the most informative items, namely current account and financial account, are relatively small compared with the errors and omissions. In consequence, data on the euro-area balance of payments is subject to sometimes substantial revisions.[8] This suggests that caution is warranted in interpreting small changes in external accounts.



Source: Commission services.

Current account data for the euro area is available for the period since 1997, showing three annual surpluses and two deficit years (1999 and 2000). According to the most recent ECB estimate, 2001 saw a surplus of € 2 billion, representing 0.03 % of GDP. As regards the sub-aggregates, the euro area recorded continuous surpluses in trade involving goods, which are matched by equally steady deficits in transactions related to factor income and current transfers and sometimes trade in services. Because of its size and variability, the trade account has determined the size and sign of the current account balance. For instance, the current account deficits in 1999 and 2000 were driven by a substantial decline in net exports of goods.



Source: ECB.

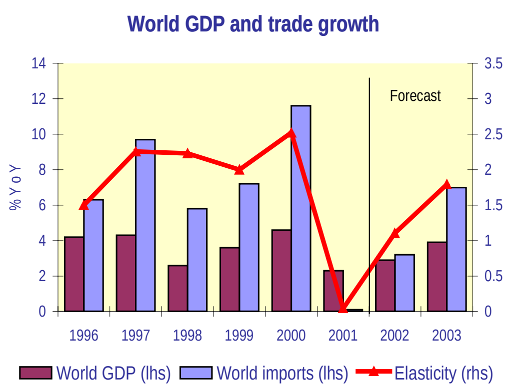
The past two years have seen fairly distinct developments in factors that typically impact on current account movements such as relative growth performances, economic integration, oil price and exchange rate movements and different patterns of investment. Against this background, current account balances in the major economies changed only moderately and the substantial imbalances at world level remained.

8 For instance, revisions turned a 1999 current account surplus into a deficit and the 2001 revisions doubled the 2000 current account deficit.

2. Trade account improved by past exchange rate movements

Slowdown in world output dented trade in 2001. By far the most important determinant of trade is global economic activity. In 2001, the halving of world real GDP growth (from 4.6% in 2000 to 2.3% in 2001) reduced world trade growth to zero, from a record 11.6% in 2000. This was the worst performance since 1982, when world trade volume shrank. The fact that globalisation has intensified since then implies that a drop in demand in one region has a cascade effect, reducing demand in others regions.

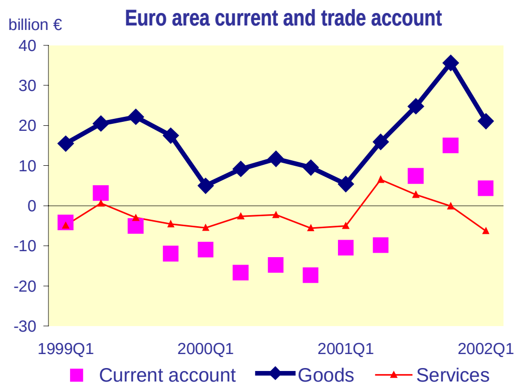
Exports from the euro area grew by 2.3% in 2001, thanks to the favourable composition of destinations. In general, the regions which take a large proportion of euro area exports enjoyed strong import growth. Taken together, the United Kingdom, NAFTA (the United States, Canada and Mexico) and the candidate countries accounted for more than 60% of the increase in total euro area exports over the last six years.



Source: Commission services.

Subsequently, the recovery in economic activity would bring trade growth back into positive territory in 2002. However, world trade growth would only be at 3.2% because of negative carry-over effects from 2001. In 2003, trade growth would be back at 7.0%. Important changes in GDP growth usually lead to an unstable relationship between GDP growth and trade growth. Only in 2003 would trade elasticity return to the normal level: between 1.5 and 2.

Decline in the external value of the euro raised price competitiveness. The drop in the external value of the euro strongly improved the euro-area's price competitiveness. Due to the lagged response of trade volumes and in particular of the negative impact of the euro development on import values, the current account did not pick up until the beginning of 2001 (J-curve effect).



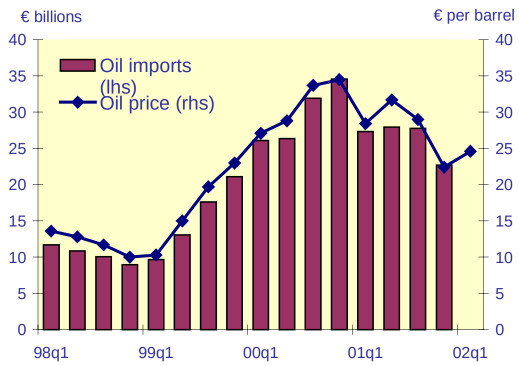
Source: ECB

Euro depreciation has indeed improved the price and cost competitiveness of companies producing in the euro area, in particular vis-à-vis US businesses, and this is true irrespectively of the indicator chosen. Against the other 24 industrialised countries, price and cost competitiveness in the euro area improved up to the end of the year 2000. The marginal deterioration observed in the first quarter of 2001 has been followed by an almost flat development until April 2002.

Increased export market share. The improvement in price competitiveness has positively impacted on market shares as euro export growth in goods outpaced the moderately positive expansion of the relevant export markets by 0.9 and 1.5% in 2000 and 2001, respectively. Good exports should grow broadly in line with export markets in 2002 as the euro appreciation is not expected to trim down market shares immediately but with a considerable delay.

Imports sensitive to oil price developments. Because the euro area, unlike the US, is not a major oil producer, the negative impact of higher oil prices on the terms of trade is greater than on the US economy. It is estimated that about 15% of euro area imports are oil products, whereas the US figure is 8%. While high oil prices held back an improvement in the euro-area trade balance, their fall in the second half of 2001 was a major factor behind the shrinkage in import values and the improvement in the current account.

