

Der Open-Access-Publikationsserver der ZBW – Leibniz-Informationszentrum Wirtschaft
The Open Access Publication Server of the ZBW – Leibniz Information Centre for Economics

Kamps, Christophe; Scheide, Joachim

Working Paper

End of the upswing in Euroland: No reason to cut interest rates

Kieler Diskussionsbeiträge, No. 374

Provided in cooperation with:

Institut für Weltwirtschaft (IfW)

Suggested citation: Kamps, Christophe; Scheide, Joachim (2001) : End of the upswing in Euroland: No reason to cut interest rates, Kieler Diskussionsbeiträge, No. 374, <http://hdl.handle.net/10419/2553>

Nutzungsbedingungen:

Die ZBW räumt Ihnen als Nutzerin/Nutzer das unentgeltliche, räumlich unbeschränkte und zeitlich auf die Dauer des Schutzrechts beschränkte einfache Recht ein, das ausgewählte Werk im Rahmen der unter

→ <http://www.econstor.eu/dspace/Nutzungsbedingungen> nachzulesenden vollständigen Nutzungsbedingungen zu vervielfältigen, mit denen die Nutzerin/der Nutzer sich durch die erste Nutzung einverstanden erklärt.

Terms of use:

The ZBW grants you, the user, the non-exclusive right to use the selected work free of charge, territorially unrestricted and within the time limit of the term of the property rights according to the terms specified at

→ <http://www.econstor.eu/dspace/Nutzungsbedingungen>
By the first use of the selected work the user agrees and declares to comply with these terms of use.

End of the Upswing in Euroland — No Reason to Cut Interest Rates

by Christophe Kamps and Joachim Scheide

CONTENTS

- Economic expansion in Euroland has decelerated considerably after mid-2000 as a consequence of the weakening of growth in the world economy, the tightening of monetary policy by the European Central Bank as well as the burden imposed by higher oil prices. While the upswing in the euro area has come to an end, there is no reason to dramatize the current situation. It has to be kept in mind that economy-wide capacity utilization has already risen to its normal level, and it is not likely that real GDP will fall below potential output.
- The government budget of euro-area countries showed a surplus in 2000 for the first time since the 1960s. This year and next year the euro-area budget will change into a deficit also because taxes had been cut in a number of countries. It has to be criticized that consolidation efforts have ceased; in particular Germany, France, and Italy are still far away from a balanced budget. There is a risk that these countries will not meet their targets; the stability and growth programs are somewhat unrealistic because governments expect that higher trend growth than in the past will solve the problem.
- Many observers have urged the ECB to follow the example of the Fed and cut interest rates in order to prevent a sharp drop in economic activity. But in our view the ECB neither should nor will alter its course. First of all the current stance of monetary policy is not restrictive; according to the Taylor rule, short-term interest rates are even too low. Moreover, the growth of M3 will not fall below the reference value. Finally, the projections presented by the ECB last December do not justify a cut in interest rates.
- In the medium run, the expansion of the money stock is the most important factor for inflation, while in the short run inflation is also influenced by other factors. These considerations underlie the P-star model in which the development of inflation depends on the liquidity overhang, defined as price gap, as well as on cost factors. This model can explain the past movements of inflation quite well. As regards the inflation forecast it is important to note that the price gap has closed due to a rise in the price level and the slower increase in M3 in the past months. Consequently, we expect that the increase in consumer prices will gradually slow in 2001 and 2002.
- Recently, the Irish government has been criticized by the Council of European finance ministers for its fiscal policy. This came as a surprise in view of the excellent situation of public finances in Ireland. The critique aimed at the loosening of fiscal policy which would aggravate the bottlenecks in the economy. But it is also questionable whether a fiscal contraction in Ireland would be the appropriate response. All in all, the only way to cool down the economy seems to be an acceleration of wage growth and inflation and the implied real appreciation of the Irish pound.

Contents

1	Cooling Down of Economic Activity	3
2	Fiscal Policy: Large Countries End Their Consolidation Efforts	5
3	Monetary Policy: The ECB Should Not Cut Interest Rates	8
	3.1 Interest Rate Policy Is Not Restrictive.....	8
	3.2 The ECB Will Leave Key Rates Unchanged	10
	3.3 Monetary Conditions Are More or Less Neutral	12
	3.4 Money Growth: Inflation Will Gradually Decline.....	13
4	Labor Market: Benefits of Wage Moderation	15
5	Outlook: GDP Grows in Line with Potential Output	16
	References	19

Remark: This report on the economic situation in the euro area was completed on March 15, 2001.

Die Deutsche Bibliothek – CIP-Einheitsaufnahme

A catalogue record for this publication is available from Die Deutsche Bibliothek

<http://www.ddb.de>

ISBN 3-89456-223-4

© Institut für Weltwirtschaft an der Universität Kiel 2001.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior permission in writing of the Publisher. Printed in Germany

ISSN 0455-0420

End of the Upswing in Euroland — No Reason to Cut Interest Rates

Economic expansion in Euroland has decelerated considerably. Since mid-2000 real GDP has increased at an annualized rate of only 2.5 percent after 3.5 percent in the previous four quarters. The reduction in dynamics is due to the weakening of growth in the world economy, the tightening of monetary policy by the European Central Bank (ECB) as well as the burden imposed by higher oil prices.

The upswing in the euro area has thus come to an end. Against this background several observers have demanded a rapid loosening of monetary policy. However, there is no reason to dramatize the current situation. It has to be kept in mind that in the meantime overall capacity utilization has risen to its normal level. Thus it was correct to raise interest rates and to stop the monetary stimulus for demand in order to avoid a sharper turnaround of monetary policy at a later point in time. The monetary tightening does not imply that real GDP will fall below potential output. Also, the lower demand growth from abroad is just a normalization rather than a cause for alarm: An increase of world production of nearly 5 percent as observed last year is not sustainable, and also it could not be expected that the US economy would grow by 4 percent or more per year for an extended period of time. In addition, the lower value of the euro could not raise the growth of exports for a long time even if it had remained at its low level. In addition, the situation on world markets for raw materials has calmed down in the meantime so that the dampening effects of the oil price shock will slowly fade. Finally, there is a positive impulse for the economy in the current year due to tax cuts in several countries.

It is likely that economic expansion this year and next year will reach a rate which is in line with the growth rate of potential output; just as most institutions we estimate this rate to be 2.5 percent. Unemployment will decline further, and inflation will gradually decline.

For this forecast there are risks which most of all refer to the outlook for the United States. Should there be a recession, the economy in the euro area would also be dampened for a while; however, even then a severe slowdown is not likely. On the other hand, it may also be the case that the fundamental strength of the US economy is greater than currently perceived by many observers, and the turnaround would be more pronounced than currently anticipated.

Many economists find disappointing that the growth rate of potential output in the euro area is—as most estimates suggest—just 2.5 percent. However, this rate has nothing to do with monetary policy. The central bank cannot “stimulate” potential output, rather there is a broad consensus about the long-run neutrality of money. The production potential of an economy is determined by the use of the production factors, technological progress as well as the institutional framework; monetary policy has no influence on these supply conditions of an economy.

1 Cooling Down of Economic Activity

Production in the euro area moved onto the path of potential output in the course of last year. With that a long period of underutilized capacities in the economy came to an end.¹ However there are considerable divergences between the cyclical positions of the individual countries: While some economies, as the Italian, still have not reached normal capacity utilization, others experience a boom. This is especially true for Ireland where the output gap has reached more than 5 percent which points at an acceleration of inflation in the near future. It is questionable whether economic policy can bring about the necessary cooling down of the Irish economy. Obviously monetary policy as a stabilizing instrument is not available to individual countries in the euro area anymore. In the end economic expansion in Ireland will only calm if wage increases accelerate and international competitiveness diminishes (Box 1).

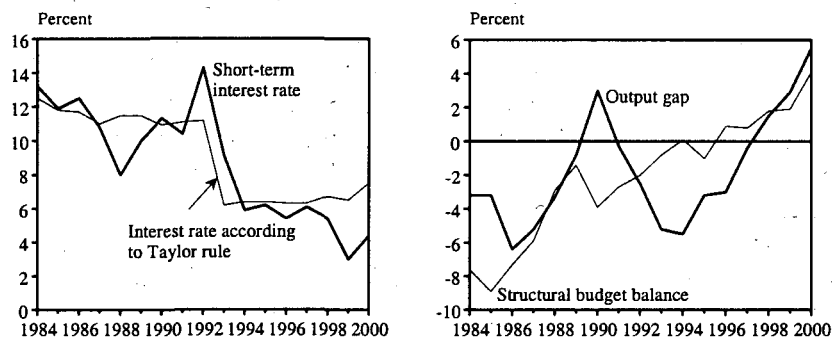
¹ According to OECD estimates the output gap which had opened up in the course of the 1993 recession in Euroland remained negative until about mid-2000.

Box 1: Overheating in Ireland: What Can Be Done?

The economic performance of the Irish economy during the past six years is impressive. Between 1994 and 2000, real GDP increased by almost 10 percent per year on average (1988 to 1994: 4.7 percent). The following factors have decisively contributed to this success story (Fitz Gerald 2000): First, Ireland has benefited from a considerable inflow of foreign direct investment and the related knowledge transfer. Second, transfers from the EU budget, which amounted to up to 4 percent of GDP, made possible the financing of important infrastructure projects. Moreover, wage moderation has been particularly pronounced in international comparison since 1987 in the wake of the cooperation between the government, the unions and employers (see chapter "Labor market"). The moderate wage development was favored by immigration and the excess supply of labor—as recently as 1995 the unemployment rate in Ireland amounted to more than 12 percent (2000: 4.5 percent). Finally, fiscal policy, with its course of consolidation since 1987, has led to a sustained increase in the confidence of the private sector and of international investors: The debt to GDP ratio has fallen from more than 110 percent to less than 40 percent, and the government spending as well as the revenue ratio have decreased by 20 and 7 percentage points, respectively. While the Irish government recorded a budget deficit of more than 8 percent in relation to GDP in 1987, it achieved a budget surplus of almost 5 percent last year.

