

BREAKING THE REFORM DEADLOCK

BREAKING THE REFORM DEADLOCK

6TH ANNUAL REPORT OF THE CEPS MACROECONOMIC POLICY GROUP

JULY 2004

**CHAIRMAN: DANIEL GROS, CEPS
THOMAS MAYER, DEUTSCHE BANK, LONDON
ANGEL UBIDE, TUDOR INVESTMENTS, WASHINGTON, D.C.**

**WITH A CONTRIBUTION BY
ROBERTO PEROTTI, UNIVERSITY OF BOCCONI**

**CENTRE FOR EUROPEAN POLICY STUDIES
BRUSSELS**

This report presents the findings and recommendations of the CEPS Macroeconomic Policy Group (MPG) for the year 2003-04. The MPG is a select body of highly respected economists who have undertaken to carry out independent, in-depth research on current developments in the European economy and to publish their findings in an annual report. CEPS gratefully acknowledges financial support from Deutsche Bank, London for the work of the MPG. The views expressed in this report are those of the authors writing in a personal capacity and do not necessarily reflect those of CEPS or any other institution with which the members are associated.

ISBN 92-9079-503-4

© Copyright 2004, Centre for European Policy Studies.

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 of the Centre for European Policy Studies.

Centre for European Policy Studies
Place du Congrès 1, B-1000 Brussels
Tel: 32 (0)2 229.39.11 Fax: 32 (0)2 219.41.51
e-mail: info@ceps.be
internet: <http://www.ceps.be>

Table of Contents

Preface	i
Executive Summary	ii
Chapter 1 Introduction	1
1.1 Euroland 2004: Leaner times are here to stay.....	1
1.2 From demographic bonus to <i>malus</i>	2
1.3 Enlargement: is it important?.....	4
Chapter 2 Continuing structural weakness?	7
2.1 Growth potential	7
2.2 Big and small: Lessons for a more flexible Europe?	12
Chapter 3 Fiscal Policy: How to assess and maintain sustainability?	16
3.1 Introduction	16
3.2 Proposals for reform	17
3.2.1 Multi-year budgets and structural reforms	17
3.2.2 The golden rule	20
3.2.3 Debt.....	21
3.3 The enduring purpose of the Pact	21
Chapter 4 Assessment of Monetary Policy	25
4.1 Monetary policy conduct and the economy	25
4.1.1 Lacklustre growth	25
4.1.2 Mixed inflation developments	28
4.1.3 The ECB's response.....	32
4.2 The ECB's 'secondary' objective	36
4.2.1 Growth and employment.....	37
4.2.2 Economic policy coordination	44
4.3 European monetary policy in the international context	46
4.3.1 The US-Asian monetary policy twins	47
4.3.2 Euroland: The step brother.....	49
Chapter 5 The Euro in the Global Economy	52
5.1 Is the US current account really a problem?	52

5.2	What is the equilibrium exchange rate of the euro, and what is the likely evolution?	60
5.3	Events in 2004	63
5.4	Policy conclusions	66
Chapter 6 Conclusions.....		70
6.1	Implications of expensive oil.....	72
6.2	EU enlargement does not affect the economy of Euroland	72

List of Tables

1.1	Old-age dependency projections	3
1.2	Current data and forecasts for the Maastricht criteria for four new members of the eurozone	6
2.1	Growth of GDP per hour worked in the EU and the US, 1979-2001 ...	8
2.2	Decomposing aggregate labour productivity growth, business sector .	9
2.3	Small is beautiful? Relative performance of eurozone member countries (%)	13
2.4	Real growth: Big versus small.....	14
4.1	Rate cut probabilities implied by EONIA rates.....	36
4.2	Effects of a monetary policy shock in the ECB's area-wide model (% deviations from baseline).....	42
4.3	Contributions to GDP effects of a monetary policy shock	42
4.4	The impact of the ECB's policy so far	43
4.5	The impact of the US Fed's policy so far	44
5.1	Changes in the savings-investment balance	55
5.2	Share of national currencies in total identified foreign currency holdings, end of year (in %)	62

List of Figures

1.1	Change in demographic potential GDP -25, 65+	4
2.1	Productivity and employment growth in Europe and the US (1995-2002).....	10
2.2	Lisbon: Employment vs. productivity?	12
3.1	Cyclically adjusted deficit (forecasted).....	23
4.1	Components of the misery index.....	26

4.2	France: Real GDP and domestic demand growth (% change, year on year).....	27
4.3	Real disposable income and private consumption growth in major OECD countries (average increase over 2001-03)	28
4.4	Euroland: Harmonised inflation (% change, year on year)	29
4.5	Euroland: Residuals of the long-run money demand equation.....	30
4.6	Euroland: Error correction equation for money growth	31
4.7	The Taylor rule: Actual and fitted 3-month euro interest rates	34
4.8	ECB refi rate and Euroland output gap	38
4.9	Output gaps in Euroland.....	40
4.10	ECB refi rate and expected Euroland output gap	40
4.11	Euroland and US real 3-month interest rates.....	47
4.12	Euroland and US fiscal impulses: Fiscal impulse (change in structural budget deficit) as a % of GDP	48
4.13	Breakdown in global real GDP – global money growth relationship.	50
5.1	US trade balances with selected trade partners (\$ billion)	53
5.2	Ownership-based current account (% of GDP)	56
5.3	Funding of US current account deficit (\$ billion)	57
5.4	US custody holdings of US government securities for foreign official institutions (\$ billion).....	57
5.5	US net international investment position	58

PREFACE

This is already the sixth annual report issued by the CEPS Macroeconomic Policy Group, which was reconstituted at the start of economic and monetary union in 1999, and the 16th since CEPS first brought together a group of distinguished economists to analyse Europe's economic problems in its founding year, 1983. We proudly list the full set of titles at the end of this report.

For the last several years, our reports have emphasised two disappointing developments: a dismal productivity record and a continuing deterioration of fiscal policy. Unfortunately our point of view was again vindicated in that during the last year these two phenomena continued to affect negatively Europe's performance. A special report of our group in early 2004 provided an in-depth analysis of fiscal policy and the controversy surrounding the enforcement (or rather the lack of it) of the Stability Pact. This report therefore touches only briefly on fiscal policy.

True to our mission as 'ECB watchers', we also analyse at length the effectiveness of monetary policy, concentrating this time on the delays between monetary policy decisions and their impact on the economy. The main result of our analysis is that it is hard to fault the ECB for the policy pursued so far. However, we express the hope that the ECB will be patient during the upswing that is now apparently starting in earnest to provide policy makers in other areas with a window of opportunity to seriously pursue structural reforms.

We wish to acknowledge the valuable contribution of Roberto Perotti on fiscal policy. Leonor Coutinho, a Marie Curie Research Fellow at CEPS, also provided excellent research assistance and important ideas of her own. All remaining errors are ours.

The work of the CEPS Macroeconomic Policy Group would not have been possible without the continuing support from our main sponsor, Deutsche Bank, London, and Tudor Investments. I wish to thank them once more for their material and financial contributions.

Daniel Gros
Director

BREAKING THE REFORM DEADLOCK

6TH ANNUAL REPORT OF THE CEPS MACROECONOMIC POLICY GROUP

EXECUTIVE SUMMARY

Policy Conclusions

Euroland is now in its fourth year of unsatisfactory growth. What are the reasons for this and what can be done about it? This report arrives at the following conclusions:

1. Demographic change is already now reducing the growth potential and squeezing government finances.
2. Insufficient investment is the main driver of the productivity slowdown that has weakened growth.
3. To stimulate investment, better coordination among fiscal, structural and monetary policy is needed: Ideally a combination of structural reform, fiscal consolidation and low interest rates. The ECB – as the only widely respected economic policy-making institution in the EU with room for manoeuvre – should become more proactive in pursuing economic policy coordination in order to obtain more progress on structural reform and fiscal consolidation.
4. To foster a more balanced expansion of the world economy and reduce the risk of brutal exchange rate movements, greater cooperation among the central banks of the US, the EU, Japan and China is needed, giving rise to a G4.

Executive Summary

The economy of Euroland is on track to grow at an unsatisfactory rate for yet another year. It is now almost commonplace that the main problems of Europe are structural, but one deep underlying factor has received too little attention, namely the ageing of the European population. This is not just a long-run phenomenon without immediate consequences. We find that demographic change is already now reducing the growth potential and squeezing government finances.

There is very little policy can do to change demography. Encouraging higher birth rates today would in any event have an impact on the labour force only 20 years later. Policy-makers, however, could at least prepare for the unavoidable. But even this is not being done as shown by the endless equivocation over pension reform in a number of member countries. The full adjustment of pension systems to the ever-increasing old age dependency ratios has not yet taken place.

Another reason for the structural problems is that productivity has performed badly in Euroland over the last years. We show, based on recently available data, that part of the problem has been insufficient investment. This finding is surprising in light of the fact that investment-to-GDP ratios in Europe have not declined dramatically, and the capital stock per worker is still rather high because Europe has traditionally had a higher investment rate than the US. But there are indications that a large part of the existing capital stock in Europe is not in the place where it is needed, namely in the sectors of the economy that are expanding. Too much of the existing capital in Euroland is immobilised in declining sectors (especially in industry) and too little is invested in the growing sectors (especially services) to sustain productivity there.

Why would investment not flow spontaneously into the new sectors? The likely reason is that many of them, including a number of services sectors, are still heavily regulated in many countries. This is possible because the market opening programmes of the EU are usually restricted to trade in goods, and only recently has the focus of the internal market programme shifted somewhat towards services. We thus conclude that to improve the growth outlook, more investment is needed and in different sectors than in the past.

How can this be achieved? Structural reform, especially in the markets for services, seems to be a necessary condition for investment to flow to the more promising parts of our economies. But policies that increase overall investment would also be useful. This implies that a reduction in fiscal deficits would be necessary. There has been a lot of discussion of whether higher deficits actually help to increase demand in the short run. It is thus not

possible to totally dismiss the fear that a fiscal adjustment now would somehow lower demand. But it is almost universally agreed that higher deficits crowd out private investment. Thus, moving to approximate balance from structural deficits of around 2-3% of GDP would free resources that could allow overall investment in the EU to increase by 10-15%, which would be sufficient to reverse the decline in productivity observed over the last 10 years.