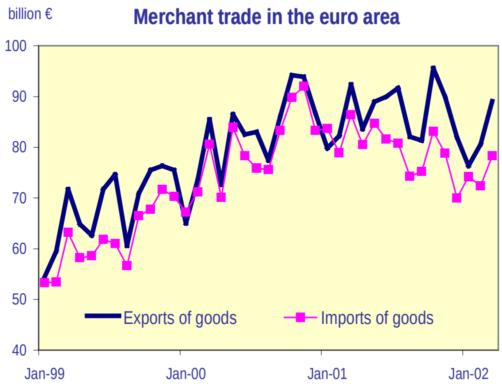
Oil prices and euro area oil imports



Source: ECB

In addition to the lower oil price, lower domestic demand has reduced imports of goods into the euro area. With euro area imports growing in 2001 more slowly than exports, the euro area trade surplus (adjusted for intra trade) expanded to 0.9% from 0.5% of GDP in 2000. In 2002 and 2003, the euro area trade balance is expected to settle at a comfortable level of 1.3% of GDP.

Ongoing globalisation alters sensitivity of trade flows to exchange rate changes. Globalisation of economic activity has resulted in more intense integration of production across industrial countries. As a result, the share of imported inputs in domestic production has increased. For goods exports, closer links between production in different countries means a much closer link between exports and imports. As the involvement of exports and imports in the production process increases, volumes of trade will tend to be determined more by demand conditions than exchange rates. However, it is too early to judge whether this automatically implies that greater changes in exchange rates will be required to correct for current account imbalances.



Source: Commission services.

3. Capital flows: from net outflows to net inflows

Steady FDI and portfolio capital outflows in early years of EMU. Since the ECB started recording financial accounts for the euro area in 1998, combined direct and portfolio investment have shown a net outflow each year. Specifically, domestic savings have been used to finance foreign direct investment and portfolio equity abroad.

The interpretation of international investment flows is a controversial issue. In the early years of EMU, both economic and one-off institutional factors determined euro-area capital flows (see Box 3). Except in the case of extraordinarily large transactions, sustained outflows are often regarded as indicating dismal economic conditions for investors relative to other areas. In fact, investors - whether residents in the euro area, in other EU Member States, or outside the Union - locate their investments in the areas where they expect to maximise their long-term profits. This implies that the destination of investment flows reflects the perception of profit opportunities.

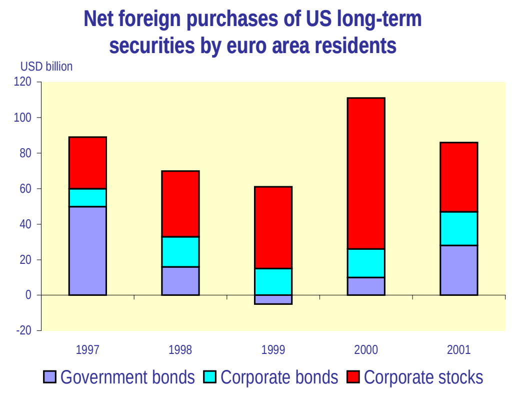
Box 3: **Institutional determinants of capital flows**

A number of institutional factors have contributed to rising capital outflows from the euro area in the first years of the existence of the euro. Since they imply a one-time adjustment towards a changed institutional environment, they can be expected to determine the direction of capital flows only on a temporary basis and to run out eventually.

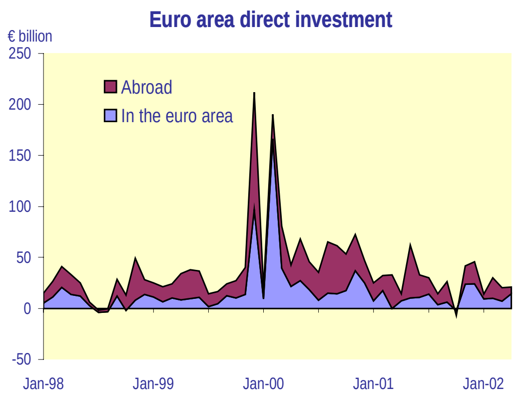
Strong increase in euro bond issuance. The deepening and broadening of credit markets in the euro area contributed significantly to the strong increase in global debt issuance, especially in euro-denominated debt. On the basis of the so-called "narrow measure" that includes only issuance by non-residents, the average share of the euro legacy currencies in global bond and note issuance was 19% in the period 1994-1998. In 1999 the euro's share rose to 31%, perhaps reflecting eagerness on the part of major issuers to establish themselves in the new currency and historically low interest rates in the euro area, which would have increased the attractiveness of borrowing in euro for foreign companies.

Increasing share of cross-border portfolio investment. With the start of EMU in 1999, assets denominated in the euro legacy currencies became denominated in domestic currency. In consequence, the currency composition of international portfolios became less diversified. Furthermore, institutional investors benefited from the fact that with a larger part of assets being considered as domestic in EMU, they under-utilised the leeway offered by regulations on foreign asset holding. The intention of institutional investors to restore the degree of currency diversification led them to sell euro-area assets and to invest outside the euro area.

The decrease in the relative weight of euro denominated assets in international portfolios is likely to have been spurred by two additional institutional factors. Firstly, *supervisory rules for institutional investors* (e.g. pension funds) in some euro-area Member States have been relaxed, which freed up resources for investment that were formerly bound to be invested in domestic assets. Secondly, the *surge in the European investment funds industry* has led to a higher share of foreign assets held by euro-area residents as investment funds tend to hold a larger share in international assets than banks or insurance companies.



Source: US Treasury.



Note: The extreme peaks are due to single transactions, for example the Mannesmann takeover by Vodafone for February 2000.
Source: ECB

International merger and acquisition activity. Global economic integration has stepped up over the last decade driven *inter alia* by technical progress in information and communication technology. In the desire to catch-up with this development, European corporations have become increasingly active at the international scale as evidenced by a high number of M&A and creation of affiliates in particular in the USA. This trend yielded strongly rising FDI flows abroad and albeit to a smaller extent in the euro area.

Up to early 2001, developments in global financial markets continued to be strongly affected by the positive outlook for the US economy. The most likely explanation for this is a positive productivity shock in the US that increased expected profits and raised capital

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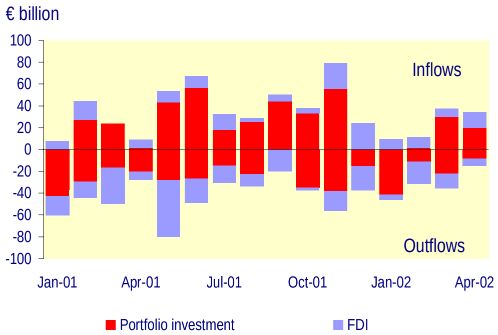
flows into the US economy. Compared to the optimism surrounding the US outlook, market perceptions about prospects for economic growth and corporate earnings in the euro area were less favourable. For the euro area, this implied the use of savings for increased purchases of US long-term securities, particularly corporate stocks.