Against this background it may have come as a surprise that the Irish government has recently been criticized by the Council of European finance ministers for its fiscal policy. After all, Ireland fully complies with the provisions of the Stability and Growth Pact. However, the critique did not aim at the long-run sustainability of fiscal policy, but at its short-run design. The updated Stability and Growth Program of Ireland provides for substantial tax cuts and expenditure increases this year and next year. These measures would aggravate the bottlenecks in the Irish economy. Admittedly, the main reason for overheating lies in extremely loose monetary conditions. The figure shows that the short-run nominal interest rate is far below the appropriate level according to the Taylor rule.^a But the European Central Bank with its orientation towards the euro-area average cannot bring about the necessary cooling down of the Irish economy. If the ECB raised its key interest rate to the extent appropriate for Ireland, it would trigger a recession in the rest of the euro area. Moreover, the nominal exchange rate is not available anymore as an automatic stabilizer since the beginning of monetary union. Rather, the pronounced weakness of the euro has additionally stimulated the Irish economy in the last two years.

Figure: Business Cycle Indicators for Ireland



Source: OECD (2000); own calculations.

In this situation, fiscal policy is supposedly the only instrument that can be used in order to dampen economic activity. While most observers agree that fiscal policy should follow a restrictive course^b, it is questionable whether a fiscal contraction in Ireland can really bring about the desired slowdown. Public expenditures have already reached a low level in relation to GDP—the lowest in Euroland; thus, the room for reductions in this area is limited. Moreover, investment in infrastructure can reduce supply bottlenecks in the medium run. Strong tax increases would be difficult to carry through politically in the light of large budget surpluses.^c It is thus improbable that a fiscal contraction to the extent that would be necessary to close the output gap will be undertaken. It is also doubtful whether a restrictive fiscal policy would be sufficient in order to dampen total demand. The figure shows that fiscal consolidation in the past years, measured in terms of the change in the structural budget balance, has not been able to prevent the overheating of the Irish economy. Rather it is conceivable with regard to the Ricardian equivalence proposition that the private sector reduces its savings to the extent that the government increases the budget surplus. This scenario seems to be realistic at present: In view of prosperous public finances the Irish government would probably only be able to carry through a temporary contraction. The private sector would react to that by increasing its demand—anticipating tax cuts in the future.

In the end the key to a cooling down of the economy lies in a significant acceleration of wage rates and inflation and the implied real appreciation of the Irish pound.^d The cooperation between the government and the social partners should be used in order to prevent an overshooting in the wage adjustment process.^e

^aThe coefficients included in the Taylor rule (of the constant, of the output gap and of the price gap) were estimated with the help of a single-equation regression. — ^bSee O'Rourke and Thom (2000) for a dissenting view. These authors argue that there was no alternative to the announced tax cuts. In their view the tax cuts were necessary in order to preserve the social partnership and thus wage moderation. However, in any case wages will have to increase faster than (nominal) productivity in the near future. The Irish economy has reached full employment by now. If wage moderation is continued, an excess demand on the labor market will soon arise. This excess demand can only be eliminated by a strong increase in wages. — ^cThe agreement between the government and the social partners that has supported the dynamics of the Irish economy in the past now has become an obstacle to necessary tax increases (Lane 1998). In these agreements the government promised the unions to cut taxes in exchange for wage moderation. At present, unions expect further tax cuts of the government. — ^dSee also Fitz Gerald (2001) and Blanchard (2001). — ^eSee also Honohan (2000).

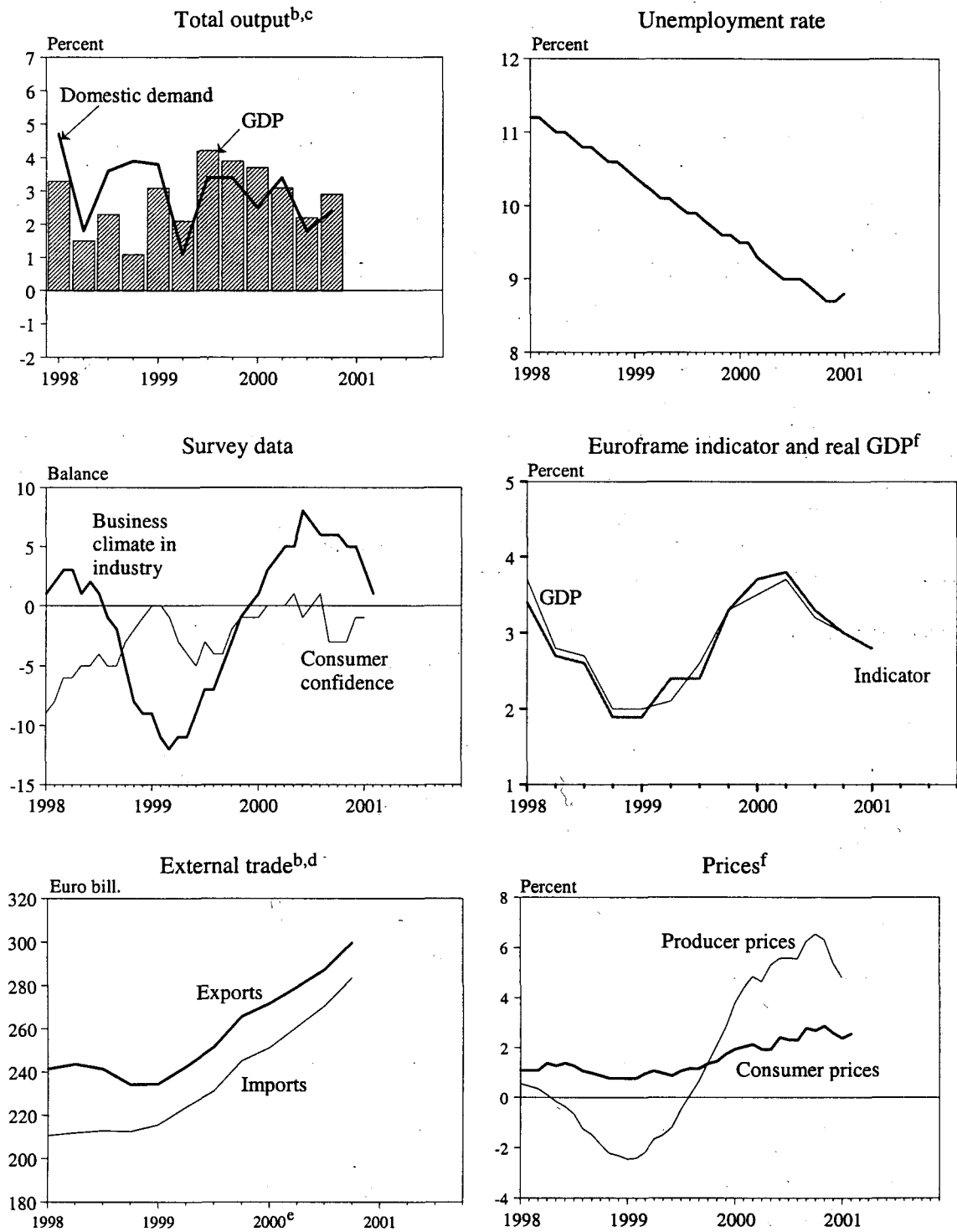
After a very strong expansion until summer 2000, economic activity has slowed down perceptibly (Figure 1). In the second half of last year, real GDP rose at an annual rate of 2.7 percent, a rate that is only slightly higher than potential output growth. The slower speed of expansion was above all due to a weaker increase in domestic demand as a result of monetary tightening and the strong rise in oil prices. Private consumption was especially dampened in the third quarter of last year when the losses in real income resulting from the oil price surge culminated. In the last quarter of 2000 private consumption strongly recovered, not only because of falling oil prices but also in reaction to tax measures in some countries. Italy introduced income tax cuts in November, and in the Netherlands purchases were brought forward because indirect taxes were considerably increased at the beginning of 2001. Gross fixed capital formation decelerated only slightly in the course of last year. Admittedly financing conditions deteriorated in the wake of monetary tightening and moreover sales and profit expectations are less optimistic than in mid-2000. At the same time, however, according to surveys of the European Commission capacity utilization in the manufacturing sector is substantially above its long-term average.

The export sector of the euro area was able to expand its sales to third countries by a double-digit figure in real terms last year. This performance can be partly attributed to the prosperous economic situation in the most important sales markets. Especially the deliveries to the United Kingdom, to Central and Eastern Europe and to Southeast Asia increased strongly. However, exports to the United States, which had expanded particularly lively until last spring, showed signs of deceleration in the second half of 2000. Notwithstanding, external demand remained strong until the end of last year due to continued impulses from the depreciation of the euro. Even though the real effective exchange rate of the euro has risen since October, it still was 5.6 percent lower at the end of 2000 than one year before.

