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Euroland: New conditions for economic policy

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Euroland: New Conditions for Economic Policy

by Jörg Döpke, Klaus-Jürgen Gern, Jan Gottschalk, Enno Langfeldt, Joachim Scheide, Markus Schlie, and Hubert Strauß

CONTENTS

- The cyclical situation at the beginning of the European Monetary Union (EMU) is favorable: The upswing in Euroland has strengthened, unemployment is going down, and inflation remains low. However, the economic conditions outside the new currency area have deteriorated significantly during 1998. Fears are mounting that the crises in various regions of the world economy could endanger the current expansion in Euroland.
- The most important determinants of Euroland exports into third countries are economic activity abroad and the real exchange rate. The empirical investigation shows that a one percent increase of industrial production abroad raises Euroland's exports by 0.7 percent in the long run, while the positive effect of a one percent real depreciation amounts to about 0.5 percent. The relevance of export fluctuations for the business cycle in Euroland is smaller than for individual countries like Germany; compared to the United States and Japan, however, they are of greater importance. Nevertheless, Euroland is less affected by the Asian crisis than the United States.
- Economic policy often relies on estimates of potential output growth and the output gap. Various measures lead to similar conclusions concerning the growth rate of potential output in Euroland. Also, the timing of cyclical turning points is more or less the same. All procedures imply that capacity utilization increased in the course of 1997 and also in the first half of 1998. Although there is some uncertainty with respect to the precise level of the output gap, one can conclude that capacity utilization is back to normal again in Euroland. If monetary and fiscal policy were to become more stimulative now, there would be the risk of cyclical tensions.
- The policy of central banks in Euroland continues to stimulate economic activity. The decline in the difference between long-term and short-term interest rates is due to a marked decrease in long-term rates and does not reflect monetary tightening. The continued acceleration of money growth also points at an expansionary policy stance. A turnaround of monetary policy is not likely in the near future. We expect that by the end of 1998, money-market rates will converge at the level currently prevailing in Germany.
- After the decisions on EMU membership, the policy of fiscal consolidation did not continue. This year's slight further decline in the deficit ratio for Euroland, which was reduced between 1996 and 1997 from 4.1 percent to 2.5 percent, is not due to additional consolidation efforts but rather to the improved cyclical situation. Given that the Maastricht Treaty calls for a sustainable fiscal position and the Stability and Growth Pact requires the budgets to be at least balanced over a cycle, the current course of fiscal policy in Euroland is not compatible with the targets laid down in the treaties.
- Real GDP in Euroland will rise by nearly 3 percent in both 1998 and 1999, which implies a considerable increase in capacity utilization. While export growth will weaken due to the combined dampening effects from the Asian and Russian crises and the cyclical deceleration in the United States and the United Kingdom, domestic demand will further gain momentum. Private investment will be particularly buoyant on the back of rising capacity utilization, rapid profit growth, and low interest rates. Consumer prices will rise by some 1.5 percent this year. As dampening factors like falling raw material prices will slowly fade, inflation will pick up somewhat in the course of 1999.

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Euroland: New Conditions for Economic Policy

The cyclical situation at the beginning of the European Monetary Union (EMU) is favorable: The upswing in Euroland has firmed, unemployment is going down, and inflation is low. However, economic growth outside the new currency area has weakened significantly during 1998, and fears are mounting that the crises in various regions of the world economy could endanger the current expansion in Euroland. Against this background, the significance of external conditions for the business cycle in Euroland — as well as the regional structure of exports — is analyzed. An important issue for an adequate design of economic policy is to what extent capacities in Euroland are currently utilized and whether cyclical unemployment is still significant. In addition, it is important to know whether the business cycles in the individual countries converge or not. In light of the findings from these analyses, the course of monetary, fiscal, and wage policy is evaluated in order to assess the outlook for Euroland until the end of 1999.

1 Upswing Boosted by Domestic Demand

The upswing in Euroland has continued in the course of this year; the momentum has remained more or less the same compared to the second half of last year. During the first half of 1998, real GDP increased at an annual rate of almost 3 percent (Figure 1). While export growth, which had been buoyant in 1997, decelerated considerably, domestic demand expanded at a more rapid pace. This is mainly due to the impulses from economic policy: While monetary policy has remained stimulative, fiscal policy has not dampen economic activity anymore as in the previous year.

The driving force of the upswing has been private investment, stimulated by low interest rates, improved sales and profit expectations, and the increase of capacity utilization. Private consumption has continued to recover in the course of this year at a rate roughly in line with GDP growth. Real disposable income has expanded more rapidly — due to gains in employment and the rise in real income resulting from the decline of inflation. In addition, taxes and social contributions were not raised again as in previous years.

Export growth lost momentum due to the drastic fall of the demand from Asia, the region that had shown exceptional growth in the years before. Also, the improvement in Russia, which had set in last year, did not continue. Real imports of Euroland expanded more rapidly than real exports; due to the improvement in the terms of trade, however, the current account surplus hardly changed in 1998.

The upturn has led to an improvement on the labor market in almost all countries of the future European Monetary Union; the exception is Italy. While there are still considerable differences between the national economies, the unemployment rate in Euroland declined by about half a percentage point during the first half of 1998 reaching some 11 percent.

Inflation has continued to be very moderate. Consumer prices in Euroland have risen only slightly, producer prices even have declined in recent months. On the one hand, import prices have fallen as raw material prices plunged and the European currencies revalued considerably against Asian currencies. On the other hand, internal inflation has remained subdued. However, a divergent development has emerged here: In those countries which have experienced relatively high GDP growth for quite a long time CPI inflation has accelerated in spite of the dampening factors from abroad; in other countries, inflation has declined. The inflation differential has thus increased considerably; on the basis of the harmonized CPI (Box 1), the rates in Portugal and Ireland are about 2 percentage points higher than the rates in Austria, Germany, and France.[1]

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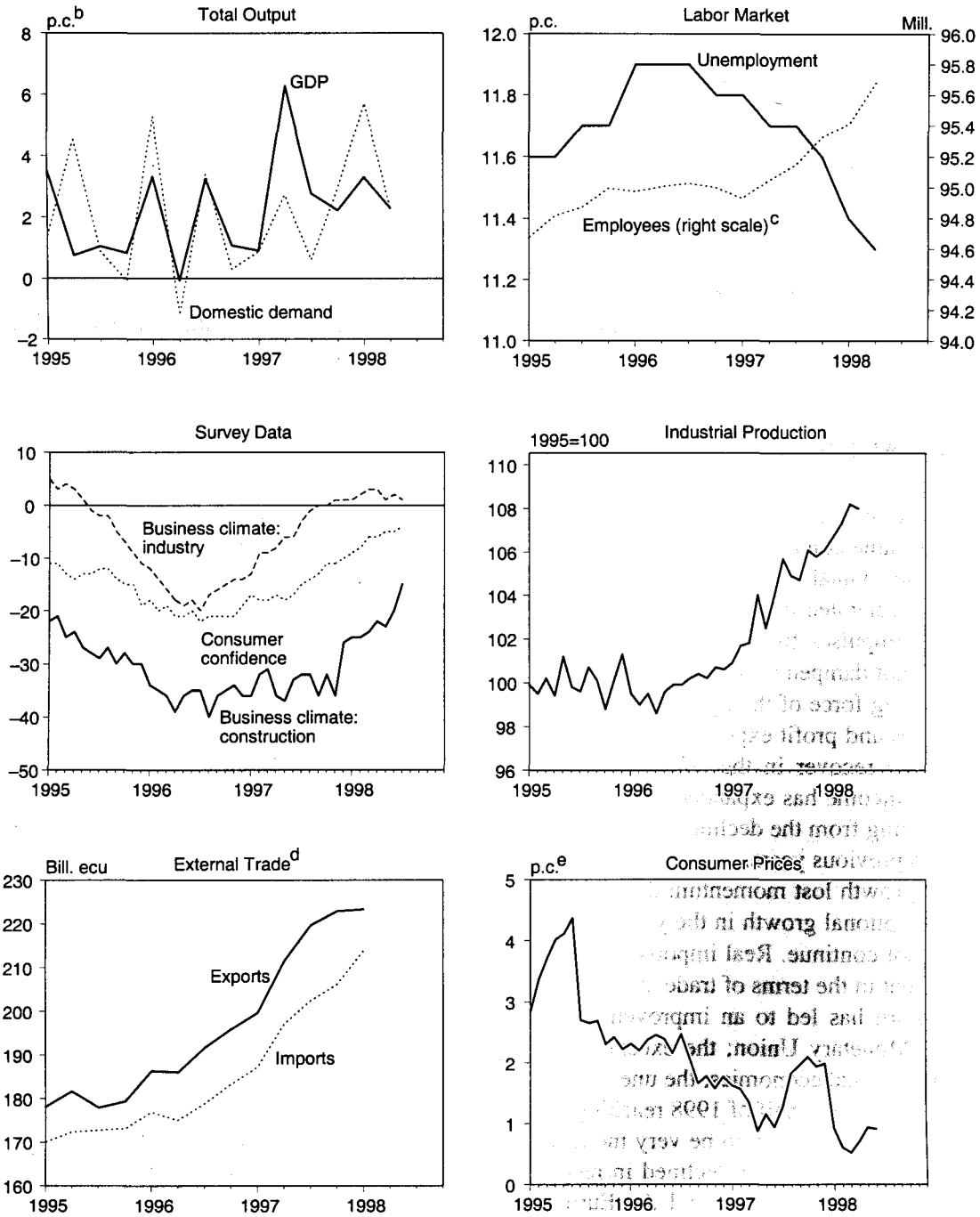
[1] In the forecast table, we continue to use the national price index because it still gets more attention in the public; for Euroland, however, the HCPI is used. As far as the situation of inflation in Euroland is concerned, it is preferable to

Figure 1: Business Cycle Indicators for Euroland, 1995–1998[a]



[a]Indicators seasonally adjusted. — [b]Percentage change over previous quarter (annual rate). — [c]For Germany, France, Italy, Spain, Netherlands. — [d]Excluding intra-Euroland trade. — [e]Change within the last six months at annual rates.

Source: Eurostat (1998); Europäische Kommission (1998a, 1998b); OECD (1998a, 1998b); Datastream; own estimates.

focus on the HCPI because it is not only based on a unified method but will most likely also be used by the European Central Bank as an indicator.

Box 1: On the Measurement of Inflation in Euroland

Since January 1997, the statistical office of the European Community (EUROSTAT) has published the harmonized consumer price index (HCPI) for the 15 member states and for Norway and Iceland. According to the Europäische Kommission (1998a: 20), the HCPI should measure the inflation rates of the different countries in a comparable way.