Frequent changes in the direction of net capital flows since mid-2001. In the last two quarters of 2001 the euro area registered a net inflow in terms of combined direct and portfolio investment. But as these inflows followed strong net outflows in the first two quarters, the annual financial account of 2001 showed a deficit of about €70 billion. Behind this switch in capital flows has been generally strong foreign equity portfolio investment in the euro area as the €143 billion net inflows in 2001 followed a net outflow of €244 billion in 2000.

Monthly gross capital flows

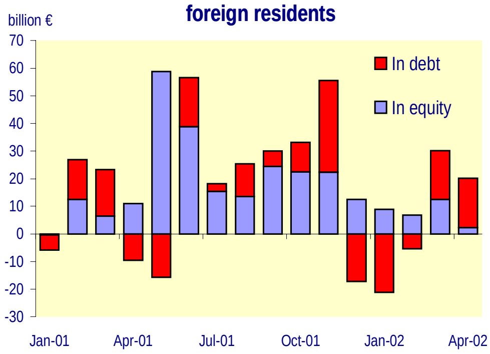


Source: ECB.

In late 2000 and 2001 indications of an upcoming economic slowdown put pressure on corporate earning expectations both in the US and in the euro area. With respect to equity investment, the changes in sentiment are plainly reflected in the changes in assets and liabilities displayed in the portfolio investment account. While euro-area residents increased their acquisitions of foreign assets up to the year 2000, the volumes declined sharply in 2001. The opposite applied to residents outside the euro area as their acquisition of euro-area equity rose sharply roughly equalling the total amount acquired in the three preceding years.

In 2002, the trend has not been uniform. Between December 2001 and February 2002 strong net outflows in combined direct and portfolio investment have dominated the euro area's financial account. Capital outflows remained on a relatively low level, but inflows in both, portfolio investment and FDI were considerably lower than in the quarters before. The net outflows in the first two months were followed by net inflows in March and April, primarily caused by stronger portfolio investment by foreigners in the euro area. Especially investment in euro-area debt assets picked up whereas portfolio investment in equity remained on a low level.

Investment in euro-area financial assets by foreign residents



Source: ECB.

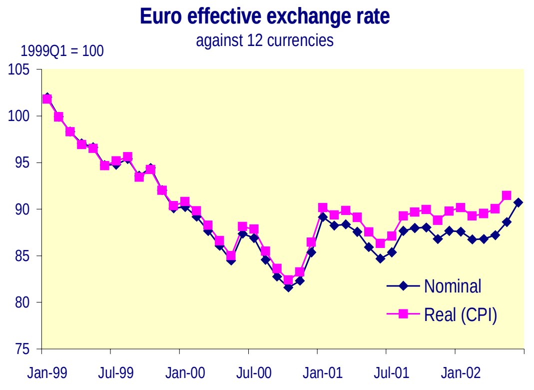
The development of net capital flows could indicate that the financial markets' perception of the economic prospects in the euro area relative to the US economy has not changed substantially since the US economy went through recession in 2001. In addition to the above mentioned institutional factors, the assessment of global risks has determined the direction of capital flows over the last 12 months. The strength of the euro in recent months could indicate that the euro area is about to experience a trend reversal towards higher capital inflows.

III. Focus on the euro exchange rate

The prolonged weakness of the euro has come to a halt and reversed into a considerable appreciation over the last two months. As the recent upsurge in the exchange rate is in line with most estimates of its equilibrium value, it supports sustainable and balanced global recovery. A gradual return of the euro to a value more consistent with fundamentals is also welcome for domestic reasons. It reduces price pressures in the euro area and contributes to a strengthening of domestic demand.

1. Recent developments

Since the beginning of the year, the euro has experienced a gradual but limited appreciation against most other major currencies. Up to April 2002, the effective exchange rate was basically unchanged from the level in 2001. From April 2002 onwards, the nominal and real effective exchange rate has strongly appreciated and stood on average in June 4% above the level observed on average in January .

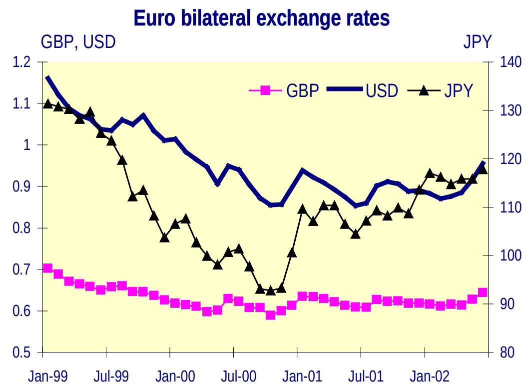


Source: ECB

Since the beginning of the second quarter, the euro has gradually appreciated against the dollar and is trading at 0.98 USD/EUR on 8 July (from a low point of 0.86 USD/EUR in January). Comparing monthly averages, this represents a gain of 8% between January and June against the US Dollar. Sentiment on financial markets seems to have become more favourable towards the euro in recent weeks. This may be explained by more mixed data about the US economy (see Box 4), increasing concerns about the US current account deficit, the weakness in global equity markets, and concerns about accounting standards and corporate profitability in the USA.

Following the trend of the US dollar, the pound sterling has depreciated by about 4% since the beginning of the year against the euro. Its relatively high volatility against the euro may be due to increased speculation that the UK might adopt the euro.

The euro has also been on an appreciating trend against the Japanese yen. This trend reflects the general weakness of the yen against the other main currencies, because of difficulties facing the Japanese economy. However, in recent weeks, the appreciation of the yen against the dollar has prompted the Japanese authorities to intervene on the foreign exchange markets.