A recovery of the European growth potential thus needs a combination of structural reform and fiscal consolidation. It is clear that if this combination were to materialise, low interest rates would also help – and would be appropriate because higher potential growth would lower the pressure on prices.

But Europe seems to be caught in a reform deadlock: no reform, no fiscal consolidation and a monetary policy that only lectures the public about the deeper ills of the European economy because the ECB considers that it is responsible only for maintaining price stability. We understand the ECB's stance, but the malaise in Europe has gone on for so long that there is a real danger to price stability in the long run from fiscal fatigue if something is not done today. With price stability assured, the ECB – as the only widely respected economic policy-making institution in the EU with room for manoeuvre – should thus be more ambitious in pursuing its secondary mandate and push for economic policy coordination in order to obtain more progress on structural reform and fiscal consolidation.

Our policy prescription would also be justified from a global perspective, but here again there is a problem of policy coordination. In our view it could be alleviated through greater cooperation among the central banks from those economies that dominate the world, namely the US, the EU, Japan and China. This G4 would be much more manageable than the G7 and would actually bring together the institutions that could really deliver a contribution for a more balanced expansion of the world economy to reduce the risk of brutal exchange rate movements.

Chapter 1

Introduction

What are the key challenges and options for EU economic policy-makers mid-2004? The answer seems obvious: to re-ignite growth and transform a hesitant recovery into a longer phase of healthy growth. But this seems easier said than done. Structural reforms have not really advanced over the last years and it seems that the traditional levers of macroeconomic stimulation have also not been used. In this introduction we set the scene for the discussion about economic policy by briefly analysing two factors that impinge on the economy in the longer run, namely the quality of economic policy-making and demographic trends. To conclude this introduction, we briefly comment on the enlargement of the EU that has taken place recently and ask what effect, if any, it will have on the eurozone.

1.1 Euroland 2004: Leaner times are here to stay

The main theme of the Euroland economy in 2004 continues to be weakness of both demand and supply. Previous reports of this group already documented how the bleak outlook for supply in the medium to long run is likely to have caused the weakness of demand (Gros et al., 2003 and 2002).

Any observer of economy policy-making in Europe must be struck by the deterioration in the quality of economic policy in general. This can be seen on many fronts: fiscal policy plans constantly go awry, the Lisbon agenda is repeatedly invoked but no action is taken, etc. We would argue that this disarray among policy-makers can be explained by the fact that the existing policies and institutions are geared for a growing economy in which growth allows for some redistribution each year. Growth prospect are now rather dim throughout most of Euroland due to lower productivity growth and, particularly in Germany, due to demographic developments. Economic policy-making is thus squeezed on two sides. The slowdown in productivity is analysed in more detail below. The impact of demographic developments is less well known and will be documented below.

The squeeze on the potential for re-distribution matters because it has an impact on both fiscal and monetary policy. Fiscal policy is deteriorating as finance ministers try to save and then discover every year that despite their attempts at cutting expenditure, the ratio of public expenditure to GDP does not go down and that, year after year, deficits are higher than expected. What they fail to understand is that measures that would have redressed the balance ten years ago are now barely sufficient to avoid even larger deficits.

Monetary policy is less directly affected by the slowdown in growth and the narrowing scope for redistribution. Judging from its own predictions, the ECB has also been slow to recognise the fall in potential growth and has thus regularly overestimated growth prospects and underestimated inflation. However, the magnitude of the error, about half a percent per annum, was sufficiently minor that price stability was not seriously put in danger. This might change when the pressure on economic policy increases. Experience shows that price stability cannot be maintained when extreme pressure is exerted on public finances, as occurs for example during times of war. This is where the danger lies. The long-run impact of ageing on public finances in Europe is actually comparable to the fiscal cost of a major war (see Deutsche Bank, 2004).

1.2 From demographic bonus to *malus*

Previous reports of the group have documented in detail the structural nature of the slowdown in growth in Europe and the following section provides some additional evidence on its causes (as well as its likely persistence). What is not widely appreciated is that the impact of ageing will not be felt only in 20-30 years, but that it already has a major impact today on the economies of some member countries.

A first important point is that the word ‘ageing’ does not adequately describe the problem Europe is facing. It is true that average life expectancy is increasing continuously in all developing countries. But the main reason why the proportion of the elderly is now expected to almost double over the next 50 years in Europe is that on average fertility has fallen so much below replacement levels that natural population growth has now turned negative, and will stay negative for the foreseeable future. Lower birth rates imply of course that the average age of the population increases. It is important to realise that low birth rates are a phenomenon that is specific to Europe (and Japan), but not the US, as can be seen from the demographic projections for the EU and the US presented in Table 1.1 below.¹

This table concentrates on old-age dependency ratios, which constitute a measure of the consequences of ageing for public finances since an increasing proportion of elderly implies higher pension and health expenditures. This table shows that for the EU-15 the old-age dependency ratio will, on average, double by the year 2050 to reach over 50%. By contrast, the dependency ratio of the US will increase much less and will remain about a third lower than that of Europe. Among the major member

¹ These projections are already based on the assumptions that fertility in Europe will somewhat recover and that the increase in life expectancy will slow down.

countries, Germany stands out as having to face a considerably faster ageing process than France, for example.

Table 1.1 Old-age dependency projections

	2000	2025	2050
Japan	25.1%	47.0%	64.6%
US	18.8%	29.3%	34.6%
France	24.5%	36.0%	45.9%
Germany	24.2%	39.4%	52.9%
EU-15	24.4%	36.1%	51.0%
EU-28	21.5%	31.9%	48.5%

Sources: US census data (available at <http://www.census.gov/ipc/www/idbnew.html>) and own calculations.

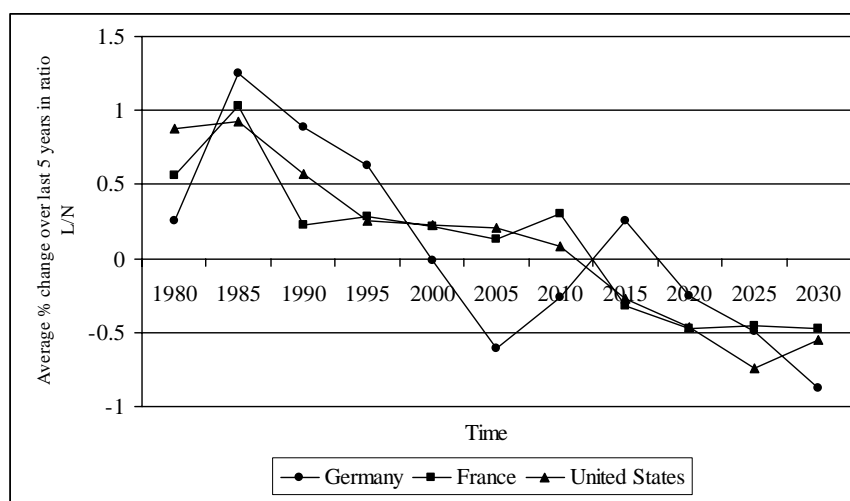
The old-age dependency ratio is widely used to illustrate the pressure on pension systems. However, a better indicator for the overall impact of demographic factors on the economy (and thus the pressure on economic policy) might be the simple ratio of the working age population to overall population. The level of this ratio measures in a certain sense potential GDP per capita. Changes in this ratio show, *ceteris paribus*, to what extent the room for re-distribution is affected by demography. For example, if this ratio increases by 1%, potential GDP per capita should go up by 1% *ceteris paribus*, i.e. holding total population, productivity, employment rates, etc. constant. A fall in this ratio indicates the opposite; potential GDP per capita falls, implying that there is less to redistribute to pensioners and other interest groups.

If one looks at the evolution of this indicator for Germany, it becomes apparent why the ‘Umverteilungskampf’ (struggle over redistribution) has become much tougher in recent years. During the five years preceding reunification, demographic factors provided a strong backwind for economic policy as the ratio of working age population to total population was increasing by about 0.9% per annum. By contrast, during the five years leading up to 2005, demographic factors provide a headwind to economic policy as this ratio started falling rapidly after 1995, with the deterioration during the last five years equivalent to about 0.54% per annum. The total deterioration between the late 1980s and now thus amounts to almost 1.5% per annum. The German economic system, which until the end of the 1990s could count on a demographic bonus every year, was simply not prepared for this change. The sails had been set for wind from aft and the country was not able to adjust to the fact that the wind is now blowing from the bow.

It is interesting to see that France is in a quite different position: its demographic situation is evolving more slowly, with the important deterioration coming only during the next decade. The US has a similar pattern as France. In the US the demographic factors will change from plus 0.2% per annum now to around minus 0.3% in the five years to 2015, which is equivalent to a negative change of over 0.5% per annum over the next 10 years (just when the budget is supposed to be brought under control again).

Thus, the ageing process already today exerts a strong economic impact in some member countries. The data for Germany, which remains the largest economy of Euroland, seem to represent the worst case: a combination of rapidly worsening demographic factors and lower productivity growth. This combination is behind the loss of control over fiscal policy in Germany and must also be the main explanation of why the half-hearted reforms undertaken so far have been insufficient to turn the economy around. Other member countries face less extreme pressure because their demographic situation evolves more smoothly, but few member countries will be able to escape the twin pressures of worsening demographics and declining productivity on economic policy.

Figure 1.1 Change in demographic potential GDP -25, 65+



1.3 Enlargement: is it important?

If unsatisfactory growth is the main problem for the EU, the new member states are unlikely to cause particular problems. They are growing faster than

the old EU-15. The average growth rate of the 8 new member countries from Central and Eastern Europe has consistently been 1-2 % points higher than that of the eurozone over the last years. Many of the new member countries are presently running rather high fiscal deficits, but this is not an immediate policy concern at the EU level because they are not subject to the enforcement mechanism of the Maastricht Treaty's prohibition of excessive deficits (which is on hold right now in any event following the debacle in the Ecofin meeting of November 2003).

The 10 new member countries have a negligible direct economic impact as their economies amount together to only around 5-6% of EU-15 GDP. Since they are mostly small countries, however, which depend on the Treaty to maintain their influence, they will be more likely to vote in Ecofin for a strict application of the Stability Pact (although they cannot participate in the last step, the imposition of fines). By 2009, this will change if the Constitutional Treaty recently agreed enters into force because the new Treaty foresees that non-euro area countries will be excluded from almost all aspects of the excessive deficit procedure.