The harmonized consumer price index comprises a smaller basket of goods compared to the national indices. The share of the recorded expenditures relative to the total expenditures (recorded share) reaches from 79.5 percent in the Netherlands to 97.4 percent in Greece.[a] Mainly hypothetical rents for owner-occupied housing or mortgage payments as a proxy for housing costs are excluded. Furthermore, expenditures for health and education are partly not included in the HCPI. During the last years, the goods of these expenditure categories have become more expensive relative to the goods that are included in the HCPI. Therefore, the inflation rates calculated on the basis of the national indices are slightly higher than the rates calculated on the basis of the harmonized indices. Some further deviations result from the different methods of including new products (Statistisches Bundesamt 1997: 188). In most cases, the differences between the national indices and the HCPI are rather small.[b]

Table: Inflation Rates According to National and Harmonized Consumer Price Indices (percentage change over previous year)

	National consumer price index 1997	Harmonized consumer price index (HCPI) 1997	Difference	Recorded share
Germany	1.8	1.5	0.3	86.9
France	1.2	1.3	–0.1	91.4
Italy	1.8	1.9	–0.1	93.9
Spain	2.0	1.9	0.1	94.3
Netherlands	2.1	1.9	0.2	79.5
Belgium	1.6	1.5	0.1	88.5
Austria	1.3	1.2	0.1	90.6
Finland	1.2	1.2	0	81.5
Portugal	2.3	1.9	0.4	89.1
Ireland	1.4	1.2	0.2	89.6
Luxembourg	1.4	1.4	0	95.2
Euroland	1.7[c]	1.6	0.1	n.a.
Memorandum:				
United Kingdom	3.1	1.8	1.3	85.7
Sweden	0.9	1.8	–0.9	82.8
Denmark	2.1	1.9	0.2	88.2
Greece	5.6	5.4	0.2	97.4

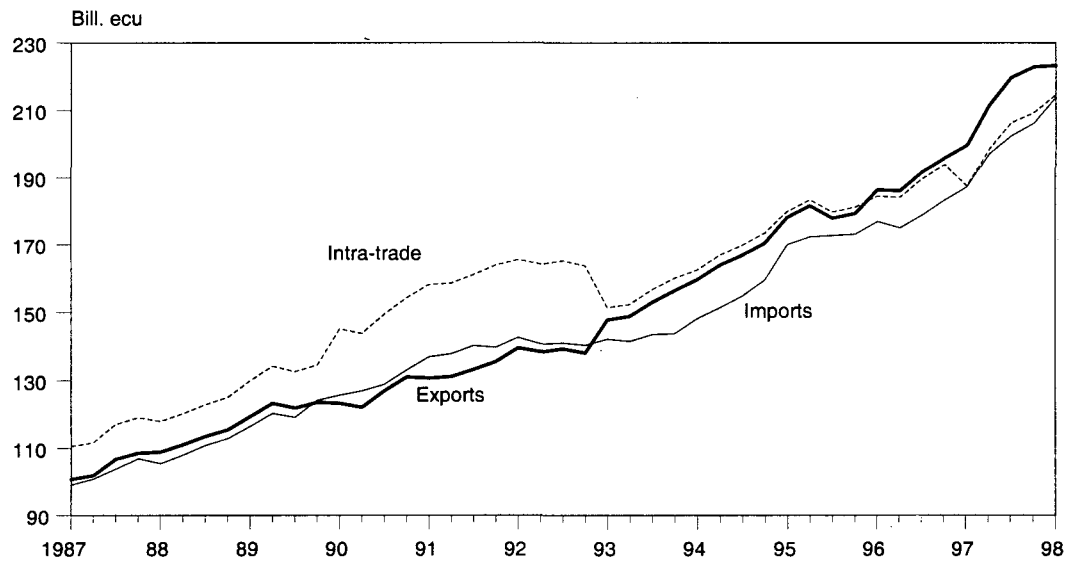
[a]The HCPI will be expanded in two steps until December 1999, so that the share of goods included both in the national and in the harmonized price indices will vary between 83 percent (Netherlands) and 100 percent (France, Ireland, Luxembourg, Finland). — [b]The differences for the United Kingdom and Sweden, however, are substantial. — [c]Based on GDP weights, calculated in current prices and exchange rates in 1997.

2 In Spite of the Large Currency Area: Great Importance of International Trade

During the last 15 months, a financial and economic crisis has emerged in an increasing number of countries. The exports of Euroland into the regions of crisis declined considerably in the course of 1998. However, the expansion of overall economic activity did not decelerate. This may suggest that the business cycle in a large currency area like EMU is determined by domestic forces. However, it may also be true that the crisis is confined to regions which are not very important for the export industries of Euroland. In the following, we analyze the importance of international trade for Euroland in general and take a look at the regional distribution of exports and imports as well.

Euroland is a new economic entity; the analysis of exports and imports therefore has to focus on trade with third countries.[2] As opposed to the data published by Eurostat, we refer to the trade between Euroland as a whole and the rest of the world; consequently, the trade among EMU countries is defined as intra-trade.[3] In order to determine the level of Euroland's exports one would have to deduct the intra-trade figures from the official trade data included in the National Income Accounts. However, this is not possible because of the lack of data. Therefore, the share of the intra-trade of exports and imports of Euroland is approximated by the national intra-trade shares.[4] These calculated series of intra-trade in Euroland show a marked cyclical pattern. In addition, exports to and imports from third countries expanded more rapidly than the trade within Euroland in the 1990s. This is due to the higher economic growth abroad and also to the increasing integration of newly industrialized countries and countries in transition (Figure 2).

Figure 2: Euroland's Foreign Trade, 1987–1998[a]



[a]Exports, imports and intra-trade (based on exports) at constant prices of 1990, seasonally adjusted.

An export equation is estimated in order to analyze the determinants of Euroland's exports (Box 2). As expected, the volume of exports is positively affected by an increase of economic activity abroad and by a real devaluation of the ecu (Figure 3). In the long run, a one percent increase in foreign industrial production raises exports by 0.7 percent, while a real depreciation of the ecu by one percent raises exports by about 0.5 percent. Changes in the real value of the ecu, which can also be expected for the future due to the system of flexible exchange rates, have a substantial impact on exports.

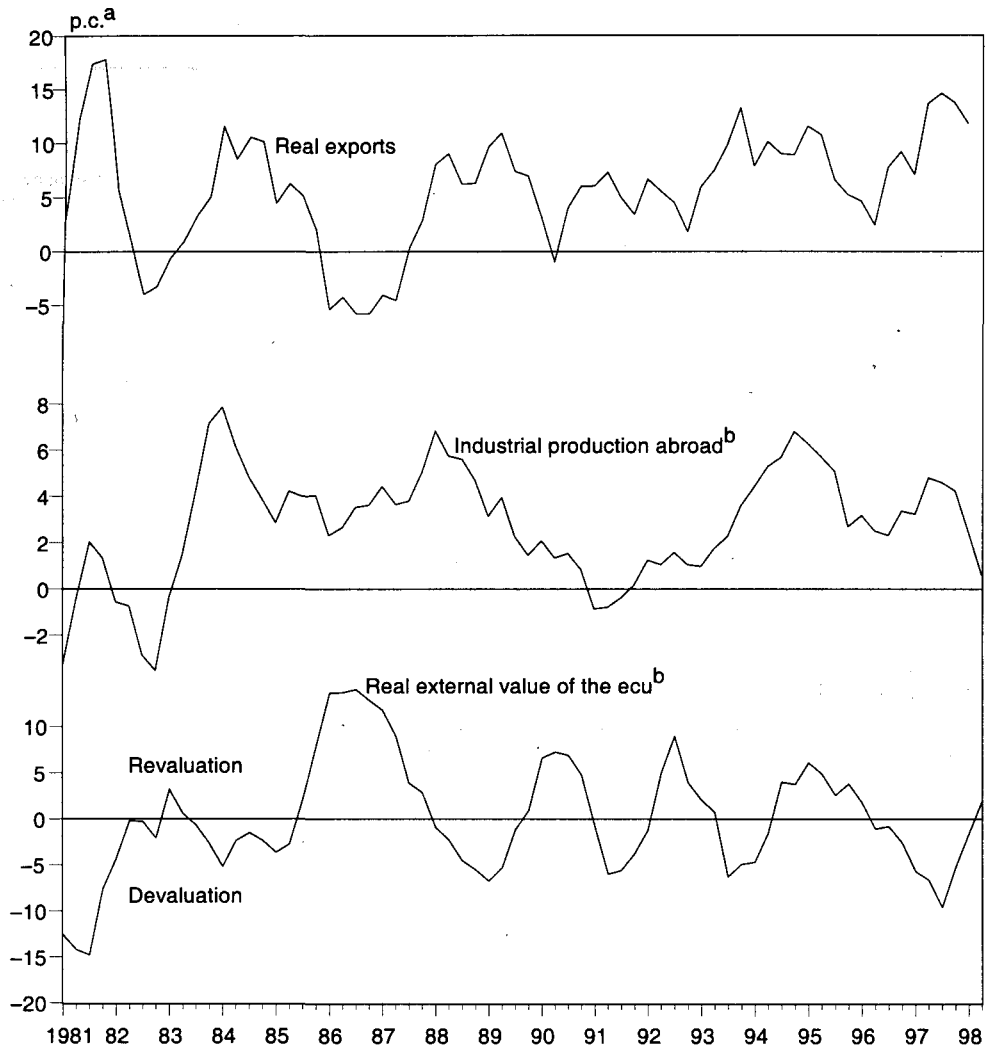
---

2 As far as intra-trade and external trade is concerned, a separate calculation exists only for special trade but not for trade with services, which amounts to more than one-fifth of external trade. The official NIA data provided by Eurostat for Euroland are simply the sum of exports and of imports of the respective individual countries.

3 Intra-exports and intra-imports are identical by definition, so no difference is made here. In practice, however, there are considerable differences because exports and imports are reported by different persons. In this article, the series used is based on exports as they seem to be more reliable.

4 The calculation is performed by using the national shares of intra-trade. Since the data on the special trade of Euroland regarding intra-trade and trade with the rest of the world are not available as a long time series, the necessary shares are calculated on the basis of the ITCS database of the OECD. For services, we assume that the regional distribution is the same as for special trade. For details, see Strauß (1998b).