Source: ECB

Box 4: **The global economic context**

Uncertainty about the sustainability of strong growth in the USA. Economic growth in the USA recovered strongly in the first quarter of 2002. But whereas the overall figure of 1.5% quarter-on-quarter GDP growth appears

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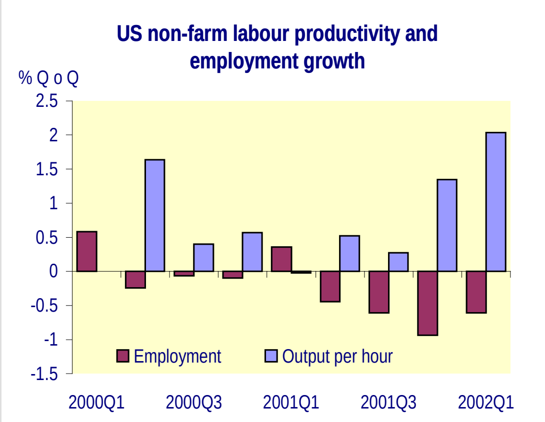
reassuringly strong, the decomposition of GDP figures reveals that the foundations of economic activity in the USA are not as firm as the headline figure suggests. The main driving forces behind the upturn in this year's first quarter were both the much slower rate of inventory run-downs and strong government consumption. But inventory correction stimulates economic activity only temporarily. Growth in real final sales, which excludes the contribution from inventories and is therefore a good indicator of underlying GDP growth, was more modest at about 0.6% quarter-on-quarter. Business investment in particular remained weak. It continued to contract because of the sharp fall in investment in buildings whereas investment in industrial and IT equipment rebounded. Tax cuts, low inflation and low interest rates have all supported private consumption, which increased by a rate of 0.8%. This is only about half the rate of the previous quarter, but still reassuringly strong given that consumption in the final quarter of 2001 ballooned as a result of unusually strong financial incentives to buy automobiles.

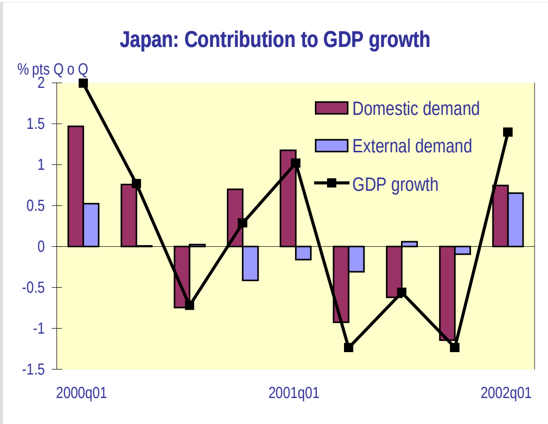
Looking ahead, more mixed data have recently fuelled concerns about the underlying strength of the US recovery, indicating that GDP growth could turn out to be more subdued in the second quarter than in the first. Consumer confidence especially did not improve as steadily as expected, dipping in April and June because the labour market is taking longer to rebound than previously thought. After initial expectations that the labour market would remain relatively unscathed, unemployment has surged to 5.9% in June 2002 from a low of 3.9% in October 2000.

The corporate sector is suffering from the high level of bankruptcies, high corporate indebtedness and weak equity markets. There are serious issues about corporate governance and accounting standards. This has led to fears that profitability in many companies may be overstated

On a positive note, US productivity has continued its recent impressive performance. The data so far available for the first quarter show a strong surge resulting from the combination of an increase in output and a decrease in hours worked. The consequent fall in unit labour costs will help reduce price pressures and may allow monetary policy to remain on hold even as the economy accelerates.



Source: US Bureau of Labour Statistsics.



Bottoming out in Japan? Japan seem to have emerged from its third and longest recession in a decade. In the first quarter of 2002 real GDP increased by 1.4% over the previous quarter after standing at minus 1.2% in the previous quarter. However, Japanese GDP data are notoriously subject to subsequent revision, and the 'first preliminary quarterly GDP estimates' should therefore be read with caution.

The most positive factor contributing to the recovery were the 6.4 % quarter-on-quarter rise in exports, followed by a 1.6 % rise in private consumption. However, increased exports depend strongly on demand for Japanese cars in the USA and demand for IT goods in the rest of Asia. It is uncertain whether this demand for Japanese products will be sustained for the rest of the year.

Domestically, Japan's recovery is currently limited to the manufacturing sector and may not easily spread to the rest of the economy, because of the continuing burden of significant non-performing loans. However, improved economic conditions may make it easier for the authorities to press on with long-overdue structural reforms in the financial and corporate sectors, as well as in the area of public finance.

2. Exchange rate and fundamentals

Although not too much should be read into very short-term movements in currencies, it should be noted that the euro's recent appreciation is in line with most estimates of the equilibrium exchange rates. Until its surge in June, many commentators held the view that the euro is undervalued compared with estimates of its equilibrium value based on fundamentals. As can be seen from the table below, the general consensus from the various studies is that the euro was indeed undervalued, but there is less agreement about the degree of under-valuation. This is because there is no universally agreed standard for calculating equilibrium exchange rates.

The apparent misalignment of the USD-EUR exchange rate over the last years is not a unique phenomenon. During the period of floating exchange rates, there were various episodes when major exchange rates appeared difficult to

Table: Estimates of the equilibrium value of the euro

Study	Methodology*)	Reference-currency (ies)	Reference period	Euro equilibrium rate or degree of euro under-/overvaluation for the reference period
Alberola *et al.* (1999)	Internal/external balance model	US$	End-1998	$/€ 1.26
Alberola *et al.* (2001)	Internal/external balance model	Main trading partners	End-1999	-12.4%
Hansen and Roeger (2000)	Internal/external balance model	Main trading partners	1999 Q3	Around -15%
Borowski and Couharde (2000)	FEER model	US$	1999 first half	S/€ 1.23-1.31
Clostermann and Schnatz (2000)	Eclectic combination	US$	Winter 1999/2000	Short-run S/€ 1.20 Medium-run : S/€ 1.13
Chinn and Alquist (2001)	Monetary model	US$	June 2000	Medium-run $/€ 1.17-1.24
Lorenzen and Thygesen (2000)	Internal/external balance model	US$ US$ US$	1999 End-1999 Mid-2000	Long-run: $/€ 1.28 Medium-run: $/€ 1.19 Short-run: $/€ 1.09
IMF (2000)	Saving-investment approach	US$ Main trading partners	Summer 2000	Around -30% -10 to -20%
Goldman Sachs (2000)	DEER model	US$	End-May 2000	$/€ 1.21
Gern *et al.* (2000)	Interest rate differential based model	US$	2000 Q1	Short-run: around $/€ 1.03
Schulmeister (2000)	PPP for tradable	US$	Mid-2000	$/€ 0.87
Teïletche (2000)	Eclectic combination	US$	June 2000	$/€ 1.09
Duval (2001)	NATREX model with interest rate differential and Balassa-Samuelson effects	US$	2000 Q3	$/€ 1.15
OECD (2000) PPP estimates	PPP	US$	1999	$/€ 1.07