Three small new member countries (Estonia, Lithuania and Slovenia) just entered the ERM2 and a fourth is likely to join later this year. Four of the new member countries could thus qualify for euro area membership by late 2006. Two of these countries (Estonia and Lithuania) have had a currency board in place for some time (more than 10 years in the case of Estonia) and effectively behaved like 'shadow' members of the eurozone. The other two, Cyprus and Slovenia, have always managed their currencies rather tightly, which was not too difficult given the small size of their economies and hence the small scale of their foreign exchange markets.

Formally the decision on euro area membership could be taken in early 2006, on the basis of the data for 2005. On current performance, or rather using the currently available forecasts from the European Commission shown in Table 1.2, three of these four countries should then be able to qualify for euro area membership without too much effort. Cyprus would need to reduce its fiscal deficit by about 1.5-2.0 points of GDP.

The main impact of the entry of these four countries in the eurozone would not be economic since their combined GDP amounts to less than 1% of that of Euroland, but rather political. As small countries, they are likely to defend the Treaty and are thus likely to vote for upholding the Treaty provisions against excessive deficits in future Ecofin meetings. Their resolve will also be strengthened by the fact that they will have been able to join the eurozone only if their deficits had previously been kept clearly below 3%.

Table 1.2 Current data and forecasts for the Maastricht criteria for four new members of the eurozone

Panel a) Cyprus

	2002	2003	2004	2005
Fiscal deficit	4.6	6.3	4.6	4.1
Public debt	67.1	72.2	74.6	76.9
Inflation	2.8	4.0	2.2	2.1
Interest rate	5.4	4.7		

Panel b) Estonia

	2002	2003	2004	2005
Fiscal deficit*	-1.8	-2.6	-0.7	0.0
Public debt	5.7	5.8	5.4	5.3
Inflation	3.6	1.4	2.8	2.9
Interest rate				

* A minus sign indicates a fiscal surplus.

Panel c) Lithuania

	2002	2003	2004	2005
Fiscal deficit	1.4	1.7	2.8	2.6
Public debt	22.8	21.9	22.8	23.2
Inflation	0.4	-1.1	1.0	2.2
Interest rate				

Panel d) Slovenia:

	2002	2003	2004	2005
Fiscal deficit	1.9	1.8	1.7	1.8
Public debt	27.8	27.1	28.3	28.2
Inflation	7.5	5.7	3.8	3.2
Interest rate		5.5		

Source: EU Commission, spring forecast.

Chapter 2

Continuing structural weakness?

The eurozone has now gone through an unprecedented three years of near stagnation. Was this just a cyclical phenomenon attributable to a combination of external shocks and inadequate macroeconomic policy responses? In the short to medium run, cyclical and structural factors always interact in a way that makes it nearly impossible to disentangle their relative importance. One thing is clear, however: long-term potential growth rates have fallen in Europe. This is not just because of lower population growth; per capita growth has fallen as well, as extensively documented in previous reports of this group (see Gros et al., 2001, 2002 and 2003). This chapter first reports some new evidence on the causes of the slowdown of productivity in Europe. Section 2.2 then turns to some interesting differences in performance within the Euroland economy.

2.1 Growth potential

How can one find out whether there has been a structural slowdown in Europe?² In view of Blanchard (2004), who has drawn attention to the fact that the level of output per hour worked in some important member countries is close to the US level, it might be best to concentrate immediately on hourly productivity. The table below (taken from Daveri, 2004) shows how the growth rate of GDP per hour worked has fallen from around 2.6% per annum during the first half of the 1990s to less than 1.5% per year since 1995. It is not possible to argue that this fall just reflects a cyclical phenomenon since the period since 1995 was not worse in terms of business cycle than the period 1990-95, which suffered a recession with a fall in real GDP, whereas during the period 1995-2002, GDP growth was always positive.

The key fact shown in Table 2.1 is thus that productivity as measured by GDP per hour fell by 1.2 percentage points at a time when the opposite happened in the US (where hourly productivity growth increased by 0.8% points). Given this discrepancy between the US and the European data, it is not possible to argue that the dismal performance of the European economy in recent years is just a result of a negative shock coming from the global business cycle emanating from the US.

² This section is based on Daveri (2004).

Table 2.1 Growth of GDP per hour worked in the EU and the US, 1979-2001

Total economy, OECD data	1970-80	1980-90	1990-95	1995-02	1995-02 minus 1990-95
EU-11*	3.6	2.3	2.6	1.4	-1.2
US	1.6	1.4	1.2	2.0	+0.8
<i>EU11-minus US</i>	+2.0	+0.9	+1.4	-0.6	-2.0

* EU-11 is used here instead of EU-15 because of limited data availability.

Source: Daveri (2004).

Why should productivity growth have fallen in the EU? It is often argued that the difference in performance between the EU and the US can be explained by the US advantage in new technologies, mainly information technologies (IT). However, the gap in IT between the EU and the US can not help to explain why Europe's performance should have deteriorated. Europe might be slow to adopt IT, but it certainly has not turned away from IT; hence, the causes for the slowdown in Europe (as opposed to the transatlantic gap) must be sought elsewhere. One reason for the productivity slowdown in Europe might be quite simple: total factor productivity growth (TFP) might have declined.

A definite answer to the question whether capital or TFP was behind the EU's productivity slowdown in the 1990s cannot be given yet. Any answer is still tentative because the data necessary to address this issue are available only for a subset of EU countries. The limited available information suggests, however, that a slowdown in capital deepening – rather than diminished TFP growth – is the main culprit for the European slowdown.

This conclusion emerges when one decomposes the growth rates of value added per hour worked into their constituent elements of capital deepening, TFP growth and labour quality growth contributions for the US and the aggregate EU-4. In turn, the capital deepening component is usefully further split into an IT capital component and a non-IT capital component.

The results tabulated in Table 2.2 below suggest first of all that the European productivity slowdown is mostly due to diminished capital deepening of non-IT goods only. Second, TFP growth has not changed much, continuing at the respectable rate of about one percentage point reached in the past. The slowdown in the growth rate of labour productivity in the business sector for the EU aggregate – milder for the four countries considered here than for the EU-15 – is more than accounted for by the diminished contribution of non-IT capital (-.45 percentage points) and the worsening in labour quality, which has contributed another negative .15 percentage points.

Table 2.2 Decomposing aggregate labour productivity growth, business sector

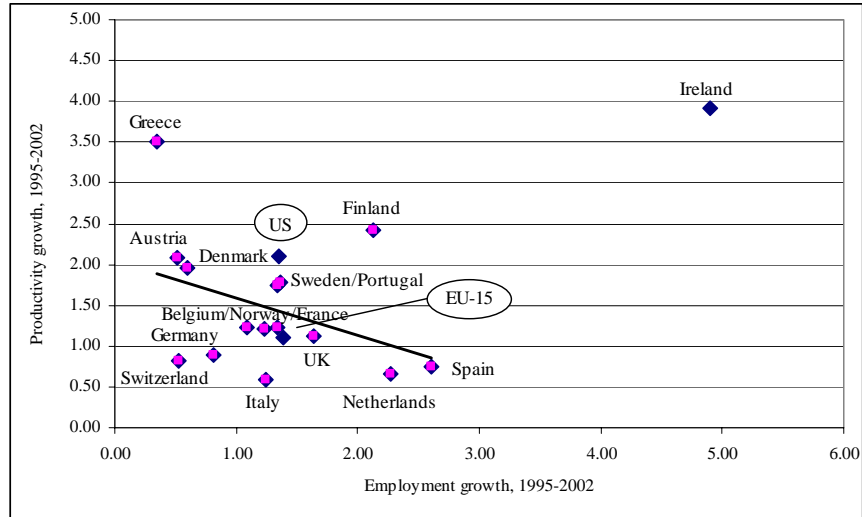
	US		EU-4	
	1979-95	1995-00	1979-95	1995-00
Business sector				
Labour productivity growth	1.21	2.46	2.30	2.02
Contributions to labour productivity growth from:				
IT capital	.46	.86	.33	.53
Non-IT capital	.35	.43	.70	.25
TFP growth	.26	1.05	.94	1.07
Labour quality	.13	.13	.33	.18

Source: Daveri (2004).

On the positive side, instead, business sector productivity has benefited from an increase in the already-positive contribution from IT capital (up from .3 to .5 percentage points) and from the slight increase in TFP growth (from .9 to 1.05 percentage points). Hence, at least for the overall business sector, one has to concur with Jorgenson (2003) saying that TFP as well as accumulation of IT capital are unrelated to the European slowdown in growth of productivity. This marks a sharp contrast with the US, where TFP growth markedly accelerated, moving from a contribution of .25 to more than 1 percentage point per year and the contribution of IT capital jumped up almost half a percentage point (from .4 to .8 percentage points). Figure 2.1 documents a strong negative relationship between employment and productivity growth, which is a way to illustrate the fall in capital deepening: if employment goes up while investment stays constant, the amount of capital available per worker declines and hence also productivity declines.

Hence, the evidence, based on the better data available today, essentially confirms the findings in Daveri (2000, 2002) and Gros (2001, 2002), where rough overall measures of IT capital and TFP were employed. Other sources (e.g. European Commission, 2003) report a small decline in TFP, which might appear to be inconsistent with the data reported here. However, the data available for the EU-15 does not account for changes in labour quality, whose effects are thus attributed to TFP. The more detailed data for the quality of the labour force, which are available only for the EU-4, suggest, however, that part of the apparent decline of TFP might have been due to a deterioration of labour quality. How could labour quality diminish when the general level of education is constantly increasing? The explanation for this puzzle seems to lie in the fact that during the late 1990s the share of the lower skilled in the workforce increased. This had been the aim of many labour market reforms, but it had the side-effect of diminishing average labour quality and with it, overall productivity.

Figure 2.1 Productivity and employment growth in Europe and the US (1995-2002)



Notes: “Employment growth” is the growth rate of total employment; “Productivity growth” is the growth rate of GDP per employed person.

Source: OECD *Economic Outlook*.

The more detailed data necessary to distinguish between TFP and labour quality are available only until 2000. This implies that the period covered by Table 2.2 comprises just the upswing following the 1995 recession. It follows that these data are likely to overestimate productivity growth and in particular TFP. If one compares periods that are similar in business-cycle terms as is done in Table 2.1 (i.e. using the 1995-2002 period), the fall in overall productivity would be much larger and the performance of TFP would be likely to be much worse. But the detailed data to perform this exercise are not yet available.