Figure 3: Determinants of Euroland's Exports, 1981–1998



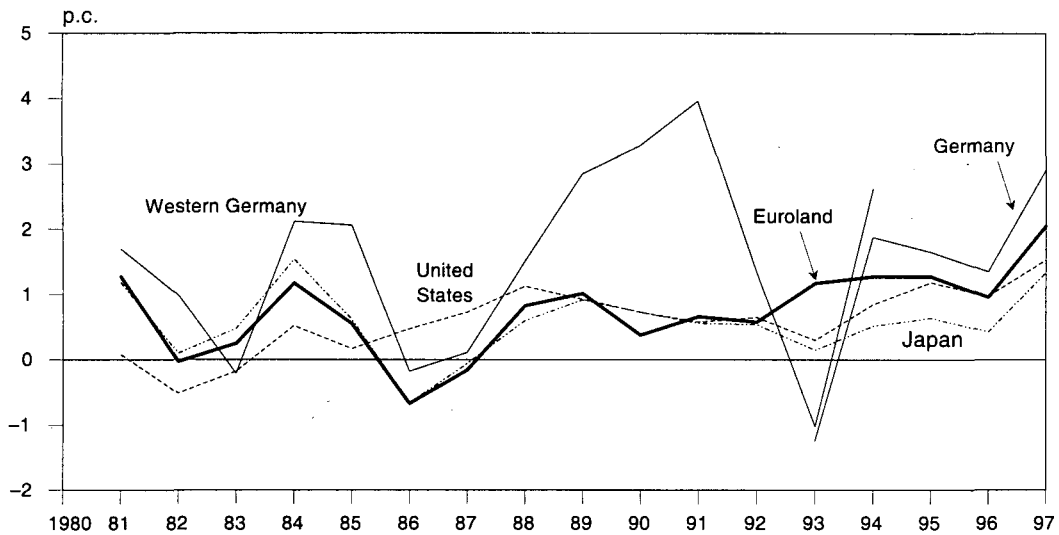
[a]Percent change over previous year. — [b]See Box 2.

The effect of total exports on total production in an economy depends on the relative importance of exports. The Lundberg component is an appropriate measure as it relates both variables; therefore, one can compare the importance across countries. Statistically, the importance of exports for changes in GDP is a lot smaller for Euroland than for Germany, but it is higher than for Japan or for the United States (Figure 4).[5] The result is similar if the Lundberg components are calculated for net exports. Furthermore, the contribution of exports to GDP growth for Euroland is higher than for the other two economies;[6] this tendency even increased in the course of the 1990s. The degree of openness — defined as the sum of exports and imports relative to GDP — confirms the findings: While the importance of the rest of the world is lower for Euroland than for the individual EMU countries, it exceeds that of the United States and Japan (Table 1). However, among the 11 countries, there are also

5 The standard deviation of the Lundberg components of exports since the beginning of the 1980s is 0.64 for Euroland, 0.50 for the United States, 0.51 for Japan, and 1.38 and 1.40 for Western Germany and Germany, respectively.

6 The means of the Lundberg components since 1981 amount to 0.74 for Euroland, 0.60 for the United States, 0.57 for Japan, and 1.51 and 1.31 for Western Germany and Germany, respectively.

Figure 4: The Importance of Exports for the Business Cycle in Major Industrial Countries, measured by the Lundberg components, 1980–1997[a]



[a]Percentage change of the relation between the absolute change in real exports and real GDP of the preceding period.

Box 2: An Estimation of Euroland's Exports

According to the international trade literature the main determinants of exports are economic activity abroad, price competitiveness, and — in more recent studies — the growing international division of labor. In order to find out the influence of industrial production abroad[a] (I) and of the real external value of the ecu[b] (e) on Euroland's real exports (X), we have run a regression using seasonnally adjusted quarterly data from 1987/I to 1997/III. The trend variable is to reflect the growing integration of international trade. The equation shows the rates of change over the previous quarter, hence coefficients can be interpreted as elasticities. An error-correction type estimation yields the following results (t-values in parentheses):

$$\Delta \ln X_t = \underset{(4.40)}{2.78} - \underset{(-6.93)}{0.69}\left[\ln X_{t-1} - \underset{(-5.61)}{0.68}\ln I_{t-1} + \underset{(4.31)}{0.54}\ln e_{t-1} - \underset{(-16.69)}{0.0136}t\right] - \underset{(-2.78)}{0.27}\Delta \ln X_{t-3}$$
$$+ \underset{(6.12)}{1.88}\Delta \ln I_{t-1} - \underset{(-5.82)}{0.55}\Delta \ln e_t + \underset{(2.53)}{0.27}\Delta \ln e_{t-4} + \underset{(3.32)}{0.05}D^{87III} + \hat{u}_t .$$

The expression in brackets represents a stable long-term equilibrium (significance level of cointegration: 1 percent). The residuals are homoscedastic, free of autocorrelation and follow a normal distribution. The Cusum and Cusum-of-squares tests do not reveal any evidence for structural change. The dummy variable needed for technical reasons is 1 in 1987 III, 0 else. The adjusted R^2 amounts to 0.70.

The long-run elasticity with respect to industrial production abroad is 0.68 and is lower than the values found for individual countries, which usually are higher than unity (see Lapp et al. (1995: 11) for the G7-countries, Döpke and Fischer (1994: 59–60), Boss et al. (1997: 277), and Strauß (1998a: 164–165) for Germany). However, the trend and the intercept show bigger coefficients. This discrepancy, among other reasons, stems from the higher[c] weight of emerging markets in Euroland's exports compared to single EMU member states; because of deepening market penetration by European firms, exports to newly industrialized countries continued to rise sharply even in times of temporary stagnation in industrial production. The globalization of production processes also makes exports grow at a stronger pace than industrial production by pushing trade in intermediate products. As the sample period in the studies mentioned generally starts in 1980 or earlier, these more recent phenomena have a stronger impact on the estimation presented here. Furthermore, sufficiently long time series are not available for Central and Eastern Europe; this is why the rapid evolution of sales to this region can only be reflected by the trend variable. Unlike the constant term and the long-run production elasticity, the long-run exchange-rate elasticitiy as well as the short-term adjustment rather confirm the results of other studies.

[a]Index of industrial production in the following 22 countries: United Kingdom, Sweden, Denmark, Greece, Switzerland, Norway, United States, Canada, Japan, Australia, Turkey, Israel, Brazil, South Africa, Korea, Chinese Taipei, Hong Kong, Singapore, Indonesia, Thailand, Malaysia, and India. These countries absorb more than 70 percent of Euroland's exports. — [b]Geometric average of the real external value of the ecu relative to 19 currencies (those of the countries mentioned above except Brazil, Chinese Taipei, and Hong Kong), based on consumer prices. — [c]The intra-EMU trade is not considered here whereas it is part of national exports.

Table 1: Degree of Openness of Euroland and Its Member States, 1996

Country	Degree of openness[a]	Share of non-EMU countries[b]	Degree of openness with respect to non-EMU countries[c]
Germany	46.4	56.4	26.3
France	45.4	48.3	21.9
Italy	44.2	52.2	23.1
Spain	50.1	42.4	21.3
Netherlands	101.8	29.1	29.6
Belgium-Luxembourg	134.6[d]	37.1	49.9
Austria	82.2	36.6	30.1
Finland	68.3	68.9	47.1
Ireland	149.6	68.4	102.3
Portugal	63.6	33.3	21.2
Euroland	32.2		32.2
Memorandum item:			
United States	26.8		
Japan	24.2		

[a]Sum of exports and imports relative to GDP in percent. — [b]Share of exports to and imports from non-EMU countries in total trade, in percent. — [c]In percent. — [d]Including trade between Belgium and Luxembourg.

Source: OECD (1998d, 1998e, 1998f); IMF (1998); own calculations.

considerable differences concerning the openness vis-à-vis third countries. For example, Ireland, Belgium, and Finland are probably more affected by external shocks than the other countries of Euroland.

As far as the impact of the Asian crisis is concerned, almost all forecasts for 1998 imply that the economy of the United States will be dampened more than that of Euroland, due to the higher share of exports to Japan, Korea, and Southeast Asia (Gern et al. 1997b: 349). While Euroland's trade share with Korea and the ASEAN region amounts to only 6.5 percent (Table 2), the respective figure for the

Table 2: Euroland's Regional Trade Pattern, 1995[a]

Partner country	Exports	Imports	Total trade
Other EU countries[b]	27.0	23.5	25.2
United Kingdom	18.1	16.0	17.0
EFTA[c]	9.4	8.9	9.1
Switzerland	7.8	6.2	7.0
NAFTA	14.6	16.1	15.4
United States	12.7	14.2	13.4
Central and Eastern Europe	12.5	11.9	12.2
CIS	3.0	4.1	3.5
Japan	4.3	7.9	6.0
China[d]	4.2	4.7	4.4
Far East[e]	9.6	9.1	9.4
ASEAN[f]	4.7	4.7	4.7
Korea	1.7	1.6	1.7
Latin America[g]	4.1	4.1	4.1
Others[h]	14.3	13.8	14.2

[a]Shares of partner countries in Euroland's exports, imports and total trade in percent, derived from special trade statistics in current US$ prices. — [b]United Kingdom, Sweden, Denmark, Greece. — [c]Switzerland, Norway, Iceland. — [d]Including Hong Kong. — [e]Excluding Japan and China. — [f]Thailand, Malaysia, Indonesia, Philippines, Singapore, Myanmar, Laos, Vietnam. — [g]Excluding Mexico. — [h]Excluding regionally unspecified trade which is assumed to have the same regional pattern as specified trade.

Source: OECD (1998d, 1998e); own calculations.

United States is more than 11 percent. Also, trade with Japan is not as important, the share is only 4 percent. However, Euroland would be affected more than the United States if the countries in Central and Eastern Europe were hit by a similar crisis. This region has become the third most important trading partner of Euroland in the past years, following Western Europe and the United States. The respective share is one-eighth, compared to only 1 percent for the United States. However, we do not expect that the countries in Central and Eastern Europe will experience a considerable slowdown of economic growth (Gern et al. 1998).

3 Capacity Utilization Close to Normal

There is an ongoing discussion about the growth rate of potential output in Euroland and consequently about the size of the output gap. Some observers argue that the rate of capacity utilization is well below normal; therefore, there is no risk of inflation, even more expansionary measures of economic policy would be appropriate. The alternative view is that the output gap in Euroland has roughly been closed so that more stimulative measures would run the risk of creating inflationary pressures.

In order to assess the size of the output gap — the difference between actual and trend GDP in percent — we compare five different approaches. One estimate is based on an aggregate production function. As an approximation, we construct an aggregate of the output gaps for the individual countries published by the OECD.[7] In another approach, the survey results on capacity utilization in manufacturing are used.[8] In the third method, the output gap is defined as the deviation of actual GDP from its trend which is calculated with the Hodrick/Prescott filter (smoothing factor 1,600). Fourthly, the trend is approximated by a log-linear deterministic trend, the respective deviations are the values for the output gap. And finally, we use the band-pass filter (Baxter and King 1995). This procedure can be explained as follows: All changes of real GDP that last between 2 and 32 quarters are defined as business cycle movements, whereas all other changes are viewed as irregular or trend components.[9]

The results of the estimates are presented in Table 3. The deterministic trend postulates, by definition, a constant growth rate of trend output. The alternative methods lead to very similar results for the average growth rate of potential output, ranging from 2.1 to 2.3 percent per year for the period 1980–1998. The estimate based on the surveys cannot be directly compared as they refer to only one sector of the economy. The methods differ with regard to the smoothness of trend growth, the standard deviation varies quite substantially among the series. The most pronounced changes are shown for the estimates based on the surveys.