*) PPP. Purchasing Power Parity; FEER: Fundamental Equilibrium Exchange rate; DEER: Dynamic Equilibrium Exchange Rate; NATREX: Natural Real Exchange Rate.

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explain in terms of underlying economic variables. For example, the appreciation of the dollar in the early 1980s is widely thought to be due to a combination of expansionary fiscal policy and restrictive monetary policy in the USA. However, the dollar continued to appreciate in late 1984 and the first half of 1985 despite the surge in the US current account deficit and despite interest-rate differentials moving unfavourably to dollar-denominated assets.[9]

Similarly, the rise in the yen starting in early 1993 and culminating in the spike in 1995 is also apparently at odds with economic fundamentals. Whilst Japan's current account surplus suggested a continued demand for yen, the currency's sharp rise in this period was contrary to what might have been expected on the basis of cyclical conditions.

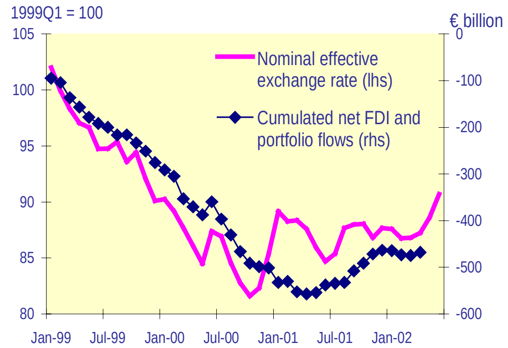
A difficulty facing those who seek to explain exchange rates in terms of fundamentals is that the variability (in both real and nominal terms) of exchange rates is apparently higher than the variability of fundamentals. In addition, exchange rates do not appear to react to "news" about fundamentals (i.e. unanticipated shocks) in the way that economic models would predict. Indeed, unanticipated shocks in fundamental variables appear to explain only a small fraction of unanticipated shocks in exchange rates.

The behaviour of the USD-EUR exchange rate since the launch of the euro has been mostly unrelated to news about the underlying fundamentals. One explanation for this is based on the particular speculative dynamics of foreign exchange markets. It is argued that since agents on these markets are so uncertain about the underlying fundamentals and their impact, exchange rate movements themselves can 'anchor' the market's beliefs and can lead to a search for those fundamental variables that can provide an ex post justification for the particular exchange rate movement. Analysts selectively assess the evidence to find the most 'appropriate' fundamentals, which becomes a self-reinforcing process. So, when at the start of 1999 the dollar began to appreciate against the euro this set in motion a search for good news about the US and led to an excessive focus on favourable aspects of the US economy, even though such a view was not always supported by observable news about the fundamentals taken as a whole.

3. Capital flows and the USD-EUR rate

Since the fundamentals that conventional exchange rate models rely on (interest-rate differentials and current account positions) do not provide a convincing explanation for the short-term behaviour of the USD-EUR exchange rate, this has led many analysts to search for other factors. There are good reasons for seeking to explain this behaviour with reference to capital flows.

Euro area capital flows and exchange rate



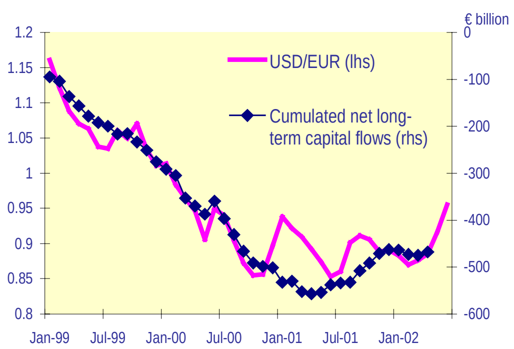
Source: ECB.

A relatively strong correlation between cumulative net capital flows in the euro area and the nominal effective exchange rate of the euro. There has been even a much stronger correlation between the bilateral USD-EUR rate and cumulated net long-term flows (FDI and equity portfolio) since the beginning of 1999. Nevertheless, there are some difficulties in trying to explain exchange

[9] Some commentators believe that whilst fundamentals may explain the surge in the dollar in the first few years of its rise, a speculative bubble then developed which drove it even higher.

rates on the basis of aggregate capital flows. Firstly, the relationship between capital flows and exchange rates is less clear cut when other periods or currencies are examined. Secondly, the direction of capital flows was more favourable to the euro area in autumn 2001, although the change in direction did not cause a reversal in the euro's external value.

Euro area capital flows and exchange rate

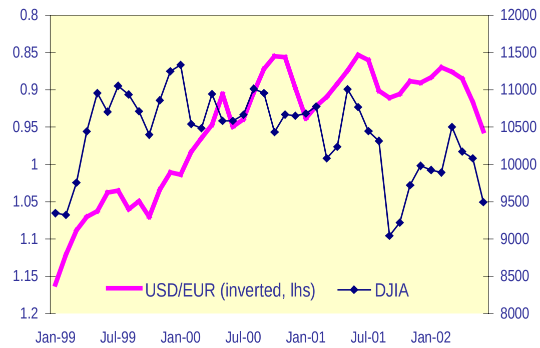


Source: ECB.