Could one expect productivity to improve again over the next few years?

One way of addressing this question is to start with the official Lisbon goal in terms of employment. It is not widely appreciated that there is a capital deepening counterpart to the Lisbon employment goal. One of the Lisbon policy goals called for the European Union to raise the EU-15 employment rate – the ratio of total employment over total working age population – to 70% by 2010. Given that the current employment rate in the EU-15 is about 63%, this implies an increment of about 1 percentage point per year over the next seven years or so. In turn, if the population in working age keeps growing at the past rates of about 0.5 percentage points per year – an average of 0.3 p.p. for the native population and 1.2 p.p. for immigrants – total

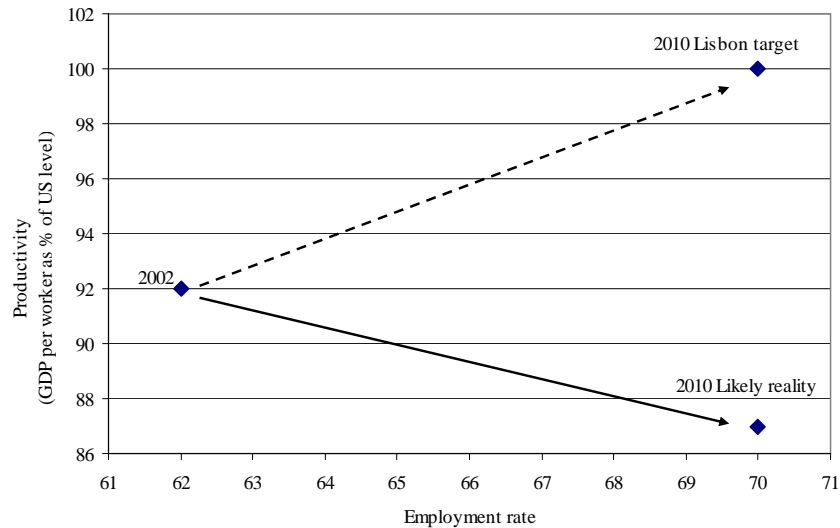
employment has to go up by 1.5% per year until 2010 to meet the Lisbon employment goal. This is a bit higher than 1.25%, which is the growth rate of total employment on average in the EU-15 in 1995-2002, but it is not unfeasible, at least in principle. If coupled with a continuation of the long-run trend towards a reduction of average hours worked (about half a percentage point per year), this translates into an expected increase of the labour input of about 1% per year from here to 2010.

What does this imply in terms of capital deepening, i.e. the growth contribution of capital to productivity growth? To come up with an educated guess, the past growth rates of the capital stock for the whole economy (e.g. for 1996-2000) have to be projected into the future. Based on the data in Inklaar et al. (2003) one can obtain estimates ranging between 0.8% per year for France and 4.2% per year for the UK, with Germany and the Netherlands in between (but much closer to Germany). Hence, a simple continuation of past accumulation rates would imply a growth rate of the capital stock of about 3% per year for the EU-4. The corresponding growth rate of the capital stock per hour worked would be 2% per year and the growth contribution from capital deepening would be equal to two-thirds of a percentage point per year (at least as long as the value-added share of capital stays unchanged at one-third). This compares with 0.78 percentage points computed for the EU-4 in the period 1995-2000.

All in all, this amounts to saying that, if the Lisbon employment goal is taken seriously, it would require a much higher investment effort for capital deepening to take off again and contribute more to productivity growth in the next few years through 2010. If capital accumulation stays constant, the contribution from capital deepening would then fall even a bit more, implying that at unchanged rates of TFP growth, overall productivity might actually fall a bit more (or at least not recover noticeably).

On top of the capital deepening effect there would be an adverse impact on labour quality as the additional employment would have to come from that part of the labour force that is at present unemployed, i.e. the lower skilled. The data reported above suggest that this could lead to a further loss of productivity growth of 10-20 basis points. Hence, one would need a considerable increase in capital deepening just to keep productivity from falling.

Under unchanged rates of capital accumulation, there is thus a clear contradiction between two Lisbon goals: to increase productivity and to increase employment. Figure 2.2 shows this in terms of the two headline goals: reaching an employment rate of 70% (more or less the US value) and reaching a productivity level of 100% of that of the US.

Figure 2.2 Lisbon: Employment vs. productivity?

The policy implication is straightforward: The only certain way to improve productivity growth is to increase capital deepening, i.e. to foster investment. This requires structural reforms. Moreover, higher fiscal deficits crowd out private investment; hence, enforcement of the Treaty provisions against excessive deficits, or, even better, observance of the Stability Pact would foster long-run growth prospects.

2.2 Big and small: Lessons for a more flexible Europe?

The data on productivity used so far relate mainly to the large member countries, which, while dominating the EU average, may not necessarily be representative of the entire EU. But this is difficult to document at the sectoral detail used above. Other, more easily available data suggest that the concentration on large member countries or the European average hides a lot of intra-EU variation. Can one discern any systematic pattern in this variability across the EU? The answer seems to be yes, if one compares the performance of the large and small member states. In recent years, the three largest euro area member states (France, Germany and Italy) have consistently underperformed on almost any account. As they together represent three-fourth of the GDP of the eurozone, their sluggishness is behind the underperformance of the eurozone (and of the EU), if compared not only to the present US, but also the past performance of the EU itself.

Table 2.3 shows that on average since 1997 the three ‘euro-dinosaurs’ have grown by about 2 percentage points less than the eight small euro area member countries. This implies a total underperformance of 10% over this five-year period. The much better growth performance of the smaller countries has been accompanied by much healthier public finances. The second row in the table below shows that the 8 smaller euro area member countries have on average run a budget ‘close to balance or in small surplus’, which is exactly as required by the Stability Pact. Did they achieve better growth performance in spite of or because of this fiscal strictness? Maybe the leaders of the big three should reflect more on the long-term benefits of a strong fiscal policy, rather than band together to bend the rules against excessive deficits according to their short-term political preferences.

Table 2.3 Small is beautiful? Relative performance of eurozone member countries (%)

	Average of big euro-3	Small euro-8	France	Germany	Italy
Growth	1.93	3.95	2.52	1.53	1.75
Fiscal balance	-2.06	0.13	2.13	1.99	2.07
Labour productivity	0.92	1.75	1.22	0.89	0.67
Share of industry	21.1	17.4	16.8	22.3	23.3

Notes: Big euro-3 = D+F+IT; Small euro-8 = euro-12 minus D+F+IT+ES. All variables average 1997-2002.

Source: European Commission.

Could this difference just be due to chance? The question one should ask is thus how likely would it be to find the differences in performance actually observed between two samples, one of 3 and one of 8 observations, both drawn from a uniform population; i.e. a population in which all countries had the same mean and variance. A standard t-test along these lines shows that the probability of observing the difference between big and small would be only about 8.7%, if the underlying performance of the two groups were the same. A non-parametric test based on a two-sample Wilcoxon rank-sum (Mann-Whitney) test yields a similar result: the probability of finding the sample difference is only 6.6%.³ These are just the results on one variable: real GDP growth rates. As the smaller countries also perform better in terms of other variables, as documented below, it is difficult to avoid the conclusion that smaller countries are somehow different.

Why are smaller countries able, on average, to perform better? Inflation was somewhat higher in the smaller countries so that they faced also lower real

³ See Gros (2004).

interest rates. But this factor alone would not be enough to explain a growth differential of this size. A more fundamental factor that might play an important role is the fact that the big euro-3 have more structural adjustment to undergo. The fourth row of Table 2.3 illustrates one area in which the larger economies see a source of strength transformed into a handicap: as long as markets were separated, the larger member countries offered a larger home market and were thus a better location for industry than their smaller EU partners. With the arrival of the single market and the euro, this comparative advantage has disappeared. At the same time, the competitive pressure on industry increases, not only from the worldwide process of globalisation, but also because of enlargement. In the past the rather high share of industry in employment in the big euro-3 (21% of the workforce) might have been a source of strength. Today it is a problem that might explain part of their underperformance, at least if compared to the smaller member countries where the share of industry is – at 17% of the workforce – already much lower.

The problems associated with adapting to the inevitable trend of de-industrialisation of modern economies is the one key element that distinguishes France from the other two large Euroland economies, Germany and Italy. Because France has a lower share of its population in industry, it is on this account closer to the smaller member countries than to its big neighbours to the East and South. This might also be the reason why France performs somewhat better on productivity.

Smaller member countries are not just lucky in that they happen to have less of a problem with de-industrialisation. They have also clearly been able to react much better to the shocks that have buffeted the world economy recently. External shocks, such as the 9/11 terrorists attacks or the Iraq war are routinely used as an excuse for the weakness of the European economy. This assertion can be tested in a simple way: if it were true, one would expect that small countries would be hit stronger than the large countries because the smaller member countries have much larger exposure to the rest of the world than the larger member countries. However, the data indicate exactly the contrary. As the table below shows the small euro area countries have continued to outperform the big euro-3 (D+F+IT) by a considerable margin even during the turbulent period since 2001.

Table 2.4 Real growth: Big versus small

	2001	2002	2003 (est.)
Big euro-3	1.39%	0.59%	0.2%
Small euro-8	1.98%	1.34%	1.2%

Note: Big euro=D+F+IT; Small euro=euro12 minus (D+F+IT+ES).

Source: European Commission.

All this suggests that the key advantage of the smaller countries might just be that they are more flexible. In a smaller country, everyone – the general public, the trade unionists and the politicians – knows that it is the country that has to adjust if external conditions change. The response to a negative external shock might be quite different in different countries. Countries with a corporatist approach might opt for a general wage restraint (Austria, the Netherlands), whereas other countries might opt for greater flexibility of labour markets (Denmark?), etc. But the key is that the need for internal adjustment is generally accepted in small countries. By contrast, the discussions in France, Germany and Italy about the need for reform are almost exclusively conducted in domestic political terms. External pressures play only a subordinate role. Fertig & Kluve (2004) show that there is no lack of academic contributions on what needs to be done, but both do not focus on the role of European integration as one of the drivers of reform.