Consumer price inflation has remained high until recently. In January 2001, the Harmonized Index of Consumer Prices (HICP) was 2.4 percent higher than one year before. The inflation rate has exceeded the upper bound that the ECB is willing to tolerate in the medium run for more than a year. Admittedly the largest part of the acceleration in inflation is due to the rapid rise in energy prices—a barrel crude oil cost 40 percent more on a euro basis in 2000 than the year before. But in the meantime the underlying price trend (the core inflation, i.e. without energy, food, alcohol and tobacco prices) has also crept up. On the one hand companies in the euro area have increasingly exhausted the scope for raising prices arising from the strong economic expansion. On the other hand the rise in core inflation can be traced back to the indirect effects of the increase in energy prices. The past months witnessed a strong rise in the consumer goods component of the industrial price index. This component usually reacts with some delay to changes in the prices of imported intermediate goods. However, there is little evidence for second-round effects so far as wage increases in the euro area have remained moderate.

2 Fiscal Policy: Large Countries End Their Consolidation Efforts

The combined budget of euro-area countries showed a surplus in 2000 for the first time since the 1960s; in relation to GDP it amounted to 0.3 percent after a deficit of 1.3 percent the year before (Table 1). The debt-GDP ratio fell to 68.5 percent last year and thus came closer to the reference value laid down in the Maastricht Treaty. However, the increase in the budget balance suggests a size of consolidation that was not really achieved. The improvement in public finances is above all due to one-off revenues. Some countries obtained receipts from the allocation of mobile phone licenses (UMTS), which amount to around 1 percent of GDP for the euro area as a whole. Moreover, the high speed of economic expansion brought about that tax revenues were pouring in and that expenditure related to unemployment could be reduced. If one corrects the budget balance for these effects, it can be established that not all governments in the euro area continued their consolidation efforts last year.

Figure 1: Business Cycle Indicators^a for Euroland

^aSeasonally adjusted. — ^bAt constant prices. — ^cPercentage change over previous quarter (annual rate). — ^dEstimation on basis of the national accounts, excluding intra-Euroland trade. — ^ePartly estimated. — ^fPercentage change over previous year.

Source: Eurostat (2001); Euroframe.

Table 1: Indicators of Fiscal Positions in Euroland 1999–2002

	Gross public sector debt ^a				General government balance ^a			
	1999	2000	2001 ^b	2002 ^b	1999	2000	2001 ^b	2002 ^b
Germany	61.1	60.2	58.9	58.5	-1.4	1.3	-1.8	-1.7
France	58.7	58.0	56.5	55.5	-1.6	-1.3	-0.8	-1.3
Italy	114.5	110.2	107.5	105.0	-1.8	-0.3	-1.5	-1.5
Spain	63.4	60.6	58.0	55.5	-1.2	-0.3	0.0	0.3
Netherlands	63.2	56.3	53.0	50.0	1.0	2.0	1.2	1.0
Belgium	116.4	110.9	106.0	102.0	-0.7	0.0	0.3	0.5
Austria	64.7	62.8	61.0	61.0	-2.1	-1.1	-0.9	-0.5
Finland	46.9	44.0	41.0	38.0	1.8	6.7	5.0	5.0
Greece	104.6	103.9	100.0	96.0	-1.8	-0.9	0.0	0.5
Portugal	55.0	53.8	52.5	51.0	-2.0	-1.4	-1.0	-0.8
Ireland	50.1	39.1	32.0	26.0	2.1	4.5	4.0	4.0
Luxembourg	6.0	5.3	5.0	5.0	4.7	5.3	3.5	3.0
Euroland	72.0	69.7	68.1	66.5	-1.2	0.3	-0.8	-0.8

^aIn percent of nominal GDP. — ^bForecast.

Source: ECB (2001); own calculations and forecasts.

As the concerned governments have not yet planned any consolidation measures we expect that the euro area as a whole will once more record a considerable budget deficit this year and next in spite of a continued increase in production. On the one hand the receipts from the allocation of mobile phone licenses will be considerably lower this year and vanish in 2002. On the other hand the budget position in Euroland deteriorates because several countries have—in some cases drastically—cut direct taxes at the beginning of this year. We estimate that the tax cuts amount to around 1 percent in relation to GDP. This is not compensated by equivalent expenditure reductions or extra revenues due to economic trends. All in all the consolidated budget of the euro area will exhibit a deficit of 0.8 percent in relation to GDP this year. In 2002 it will reach a comparable order of magnitude.

It has to be criticized that consolidation efforts have ceased, as the majority of countries still do not meet the provisions of the Stability and Growth Pact in spite of favorable economic conditions. The Pact demands that euro-area countries should exhibit a balanced budget on average over the business cycle. Germany, France, Italy, Austria and Portugal are still away from this target. While the two last-mentioned countries took measures in order to reduce the deficit at the beginning of the year the three largest economies of the euro area have cut taxes considerably without proceeding to corresponding expenditure reductions. Admittedly tax cuts are welcome under efficiency considerations in those countries with a high tax burden. But they should be accompanied by expenditure restraints in order to be sustainable in the long run.

In the updated stability and growth programs governments in these countries seem to mainly rely on higher trend growth than in the past, and expect that this will be sufficient to eliminate budget deficits (Table 2). The growth assumption is particularly optimistic in the case of Italy. The GDP growth rate of 3.1 percent assumed for the years 2001 until 2004 has not been reached let alone exceeded in a single year since the late 1980s. In order to be able to stay below the deficit ratio of 3 percent even in the case of a recession the governments of the large countries should intensify their efforts and try to approach the target of a balanced budget more rapidly by recurring to expenditure restraint. This target has been attacked by many observers in the past. Without the instrument of deficit finance—say the critics—necessary public investment would not be undertaken. However, the proponents of this view overlook that achieving the target of a balanced budget in the medium run laid down in the Stability and Growth Pact does not imply that government investment has to be curtailed. Rather the Pact as well as the Broad Economic Policy Guidelines of the European Union intend that the expenditure structure in the member countries should be adjusted in favor of public investment.

Table 2: Key Figures of the Stability and Growth Programs^a

	GDP growth ^b		General government budget balance ^c		Gross public debt ^c		Expenditure ^{c,d}		Receipts ^{c,d}	
	1996–2000	2000–2004	2000 ^e	2004	2000 ^e	2004	2000 ^e	2004	2000 ^e	2004
Germany	2.0	2.5	-1.0	0.0	60.0	54.5	48.0	44.0	47.0	44.0
France	2.8	3.0	-1.4	0.2	58.4	52.9	53.0	49.8	51.6	50.0
Italy	1.9	3.1	-1.3	0.3	112.1	94.9	48.1	44.3	46.8	44.7
Spain	4.1	3.2	-0.3	0.3	61.1	49.6	40.7	40.0	40.4	40.3
Netherlands ^{f,g}	4.1	2.0	1.0	0.6	56.6	46.7	38.6	36.4	39.4	36.8
Belgium	3.1	2.5	-0.1	0.6	110.6	92.9	49.7		49.6	
Austria	2.5	2.5	-1.4	0.0	63.1	55.3	51.8	49.4	50.4	49.4
Finland	5.3	3.6	4.5	4.9	42.4	32.2	44.7	41.2	49.5	46.3
Greece	3.5	5.3	-0.8	2.0	103.9	84.0	46.4	42.2	45.6	44.2
Portugal	3.4	3.2	-1.5	0.0	55.6	48.1	46.8	46.0	45.3	46.0
Ireland ^f	10.0	6.9	4.7	4.6	52.0	36.0	31.0	28.4	35.7	33.8
Luxembourg	7.0	5.5	3.0	2.5			41.1	38.8	44.1	41.2
Euroland ^h	2.8	2.9	-0.7	0.6	71.0	61.6	47.7	44.2	46.9	44.8

^aSome Stability and Growth Programs include alternative scenarios concerning GDP growth. This table reflects the basic scenario. — ^bAverage annual growth rate. — ^cIn percent of GDP. — ^dBased on figures from the Stability and Growth Programs, partly corrected for differences in definitions. — ^eFigures for 2000 are taken from the Stability and Growth Programs. Receipts from the allocation of UMTS licenses are not included. — ^fProjection until 2003 only. — ^gCentral government. — ^hAverage for the countries above.

Source: OECD (2000); Stability and Growth Programs; own calculations and estimates.