Positive shock to US equity prices. One explanation could be that a decline in the equity risk-premium on US stocks has led international investors to significantly increase their exposure to dollar-denominated assets. The rise in the dollar against the euro is a reflection of this, since much of the capital inflow into the US has originated from the euro area. This explanation is consistent with the fact that an increasing share of international investment flows takes the form of equity flows.[10] Empirically, there is no regularity between equity prices and the exchange rate. On the one hand, the decline in US equity prices in May/June 2002 produced a significant improvement in the fortunes of the euro. On the other hand, a similar pattern could not be observed when equity prices fell between September 2000 and September 2001.

A mismatch between the supply of, and demand for, euro-denominated fixed-income securities. On the supply side, the introduction of the euro has led to rapid changes in euro-area capital markets, increasing their depth and liquidity. These changes have favoured a surge in the international issuance of euro-denominated debt (see Box 3). On the demand side, however, international investors have not shown the same degree of enthusiasm for euro-denominated debt as international borrowers. Consequently, the sharp increase in euro-denominated international debt issuance may have contributed to the weakening of the euro.

US equity prices and the exchange rate



Source: Commission services.

4. Productivity and the USD-EUR rate

There are several reasons why the impressive productivity performance of the USA in recent years may help to explain the trends in capital inflows, and, consequently, in exchange rates. Firstly, the expectation of higher income in the future will encourage US consumers to borrow from abroad in order to smooth their consumption profiles between the present and the future. Secondly, the expectation of higher profits in the future will raise equity prices and encourage investment. US residents would want to take advantage of investment opportunities that would raise future output without foregoing current consumption. This, together with the willingness of investors in the euro area to take advantage of the higher rates of return to capital in the USA, implies that some part of the increase in investment demand will be financed by capital flows from the euro area to the USA.

10 Since equity flows were previously too small compared to international flows of fixed-income securities, they were not stressed in traditional economic models.

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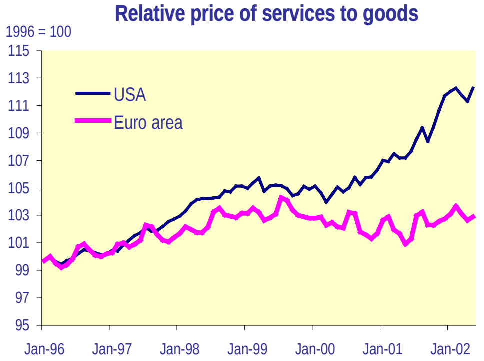
Any surge in US productivity will temporarily raise productivity growth and according to economic theory lead to an increase in the US real interest rate relative to the world rate and a jump appreciation of the real exchange rate. As productivity growth returns to trend, bringing the domestic real interest rate back into line with the world rate, the real US exchange rate will depreciate back towards its equilibrium value. This happens because the productivity shock increases the relative supply of non-tradable goods more than it increases demand for them. Therefore, a fall in their price is required to balance demand with supply.



Note: The definitions of goods and services are not harmonised and therefore the evidence should only be seen as suggestive.
Source: US Bureau of Labour Statistics, Commission services

On the other hand, a productivity shock concentrated in the US tradable goods sector can lead to an appreciation of the long-run real US exchange rate, as a result of Balassa-Samuelson effects. The underlying mechanism is that the increase in productivity in the tradable goods sector raises wages in the tradable and non-tradable sectors alike. Since this effect assumes constant productivity in the latter, the prices of non-tradable goods rise. This increases the overall price index and causes an appreciation of the real exchange rate. In support of this, the relative price of services to goods has risen more strongly in the USA than in the euro area. However, given that US and euro area consumer prices are not harmonised, this evidence is only indicative.[11]

However, explaining the real appreciation of the dollar in terms of Balassa-Samuelson effects alone is difficult, since the productivity shock would have to be extremely large. Moreover, the appreciation of the dollar since 1999 has gone hand in hand with a sharp deterioration in the US current account balance. This is difficult to reconcile with the Balassa-Samuelson framework since a higher equilibrium real exchange rate should not undermine US competitiveness. Finally, the impact of productivity differentials on the equilibrium exchange rate is a long-run process, and it is still too early to draw strong conclusions.

Thus, whilst there may be good reasons for believing that productivity developments have contributed to an appreciation of the dollar's spot rate, the magnitude of this impact is unclear. If the Balassa-Samuelson effect does provide a partial explanation for the behaviour of the dollar, because of higher US investment in ICT, it is not clear that this advantage will be permanent because the euro area can be expected to catch up.

[11] A further piece of evidence in favour of a productivity increase that took place in the US tradable sector is the dramatic fall of the relative price of goods in the ICT sector (which may be characterised as tradable) at a time when the real exchange rate of the dollar has risen.

IV. References to further work

1. Policy documents

Communication from the European Commission.
The euro area in the world economy. Developments in the first three years
On 19 June 2002, the European Commission adopted this Communication, which notes that the introduction of euro notes and coins at the beginning of this year was a landmark achievement in the history of European integration. The Communication contains chapters on economic situation and policy achievements, monitoring wage developments in EMU, investment and the euro area growth potential, the euro area financial system, the euro as an international currency.
http://europa.eu.int/comm/economy_finance/publications/euro_related/eurorelated_communication0602_en.htm

ECONOMIC PAPER No **171**.
Economic and Financial Committee (EFC): Report on EU financial integration
http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers171_en.htm

ENLARGEMENT PAPER No **8.**
Report on macroeconomic and financial sector stability developments in candidate countries
http://europa.eu.int/comm/economy_finance/publications/enlargement_papers/enlargementpapers08_en.htm

EUROPEAN ECONOMY. No **2. 2002.**
Economic Forecasts, Spring 2002
http://europa.eu.int/comm/economy_finance/publications/european_economy/forecasts_en.htm

ENLARGEMENT PAPER No **9.**
Economic Forecasts for the Candidate Countries, Spring 2002
http://europa.eu.int/comm/economy_finance/publications/enlargement_papers/elp09_en.htm

EUROPEAN ECONOMY. No **3.** 2002.
Public finances in EMU - 2002
http://europa.eu.int/comm/economy_finance/publications/european_economy/public_finances2002_en.htm

Report from the Commission
2002 Convergence Report on Sweden
http://europa.eu.int/comm/economy_finance/publications/convergence/report2002_en.htm

2. Analytical documents

EUROPEAN ECONOMY. Reports and studies. No **5. 2001**
The efficiency defence and the European system of merger control.
Since the end of 1990, the European Commission has had specific control powers over mergers with a Community dimension. This system of merger control at the Community level was created because the dismantling of non-tariff barriers in the single market resulted in major corporate reorganisations in the Community, particularly in the form of cross-border mergers. The first part of this report consists of an outline of the economic and political reasons that justify the introduction of an 'efficiency defence' in merger control policy. The study in the second part examines in more detail the economic theory concerning the efficiency effects of mergers and surveys the empirical evidence.