The concerted action by France and Germany at the end of last year to stop the sanctions mechanism of the Stability Pact was symptomatic of this state of affairs. Almost all the smaller countries were hostile to the Franco-German position (which had quiet support from Italy). Very strong political pressure was needed to prevent the majority of smaller countries to vote for the Commission proposals. (For more details, see Gros et al., 2004.) The case of Portugal, which had missed the 3% limit for just one year, was completely different. There, the country did not oppose the measures proposed by Brussels, the deficit was brought down within one year and, according to media reports, the political party that had to push the tough adjustment measures through its Parliament actually gained in popularity.

Chapter 3

Fiscal Policy: How to assess and maintain sustainability?

This brief chapter concentrates on the dilemma that is at the heart of the discussion of the Stability and Growth Pact (SGP) today. It is almost universally agreed that some limits are needed to ensure that fiscal policy remains sustainable, but there is little agreement on how to measure sustainability. The justification of the French and German governments in continuing to run deficits above 3% is that this is only temporary and does not ‘really’ impair sustainability. But can one trust this argument?

Section 3.2 thus reviews various proposals to reform the Stability and Growth Pact in light of this issue. Section 3.3 then turns to the main reason why the SGP makes sense in a ‘greying’ Europe.

3.1 Introduction

The Treaty of Maastricht, Article 109j(i) makes the “sustainability of the government financial position” a precondition for eligibility in the European Monetary Union. ‘Sustainability’ is implicitly proxied in the Treaty by compliance with the well-known deficit and debt criteria (although the latter has never been enforced). There is no universally accepted definition of ‘sustainability’ among economists, but perhaps the most common definition is that a fiscal policy is sustainable if the present discounted value of all future primary surpluses is sufficient to pay for the initial debt plus the current primary deficit. This condition is equivalent to assuming that debt does not grow ‘too fast’ in the limit, or equivalently, that the government is not running a ‘Ponzi scheme’, by borrowing more and more without ever repaying the debt.

Although the Maastricht criteria were clearly not designed with this notion in mind, their focus on the *current* deficit can be loosely interpreted in light of the notion of long-term sustainability: to the extent that the current deficit is simply a result of given institutions and policies, and to the extent that institutions and policies are persistent, then the current deficit is a good proxy for fiscal policy in the medium run. While this connection between the Maastricht criteria and sustainability is admittedly loose, it is probably the best rationalisation one can give of the Maastricht criteria.

3.2 Proposals for reform

The above-described connection between the Maastricht criteria and sustainability is also perhaps the best conceptual framework for understanding the recent spate of proposals to modify domestic fiscal institutions and the Stability and Growth Pact.

3.2.1 *Multi-year budgets and structural reforms*

According to the first proposal, it is argued that in several cases the effects on the budget deficit of structural reform packages are likely to manifest themselves a few years after the initial implementation of the package, while initially the reform could even lead to a higher deficit. In this case, the increase in the current deficit, perhaps above the Maastricht threshold of 3% of GDP, would send exactly the wrong signal about the effect of the reform on the sustainability of public finances, i.e. about the present discounted value of future primary surpluses.

Thus, the thrust of the proposal is that the Maastricht criteria should be relaxed in the case of those structural reforms with delayed effects on the budget; conversely, a strict application of the criteria would needlessly discourage those reforms that are good for sustainability – the dimension one should really care about – but bad for the deficit in the very short run.

To give a concrete example, the French and Italian governments have recently proposed (and partially enacted) reforms of their pensions systems which should yield substantial savings starting around the year 2008. The present value of the savings has variously been estimated at more than 10% of GDP. Given these large prospective savings, the governments seem to have a strong point when they argue that it does not make sense to criticise them for not reducing their deficits more quickly in the current year or next. The Commission should thus stop checking simply whether fiscal deficits are above or below the arbitrary threshold of 3% of GDP and should instead concentrate on longer-term sustainability.

The first problem with this argument is that the current government cannot pre-commit the actions of future governments, and not even its own future actions. But if its announcement of future reductions of the deficit are taken at face value, this creates an obvious incentive to run a loose fiscal policy now, and compensate for this by announcing that the present discounted value of the deficit will be reduced by future actions, for instance a medium-term package of drastic structural reforms implying large budget savings in the medium run. But when the future comes, there is no reason the government in power at that point should feel bound to implement the measures announced in the past.

The second problem with this proposal is that, even abstracting from the time-consistency problem illustrated above, there is an obvious incentive to overestimate the budget savings from the medium-run package – for instance by assuming implausibly strong behavioural responses of the private sector to the package. Note that this is distinct from the first problem, because it can occur even if somehow the current government could credibly pre-commit the action of future governments. This is indeed a pattern that one frequently sees in the medium-term plans of national budgets: when a government decides to run a loose fiscal policy in a given year, it maintains a claim to fiscal rectitude by forecasting dramatic declines in the future deficits after the initial ‘unavoidable’ and ‘special’ increase in the current year. For instance, the first budget plan of the Berlusconi government in Italy forecast a GDP growth over the next five years at 3% per year, partly as a consequence of the supply effects of the deficit-increasing fiscal measures in its first year. The German government used almost exactly the same approach to justify its own tax reform in the year 2000: it will increase the current deficit a bit, but this will be more than compensated for by positive supply effects later on. We all know how things went; the point is that forecasting growth at 3% for five years costs nothing, and can be readily used to justify a claim to fiscal responsibility over the medium run, while making room for any type of behaviour in the short run.

There is a third reason to be sceptical about the value of longer-term reform promises: quite simply, no reform plan can encompass the entire budget. A longer-term pension reform plan that promises substantial future savings because the retirement age will be increased in 2020 does not necessarily imply that future deficits will be lower. Even if the provision were implemented in the year 2020 exactly as originally planned, in the meantime the government might compensate various groups by lowering contribution rates, or easing the access to invalidity and disability pensions as imperfect substitutes of early retirement pensions that are being phased out, etc. Even if the government could pre-commit itself or future governments to the pension reform package, there is no way the whole range of possible developments in the remaining part of the budget can be forecast.

The solutions to these problems that have been proposed usually come under the heading of some form of a ‘debt board’, independent bodies of prominent individuals who monitor the evolution of fiscal policy. In one version, the board would be a national institution that would have the power to intervene in fiscal policy at the national level when longer-term sustainability is threatened. This strong version of the board runs into an obvious, insurmountable difficulty: to fulfil this mission, it should have the power to override expenditure increases, implement its own tax hikes and more generally to take fiscal measures independently of the executive and the legislative branches of government. It is apparent that in modern

democracies this kind of decision cannot be left to an 'independent' body; and even if for some reason this were the case, the executive and legislative branches could always rescind these powers the moment they conflict with their own goals.

This strong version of the debt board probably has very few proponents these days, at least in Europe. But a weaker version has many advocates. This independent body would evaluate the projections of the government regarding the effects of the reform package. Thus, its main role would be to provide a check on the internal coherence, consistency and plausibility of the government's assumptions and projections. In a sense, it would make more visible, and hence politically costly, a flagrant departure from realism and plausibility.

What would happen if the debt board and the government disagreed on the projections and on the assumed effects of fiscal policy? Perhaps the debt board could make different, more realistic assumptions on, say, the future rate of growth of the economy. But could it make different assumptions on, say, the increase in the retirement age if it deems that the package has no probability of being implemented as is in the future? Even the most independent evaluators of fiscal policy would probably have to accept at face value the evolution of the parameters legislated in the reform package; for instance, it would have to accept as a given in its projections the effects of a reform package that might increase the level of pensions today, but also increases the retirement age starting in the year 2020.

But even if it does not have to accept these projections, once the current government and the debt board disagree on the likely future impact of the reform package, the consequence would be protracted litigation. There is no fire-proof methodology to assess the impact of a future policy – my projection is as good as yours. Perhaps after many years the debt board might show a better track record at forecasting; but the notion of the standard error of forecasts is usually not part of the political discourse. And if the political survival of the government is at stake, the winner cannot be the debt board.

Hence, realistically a debt board could have at most a role akin to that of rating agencies or of the European Commission forecasters, but with more visibility and a higher standing. As a dedicated body of highly regarded experts with established reputations in the field, it would provide authoritative, frequent and documented forecasts of future fiscal developments, perhaps based on alternative scenarios. Unlike in rating agencies or international organisations, here several persons would work year-round at monitoring all the developments in the budget and making forecasts of future developments. Hence, this part of the job description of the debt board is more akin to that of agencies like the Congressional Budget Office in the US. In addition, the debt board would also have the power to

issue informal warnings on fiscal policy whenever its members feel there is such need, and ultimately it could act as the whistle-blower on fiscal policy. Any power beyond this is in our opinion unrealistic, and in any case unlikely to survive the first political skirmish.

3.2.2 The golden rule

A second frequent argument for a reform of the Maastricht criteria has to do with productive government spending. Suppose the current deficit increases because of higher spending on large infrastructure projects; presumably, once in place this infrastructure will raise the productivity of the entire economy; the resulting increase in GDP will lead to higher revenues that will offset the current higher spending. Once again, in this case the increase in the current deficit should not be interpreted as a signal of deteriorating sustainability, since future surpluses will rise correspondingly. Thus, according to this ‘golden rule’ argument, productive government spending – essentially, government capital expenditure – should be exempted from the computation of the deficit relevant for the Maastricht criteria.

There are at least two problems with this argument. First, it is based on the assumption that a euro spent on items that are classified as government investment increase GDP on average so much as to generate a flow of extra revenues (in present discounted value terms) equal to the initial spending. To get an idea of the magnitudes involved, if t is the average marginal tax rate for the whole economy, the present discounted value (PDV) of GDP should increase by $1/t$ for any extra euro of government investment. With an average t in Europe of about .4, the present discounted value of GDP should increase by 2.5 times the initial investment, and this ignoring depreciation of the capital stock. We believe there is no empirical evidence supporting this assumption. Of course, the infrastructure could be self-financed by user fees: but such cases are quite rare in the case of capital spending by the general government.

A second problem is that in practice there is considerable leeway in defining what exactly constitutes capital spending by the government. There is non-trivial variation among OECD countries in how they classify certain spending, sometimes in open contrast to the new System of National Accounts. The Golden Rule would create an irresistible temptation to reclassify as capital spending as many items as possible, something that has invariably occurred in the experience of those Latin American countries that have adopted similar rules. One could argue that Eurostat is there precisely to enforce a uniform set of rules. But the experience of the recent past shows that there is ample scope for lengthy litigation, even on items that were seemingly very precisely defined such as privatisation proceeds. At best, this protracted litigation would just add to the uncertainty of the process.