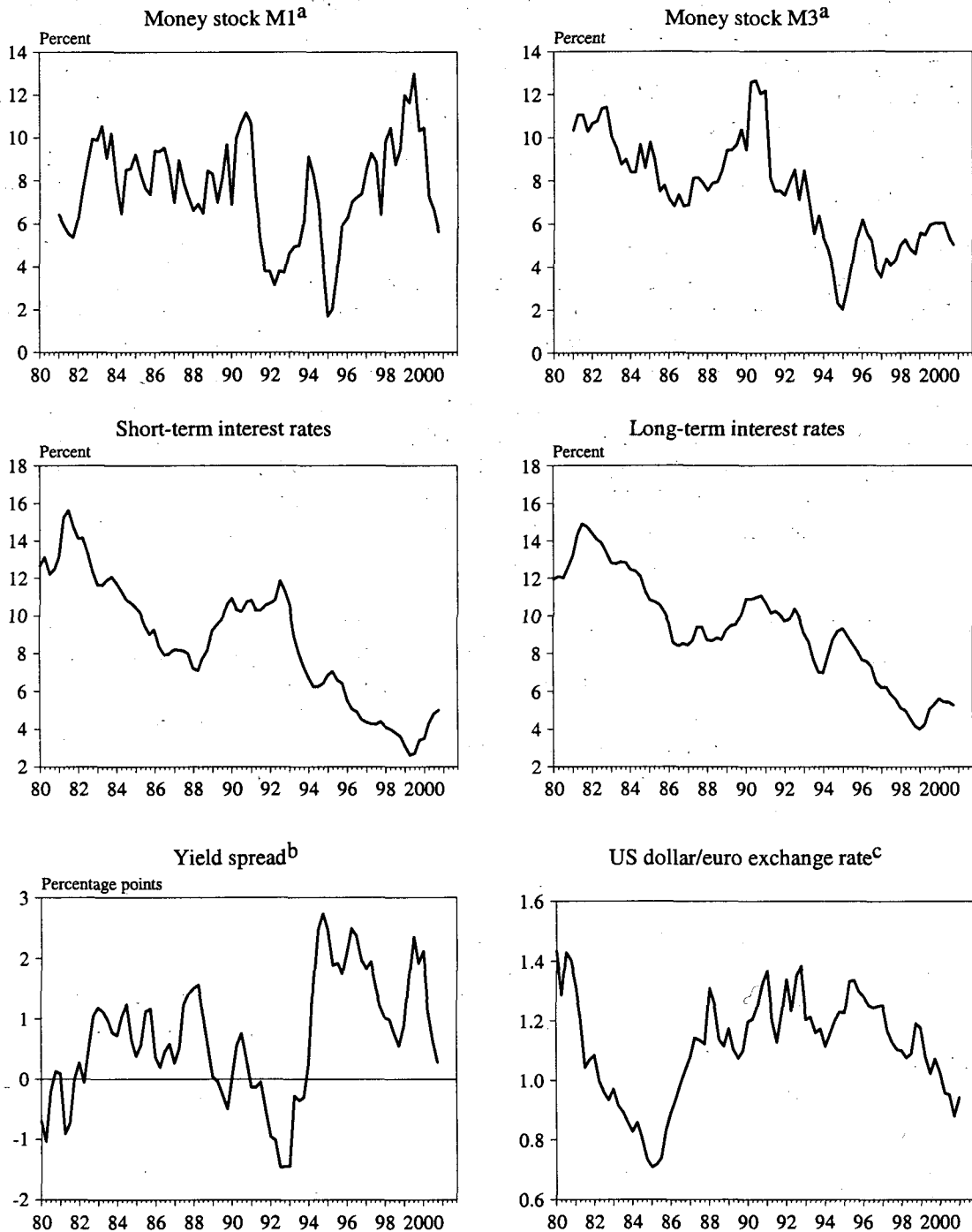
3 Monetary Policy: The ECB Should Not Cut Interest Rates

Since October last year, the ECB has left key interest rates unchanged. The minimum bid rate on the main refinancing operations in the euro area has remained at 4.75 percent. The 3-month money market rate was at roughly the same level in early March (Figure 2). The previous rate hikes by the central bank have contributed to the deceleration of monetary expansion. The annual rate of change of M3 declined to some 4 percent in the three months until January 2001, compared to more than 5 percent in the preceding three-month period. Long-term interest rates continued to decline. In early March they amounted to 5 percent and were about half a percentage point lower than six months before; in real terms, bond yields are considerably below their long-term average. The euro has recovered somewhat from its low in October last year; it has gained ground especially against the US dollar and the Japanese yen. In real effective terms it increased by about 7 percent from October until February.

3.1 Interest Rate Policy Is Not Restrictive

The impact of monetary policy on economic activity can best be described in terms of the level and the development of the short-term interest rate, and here it is appropriate to focus on the real rate. If the real rate is approximated by the difference between the nominal rate (3-month money market rate) and the current rate of inflation (year-over-year increase in the HICP), it can be said that the increase in interest rates by the ECB since November 1999 points at a tightening of monetary policy: Since then, the nominal interest rate rose by a little more than two percentage points, whereas inflation rose by a little more than one percentage point. However, since last fall, the real rate has—contrary to expectations—not increased but actually decreased slightly. Therefore, the stance of monetary policy has been more expansionary than we had assumed earlier (Gern et al. 2000: 9). In the first quarter of 2001, the calculated real interest rate amounted to approximately a little more than 2 percent. If the core rate of inflation is used for the calculation, the real rate was somewhat higher at almost 3 percent.

Figure 2: Indicators of Monetary Policy in Euroland



^aPercentage change over previous year. — ^bLong-term interest rate minus short-term interest rate. — ^cBefore 1999: exchange rate US dollar/ecu.

Source: ECB (2001).

The question whether monetary policy is neutral or even restrictive depends on the level of the neutral (or equilibrium) real interest rate which also plays an important role in the Taylor rule.

However, this rate cannot be observed directly, and it can be estimated only with uncertainty.^{2,3} This is especially true for the euro area because the monetary union has existed only for two years and includes countries which previously had different regimes of monetary policy; one could observe that there were large differences in terms of real interest rates in the countries due to, for example, uncertainties concerning devaluation. Therefore, it seems appropriate to use the real rate in that country as a benchmark which was not subject to such special factors. It has become a common procedure to take the rate prevailing in Germany as a reference; in other countries of the euro area, the real interest rate over a longer period had been up to three percentage points higher than in Germany (Boss et al. 1999: 52).

As the real rate appears to fluctuate substantially over time (Scheide 1998: 10), the period chosen for averaging is important for the estimate. It seems appropriate to consider a full cycle as it can be assumed then that monetary policy is (at least, approximately) neutral. The period should not be much longer because the real rate is obviously not constant over, say, decades.⁴ In Germany, the recent full business cycle can be dated between 1988 and 1998; in this period, the average short-term real interest rate was 3.4 percent.⁵ However, one could argue that this value is biased upwards because of a special situation; in fact, the boom following German unification in the early 1990s has probably led to unusually high interest rates. For a shorter period, namely 1992-1998, the average amounts to 2.6 percent. This value may, however, be biased downwards as the period does not cover a full cycle and as monetary policy may not have been neutral but expansionary on average. On the basis of all these considerations, it seems reasonable to assume that the neutral real rate for the euro area is about 3 percent.

In order to judge the current stance of monetary policy with the real rate of interest, it is probably not useful to refer to single monthly observations as they are subject to large fluctuations; consequently, the judgment of the policy stance would change quite often. During the first quarter of 2001, the real interest rate amounts to little more than 2 percent. Although it will probably increase in the future—assuming unchanged nominal rates—because of the expected decline of inflation, it will not rise above 3 percent in the forecast horizon. Accordingly, monetary policy will not be restrictive in terms of its effects on economic activity.

3.2 The ECB Will Leave Key Rates Unchanged

The ECB has been urged by many observers to quickly lower interest rates; following the example of the US central bank, the ECB should act against an otherwise unavoidable downturn of the economy in the euro area. However, we expect that the ECB will not change its course for several reasons. The current stance of monetary policy is, as is described above, not restrictive at all. According to the often propagated Taylor rule, interest rates are even too low. Based on the fact that the output gap, estimated by the OECD, has recently closed, the Taylor interest rate depends only on the current

² According to the neoclassical growth theory, the real interest rate should be equal to the growth rate of potential output of an economy. However, this conclusion conflicts with actual observations which reveal substantial differences at several times.

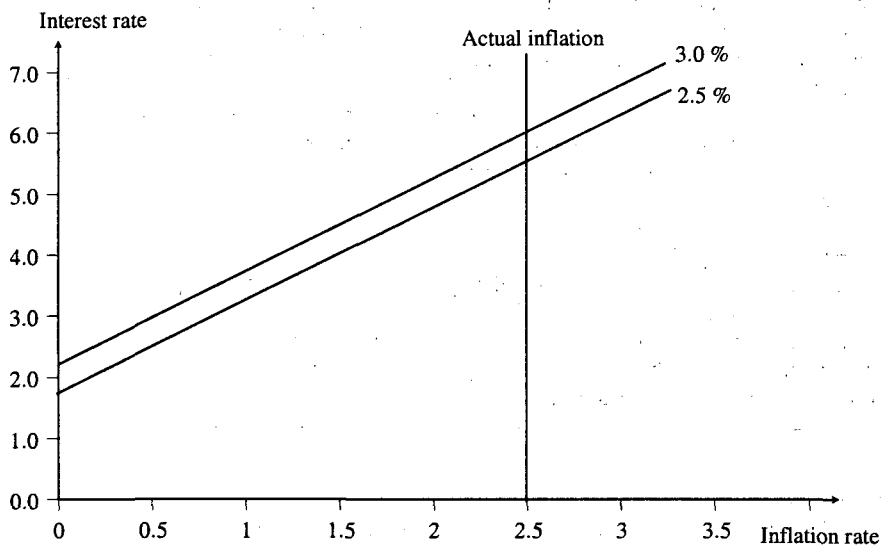
³ Taylor (1993: 202) assumes a steady-state growth rate of 2 percent for the United States. He sticks to this number in a later publication (Taylor 1999) although the growth rates in the decades he analyzes vary considerably; other authors also work on the assumption of a 2 percent rate (McCallum 2000). In contrast, Hetzel (2000: 18) points out that the observed real rate of interest is often much higher than 2 percent and the same applies to the growth rate of potential output.

⁴ If only the most recent value were of interest, one could also use time series approaches which allow for a variable trend such as the Hodrick-Prescott filter. While these methods may be closer to the current values, there is the risk that the estimate for the current period is biased if monetary policy has not been neutral at the end of the estimation period.

⁵ The time period chosen seems appropriate because the output gap was roughly the same in both 1988 and 1998 according to estimates of the OECD (2000). If the previous cycle is included, the average real interest rate is somewhat higher.

inflation rate and the deviation of inflation from the target (which can be taken as 1.5 percent). According to the Taylor rule, the central bank should raise the real interest rate above the equilibrium level if inflation is above the target. This is also the outcome of most macroeconomic models (e.g. Clarida et al. 1999: 1674). With an inflation rate of 2.5 percent in the first quarter of this year and a neutral real rate of 3 percent, the nominal interest rate which is compatible with macroeconomic stability amounts to 6 percent; if the real equilibrium rate is assumed to be only 2.5 percent, the rate is also half a percentage point lower (Figure 3). Assuming that inflation will decelerate somewhat in the near future, the Taylor interest rate will decline, too, but it will still be above the current nominal rate. The current interest rate of 4.7 percent can be considered appropriate only if the core rate of inflation, which is slightly lower than 2 percent, is used for the calculation.