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http://europa.eu.int/comm/economy_finance/publications/european_economy/reportsandstudies0501_en.htm

ECONOMIC PAPER No **170**.
Directorate General for Economic and Financial Affairs: **Germany's growth performance in the 1990's**
Abstract: Since the short reunification boom, the German economy registered very low growth rates which are substantially below those of other EU countries. This paper analyses the underlying reasons for this under-performance. The fiscal burden of unification, the decline of the construction sector and a rigid labour market are found to be the most significant factors. A first chapter describes the short- and long-run macro-economic developments during the 1990s, pointing in particular to the growth shortfall in the East and the decline in the construction sector. A second chapter finds that the monetary and fiscal stance of the economy played only a minor role in reducing growth. Instead, as is shown in the third chapter, the root of the problem is that the economic challenges of unification were not addressed fully due to structural rigidities, which persist mostly in the labour market. As a consequence, without labour market reforms economic growth in Germany will continue to lag behind that of other European countries in the years to come.
http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers170_en.htm

ECONOMIC PAPER No. **169**.
Javier Andrés, Fernando Ballabriga, Javier Vallés: **Non-Ricardian fiscal policies in an open monetary union**
Abstract: The fiscal theory of the price level has challenged the conventional view of that monetary factors drive prices and exchange rates and has also provided a rationale for fiscal restrictions in a monetary union. This paper extends the main results of this theory to an open monetary union model. First, it analyzes solutions to the indeterminacy of the exchange rate, some of which have non-standard macroeconomic implications. Second, it shows in a calibrated model the consequences for the monetary union of fiscal misdirection in one of its members.
http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers169_en.htm

ECONOMIC PAPER No. **168**.
Fernando Ballabriga: **The development of quantitative empirical analysis in macroeconomics**
Abstract: This paper gives a schematic description of selected relevant events in the development of quantitative macroeconomics since the start of the Cowles Commission for Economic Research in 1932. It also provides a sketch of what could be a promising path for future events.
http://europa.eu.int/comm/economy_finance/publications/economic_papers/economicpapers168_en.htm

3. Regular publications

Euro area GDP indicator (Indicator-based forecast of quarterly GDP growth in the euro area)
http://europa.eu.int/comm/economy_finance/indicators/euroareagdp_en.htm

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

Business Climate Indicator for the euro area (monthly indicator designed to deliver a clear and early assessment of the cyclical situation)
http://europa.eu.int/comm/economy_finance/indicators/businessclimate_en.htm

Key indicators for the euro area (presents the most relevant economic statistics concerning the euro area)
http://europa.eu.int/comm/economy_finance/indicators/key_euro_area/keyeuroarea_en.htm

Monthly and quarterly notes on the euro-denominated bond markets (looks at the volumes of debt issued, the maturity structures, and the conditions in the market)
http://europa.eu.int/comm/economy_finance/publications/bondmarkets_en.htm

V. Key indicators for the euro area

1	**Output**		2001	2002*		Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02
	Industrial confidence [1.1]	Balance	5			-14	-14	-11	-11	-9	-10
	Industrial production [1.2]	Ann. % ch	5.7			-2.9	-3.3	-2.7	-1.2		
			2001	2002*	2003*	01 Q1	01 Q2	01 Q3	01 Q4	02 Q1	02Q2
	Gross domestic product [1.3]	Ann. % ch	1.6	1.4	2.9	2.4	1.6	1.4	0.4	0.3	
		Qtr. % ch				0.4	0.0	0.2	-0.3	0.3	
2	**Private consumption**		2001	2002*		Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02
	Consumer confidence [2.1]	Balance	1			-11	-9	-9	-10	-8	-9
	Retail sales [2.2]	Ann. % ch	2.7			0.1	1.7	1.9	0.1		
			2001*	2002*	2003*	01 Q1	01 Q2	01 Q3	01 Q4	02 Q1	02Q2
	Private consumption [2.3]	Ann. % ch	1.8	1.2	2.5	1.9	1.7	1.7	1.5	0.7	
3	**Investment**		2001	2002*	2003*	01 Q1	01 Q2	01 Q3	01 Q4	02 Q1	02Q2
	Capacity utilisation [3.1]	%	83.2			84.4	83.6	83.0	81.8	80.8	80.1
	Gross fixed capital formation [3.2]	Ann. % ch	-0.2	0.2	3.8	1.5	0.1	-1.5	-2.0	-1.6	
	Change in stocks [3.3]	% of GDP	-0.3	-0.2	0.1	-0.1	0.0	-0.2	-0.6	-0.9	
4	**Labour market**		2001	2002*	2003*	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02
	Unemployment [4.1]	%	8.3	8.5	8.1	8.2	8.2	8.2	8.3	8.3	
			2001	2002*	2003*	01 Q1	01 Q2	01 Q3	01 Q4	02 Q1	02Q2
	Employment [4.2]	Ann. % ch	1.3	0.3	1.1	1.9	1.4	1.1	0.9		
	Wages [4.3]	Ann. % ch	2.7	2.9	3.0	3.2	3.1	3.1	3.2	3.1	
5	**International transactions**		2001	2002*	2003*	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02
	Export order books [5.1]	Balance	-14			-28	-25	-24	-23	-19	-20
	Exports of goods [5.2]	Bn. EUR	962.7	997.3	1083.8	79.6	82.6	91.5	87.5		
	Imports of goods [5.3]	Bn. EUR	1011.5	1027.4	1128.4	78.6	77.1	79.4	84.4		
	Trade balance [5.4]	Bn. EUR	-48.8	-30.1	-44.6	1.0	5.5	12.1	3.1		
			2001	2002*	2003*	01 Q1	01 Q2	01 Q3	01 Q4	02 Q1	02Q2
	Exports of goods and services [5.5]	Ann. % ch	2.7	2.6	6.7	7.7	4.3	1.0	-2.7	-2.0	
	Imports of goods and services [5.6]	Ann. % ch	0.8	2.0	6.9	6.0	3.4	-0.8	-5.1	-4.0	
			2001	2002*	2003*	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02
	Current account balance [5.7]	Bn. EUR	-12.3	9.6		-1.5	2.1	3.7	-5.8		
	Direct investment (net) [5.8]	Bn. EUR	-104.6			4.3	-9.9	-5.9	7.7		
	Portfolio investment (net) [5.9]	Bn. EUR	36.5			-41.3	-9.9	8.1	11.5		
6	**Prices**		2001	2002*	2003*	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02
	HICP [6.1]	Ann. % ch	2.5	2.2	2.0	2.7	2.4	2.5	2.4	2.0	1.7
	Core HICP [6.2]	Ann. % ch	2.0			2.6	2.6	2.6	2.6	2.6	
	Producer prices [6.3]	Ann. % ch	2.2			-0.8	-1.1	-0.8	-0.8	-0.9	
	Import prices [6.4]	Ann. % ch	0.9	0.4	2.2						
7	**Monetary and financial indicators**		2001	2002*	2003*	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02
	Interest rate (3 months) [7.1]	% p.a.	4.3			3.3	3.4	3.4	3.4	3.5	3.5
	Bond yield (10 years) [7.2]	% p.a.	4.9			4.9	4.9	5.2	5.2	5.2	5.0
	Stock markets [7.3]	Index	4050			3690	3542	3749	3647	3503	3153
	M3 [7.4]	Ann. % ch	5.3			8.0	7.8	7.4	7.5	7.5	
	Credit to private sector (loans) [7.5]	Ann. % ch	7.9			6.3	6.0	5.4	5.1	5.3	
	Exchange rate USD/EUR [7.6]	Value	0.90	0.87	0.87	0.88	0.87	0.87	0.89	0.92	0.95
	Nominal effective exchange rate [7.7]	Index	90.8	91.4	92.2	91.4	90.6	90.6	90.9	92.9	95.4