As far as the size of the present output gap is concerned, the various methods show considerably different results. While the gap amounts to 1 percent in the calculation based on the OECD data, the method using the Hodrick/Prescott filter suggests that capacity utilization is back to normal. The other two estimates imply a small negative output gap, whereas the survey data show that the rate of capacity utilization is even above normal. Given these discrepancies, it is necessary to check the plausibility of the results. The long-run average of the output gap — based on the OECD estimates — is strongly negative. This is unusual for time periods which are much longer than a complete cycle. Also,

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7 Potential output was calculated using OECD data on real GDP and the output gap. The estimates were transformed into one currency by using ecu rates. Quarterly data were calculated by the method of linear interpolation.

8 The measures were weighted by using the shares of national real GDP in total Euroland GDP at constant prices. It has to be noted that the concepts of the surveys vary across countries. In some cases, the rate of capacity utilization is given directly, whereas in other countries, the share of those firms producing at or near full capacity is reported. As a consequence, the means of the individual series vary. In order to be able to compare them, the series were standardized.

9 As moving averages are used, it is necessary — as it is with the Hodrick/Prescott filter — to include a forecast if the current output gap is to be estimated. The band-pass filter eliminates those fluctuations which have a certain frequency in an optimal fashion. Baxter and King (1995) show that the filter of HP 1,600 comes very close in the case of quarterly data. This is also revealed in Figure 5.

Table 3: Output Gap and Growth of Potential GDP According to Alternative Concepts, 1980–1998 (percent)

Method	Output gap			Growth of potential		
	1998/II	Average 1980–1998	Standard deviation	1998/III	Average 1980–1998	Standard deviation
Aggregation of OECD output gaps	–1.1	–0.6	1.3	2.1	2.3	0.6
Hodrick/Prescott filter (1,600)	0.1	0.0	1.7	2.4	2.1	0.7
Log-linear deterministic trend	–0.6	–0.4	1.9	2.3	2.3	0
Band-pass filter (2, 32)[a]	–0.5	–0.2	0.9	2.4	2.3	0.6
Aggregation of survey data[b]	0.8[c]	0.0	0.8	1.9	2.0[d]	1.1

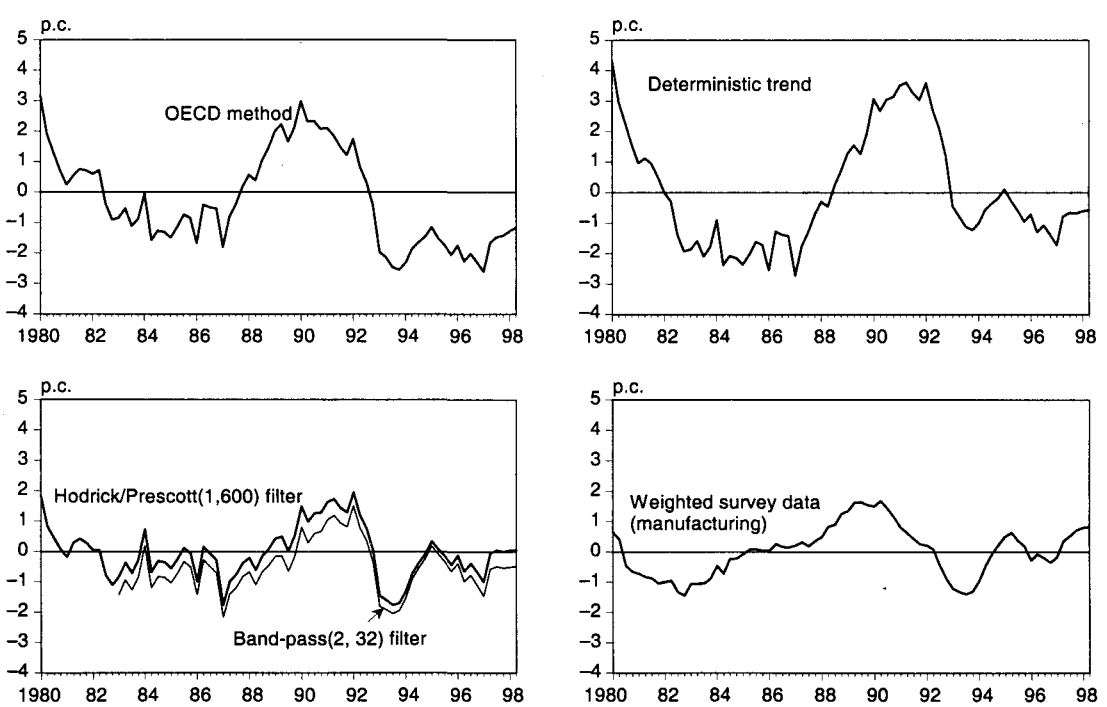
[a]King and Baxter (1995). — [b]Manufacturing. — [c]1997. — [d]1983–1997.

Source: OECD (1998a, 1998b); own calculations and estimations.

it may not be useful to only look at the manufacturing sector. The trend estimates therefore seem to be more appropriate, and here the deterministic trend can be excluded because it is entirely inflexible. The more flexible estimates of both the band-pass filter and the Hodrick/Prescott filter are thus preferable. Another disadvantage of the estimates based on a production function (such as by the OECD or the IMF) is that they often had to be revised ex post. In addition, structural breaks are to be found in several cases. All in all, it is reasonable to use the Hodrick/Prescott filter as an appropriate measure for the trend.

The dates of cyclical turning points, however, hardly vary with the method used (Figure 5). All procedures suggest that the underutilization that had prevailed in 1996 was reduced considerably in the course of 1997. Thus it is undisputed that Euroland is in the phase of an upswing; the observations sees a role for an anticyclical monetary policy. This follows also from calculations of the Taylor rule also suggest that the level of capacity utilization does not signal cyclical tensions. On the other hand, the

Figure 5: Output Gaps in Euroland According to Alternative Methods, 1980–1998



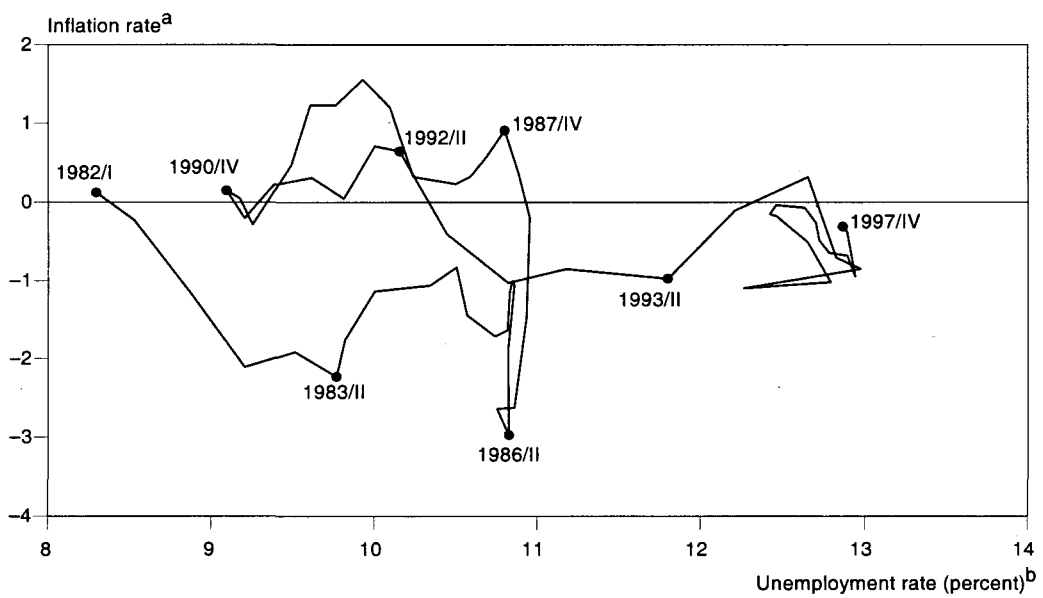
results cannot be used to justify additional expansionary measures by central banks even if one for which the output gap is an important variable.[10] Even if one assumes the highest negative output gap of the estimates presented here, the short-term interest rate which is optimal according to the Taylor rule is substantially higher than the current money market rate in Euroland. Given the time lags of monetary policy, possible interest rate cuts made now would be effective at a time when capacity utilization is well above normal. This would raise the risk of an acceleration of inflation.

4 What Is the NAIRU for Euroland?

Unemployment in Euroland is still at a high level although it has come down somewhat since last year. It is often argued that monetary policy in Europe has been too much oriented at reducing inflation, while the employment situation in the United States has improved so strongly because the Fed pursued a more accommodative policy. However, this argument is not correct because the reduction of inflation in the 1980s and also in the 1990s was not more pronounced in Western Europe than in the United States (Gern et al. 1997a).

In order to analyze whether there is a relationship between the change of the inflation rate and the unemployment rate, we refer to the concept of the so-called NAIRU (Non-Accelerating Inflation Rate of Unemployment). This is the unemployment rate at which there is no change of inflation. Figure 6 shows that there is obviously no stable relationship for Euroland; the unemployment rate at which inflation accelerated has shifted to the right since 1981, in other words: The NAIRU has increased. This result is in contrast to the evidence for the United States, where until the mid-1990s there appeared to be a fairly stable relationship between the change of inflation and the unemployment rate (Staiger et al. 1997). Since then, there are indications of an instability; however, it seems that the NAIRU has decreased.

Figure 6: Change of Inflation Rate and Unemployment Rate in Euroland, 1982–1997



[a]Change over previous year in percentage points. — [b]Own estimates based on Germany, France, Italy, Spain, and the Netherlands.

10 Apart from the output gap, the difference between actual and target inflation as well as the equilibrium real short-term interest rate are used. For more details, see Döpke et al. (1998: 8).

Box 3: Estimation of NAIRU Equations for Euroland and the United States

A simple NAIRU model (Staiger et al. 1997: 36) is given by

[1] $\Delta_4\pi_t = \mu + \beta_1 u_{t-1} + \gamma x_t + \varepsilon_t,$

where π denotes the inflation rate, u the unemployment rate and x additional control variables. Given this, the NAIRU can be expressed as $-\mu / \beta_1$. Equation [1] is estimated using quarterly data from 1980/I to 1997/IV. The HWWA raw material index is chosen as the only additional variable.