3.2.3 Debt

A third argument for a relaxation of the focus on the current deficit is that it does not take into account the existing level of debt. Although it is not often cast in these terms, it is useful to rationalise this argument in terms of our notion of sustainability. Recall that fiscal policy is sustainable if the present discounted value of current and future surpluses equals the current debt. If the current deficit is assumed to be somehow a predictor of future fiscal policy, a lower debt is compatible with a higher current deficit.

It is difficult to argue with this reasoning. In practice, conditioning the admissible deficit to the level of the debt requires reintroducing a parameter, the debt-to-GDP ratio, which has never been enforced, even in the run-up to the EMU. It will be very difficult politically for countries with a high debt-GDP ratio to accept a new rule that heavily penalises them when they are already running against the limits imposed by the current, weaker, rules. And because it takes many years to reduce a high debt-GDP ratio like that of Belgium or Italy to the EU average, this rule would divide countries into near-permanent categories – again a status that is likely to be very difficult for many countries to accept politically.

3.3 The enduring purpose of the Pact

Where does all this leave us? On one hand, the Maastricht Treaty and the Stability and Growth Pact are under heavy criticism from many quarters, and their credibility is currently in shatters after the November 2003 debacle. On the other hand, we have raised serious doubts on the rationale for the main proposals of reform.

Academics and policy-makers routinely bemoan the lack of a sound economic rationale for the main provisions of the Pact. We all know that the figures in the Pact – 3% and 60% – do not and cannot have any particular standing in any theory. The main justification for imposing *some* limit on fiscal policy probably cannot be formalised in a coherent model, but still should not be dismissed lightly. It is the argument that, loosely speaking, the ability in EMU to conduct an independent monetary policy geared to the control of inflation would be somehow impaired by the presence of countries with a protracted record of severe policy mismanagement, of which fiscal indiscipline is one key manifestation. To make a concrete example, we believe the type of behaviour the Maastricht Treaty had in mind was the Italian habit of running deficits of close to 10% of GDP that lasted for about 15 years – not the German deficits of 3.5 to 4% over two to three years. However, a rule is a rule; hence, once it is written in a Treaty it must be enforced if it is not to lose all credibility.

But, perhaps little noticed by many observers, the type of deficit limit enshrined in the Treaty and the Pact is acquiring a new important function of its own. As is well known, European societies are ageing fast, implying an increasing burden on government finances – by the Commission’s estimates and based on prudential estimates of the demographic trends, between 3 and 5% of GDP in the typical European country over the next generation. Economic theory suggests that in order to minimise distortions, tax rates should be kept approximately constant over time, rather than follow the ups and downs of government spending – hence, if spending is anticipated to increase in the future, governments should run surpluses initially when spending is low in anticipation of higher deficits when spending increases later.

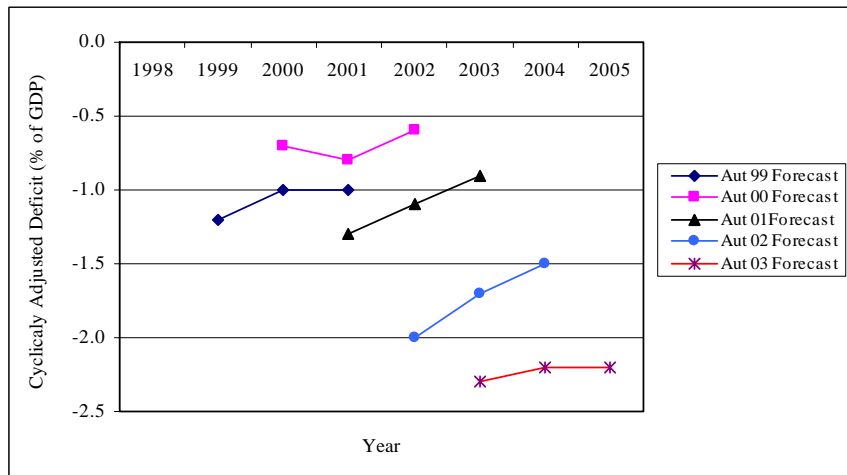
However, current governments might have little incentive to ‘smooth’ taxes over time: why should the current government incur the electorate’s wrath by setting high tax rates now in anticipation of higher spending that will most likely come under a different government? Thus, in the absence of deep cuts in non-age-related spending programmes for which European governments and societies seem to have very little appetite, the provisions of the Treaty and the Pact come in handy to force governments to apply some form of tax smoothing despite these skewed incentives. Indeed, by one estimate (see CEPS, 2003, for details), in order to hold tax rates approximately constant at the current levels at the population ages, the balance of the government accounts of the typical European government today should be between 0 and a surplus of 2% of GDP, which is exactly what the Pact calls for.

So the Pact still has a purpose. To be implementable and enforceable, however, one feature will have to be improved on. Few observers have noticed that much of the trouble leading up to the November 2003 events was caused by a spectacular failure in forecasting growth and the deficit. In fact, in May 2003, Germany appeared to be well on course, based on forecasts approved by the Commission, to keep its promise to Ecofin of early 2003 – holding the budget deficit within the 3% limits. But then the growth prospects for Germany – both actual and potential – were revised drastically downwards, and not for the first time in recent years. This is when the trouble started.

In fact, an analysis of recent budget forecasts by the Commission (see Gros, 2004) shows that the Commission (and indeed many other organisations) consistently over-predicted actual and potential growth, and under-predicted both the cyclically adjusted and the actual deficits. More precisely, the standard deviation of the forecasts of the deficits, just 3 quarters ahead, is more than a percentage point of GDP – a large number when almost all European countries are teetering on the brink of the fateful 3% deficit limit.

The inadequacy of the forecasts used in the excessive deficits procedure is also illustrated in Figure 3.1, which shows how almost invariably budgets are planned to improve in the near future, but in reality they have tended to deteriorate over the last years. Since Figure 3.1 shows the cyclically adjusted budget balances, this gap between plan and reality cannot just be ascribed to the cyclical downturn, which lasted longer than expected. A more realistic explanation is that, as argued above, governments have an incentive to assert that regrettably they are running large deficits today, but that the situation will soon improve. For example, in the year 2000, the cyclically adjusted deficit was supposed to improve to 0.5% of GDP until 2002, whereas the actual outcome was then 2% of GDP.

Figure 3.1 Cyclically adjusted deficit (forecasted)



This suggests that, in order to be credible and to have a minimal chance of enforceability, the Pact needs to rely on more realistic forecasts. Part of the problem is that, for political reasons, the Commission and Ecofin are often forced to accept unrealistic forecasts on budget items until they are no longer defensible – usually only a few months before showdown time. Thus, some form of independent monitoring and political pressure, as envisioned in some variants of the proposals of a debt board, could come in handy here. An independent institution should be designed to assess the credibility and realism of government forecasts, not only of growth, but also of discretionary measures. To be effective, this would necessarily involve taking a stance on both the political feasibility and technical aspects of these proposals. For example, one set of dubious proposals that should have been challenged were the first Berlusconi budgets, which, repeating claims made by several of their predecessors, budgeted in ‘savings’ from the expansion of internet

procurement on the order of €3 to €4 billion per year, when all the experts were warning that this was merely wishful thinking. Nothing of course came of this, and the special agency designed to achieve these savings is now being dissolved.

The Commission could not, and should not, be involved in scrutinising and possibly confronting national governments on the feasibility of specific budget issues. Thus, this task should be left to another institution, possibly an independent body set up for this purpose. In addition, governments should be forced to testify in front of their own Parliaments to explain any slippage in their medium-term plans, perhaps following a negative report from the Commission, thus enhancing the political ownership of these plans.

We have argued here, and on previous occasions, that the limit on 'excessive' deficits enshrined in the Maastricht Treaty should be enforced. The new Constitutional Treaty agreed at the Brussels European Council of June 2004 did not propose changes in the economic part of the Treaty. The Maastricht criteria and the excessive deficit procedure (EDP) thus have not been materially modified. However, the new definition of what constitutes a qualified majority will have an impact on the way in which the EDP can be enforced once the new Treaty enters into force (see box below).

Box 3.1 Implications of the new Constitutional Treaty for enforcement of the excessive deficit procedure (EDP)

If one simulates the new requirements for a qualified majority for a eurozone of 12 members, one finds the following:

First, the requirement of the assent of 72% of member states means that the procedure can be blocked by any four member states that do not support sanctions (or any steps along the procedure). This was not the case until now.

The 65% of population requirement has more complicated consequences because it has to be seen together with the fact that the country concerned does not vote. The latter implies that the total basis for calculating the percentage in population terms is lower in the case of a procedure against a large country. As a consequence, two 'large' member countries can already constitute a blocking minority. Under the present system this was also the case for a procedure against a large country, but not against a small country. The new system thus makes it more difficult to enforce the EDP. Before it was not enforceable against large countries, now it becomes difficult to enforce even against small countries.

Chapter 4

Assessment of Monetary Policy

Against the background of lacklustre growth, slowly receding consumer price inflation, a rising euro and deteriorating government finances, the ECB followed a policy of ‘wait-and-see’. While this policy seems to have been broadly appropriate, glitches in communicating it to the markets reappeared. Moreover, the ECB failed to clarify and explain its policy with regard to its secondary objective of “support[ing] the general economic policies of the Community”. In our view, there are grounds for the ECB to take a more pro-active approach to the coordination of fiscal, structural and monetary policy.

At the international level, the ECB had to deal with reflationary pressures emanating from very easy monetary policies in the US and Asia. The response was in line with the ECB’s mandate and historical patterns: The ECB accepted a rising exchange rate but at the same time followed an easier monetary policy than it would probably have pursued otherwise. To avoid monetary policy spillover, we see the need for more coordination of monetary policy at the international level.

4.1 Monetary policy conduct and the economy

Developments over the last 12 months were characterised by sluggish growth, until recently gradually receding inflation, appreciation of the euro and a deterioration of government finances. The ECB followed a policy of ‘wait-and-see’, which seems to have been appropriate under the circumstances. Clarification of the ECB’s monetary policy strategy fostered a better understanding of the ECB’s conduct by market participants. But the more indirect and circumspect communication style of the new ECB President Jean-Claude Trichet, who succeeded Wim Duisenberg in November 2003, contributed to misunderstandings and confusion on the part of market participants.