* ECFIN Spring 2002 forecasts (*European Economy*, No 2/2002 -April 2002)

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Number	Indicator	Note	Source
1	**Output**		
1.1	Industrial confidence indicator	Industry survey, average of balances to replies on production expectations, order books, and stocks (the latter with inverted sign)	ECFIN
1.2	Industrial production	Annual percentage change, volume, excluding construction, wda	Eurostat
1.3	Gross domestic product	Annual percentage change, volume (1995), seasonally adjusted	Eurostat
1.3.3	Gross domestic	Quarterly percentage change, volume (1995)	Eurostat
2	**Private consumption**		
2.1	Consumer confidence indicator	Consumer survey, average of balances to replies on four questions (financial and economic situation, unemployment, savings over next 12 months)	ECFIN
2.2	Retail sales	Annual percentage change, volume, excluding motor vehicles, wda	Eurostat
2.3	Private consumption	Annual percentage change, volume (1995 prices), seasonally adjusted	Eurostat
3	**Investment**		
3.1	Capacity utilization	In percent of full capacity, manufacturing, seasonally adjusted, survey data (collected in each January, April, July and October).	ECFIN
3.2	Gross fixed capital formation	Annual percentage change, volume (1995 prices), seasonally adjusted	Eurostat
3.3	Change in stocks	In percent of GDP, volume (1995 prices), seasonally adjusted	Eurostat
4	**Labour market**		
4.1	Unemployment	In percent of total workforce, ILO definition, seasonally adjusted	Eurostat
4.2	Employment	Annual percentage change, ECFIN calculations on basis of Eurostat figures, partly estimated	Eurostat
4.3	Wages	Annual percentage change; not fully harmonised concept (mostly hourly earnings)	ECFIN
5	**International transactions**		
5.1	Export order books	Industry survey; balance of positive and negative replies, seasonally adjusted	ECFIN
5.2	Exports of goods	Bn. EUR, excluding intra euro area trade, fob	Eurostat
5.3	Imports of goods	Bn. EUR, excluding intra euro area trade, cif	Eurostat
5.4	Trade balance	Bn. EUR, excluding intra euro area trade, fob-cif	Eurostat
5.5	Exports of goods and services	Annual percentage change, volume (1995 prices), including intra euro area trade, seasonally adjusted	Eurostat
5.6	Imports of goods and services	Annual percentage change, volume (1995 prices), including intra euro area trade, seasonally adjusted	Eurostat
5.7	Current account balance	Bn. EUR, excluding intra euro area transactions; before 1997 partly estimated	ECB
5.8	Direct investment	(net) Bn. EUR, excluding intra euro area transactions	ECB
5.9	Portfolio investment	(net) Bn. EUR, excluding intra euro area transactions	ECB
6	**Prices**		
6.1	HICP	Annual percentage change, harmonised index of consumer prices	Eurostat
6.2	Core HICP	Annual percentage change, harmonised index of consumer prices, excluding energy and unprocessed food	Eurostat
6.3	Producer prices	Annual percentage change, without construction	Eurostat
6.4	Import prices	Annual percentage change	Eurostat
7	**Monetary and financial indicators**		
7.1	Interest rate	Percent p.a., 3-month interbank money market rate, period averages	Datastream
7.2	Bond yield	Percent p.a., 10-year government bond yields, lowest level prevailing in the euro area, period averages	Datastream

7.3	Stock markets	DJ Euro STOXX50 index, period averages	Datastream
7.4	M3	Annual percentage growth rate of seasonally adjusted flows, moving average (3 last months): from 1997 onwards corrected for holdings by non-residents	ECB
7.5	Credit to private sector (loans)	Annual percentage change, MFI loans to euro area residents excluding MFIs and general government, monthly values: month end values, annual values: annual averages	ECB
7.6	Exchange rate USD/EUR	Period averages, until December 1998: USD/ECU rates	ECB
7.7	Nominal effective exchange rate	Against 13 other industrialised countries, double export weighted, 1995 = 100, increase (decrease): appreciation (depreciation)	ECFIN

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

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