For US data, an OLS regression leads to the following results (t-values in brackets):

[2] $\Delta_4\pi_t = \underset{(6.2)}{4.93} - \underset{(-6.9)}{0.78}\, u_{t-1} + \underset{(2.8)}{2.98}\pi_t^{HWWA} + \hat{\varepsilon}_t,$ $R^2 = 0.52.$

The coefficients imply a NAIRU of 6.3 percent. This is almost the same result found by Staiger et al. However, these authors note that this point estimate is in line with a confidence interval ranging from by about 4 percent to about 8 percent. Thus, the results bear a wide margin of uncertainty. Applying the same procedure to Euroland leads to the following results:

[3] $\Delta_4\pi_t = \underset{(0.8)}{0.74} - \underset{(-1.3)}{0.11}\, u_{t-1} + \underset{(4.3)}{3.15}\pi_t^{HWWA} + \hat{\varepsilon}_t,$ $R^2 = 0.24.$

The coefficients imply a NAIRU by about 6.7 percent. Not surprisingly, the fit is extremely bad. A R^2 comparable to the one for the US can only be achieved if two dummies are introduced: $D1$ is 1 for 1983/I–1991/IV, 0 elsewhere and $D2$ is 1 for 1992/I–1997/IV, 0 elsewhere. The dummies take into account that the relation between the change of the inflation rate and the unemployment rate shifted to the right during the investigation period (Figure 6).

The results are then as follows:

[4] $\Delta_4\pi_t = \underset{(2.6)}{2.87} - \underset{(-3.9)}{0.47}\, u_{t-1} + \underset{(5.1)}{3.22}\pi_t^{HWWA} + \underset{(4.6)}{1.66}\, D1 + \underset{(4.4)}{2.24}\, D2 + \hat{\varepsilon}_t$ $R^2 = 0.49.$

This implies the following NAIRU estimates for Euroland: 6.1 percent before 1983, 9.6 percent until 1992, and 10.9 percent since then.

The comparison of estimates for the United States and Euroland shows a remarkable difference as far as the causes of unemployment are concerned. For the United States, cyclical fluctuations can well be explained as transitory deviations from a — more or less — constant NAIRU. For example, unemployment declines quite quickly to its previous trend level in an upswing. The situation in Euroland is altogether different: There is no constant value for the NAIRU in the period of investigation, the rate increases from one cycle to the next. This suggests that the level of structural unemployment has gone up. The empirical estimates (Box 3) imply that — if at all — only a minor part of the current unemployment is of cyclical nature. Structural unemployment has increased for various reasons, most importantly the insufficient mechanism of the labor market and the social security system, the inflexibility of wages and — consequently — the failure to sufficiently adjust to structural change (Siebert 1997). Those countries in Euroland which have more actively pursued reforms of the labor market and the social security system have also been relatively successful as far as employment growth is concerned (Dohse and Krieger-Boden 1998); among these are the Netherlands and Spain. In other countries, where reforms were made to a much smaller extent, labor market problems have been considerably more pronounced, for example, in France and Germany.

5 Synchronization of Cycles in Euroland?

It is important for economic policy whether the business cycles in the different economies in Euroland are more or less the same. If this is the case, a common monetary policy is not a special problem for the currency area. However, a considerable divergence between national cycles might imply that a policy-oriented at the average situation in Euroland would dampen activity in some countries. This, in

turn, could lead to pressure on the European Central Bank. However, monetary policy cannot do anything about regional differences. If a more expansionary policy is pursued in Euroland to help some countries that are lagging behind, the risk of rising inflation for Euroland as a whole emerges.

If the course of the business cycle were solely determined by monetary policy, one should be able to observe a close convergence over the past years, which should have even increased following the increasing harmonization of monetary policy. However, if supply shocks were more important, there would be singular movements in specific sectors or regions. For example, a technological innovation might put a sector under competitive pressure; if it is large enough for a region, economic activity will be dampened. The importance of such supply shocks is stressed in a number of studies in which the asymmetric shocks are identified with special time series techniques (e.g. Eble et al. 1997).[11]

However, the fact that there is quite a close correlation between the cycles in Euroland countries suggests a strong influence of monetary policy. It is, furthermore, closer than with countries outside EMU. This can be demonstrated when the correlation of the output gap of a member country is compared with the rest of Euroland on the one hand and with the United States on the other (Figure 7). If the estimate is above the 45°-line, the correlation with Euroland is higher; if it is below, the relationship with the United States is closer. The latter is true for the United Kingdom, but also for Finland. In contrast, the correlation with Euroland is especially high for those countries that have more or less followed the monetary policy of the Deutsche Bundesbank. It is likely, therefore, that the convergence of business cycles will increase in the future.

One way to test whether the convergence has already taken place — at least to a certain extent — before the start of EMU is to look at the standard deviation of the fluctuations around the trend of the production in manufacturing in all member countries.[12] As a comparison, the respective calculation is made for the core of the DM bloc (Germany, Netherlands, Belgium, Austria, Luxembourg). Figure 8 shows that the measure of the standard deviation for the DM bloc is a lot smaller than for all of the EMU members. This suggests that monetary policy is an important source of business cycle fluctuations. This is supported by a closer look at the periods in which there was an increasing or decreasing correlation. The standard deviation was relatively small in periods in which there was a common external shock as, for example, in 1981 when the effects of the oil price hike were dominant or in 1986/87 when raw material prices plunged. A greater divergence could be observed in times of divergent economic policies; this was true in 1982 when France tried to pursue a strongly expansionary policy. The standard deviation is extremely high for the period of German unification: While Germany experienced a tremendous positive output gap, capacity utilization declined in most other countries or was even negative as in the case of Italy. A crisis in the European Monetary System also typically led to an increase of the variance. For example, in 1992 the standard deviation remained high although the boom after unification was coming to an end.

To sum up: A close correlation of the business cycle is likely in Euroland. Important sources that have led to greater divergencies in the past — exchange rate changes and divergent monetary policies — are not possible anymore. However, the convergence will not be complete as the experience of the DM bloc suggests. Therefore, the risk remains that the ECB comes under pressure to pursue a more expansionary policy in order to alleviate the weakness in individual countries.

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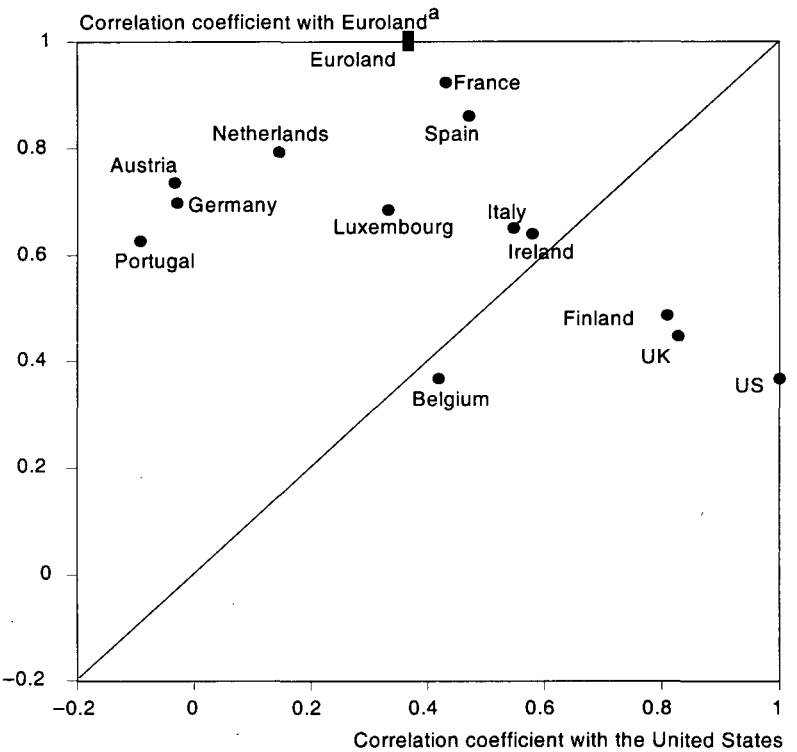
11 Also, the countries may be affected differently by a reduction of external demand. The most recent example is the Asian crisis.

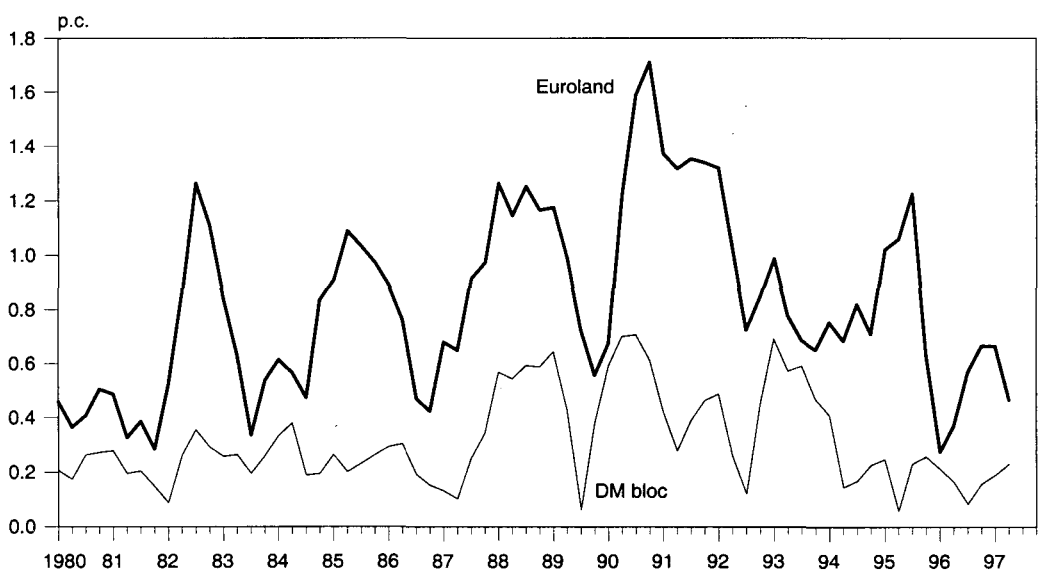
12 The analysis of the correlation between percentage changes of real GDP in the five biggest economies of the monetary union does not reveal an increasing convergence (Döpke et al. 1998: 4). It is possible that a certain convergence is due to the fact that smaller countries show a bigger correlation with the European cycle.

Figure 7: Cyclical Synchronization in Euroland, 1985–1997



[a]Correlation with the output gap for manufacturing in the rest of Euroland.