Figure 3: Interest Rate According to the Taylor rule and Inflation Rate at Normal Capacity Utilization^a



^aAlternative assumptions on the equilibrium real interest rate (3% or 2.5%).

Also, the two pillars of the monetary policy strategy do not suggest that interest rates should be cut. While the growth of M3 has come closer to the reference value, there is currently no risk of an undershooting. As far as the second pillar is concerned, the ECB has recently published projections for inflation and other key variables (Box 2); they, too, cannot be used to justify interest rate cuts. Until the end of 2002, the ECB expects real GDP to increase by about 3 percent per year if interest rates remain constant.⁶ As the ECB still assumes potential output to grow by 2 to 2.5 percent a year, this forecast implies a cumulated increase of the output gap by 1.5 percent; this would actually call for a rise of key rates for cyclical reasons. In addition, inflation is supposed to remain close to the upper limit of tolerated inflation so that a loosening of policy cannot be justified on the basis of the second pillar. To be sure, it is likely that the ECB does not anymore expect economic activity to increase as much as expected in the projection published last December. But this could only justify that the otherwise necessary rate hike will not be made. More importantly, it is likely that the inflation forecast will, if anything, be raised rather than lowered. In the past months, there have been several

⁶ The numbers include a range which reflects the uncertainty of the forecasts. For both inflation and GDP growth, the average forecast error amounts to ± 0.5 percentage points. For nominal GDP the ECB estimates a very high growth rate; if it is assumed that M3 rises as fast as implied by the reference value of 4.5 percent, the velocity of money would increase by about 0.5 percent. This is quite unusual if compared to the past and would be compatible only with higher interest rates. According to our forecast, velocity will decline by about 0.5 percent per year in 2001 and 2002, which is much more in line with past experience.

Box 2: Publication of the Inflation Forecast

The European Central Bank published its inflation forecast for the first time last December (ECB 2000); this is a new step as far as the communication with the public is concerned. With this publication the central bank has made the second pillar of its monetary policy strategy more precise, whereas previously the inflation perspectives were only more or less vaguely described but not put in concrete numbers. This had quite often led to irritations in the public because the weights of the different factors affecting inflation were not always clear. Also, the importance of the various indicators seemed to change.

The projection on the basis of constant interest rates is in line with the procedure of those central banks that pursue a strategy of inflation targeting; among these is, for example, the Bank of England. The idea of the publication is that monetary policy becomes more transparent and is also better controlled by the public. This does not mean, however, that the central bank has to follow such forecasts in a mechanical way when deciding about key interest rates; this is also not true in the framework of inflation targeting. But the central bank is under pressure to explain its behavior if, for example, interest rates are not raised in spite of a forecast overshooting of the inflation target. In this way, the publication leads to more discipline of monetary policy which is desirable in the context of a rule-like policy. With such an instrument credibility may be enhanced, so that the risk premium and thus the real interest rate decline. The publication of forecasts may also be helpful for those central banks who had allowed too much inflation in the past (which is true for most of the central banks now pursuing the strategy of inflation targeting and which was also the explicit reason for the shift to the new strategy), and also for a "young" central bank like the ECB which may not yet have the desired reputation.

Whether this new instrument of the ECB will have the desired consequences remains to be seen in the future when monetary policy decisions are made. At present, it is not quite clear what the role of the inflation forecast for interest rate policy is, if and how much the ECB will refer to these forecasts. So far the ECB has tried to play down the importance of the projections somewhat by stressing that these are only one of the many information monetary policy will use. However, this would weaken this instrument because the projections are nothing less but the second pillar of the monetary policy strategy. Every policy decision in the future will therefore have to refer to the projections, and it will have to be explained how the level of interest rates will help to achieve the inflation target. It may be useful for the ECB to avoid the impression that it is locked in for too long because of the published projection or that it will have to do more explanation if it does not act according to it. As the forecasts may have to be revised quite quickly because conditions—as the present situation shows —, may rapidly change, it would be desirable if the forecasts were published four times a year instead of only twice a year as it is planned now.

negative surprises regarding actual inflation, a fact that cannot be solely explained by the unexpected rise of oil prices: Although oil prices have recently declined, inflation at the beginning of this year remained higher than was anticipated by most observers and also by leading representatives of the ECB. If in a situation of unexpectedly high inflation—which is, in addition, higher than the target—a central bank lowers interest rates it will run the risk of losing credibility.

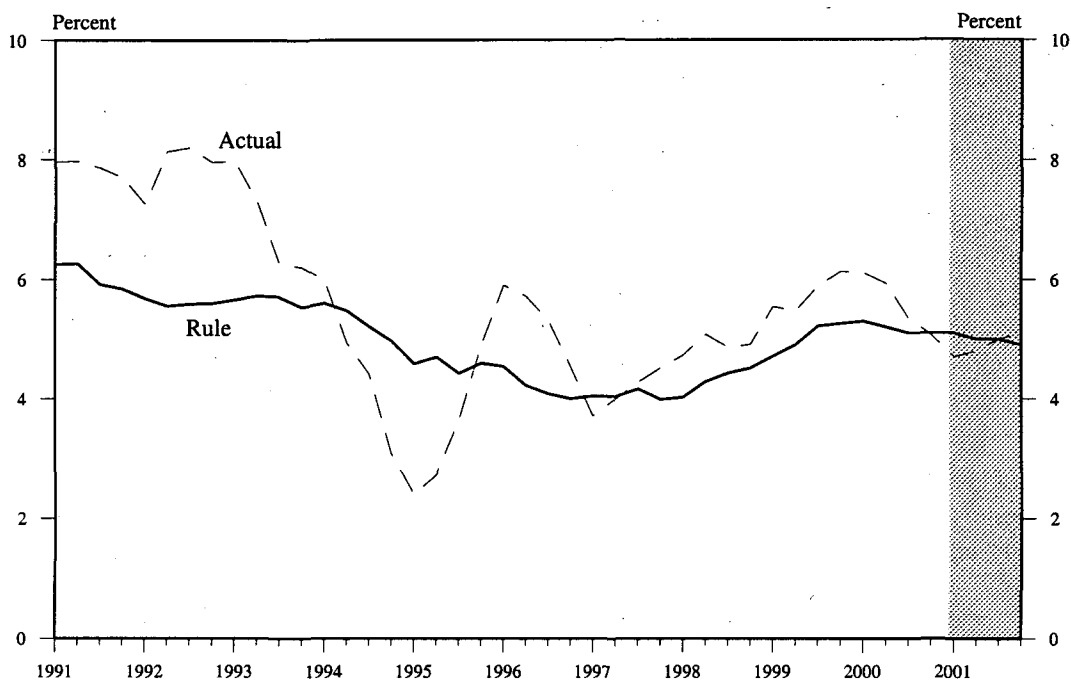
For all these reasons we do not expect that the ECB will loosen its policy. There is no reason that the central bank should now stimulate the economy. It is true that economic expansion in the euro area has lost momentum. However, according to our forecast capacity utilization will remain at its normal level in 2001 as well as in 2002. This would be the ideal path for economic activity as it could continue without any major tensions. As far as inflation is concerned, there is not yet any reason to be less cautious. While headline inflation is likely to decline, it will take some time until it returns into the target range or, respectively, stays sufficiently below the upper bound of 2 percent.

3.3 Monetary Conditions Are More or Less Neutral

Given unchanged key interest rates, it is likely that the money stock will rise at a rate which is compatible with price stability. According to the McCallum Rule this implies that M3 can increase by about 5 percent per year (Figure 4). Consequently, there will be no further pressure on future inflation as far as the effects of monetary policy are concerned.

We furthermore expect the euro to strengthen against the dollar in the forecast horizon, the most important reason being that the Fed has already lowered interest rates and is likely to lower them further this year. Thus, the difference between real interest rates changes in favor of the European currency. According to the exchange rate model that we use (Gern et al. 2000: 13ff.), the euro will

Figure 4: Expansion of M3 in Euroland^a: Actual Values and Values According to McCallum Rule



^aYear-over-year increase of M3. Forecast starting in 2001 I.

Source: ECB (2001); own calculations.

exceed the parity vis-à-vis the dollar at the end of this year. The real effective exchange rate of the euro will therefore rise considerably. Long-term interest rates will probably remain low for some time, also due to the only moderate growth of the world economy, and thus help to stabilize economic activity. All in all, monetary conditions in the euro area will be roughly neutral in the forecast period.

3.4 Money Growth: Inflation Will Gradually Decline

The expansion of the money stock is the most important factor for inflation in the medium term. This is also assumed by the ECB as M3 plays a prominent role in the monetary policy strategy. In the short run, inflation is also affected by a number of other variables, especially cost factors. This has recently been the case as oil prices pushed inflation up. Anyway, even in the short term money plays a role; in fact, inflation today would be lower if in the past two years M3 had risen by 4.5 percent as planned instead of the actual rate of 5.5 percent.

Such considerations are the basis of the so-called P-Star model in which inflation over time is explained by a liquidity overhang—defined in the model as the price gap⁷—and by cost factors. This approach implies that in the long run, the price level is determined by the level of the money stock alone, whereas in the short run, there is no immediate adjustment of prices to changes in money. The attractive feature of this model is that it is compatible with almost all macroeconomic theories: On the one hand, there is the assumption of a certain rigidity of prices, on the other hand, the long-run neutrality of money holds.