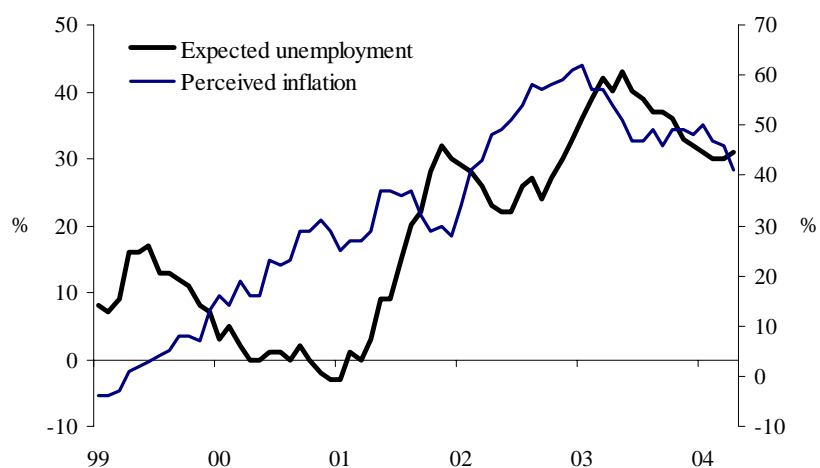
4.1.1 Lacklustre growth

Following a minor contraction in the first half of 2003, the Euroland economy embarked upon a moderate expansion in the second half. The turn-around was caused by a sharp jump in net exports, which more than compensated for the continued weakness of domestic demand growth. As a result, real GDP in the third quarter of 2003 grew by 1.6% in seasonally adjusted annualised terms after a contraction by 0.4% in the preceding period.

The spark emanating from net exports ignited investment growth and stockbuilding in the fourth quarter of last year. However, private consumption failed to pick up, raising doubts about the sustainability of the recovery. The fear of job losses, worries about cuts in social benefits in the wake of structural reform and continuing false perceptions of higher inflation weighed on consumer confidence and depressed private consumption growth.

GDP growth accelerated to an annualised rate of 2.4% in the first quarter of 2004. Net exports contributed strongly to growth while domestic demand growth remained sluggish. There was considerable divergence in growth among countries (with France leading among the larger countries and Germany and Italy lagging – a pattern already discussed in Chapter 2).

Figure 4.1 Components of the misery index



Source: European Commission/Haver Analytics.

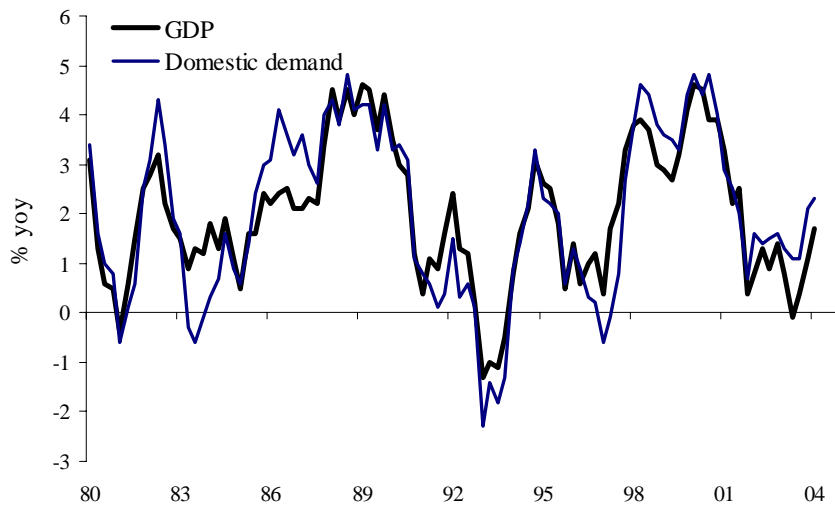
The outlook for the next 12-18 months points to a continuation of growth close to its potential rate, provided that consumption finally recovers. The risks to this outlook, however, remain on the downside. Some observers have pointed to growth abroad as a safeguard against a renewed slide of the Euroland economy into stagnation. Since the foreign surplus of a country cannot rise indefinitely, however, foreign demand growth can replace domestic demand growth only on a temporary basis. At some stage, higher foreign demand has to lift domestic demand.

In Euroland, net exports have often sparked a resurgence of investment and job growth, which then kicked-off consumption growth. In the event, the engine of GDP growth has been domestic demand growth (see Figure 4.2 for

the example of France). But the present recovery will run out of steam if the spark presumed to emanate from exports is extinguished by a lack of confidence before it reaches domestic demand. There are indeed worrisome signs that investors lack the confidence to use profits from exports to expand capacities and hire more workers at home. The main motive for domestic investment seems to be replacement of depreciated capital, while companies seem to prefer to increase capacities abroad.

Some observers have pointed to Euroland's current account surpluses as a sign of the health and competitiveness of the economy. However, current account surpluses are the mirror image of capital account deficits. Against the background of weak investment at home, long-term capital outflows are a vote of no confidence by companies and individual investors in the domestic economy.

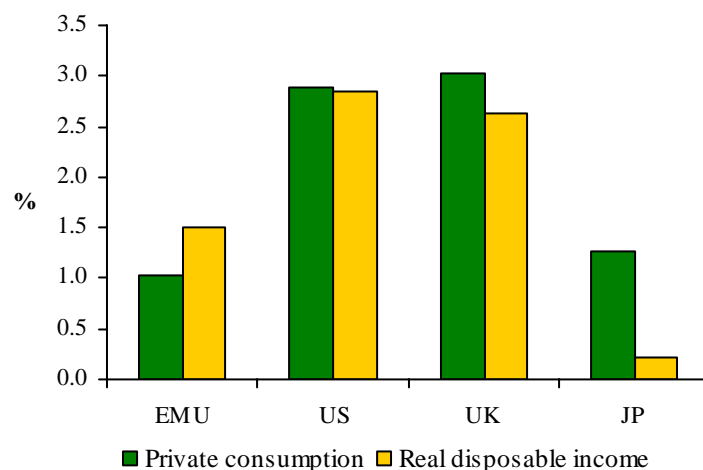
*Figure 4.2 France: Real GDP and domestic demand growth
(% change, year on year)*



Sources: INSEE/H, INSEE/Haver.

With investment undertaken primarily to maintain instead of expand capacities, employment growth remains sluggish. This situation, in combination with further increases of indirect and payroll taxes, is dampening real disposable income growth. With continued uncertainty about reform of the social security system and the labour market exerting upward pressure on the savings rate, private consumption growth also remains subdued.

Figure 4.3 Real disposable income and private consumption growth in major OECD countries (average increase over 2001-03)

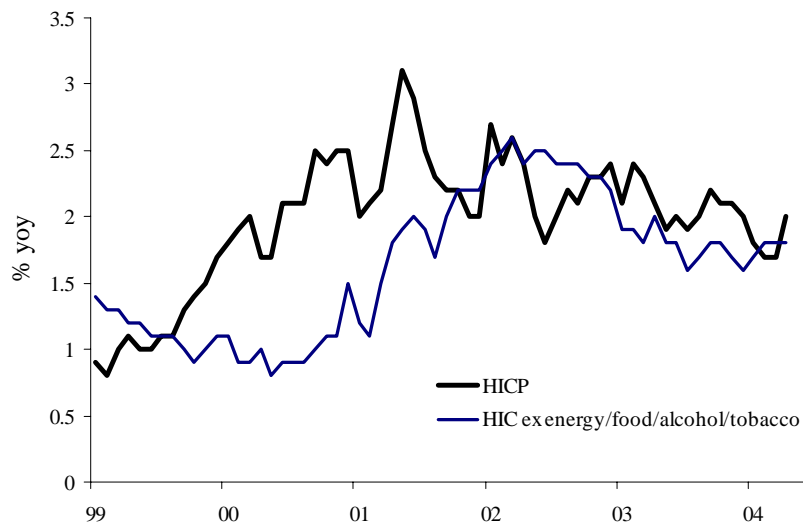


4.1.2 Mixed inflation developments

Consumer price inflation was subject to opposing influences. Lacklustre growth and a stronger euro contained wage inflation and reduced companies' scope for price increases. At the same time, rising commodity prices and indirect tax increases exerted upward pressure on headline inflation. On balance, underlying inflation appears to have declined slowly while headline inflation has fluctuated around 2%.

With GDP growth expected to climb at most towards its potential rate during the coming 12-18 months, the output gap is unlikely to close. This will sustain downward pressure on underlying inflation in the intermediate future. However, developments of monthly inflation rates will remain bumpy as base effects, indirect tax changes and fluctuations of commodity prices continue to affect headline inflation.

Figure 4.4 Euroland: Harmonised inflation (% change, year on year)



Source: Eurostat/Haver.

There have been fears that rising commodity prices and indirect tax increases could push inflation higher in the medium-term. But this would only be the case when these price shocks could be used by companies as an excuse to widen profit margins or if workers could push up wage inflation. However, with the economy sluggish and unemployment high, neither is likely to occur. Rather, indirect tax increases and terms-of-trade losses will lower real disposable income growth and weaken private consumption. Thus, an increase in the price level on the back of these price shocks now could cause weaker growth and lower inflation in the future.

Money growth above the ECB's reference value for the third year in a row has raised concerns about a resumption of inflation in the longer term. Part of the recent variations in money growth may have reflected changes in the demand for liquid balances in the wake of the stock market downturn. Thus, it seems that M3 components first increased as stocks declined and that part of this increase was unwound as the stock market recovered. However, estimated long-term money demand still falls short of the actual money stock, suggesting that considerable excess liquidity remains in the economy.