Figure 8: Business Cycle Co-Movement in Euroland, 1980–1997 (standard deviation of output gaps in manufacturing in p.c.)[a]

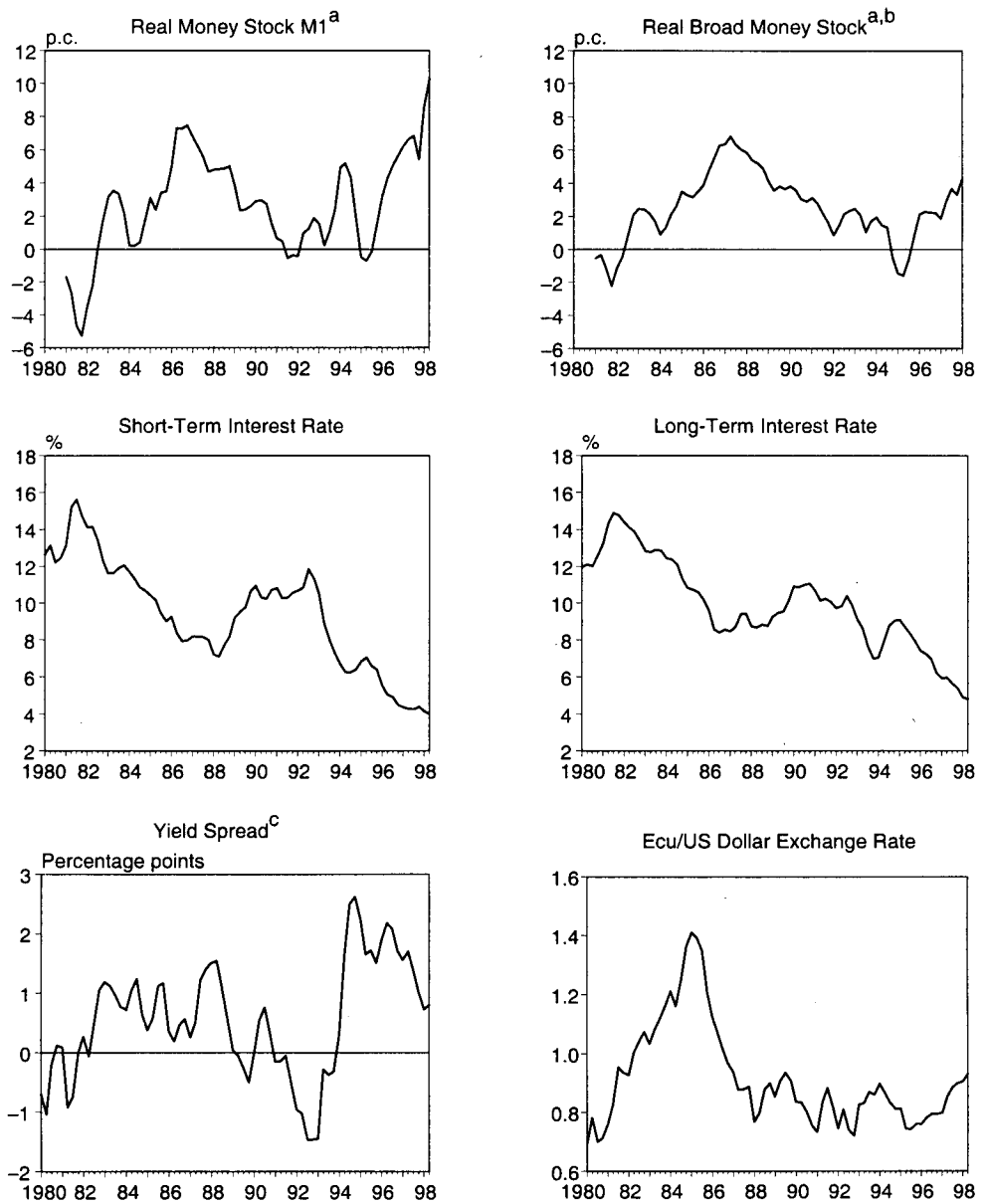


[a]Calculated using a Hodrick/Prescott filter (1,600). Three-quarter-moving average; real GDP weights of 1997.

6 Nonhectic Monetary Policy

With the start of EMU on January 1, 1999, the ECB will be officially in charge of monetary policy in Euroland. Interest rates have already converged for some time. However, there are still quite substantial differences as far as short-term rates are concerned. Until the end of 1998, there will have to be a single money market rate. We expect that this will be the same as the one currently prevailing in the DM bloc. An interest rate hike in Germany or the other countries is not likely, as the Asian crisis still has a dampening effect on economic activity and inflation, and as there are hardly any cyclical tensions. Another reason not to act is the nervousness on financial markets. The relatively high level of

Figure 9: Indicators of Monetary Policy in Euroland, 1980–1998



[a]Percentage change over previous year. — [b]Mostly M3; M2 for Italy and Portugal; M4 for Belgium. — [c]Long-term interest rate minus short-term interest rate.

short rates in Portugal, Spain, and Ireland is also due to the strength of economic activity in those countries. Their central banks will therefore try to keep rates high as long as possible in order to avoid an overheating. The necessary reduction of interest rates will probably take place only at the end of the year.

The difference between long-term and short-term interest rates in Euroland has fallen considerably in the course of this year; this is, however, solely due to the decline of long-term rates. Currently, the differential is about as high as its average of the past (0.6 percentage points), which can be considered as reflecting a neutral monetary policy (Döpke et al. 1998: 48). All in all, the stance of policy supports economic activity. This is indicated by the fact that real M1 has continued to increase rapidly (Figure 9); the rate even accelerated somewhat since the beginning of 1998, probably due to the decline of short-term interest rates implying lower opportunity costs of holding money. The expansion of real M3 has also increased but not as strongly as M1. One reason is that M3 also includes assets which currently receive only very low interest rates.

The development of inflation, capacity utilization, and the exchange rate will most likely have the most important impact on the policy of the ECB. Empirical investigations show that this applies to most major central banks (Solveen 1998). As capacity utilization will rise further in 1999 and as raw material prices will move up slightly, a small increase of the key interest rate is probable. A strong tightening, however, is not likely; one reason is that inflation will remain below the target of 2 percent. The 3-month money market rate will be slightly below 4 % at the end of 1999. Furthermore, we expect long-term rates to reach some 5 % by the end of 1999; they will thus be about one percentage point higher than currently. Long-term rates are likely to increase when the safe-haven effect becomes less important. In addition, with an acceleration of worldwide economic growth, credit demand will also expand faster contributing to higher interest rates. The yield spread will be above its historical average next year. All in all, monetary policy will continue to stimulate economic activity in Euroland.

7 On the Strategy of the European Central Bank

In the fall of this year, the ECB will decide on the strategy for monetary policy. It will choose between monetary targeting and inflation targeting.[13] In reality, these two approaches are not as different as they may seem in theory. The Deutsche Bundesbank, too, has not pursued a strict targeting of the money stock. For example, the volatility of money growth increased considerably in the 1990s. But the Bundesbank did not react to short-run changes but focused on reaching the monetary target in the medium term. In the case of a short-run deviation, the Bundesbank could maintain its credibility by explaining the policy to the public.

The stability of money demand is an important element in the discussion about the strategy for monetary policy. We therefore tested a money demand function for Euroland (Box 4). The estimation does not reveal an instability even for the most recent past. Given this, there is no reason why the ECB should not formulate a target for the money stock. In doing this, the ECB would benefit from the reputation of the Bundesbank and may therefore have a great amount of credibility already at the beginning of EMU. The target for a broad aggregate could be derived as follows: Potential output growth amounts to some 2.5 percent; the maximum inflation rate which is tolerable is likely to be 2 percent, and the trend decline of velocity is some 0.5 percent.[14] Given these estimates, the ECB should allow the broad monetary aggregate to expand at a rate of 5 percent per year.

The practice of monetary targeting has often been criticized in the light of an increased volatility of money growth. It is true that money growth was quite volatile in Euroland, but it is less pronounced

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13 For an extensive discussion of both concepts, see Döpke et al. (1998).

14 The trend of velocity is calculated for the period between 1983/I and 1997/I.

Box 4: On the Stability of Money Demand

The debate on the appropriate monetary strategy for the European Central Bank is essentially a debate whether there exists a stable money demand function for Euroland. To shed some light on this issue, we estimated a money demand function for a broad money stock. The ECB will — if a strategy of monetary targeting is adopted — probably prefer a wide aggregate to a narrow one. We use the concept of cointegration and perform the empirical analysis with an error-correction framework. The sample period covers 1983/II to 1997/II. Real money demand for M3 ($M3r$) is modelled by real GDP (Y) as a transaction or income variable, a short-term interest rate (STR) to account for interest-bearing aggregates of M3 and a long-term interest rate (LTR) to allow for opportunity costs of holding money (t-statistics in parentheses):[a,b]

$$\Delta m3r = \underset{(-2.92)}{-1.18} - \underset{(-4.13)}{0.17}\,(m3r - 1.08y - 0.94\,STR + 2.35\,LTR) + \underset{(3.30)}{0.41}\,\Delta m3r_{t-1} + \underset{(2.39)}{0.30}\,\Delta m3r_{t-3} - \underset{(-1.70)}{0.21}\,\Delta STR_{t-2} + \underset{(2.77)}{0.41}\,\Delta LTR$$

R^2: 0.59; JB: 1.14 (0.56); LM(1): 0.13 (0.72); LM(4): 1.70 (0.79); ARCH(1): 0.67 (0.41); ARCH(4): 1.15 (0.89); WHITE: 14.60 (0.48).[c]

In a first step, the equation was specified with four lags; then all insignificant variables were dropped. According to the Banerjee test for cointegration, the null hypothesis of no cointegration can be rejected at the 5 percent significance level. This provides strong evidence for a stable long-run money demand function. The coefficients appear to be plausible and correspond well to the findings of other studies regarding money demand in Euroland and its member countries (see Browne et al. 1997). We also tested the stability of the model using recursive residuals. Neither the CUSUM nor the CUSUM Q statistic allows to reject the hypothesis of stable coefficients (5 percent significance level).