⁷ The price gap is the difference between the equilibrium price level, which is determined by the money stock, and the actual price level. A positive price gap leads (*ceteris paribus*) to an acceleration of inflation. This approach is described by Hallman et al. (1991); for an application of this approach to analyze inflation in Germany see Krämer and Scheide (1994).

Estimating a P-Star model makes only sense if both the trend of output as well as the trend of velocity can be estimated with some confidence. This seems to be the case for the euro area as there is not much of a difference as far as potential output is concerned; and the velocity of money has behaved remarkably stable in recent years as it followed closely the trend observed in the 1990s (Arbeitsgemeinschaft 2000: 44). The estimated model can explain the behavior of inflation in the past 20 years quite well (Box 3). This includes also the recent pickup of inflation which was in part due to the rise of the oil price and the fall of the euro. But it was also important that money growth accelerated in 1999 and 2000, which implied that the price gap became positive.

For the inflation forecast it is important to note that the price gap has closed in the meantime: First of all, the price level has risen considerably, and second, money growth has slowed down recently. The other factors (excluding unit labor costs) work in the direction of a slowdown of inflation in the future, too. We expect therefore that the increase in the HICP will gradually decline. The rate of inflation is likely to amount to 2.3 percent and 1.8 percent in 2001 and 2002, respectively.

Box 3: A P-Star Model for Euroland

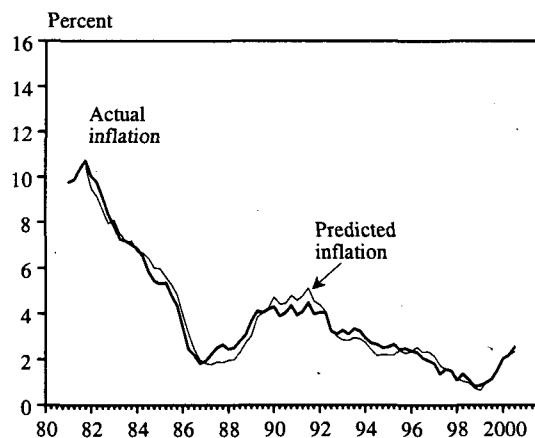
The quarterly inflation rate (Δp)—defined as the current change in the HICP—is influenced by a number of factors. Apart from the lagged endogenous variable the estimate is based on the price gap ($pgap$) and the quarterly rates of change in the oil price ($petrolp$), other raw material prices ($rawp$), unit labor costs (ulc) and the effective exchange rate of the euro ($exch$):^a

$$[1] \quad \Delta p_t = 0.0014 + 0.54 \Delta p_{t-3} + 0.19 \Delta p_{t-5} + 0.18 pgap_{t-1} + 0.0043 \Delta petrolp_{t-1} + 0.016 \Delta rawp_{t-4} + 0.009 \Delta rawp_{t-6} \\ + 0.10 \Delta ulc_{t-1} - 0.031 \Delta exch_{t-1} - 0.026 D_{92:3-94:3}$$

(4.37) (8.14) (2.92) (5.85) (3.47) (4.19) (2.31)
(2.59) (4.9) (-4.0)

The price gap which is determined by the trend of velocity, the growth rate of potential output and by the money stock, has a relatively large impact on the inflation rate in the following period: If M3 increases by 1 percent, the rate of inflation rises (ceteris paribus) by 0.2 percentage points. While the other variables only have a transitory impact on inflation—just as the quantity theory suggests—, a permanent change in the money stock leads to a permanent change in the price level, in other words: the neutrality of money holds according to the equation. A dynamic simulation for the estimation period 1980.4–2000.3 shows that the movements of inflation can be described quite well by the equation (Figure).

Figure: Dynamic-in-Sample Forecast of Inflation, 1981.4–2000.3



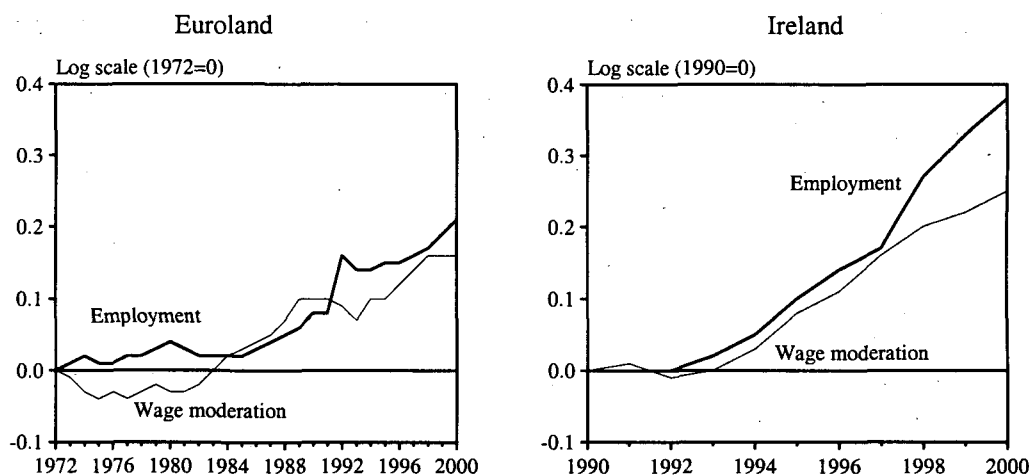
^aIn addition, a dummy is included for the period 1992.3–1994.3 in which there was an irregular movement of velocity. For a detailed description of the approach see Scheide and Trabandt (2000).

4 Labor Market: Benefits of Wage Moderation

The labor market evolved particularly favorably last year against the background of the strong up-swing. The number of employed persons increased by more than 2 percent according to ECB estimates and in January 2001 the unemployment rate (8.6 percent in ILO definition) reached its lowest level since fall 1991. Since the end of 1997 the unemployment rate has continuously declined by 3 percentage points. Wage moderation has decisively contributed to this positive development.

Recently Blanchard (2000) has provided simple calculations in order to explain employment dynamics in Ireland and the Netherlands. In the following, his approach will be applied to the euro-area labor market. The starting point of his analysis is the neoclassical growth theory: In the steady state the growth rate of real wages must equal the rate of technological progress.⁸ If the increase in real wages exceeds the increase in labor productivity, companies will augment the share of capital in relation to labor in their production. Figure 5 shows this relationship for Euroland for the years 1972–2000.⁹ In the 1970s employment hardly increased; at the same time wage agreements considerably exceeded the increase in productivity. In the 1980s a period of wage moderation coincided with remarkable gains in employment. At the beginning of the 1990s the relationship between these two magnitudes seems to vanish. This can be traced back to the times of German unification when the number of employed persons in Germany jumped above all due to the larger territory. During the unification boom wage moderation was abandoned, a development which may be partly responsible for the subsequent loss in employment. Since 1994 employment and wage moderation have moved together again.

Figure 5: Employment and Wage Moderation in Euroland



Source: OECD (2000); own calculations.

In the case of Ireland the parallel movement between wage moderation and employment is even more impressive. There, wage moderation was much more pronounced in the 1990s than in the euro

⁸ This refers to the kind of technological progress labeled labor-augmenting or Harrod-neutral in the literature. With this kind of technological progress the capital coefficient as well as the income distribution are constant in the steady state.

⁹ The variable "wage moderation" is defined as the difference between the logarithmic values of the productivity index and the actual real wage in the private sector. An increase in a given year means that the rise in real wages stays behind the increase in productivity implying a positive impulse for employment. The variable "employment" corresponds to the logarithmic value of employed persons. Both variables were normalized to zero at the beginning of the sample period. As no capital stock data are available for the euro area the calculation of the variables deviates from the procedure of Blanchard (2000).

area. At the same time Ireland exhibited the strongest gains in employment among euro-area countries. Figure 5 also shows that since 1998 employment has increased much more rapidly than the measure of wage moderation would indicate on its own. This finding corresponds to the evidence reported in Box 1. In the past three years the Irish economy—stimulated by an expansionary monetary policy and by an undervalued currency—has expanded at a pace much faster than is sustainable in the long run. The symptoms of an economic overheating in Ireland can be recognized on the labor market, too.

The wage increase in the euro area will accelerate in the course of this year and in the coming year; nevertheless we expect that real wage increases will be roughly in line with the productivity trend. Thus, no further positive impulse for employment will come from wage setting. In connection with the slowdown in economic activity this will lead to a perceptibly slower employment growth. The unemployment rate will average 8.3 percent this year. In the course of next year unemployment will hardly go down anymore; we expect that the unemployment rate will average 8 percent in 2002.

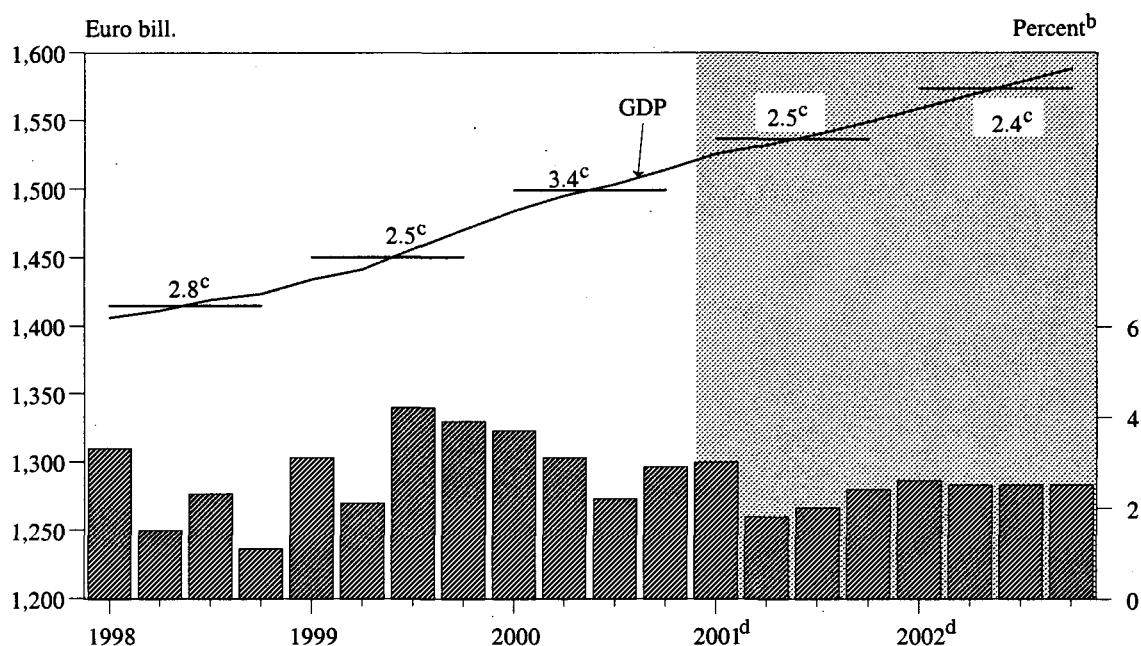
5 Outlook: GDP Grows in Line with Potential Output

At present the leading indicators show an ambiguous picture of the short-term perspectives of the European economy. The sentiment indicators compiled by the European Commission point to a continuation of economic expansion at a rapid pace. Consumer confidence has increased recently after having gone down markedly in the wake of the oil price surge. The recent embellishment is probably due to the tax relieves that have come into force in several countries at the beginning of the year. Moreover confidence in the industrial sector, which slightly decreased in the last months, is still high in comparison with its historical average. However a lot of other leading indicators signal an economic slowdown in the coming months. The European purchasing manager index has significantly dropped following the downturn in the United States. Also the growth indicator calculated by Euroframe¹⁰ shows that economic activity will lose some more momentum in the first half of 2001.

All in all, the leading indicators suggest that the basic trend of economic expansion will remain moderate (Figure 6). However, in the first quarter of 2001 GDP growth has accelerated. In particular private households have considerably raised their expenditures since real disposable incomes have increased more rapidly than before following the tax cuts. In the further course of this year, however, the fiscal stimulus will gradually fade. Then the weakening of economic activity implied by the less favorable external environment will get the upper hand. The cooling down of economic activity in the United States will take on its own lead to a reduced demand for European products. Moreover the deliveries to other regions will increase at a slower pace than before. Economic expansion will be especially dampened in Southeast Asia and in Latin America by the development in the United States.

How will the weakening of the world economy affect the euro area? We forecast that real GDP in the United States will increase by 1.5 percent this year (Gern et al. 2001). This can be regarded more or less as a soft landing. A recession in the United States is not probable, yet it constitutes a risk for our forecast. Recently Euroframe (2001) investigated with the help of a macro-econometric model how strongly the euro area would be affected by a stronger weakening in the United States in 2001. The growth rate of real GDP in the euro area would be 0.6 percentage points lower than in the baseline projection if real GDP in the United States turned out 1 percentage point lower than in the baseline projection. This would be accompanied by a strong depreciation of the US dollar. According to these estimates even zero output growth in the United States this year would not entail a recession in the euro area.

¹⁰ Apart from the Institute of World Economics (Kiel) the following European research institutes participate in Euroframe: CPB (Netherlands), DIW (Berlin), ETLA (Finland), NIESR (United Kingdom), OFCE (France), PROMETEIA (Italy) and WIFO (Austria). For additional information on this cooperation see: <http://www.euro-frame.org>.

Figure 6: Real GDP^a in Euroland

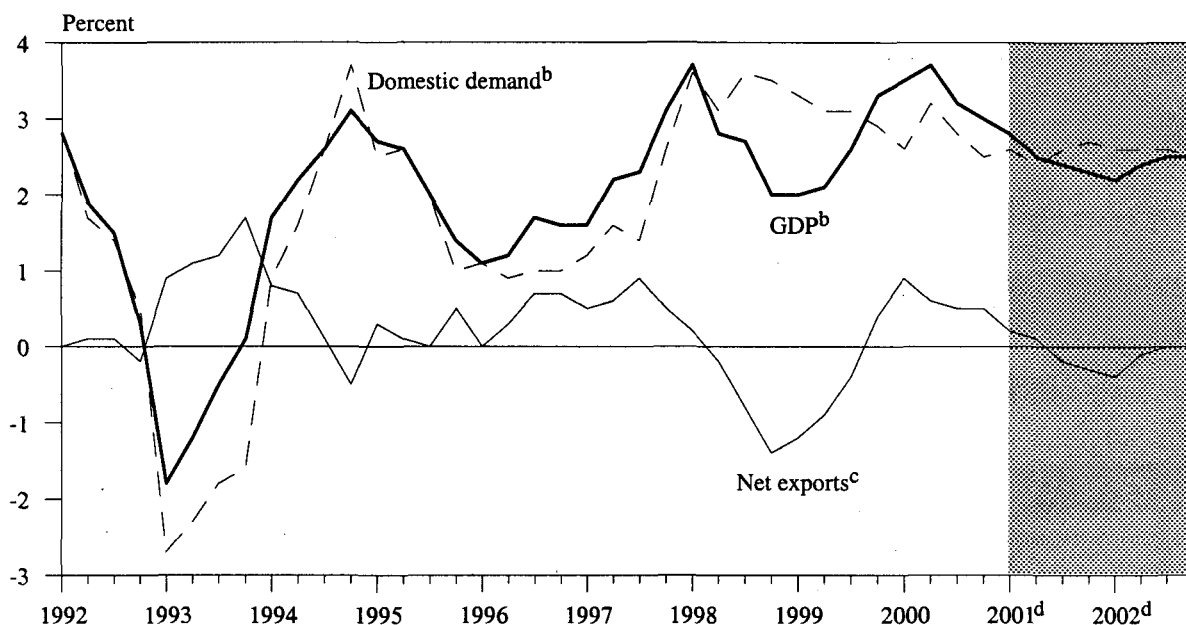
^aSeasonally adjusted. — ^bAnnualized quarterly rate of change in percent. — ^cPercentage change over previous year. — ^dForecast starting in 2001 I.

Source: Eurostat (2001); own forecast.

Real GDP in Euroland will rise by 2.5 percent in 2001 on average, after 3.4 percent the year before. The slowdown is due to weaker external demand as well as to a slightly slower increase in domestic demand (Figure 7). After an acceleration at the beginning of this year resulting from tax cuts private households will expand their consumption expenditure at a slower pace in the remainder of 2001. Gross fixed capital formation will increase by less than last year until late summer. We expect a slightly faster increase from this fall on when sales and profit expectations will improve in the wake of the recovery in the United States. Exports will considerably lose momentum this year. This is not only due to the cooling down of the world economy, but also to the appreciation of the euro. We assume that the real effective exchange rate of the euro will increase by around 9 percent in the course of this year.

In the course of next year economic activity will expand in line with potential output (Table 3). Monetary and fiscal policy will neither dampen nor stimulate economic growth. Domestic demand will increase at a pace comparable to this year. Admittedly private investment will rise somewhat faster in the wake of the recovery in the world economy, but private consumption will increase slower than this year on average. This is due to a deceleration in disposable income growth because tax relieves for private households will not reach the order of this year by far. Also there will be no impulse from foreign trade next year. The increase in exports will remain moderate as the appreciation of the euro will unfold its full effect. All in all we expect that real GDP will increase by 2.4 percent in 2002 (Table 4).

The increase in the Harmonized Index of Consumer Prices (HICP) will gradually weaken in the course of the forecast horizon. We expect that the inflation rate will decelerate to below 2 percent in the fall of 2001 from around 2.5 percent at the beginning of the year. This is due to the decline in crude oil prices. We assume that the oil price will average approximately 25 US dollar per barrel this year and next year. The core inflation rate will continue to accelerate during the first half of 2001, but

Figure 7: GDP, Domestic Demand and Net Exports in Euroland^a

^aAt constant prices. — ^bPercentage change over previous year. — ^cChange of net exports over previous year in percent of GDP in the same quarter of previous year. — ^dForecast starting in 2001 I.

Source: Eurostat (2001); own forecasts.