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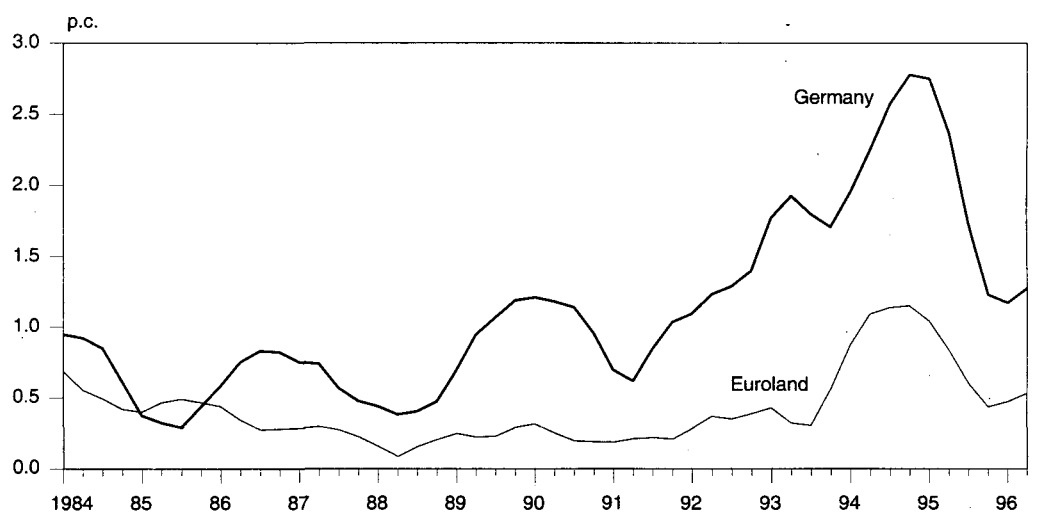
[a]To date, Eurostat does not provide historical time series for money stocks or interest rates for Euroland. Therefore, we constructed our own series. For real GDP from 1991 I on we use the NIA data provided by Eurostat (Eurostat 1998), real GDP from 1983 I to 1990 IV is based on our own estimations. For further details on the data, see Döpke et al. (1998: 65 ff.). — [b]Small letters denote logarithms. — [c]A number of misspecification tests were performed: Jarque-Bera test for normality (JB), Breusch-Godfrey test for serial correlation (LM 1, LM 4), ARCH test for autoregressive conditional heteroscedasticity (ARCH 1, ARCH 4), and the WHITE test for heteroscedasticity (WHITE). The values in parentheses indicate the significance level of the test statistics. Using the conventional 5 percent significance level, the residuals seem to be "well behaved".

Figure 10: Volatility of the Wide Money Stock in Euroland and in Germany, 1984–1996[a]



[a]Deviation of wide money stocks from its trend level in percent (centered 24-month moving average). Trend calculated with a Hodrick/Prescott filter.

than for Germany (Figure 10).[15] Therefore, the ECB will hardly face a bigger problem than the Bundesbank did in the past.

Also, it is often argued that the transition to EMU will imply a structural break for the demand for money function. However, the experience of German unification in 1990 shows that the function can remain stable even in the light of extreme changes. Furthermore, the introduction of the euro is a longer-term process and not an abrupt shock since financial markets have anticipated the monetary union for some time. It seems unlikely, therefore, that there will be massive and long-lasting changes in the demand for cash balances.

8 Efforts to Consolidate Public Finances Are Fading

In 1997, governments in most of the countries that introduce the euro at the beginning of next year made considerable efforts to reduce public borrowing requirements below the limit of 3 percent of GDP set in the Maastricht Treaty. This was achieved partly through measures that lowered the deficit in 1997 only or are associated with an increased burden in the future (Table 4).[16] However, the major part of deficit reduction took place through genuine fiscal tightening; taxes were increased and expenditures were cut. This policy dampened economic activity significantly in 1997.

After the decision on EMU membership, the policy of fiscal consolidation has lost momentum to a substantial degree. Following the substantial drop in 1997, we expect the general government deficit as a percentage of GDP for Euroland as a whole to decrease only slightly in 1998. This, however, does not reflect consolidation efforts, but is due to the cyclical improvement of the economy.

The disretionary fiscal policy impulse is reflected in the development of the structural deficit (for details on the calculation, see Box 5). The structural deficit will not decline further this year and next year after a significant decrease in 1997 (Table 5).[17] One reason is the absence of one-off measures that had contributed to the decline last year. At the same time, no additional steps to increase revenues were taken, in some countries even tax reductions were implemented, albeit on a small scale, and the tight grip on government expenditures was loosened somewhat. We expect that this will continue in 1999 in the light of the cyclical rise in revenues. As a result, fiscal policy will be more or less neutral this year and next.

The reversing trend in the development of structural deficits can be observed for the majority of EMU countries. A continued consolidation of government finances in cyclically adjusted terms is expected only for Finland and Ireland. However, GDP is surpassing its trend value not only there but also in a number of other countries. As a consequence, cyclical conditions are favorable for a sustained fiscal consolidation.

Against the background of the factual halt of efforts to reduce structural deficits further, there is debate on how this policy is in accordance with the goals formulated in the Maastricht Treaty and the Stability and Growth Pact. The Treaty requires a *sustainable* fiscal position, and the Stability Pact aims to prevent the deficit ratio from surpassing the 3 percent limit in the course of a normal business cycle. Therefore, a deficit ratio in the year 1997 below the Maastricht limit is not sufficient.

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15 Empirical investigations for Germany show that the stability of money demand was not severely affected by the increase of volatility (e.g., Wolters and Lütkepohl 1996).

16 In France, for example, the budget deficit in the previous year declined because of payments by the France Telecom. In return, the government accepted pension obligations that will increase expenditures in the future.

17 This judgment also prevails when calculations are based on output gaps estimated by the OECD.

Table 4: The Significance of "One-off Measures" for the Reduction of Public Deficits, 1997

	Measures	
	In percent of GDP	Share in deficit reduction in percent[a]
Germany	0.2	28.6
France	0.6	54.5
Italy	1.0	25.0
Spain	0.1	5.0
Netherlands	0.0	0.0
Belgium	0.3	27.3
Austria	0.5	33.3
Finland	0.6	25.0
Portugal	0.2	28.6
Ireland	0.0	0.0
Luxembourg	n.a.	—

[a]Relation of one-off measures to the deficit reduction in 1997.

Source: EMI (1998); own calculations.

Box 5: Calculation of the Structural Deficit

The structural deficit is defined as the public deficit adjusted for the cyclical component of revenues and expenditures. The extent to which the deficit is ascribed to the cyclical position depends on the assumed degree of capacity utilization. Accordingly, the part of the deficit which is judged as structural also depends on the output gap.

In our view, the present cyclical position is reasonably described by the deviation of output from a trend that is calculated with a Hodrick-Prescott(10) filter. According to this method, the output gap for Euroland is currently not significant. The OECD structural deficits, however, still show a considerable underutilization of capacities. In order to calculate structural deficits that correspond to our view of the cyclical position, the influence of cyclical deviations of output from its trend is estimated for the period 1980–1999 from OECD data on budget deficits (*BD*), output gaps (*GAP*) and structural deficits (*SD*) using the simple equation:

[1] $\left(SD_t^{OECD} - BD_t\right) = b \cdot GAP_t^{OECD} + u_t$.

The table reports the results for the individual countries (*t*-values in parentheses). The estimated coefficients are used to calculate the structural deficits that are compatible with our estimate (IfW) of the output gap according to equation [2]:

[2] $SD^{OECD} = b \cdot GAP^{IfW} + BD$.

Table — Estimation Results for the Cyclical Deficit Parameter

	b	R^2		b	R^2
Germany	0.500 (42.9)	0.989	Belgium	0.609 (81.4)	0.997
France	0.540 (88.7)	0.996	Austria	0.504 (54.0)	0.993
Italy	0.514 (23.8)	0.963	Finland	0.561 (46.9)	0.990
Spain	0.591 (50.0)	0.992	Portugal	0.404 (22.5)	0.964
Netherlands	0.668 (44.1)	0.991	Ireland	0.360 (47.1)	0.991

Source: OECD (1998c); own calculations.

The intertemporal budget constraint of the government can be used to judge the sustainability of the fiscal position. One indicator is the difference between the current primary deficit and the primary deficit that is necessary to secure government solvency in the long term (Buiter 1985; Blanchard et al. 1990). Calculations based on cyclically adjusted deficits reveal that primary balances in 1997 exceeded their necessary level in most countries of Euroland (Döpke et al. 1998: pp. 11). However, deficits are still too high in Germany and France. Because these are the two largest countries, the fiscal position of Euroland as a whole can also not be judged as being sustainable. This is indicated by the evolution of the debt-to-GDP ratio which will hardly decline this year and next despite the continued upswing of the economy. In cyclically adjusted terms, the debt level is still on the rise.

Tabelle 5: Indicators of Fiscal Positions in Euroland, 1996–1999

	Gross Public Sector Debt[a]				General Government Deficit[a]				General Government Structural Deficit[b]			
	1996	1997	1998[c]	1999[c]	1996	1997	1998[c]	1999[c]	1996	1997	1998	1999
Germany	60.8	61.6	61	61	3.4	2.7	2.4	2.0	2.9	2.3	2.3	2.4
France	55.7	58.0	59	60	4.1	3.0	3.0	2.8	3.6	2.8	3.2	3.2
Italy	124.0	121.6	120	117	6.7	2.7	2.7	2.5	6.5	2.4	2.7	2.9
Spain	70.1	68.8	67	66	4.6	2.6	2.2	2.0	4.7	2.5	2.5	2.5
Netherlands	77.2	72.1	70	67	2.3	1.4	1.5	1.4	2.0	1.3	1.7	1.7
Belgium	126.9	122.2	118	114	3.2	2.1	2.0	1.8	2.7	1.9	2.1	2.2
Austria	69.5	66.1	65	65	4.0	2.5	2.6	2.4	3.7	2.2	2.6	2.7
Finland	57.6	55.8	53	50	3.3	0.9	0.3	–0.2	3.1	1.5	0.9	–0.1
Portugal	65.0	62.0	60	58	3.2	2.5	2.3	2.0	2.8	2.3	2.6	2.3
Ireland	72.7	66.3	58	52	0.4	–0.9	–1.2	–1.6	0.5	–0.6	–0.7	–1.3
Luxembourg	6.6	6.7	7	7	2.5	1.7	1.0	0.6	not available			
Euroland	75.2	75.2	75	74	4.1	2.5	2.3	2.2	3.7	2.2	2.4	2.5

[a]In percent of nominal GDP; Maastricht definition. — [b]In percent of nominal GDP; own estimate (see Box 5). — [c]Forecast.

Source: Europäische Kommission (1998b); own calculations and estimates.

The calculation and evaluation of the primary deficit gap as an indicator of the sustainability of fiscal policy is problematic for a number of reasons (Horne 1991).[18] This may be one reason why this concept has so little influence in the political debate. As an alternative instrument to warrant sound public finances, provisions were introduced into the Stability and Growth Pact that threaten to impose sanctions in the case of deficits that exceed 3 percent of GDP. To keep the deficit within this limit even in a recession, a "safety margin" of 1.5–2 percent of GDP is adequate to allow for cyclical tax shortfalls and expenditure increases (Scheide and Solveen 1997: 17). Otherwise, fiscal policy would, for example, have to resort to a procyclical fiscal restraint during a downturn. Hence, to comply with the requirements of the Stability Pact, structural deficits should not exceed 1–1.5 percent of GDP.