Table 3: Quarterly Data on the Economic Development in Euroland, 2000–2002

	2000				2001				2002			
	I	II	III	IV	I ^a	II ^a	III ^a	IV ^a	I ^a	II ^a	III ^a	IV ^a
Gross domestic product ^b	3.7	3.1	2.2	2.9	3.0	1.8	2.0	2.4	2.6	2.5	2.5	2.5
Domestic demand ^b	2.5	3.4	1.8	2.4	2.9	2.7	2.5	2.6	2.6	2.6	2.5	2.5
Private consumption ^b	3.2	3.0	0.6	1.4	3.3	2.6	2.2	2.2	2.4	2.3	2.3	2.3
Public consumption ^b	2.5	1.2	0.3	2.6	1.2	1.3	1.8	1.6	1.4	1.2	1.2	1.3
Fixed investment ^b	7.2	2.4	4.3	1.6	3.3	3.1	3.7	3.9	4.0	4.1	4.1	4.1
Change in stocks ^c	-1.4	0.8	0.4	0.7	0.0	0.3	0.1	0.1	0.0	0.1	0.0	0.0
Net exports ^c	0.6	1.3	-0.2	0.5	0.2	-0.8	-0.5	-0.1	0.0	0.0	0.1	0.0
Exportse ^{b,d}	12.4	8.3	11.6	13.9	7.5	3.6	4.2	5.1	5.2	5.3	5.3	5.3
Imports ^{b,d}	9.1	9.5	10.9	13.3	7.4	6.2	5.8	5.7	5.5	5.5	5.4	5.5
Unemployment rate ^e	9.4	9.1	8.8	8.6	8.5	8.4	8.3	8.2	8.1	8.0	7.9	7.9
Consumer prices (HICP) ^f	3.0	3.5	4.2	4.4	3.4	3.1	3.5	3.1	3.7	2.9	2.5	2.2
Money stock M3 ^b	6.8	4.9	3.9	4.5	4.5	4.5	5.0	5.0	5.0	5.0	5.0	5.0
3-month money market rate	3.5	4.2	4.7	4.9	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.8
Long-term interest rate	5.6	5.4	5.4	5.3	4.9	4.8	4.8	4.9	5.0	5.1	5.2	5.3
US dollar/euro exchange rate	0.99	0.93	0.91	0.88	0.93	0.95	0.98	1.00	1.05	1.05	1.04	1.03
Real effective exchange rate ^g	89.5	86.6	85.3	83.6	88.4	89.3	90.2	91.1	92.6	92.5	92.1	91.7

^aForecast. — ^bAnnualized quarterly rate of change in percent. — ^cContribution to change in GDP. — ^dIncluding intra-Euroland trade. — ^eIn percent of the labor force, harmonized according to the ILO concept. — ^fChange over previous year in percent. — ^gIndex 1999 I=100.

Source: Eurostat (2001); ECB (2001); OECD (2001); own calculations and forecasts.

Table 4: Real GDP, Consumer Prices and Unemployment Rate in Euroland, 1999–2002

	Weights in total ^a	Real GDP ^b				Consumer prices ^{b,c}				Unemployment rate ^d			
		1999	2000 ^e	2001 ^f	2002 ^f	1999	2000	2001 ^f	2002 ^f	1999	2000	2001 ^f	2002 ^f
Germany	31.8	1.6	3.0	2.1	2.2	0.7	2.0	2.2	1.5	8.8	8.3	7.7	7.3
France	21.5	3.0	3.2	2.5	2.4	0.6	1.9	1.6	1.4	11.3	9.5	8.6	8.2
Italy	17.6	1.4	2.8	2.3	2.2	1.6	2.7	2.4	2.0	11.4	10.5	9.7	9.3
Spain	9.0	4.0	4.1	2.9	3.1	2.2	3.5	3.1	2.4	15.9	14.2	13.1	12.4
Netherlands	5.9	3.9	3.9	2.9	3.1	2.0	2.3	3.6	2.2	3.3	2.8	2.9	3.0
Belgium	3.7	2.7	4.1	2.5	2.4	1.2	2.7	2.4	2.2	9.1	8.5	7.9	7.5
Austria	3.2	2.1	3.0	2.2	2.3	0.5	2.0	2.0	1.5	3.8	3.5	3.3	3.3
Finland	2.0	4.2	5.7	4.5	5.0	1.3	3.0	2.4	2.1	10.2	9.8	8.8	8.3
Greece	1.9	3.4	4.1	4.6	4.0	2.2	2.8	3.6	4.6	11.7	11.2	10.5	10.0
Portugal	1.7	3.0	3.0	2.5	2.4	2.2	2.8	3.9	3.0	4.5	4.2	4.4	4.5
Ireland	1.4	9.8	11.5	9.0	7.0	2.5	5.2	3.9	5.8	5.7	4.4	3.6	3.1
Luxembourg	0.3	7.6	8.0	6.0	5.0	1.1	3.8	3.3	2.8	2.3	2.2	2.1	2.1
Euroland	100.0	2.5	3.4	2.5	2.4	1.1	2.3	2.3	1.8	10.0 ^g	9.0 ^g	8.3 ^g	8.0 ^g

^aBased on GDP in current prices and exchange rates of 1999. — ^bPercentage change over previous year. — ^cHarmonized Index of Consumer Prices (HICP). — ^dStandardized unemployment rates according to OECD. — ^ePartly estimated. — ^fForecast. — ^gBased on the number of employees in 1999.

Source: ECB (2001); OECD (2001); own calculations and forecasts.

decrease slightly afterwards. This can be traced back to the fact that the monetary overhang that had arisen in the last two years has already been translated into higher consumer prices. The tightening of monetary policy last year contributed to a calming of monetary expansion. Thus, the risk of a permanent violation of the stability target has diminished. Due to the high level at the beginning of this year the inflation rate will average 2.3 percent in 2001. Next year it will amount to 1.8 percent on average.

References

- Arbeitsgemeinschaft Deutscher Wirtschaftswissenschaftlicher Forschungsinstitute (2000). *Die Lage der Weltwirtschaft und der deutschen Wirtschaft im Herbst 2000*. Essen.
- Blanchard, O.J. (2000). Comment on "Fitoussi, J.-P., D. Jestaz, E.S. Phelps and G. Zoega. Roots of the Recent Recoveries: Labor Reforms or Private Sector Forces?". *Brookings Papers on Economic Activity* (1): 299–304.
- (2001). Country Adjustments within Euroland. Lessons after Two Years. Cambridge, Mass. (mimeo). Forthcoming as part of the CEPR Report "Monitoring the European Central Bank". <http://web.mit.edu/blanchar/www/latecb.pdf>
- Boss, A., K.-J. Gern, C.-P. Meier, J. Scheide and M. Schlie (1999). For a Stable Monetary Policy and Tax Competition in Euroland. Kiel Discussion Paper 338. Institute of World Economics, Kiel.
- Clarida, R., J. Galí, and M. Gertler (1999). The Science of Monetary Policy: A New Keynesian Perspective. *Journal of Economic Literature* 37 (4): 1661–1707.
- Euroframe (2001). The Economic Situation of the European Union and the Outlook for 2001–2002. European Parliament, Directorate-General for Research Working Paper. Luxembourg. http://www.europarl.eu.int/workingpapers/econ/pdf/126_en.pdf
- Eurostat (2001). *National Accounts*. Luxembourg.
- EZB (Europäische Zentralbank) (2000). *Monthly Bulletin*. December. Frankfurt am Main.
- (2001). *Monthly Bulletin*. February. Frankfurt am Main.
- Fitz Gerald, J. (2000). Ireland's Failure—and Belated Convergence. Economic and Social Research Institute. Dublin (mimeo).

- Fitz Gerald, J. (2001). Fiscal Policy in a Monetary Union: the Case of Ireland. Economic and Social Research Institute. Dublin (mimeo).
- Gern, K.-J., J. Gottschalk, C. Kamps, B. Sander, J. Scheide and H. Strauß (2001). Deutliche Abkühlung der Weltkonjunktur. *Die Weltwirtschaft* (1). Forthcoming.
- Gern, K.-J., C. Kamps, C.-P. Meier and J. Scheide (2000). Euroland: Peak of the Upswing — Little Evidence of a New Economy. Kiel Discussion Paper 369. Institute of World Economics, Kiel.
- Hallman, J.J., R.D. Porter, and D.H. Small (1991). Is the Price Level Tied to the Monetary Aggregate in the Long Run? *American Economic Review* 81 (4): 841–858.
- Hetzl, R.L. (2000). The Taylor Rule: Is It a Useful Guide to Understanding Monetary Policy? Federal Reserve Bank of Richmond *Economic Quarterly* 86 (2): 1–32.
- Honohan, P. (2000). Ireland in EMU: Straitjacket or Skateboard? *Irish Banking Review* (Winter): 15–31. <http://www.ibis.ie/about/pdfs/revieww00.pdf>
- Krämer, J.W., and J. Scheide (1994). Geldpolitik: Zurück zur Potentialorientierung. Kiel Discussion Paper 236. Institute of World Economics, Kiel.
- Lane, P.R. (1998). Irish Fiscal Policy under EMU. *Irish Banking Review* (Winter): 2–9. <http://econserv2.bess.tcd.ie/plane/fiscalken1.pdf>
- McCallum, B.T. (2000). Alternative Monetary Policy Rules: A Comparison with Historical Settings for the United States, the United Kingdom, and Japan. Federal Reserve Bank of Richmond *Economic Quarterly* 86 (1): 49–79.
- OECD (2000). *Economic Outlook* 68. December. Paris.
- (2001). *Main Economic Indicators*. January. Paris.
- O'Rourke, K., and R. Thom (2000). Irish Inflation: Appropriate Policy Responses. *Irish Banking Review* (Winter): 33–47. <http://www.ibis.ie/about/pdfs/revieww00.pdf>
- Scheide, J. (1998). Central Banks: No Reason to Ignore Money. Kiel Discussion Paper 316. Institute of World Economics, Kiel.
- Scheide, J., and M. Trabandt (2000). Predicting Inflation in Euroland — The Pstar Approach. Kiel Working Paper 1019. Institute of World Economics, Kiel.
- Taylor, J.B. (1993). Discretion Versus Policy Rules in Practice. *Carnegie-Rochester Conference Series on Public Policy* 39: 195–214.
- (1999). A Historical Analysis of Monetary Policy Rules. In J.B. Taylor (ed.), *Monetary Policy Rules*. Chicago.
- Tödter, K.-H., and H.-E. Reimers (1994). P-Star as a Link Between Money and Prices in Germany. *Weltwirtschaftliches Archiv* 130 (2): 273–289.