Still more, the Stability and Growth Pact calls for a balanced budget in the medium term, i.e., over a complete cycle, or even for a small fiscal surplus. While it is not straightforward that a balanced budget leads to an intertemporal optimization of welfare, there are good reasons to continue fiscal consolidation decidedly, including the preparation for the burden that is imposed on the public finances in the future due to the demographic developments.[19] However, there is no rule in the Stability Pact that says how to react when this target is missed. The fact that the reduction of structural deficits has stopped at levels which often are significantly above 2 percent of GDP points to a low inclination of governments to work for a balanced budget. Summing up, the current orientation of fiscal policy in Euroland does not comply with the goals laid down in the treaties to a sufficient degree.

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18 Assumptions have to be made on crucial variables like interest rates and growth rates. Also, the public income and expenditure streams, or, at least the development of the balance over time, is exogenous. In addition, it is generally not considered that the question of fiscal sustainability is also dependent on savings and investment decisions in the private sector which influence both real interest rates and economic growth. These decisions themselves are not independent from the private sector's assessment of the fiscal position. Because of this interdependence, the level of public debt that is to be stabilized is not irrelevant. For instance, the budget balance is particularly sensible to interest rate movements in countries with high debt-to-GDP ratios.

19 Social insurance is particularly affected, and there is a pronounced need for reforms despite some recent adjustments (Gern 1998).

9 Wage Policy: Increase of Labor Costs Continues to Be Moderate

In 1997, notwithstanding the increase in social security contributions that took place in a number of countries, wage inflation in Euroland decelerated further to 2.7 percent, following 3 percent and 3.5 percent in 1996 and 1995, respectively.[20] At the same time, productivity increases turned out higher mainly due to the cyclical upturn: Real GDP per employee rose at a considerable faster pace compared to the previous year (2.6 percent and 1.6 percent, respectively). As a result, unit labor costs more or less stagnated, which contributed significantly to the moderation of consumer price inflation.

Although there is increased evidence for labor shortages in some countries — among them are Ireland, Portugal, and the Netherlands — labor costs are not expected to accelerate significantly. The still high level of unemployment in the majority of the EMU countries is one factor behind this. In addition, the pace of the upswing is relatively moderate. However, as a somewhat smaller rise in productivity is expected, unit labor cost will tend to increase. This acceleration will only be moderate and will therefore not have a significant impact on inflation and employment growth.

10 Outlook: Upswing Remains Intact

We expect that total output in Euroland will continue to expand markedly until the end of 1999. Real GDP will rise by nearly 3 percent this year and next (Table 6), which implies a considerable increase of capacity utilization.

Table 6: Quarterly Data on the Economic Development in Euroland, 1997–1999

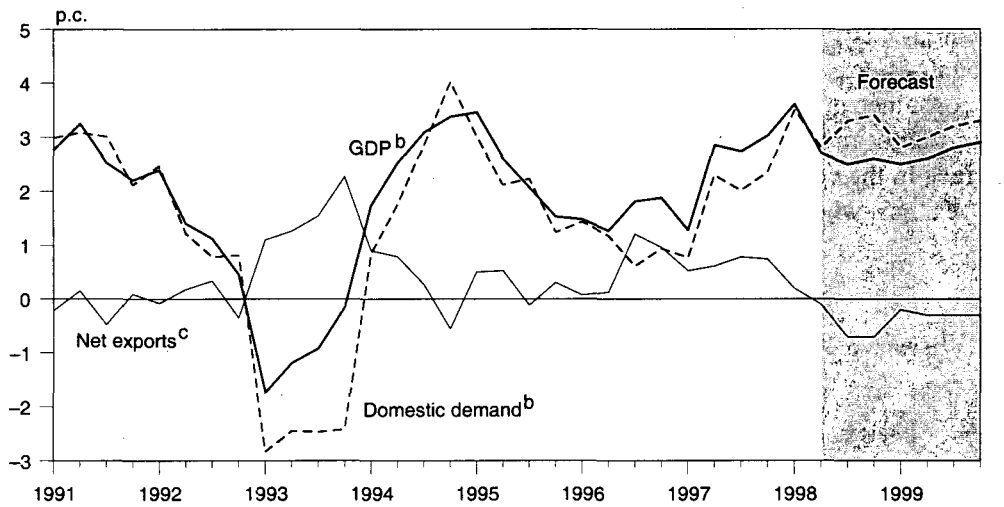
	1997				1998				1999			
	I	II	III	IV	I	II[a]	III[b]	IV[b]	I[b]	II[b]	III[b]	IV[b]
Gross domestic product[c]	0.9	6.3	2.8	2.2	3.3	2.3	2.3	2.5	2.8	2.9	3.0	3.0
Domestic demand[c]	1.1	4.9	0.7	2.6	5.7	2.3	2.7	2.8	3.3	3.3	3.4	3.3
Private consumption[c]	0.9	2.7	0.6	2.9	2.6	1.4	3.0	2.6	2.6	2.6	2.7	2.7
Public consumption[c]	2.0	–0.3	–0.4	–2.3	6.2	2.8	–1.2	1.1	1.2	1.2	1.3	1.2
Fixed investment[c]	–0.6	5.3	1.7	1.2	8.9	–2.1	9.2	5.5	5.5	5.6	5.3	5.2
Change in stocks[d]	0.4	2.1	0.1	0.9	1.2	1.4	–0.8	–0.2	0.3	0.3	0.4	0.4
Net exports[d]	–0.2	1.4	2.0	–0.3	–2.1	0.0	–0.3	–0.2	–0.4	–0.3	–0.3	–0.3
Unemployment rate[e]	11.7	11.7	11.6	11.5	11.4	11.3	11.0	10.8	10.7	10.6	10.4	10.3
Consumer prices (HCPI)[f]	1.8	1.4	1.6	1.5	1.2	1.4	1.3	1.4	1.7	1.7	1.9	2.0
Money stock M1[f]	8.2	8.3	8.4	6.9	9.8	11.7	8.0	7.0	7.0	7.0	6.0	6.0
3-month money market rate in %	4.4	4.3	4.3	4.4	4.2	4.0	3.8	3.6	3.6	3.6	3.7	3.8
Long-term interest rate in %	5.9	6.0	5.6	5.4	4.9	4.8	4.3	4.1	4.3	4.5	4.7	5.0
Exchange rate vis-à-vis US dollar[g]	0.85	0.87	0.92	0.89	0.92	0.91	0.92	0.92	0.92	0.92	0.92	0.92

[a]Estimation. — [b]Forecast. — [c]Annualized quarterly rate of change in percent. — [d]Contribution to change in GDP. — [e]In percent of the labor force, harmonized according to the OECD concept. — [f]Change over previous year in percent. — [g]Ecu/US dollar; from 1999 onwards euro/US dollar.

Source: Eurostat (1998); OECD (1998a); own calculations and estimations.

20 Labor costs in Euroland are measured as gross compensation per employee. Values for individual countries are aggregated using the current central parities in the EMS and the 1996 share of the countries in total gross compensation.

Figure 11: GDP, Domestic Demand and Net Exports in Euroland, 1991–1999[a]



[a]At constant prices. — [b]Percentage change over previous year. — [c]Change of net exports over previous year in percent of GDP in the same quarter of previous year.

While the pace of the upswing will hardly change, the expansionary forces will increasingly shift from external to domestic demand (Figure 11). Monetary policy continues to be stimulative over the forecasting horizon, albeit to a gradually diminishing degree. Fiscal policy is broadly neutral contrary to previous years when the stance was significantly restrictive. The slight decline in budget deficits is completely due to cyclical factors. At the same time, export growth will weaken due to the dampening effects from the Asian and Russian crises and the cyclical deceleration in the United States and the United Kingdom. The real effective exchange rate of the ecu — and the euro in 1999, respectively —, which has been on an upward trend since the beginning of this year, is expected to increase slightly.

To summarize, the upswing will increasingly be driven by domestic demand with corporate investment being particularly buoyant on the back of rising capacity utilization, rapid profit growth, and low

Tabelle 7: Real GDP, Consumer Prices and Unemployment Rate in Euroland, 1996–1999

	Weights	Real GDP[b]				Consumer prices[b]				Unemployment rate[c]			
	in total[a]	1996	1997	1998[d]	1999[d]	1996	1997	1998[d]	1999[d]	1996	1997	1998[d]	1999[d]
Germany	33.6	1.4	2.2	2.7	2.4	1.5	1.8	1.1	1.4	8.9	10.0	9.8	9.1
France	22.1	1.5	2.3	2.8	2.6	2.0	1.2	0.9	1.5	12.4	12.4	12.0	11.5
Italy	18.2	0.7	1.5	2.1	3.0	4.0	1.8	1.8	2.3	12.0	12.1	12.0	12.0
Spain	8.5	2.3	3.4	3.8	3.6	3.6	2.0	2.1	2.6	22.2	20.8	19.0	17.5
Netherlands	5.8	3.3	3.3	3.6	3.0	2.1	2.1	2.2	2.6	6.3	5.2	4.5	4.5
Belgium	3.8	1.5	2.7	3.0	2.5	2.1	1.6	1.5	2.0	9.7	9.2	9.0	8.5
Austria	3.3	1.6	2.1	3.0	2.5	1.9	1.3	1.0	1.5	4.3	4.4	4.0	3.5
Finland	1.9	3.6	5.9	4.5	3.5	0.6	1.2	2.0	2.5	15.3	13.1	11.5	10.0
Portugal	1.5	3.0	3.5	3.5	3.5	3.1	2.3	2.5	2.5	7.3	6.8	6.5	6.0
Ireland	1.2	7.7	10.5	8.5	7.0	1.7	1.4	2.5	3.0	11.6	10.1	9.0	8.0
Luxembourg	0.2	3.0	3.7	3.5	3.0	1.4	1.4	1.0	1.5	3.0	2.6	2.0	2.0
Euroland	100.0	1.6	2.5	2.9	2.8	2.3[e]	1.6[e]	1.3[e]	1.8[e]	11.5[f]	11.6[f]	11.1[f]	10.5[f]

[a]Based on GDP in current prices and exchange rates of 1997. — [b]Percentage change over previous year. — [c]Standardized unemployment rates according to OECD. — [d]Forecast. — [e]Harmonized Consumer Price Index (HCPI). — [f]Based on the number of employees in 1997.

Source: OECD (1998a); own calculations and estimations.

interest rates. Private consumption will also be brisk, stimulated by an accelerated increase in real disposable income due to low inflation and an improved labor market. Employment growth, which has been favorable in many of the smaller countries in the recent past already, will ultimately pick up in the major countries, too.

In 1998, consumer prices will rise by some 1.5 percent (Table 7) dampened by decreasing import prices due to falling raw material prices and the appreciation of European currencies. These factors will slowly fade in the course of 1999, so inflation will pick up somewhat and amount to nearly 2 percent for the year as a whole.

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