Box 4.1 Money demand and excess liquidity

Using a long-run money demand function recently estimated by Deutsche Bank (see Biggs, 2003), we can assess the level of excess liquidity from the residuals of the equation. The equation expresses real money demand as a function of real GDP, short- and long-term interest rates, and equity prices (calculated as the average of the French CAC and German DAX indices). In an estimation for the period from the first quarter of 1980 to the first quarter of 2004, the hypothesis of cointegration of the variables cannot be rejected, pointing to an economically significant and stable relationship between the dependent and independent variables.

$$\text{rm3} = -6.593 + 1.544\text{rgdp} - 0.087\text{equipr} - 0.0069\text{by10} - 0.002\text{i3m}$$

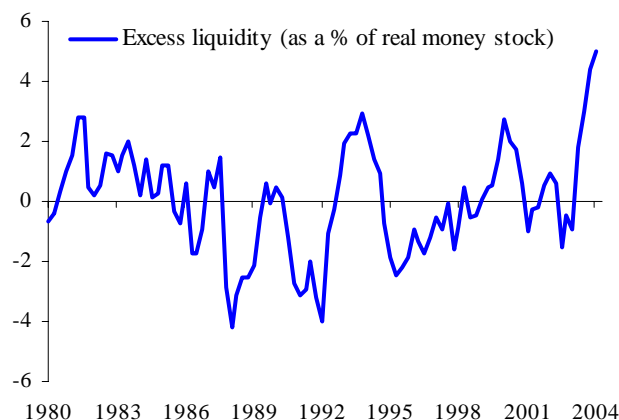
(-46.9) (40.1) (-9.4) (-2.3) (-1.2)

adj.R2=0.99; DW=0.39; ADF=-3.11

where rm3 denotes real M3 (in log levels), rgdp real GDP (in log levels), equipr equity prices (in log levels), by 10 10-year bond yields, and i3m 3-month interest rates. Adj.R2 measures the fit of the equation, DW autocorrelation of residuals, ADF is a test statistic for stationarity of residuals, and t-values are given in parentheses below coefficients.

Although equity prices increased recently, the difference between the actual money stock and the money stock explained by the long-run equation in the more recent past was positive and rather large. This was the result of downward pressure on money demand from sluggish real GDP growth. Hence, the available stock of real money exceeded the level consistent with money demand in the long-term.

Figure 4.5 Euroland: Residuals of the long-run money demand equation



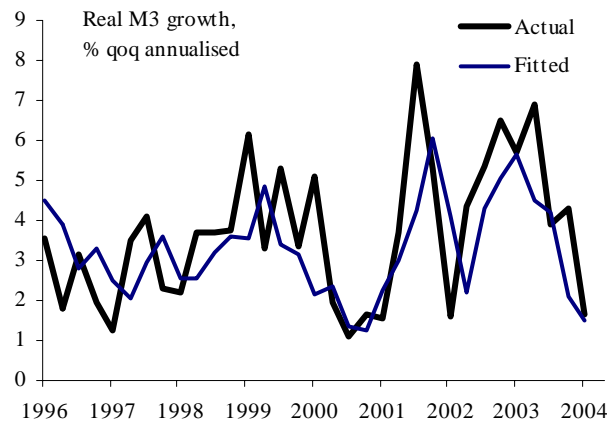
The error correction equation to the long-run equation confirms the cointegrating relationship between the dependent and independent variables. However, with the error correction term being the only significant exogenous variable, it remains unclear how the error correction process is achieved. There are several ways how the 'excess liquidity' can disappear: 1) through an acceleration of real GDP growth, 2) through an acceleration of inflation and 3) through an endogenous unwinding (in the form of an error correction process, whereby excess liquidity is shifted into longer-term financial investments). Unfortunately, our approach is unable to identify the precise way of the unwinding of excess liquidity ex ante. There is the risk of higher inflation in the longer-term, but it is unclear whether this risk will materialise.

$$\text{drm3} = 0.004 + 0.515 \text{drm3}(-1) - 0.095 \text{ecm}; \text{adj.R}^2=0.99; \text{AC}(1) = 0.44$$

$$(5.1) \quad (6.6) \quad (-4.0)$$

where drm3 denotes the change in logs of real M3, ecm the error correction term, and $\text{AC}(1)$ a Chi-Square distributed Lagrange multiplier test statistic for first order serial correlation of residuals.

Figure 4.6 Euroland: Error correction equation for money growth



Excess liquidity does not necessarily raise consumer price inflation in the future. It could also push up asset prices. The latter was the case in Japan during the 1980s, when excess liquidity was contained within the business sector, inducing companies to bid up each other's share prices and the price of commercial real estate. Although the structure of the Euroland economy is

different from that of Japan in the 1980s, there are other forces at work which may funnel excess liquidity into asset price increases.⁴

Owing to the integration of the former communist countries and China into the world economy, the supply of goods has become fairly price elastic. At the same time, the price elasticity of the supply of services has been increased by the use of productivity-enhancing information and communications technologies in this sector (e.g. the rise of e-commerce). This suggests that a liquidity-driven increase in demand causes a larger volume than price response. Against this, the supply of assets is likely to be much less elastic owing to the home bias of investors and remaining restrictions on the free flow of capital (e.g. in China).

At the same time, demographic factors are likely to raise the demand for assets especially in the G7 countries. With the baby-boom generation in its prime earnings age, many private households are more concerned about maintaining their consumption during future retirement than increasing their present level of spending. Hence, they are inclined to save more and to use a large part of any unexpected income gain – as it may arise from excess liquidity – to buy assets instead of stepping up consumption. As a result, excess liquidity may have a larger bearing on asset price inflation than was the case in the past.

These considerations would argue for monetary policy to keep a close eye on credit and money growth as well as on asset prices. At present, the signals coming from short-term inflation prospects on the one hand and from money growth and asset prices on the other point in opposite directions. The former suggest that monetary policy can remain accommodating, whereas the latter argue for tightening. The ECB will have to strike a careful balance between these opposing signals. While it cannot afford to maintain interest rates that are inconsistent with the achievement of consumer price stability over the medium-term, it will also have to consider the consequences of excess liquidity for asset prices and take advantage of periods of economic strength to rein in money growth.

4.1.3 The ECB's response

Against the background of sluggish growth and receding consumer price inflation, the ECB kept rates unchanged during the review period. This was broadly consistent with the signals given by a Taylor rule and the ECB's past behaviour in similar circumstances (see Box 4.2). Earlier this year, some room for lower rates seemed to have opened up as the output gap has failed

⁴ For more details, see "Inflation is dead! Long live inflation!" Deutsche Bank Global Markets Research, 8 April 2004.

to narrow and inflation came closer to the ECB's definition of price stability. However, the ECB opted for a cautious interpretation of the data and kept rates unchanged. This may be explained by the ECB's revealed preference for interest rate smoothing, where rates are only moved after a critical mass of new information has accumulated. But it could also reflect unease about widespread fiscal policy slippage and resistance to political pressures for an easier monetary policy. In retrospect, the ECB's caution was vindicated as oil price increases brought back inflation fears.

Box 4.2 The ECB and the Taylor rule: An update

In last year's report we introduced an econometrically estimated ECB interest rate reaction function based on a Taylor rule. Our estimate was based on data for the period from the first quarter of 1999 to the first quarter of 2003 and on the assumption that the ECB aimed at keeping inflation at 1.5% over the medium-term. Since then, the ECB has clarified its definition of price stability as a harmonised rate of consumer price inflation of less than, but close to, 2%. Hence, we re-estimated our reaction function using the new definition, which we interpreted to mean that the ECB would want to keep inflation at 1.8% over the medium-term. We also updated the estimation period.

Our updated equation is very close to the earlier equation. However, raising the 'inflation target' from 1.5% to 1.8% gives a nominal neutral rate of 3.2% ($=2.11/(1-0.34)$). This is fairly close to a theoretical rate, which we can derive from the assumptions that the real risk-free rate in the long-run should be in line with real potential GDP growth (which we estimate at 1¾%), and of a long-run inflation rate of close to 1¾%. Here are the estimation results:

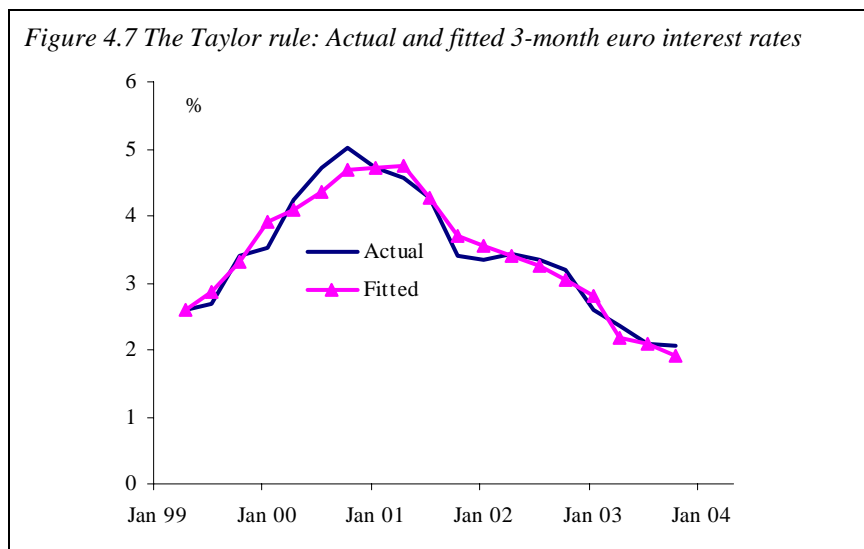
$$i_{3m} = 2.11 + 0.34 i_{3m}(-1) + 0.54 \text{ogap} + 0.42 \text{igap}$$

(5.4) (2.9) (6.8) (2.8)

$\text{adR}2 = 0.94$; $\text{AC}(1) = 0.7$; for 1999Q1 – 2003Q4;

where i_{3m} denotes 3-month rates, ogap the output gap, igap the difference between actual and target inflation, $\text{adR}2$ gives the percentage of variance of i_{3m} explained by the equation and $\text{AC}(1)$ is a Chi-square distributed test statistic for first order serial correlation of residuals, and t-values are given in parentheses below the coefficients.

Figure 4.7 The Taylor rule: Actual and fitted 3-month euro interest rates



Last year's clarification of the ECB's monetary policy strategy has helped to improve communication with financial market participants and the interested public. The definition of price stability as inflation of less than, but close to 2% has reduced concerns about a 'deflationary bias' in the ECB's monetary policy. The reordering and more stringent interpretation of the two 'pillars' – with the economic analysis of the risks to price stability cross-checked by the monetary analysis – has improved the understanding of the 'monetary pillar' in the ECB's policy framework.

However, the ECB has remained reluctant to use the monetary analysis to comment on asset price developments. This is surprising in view of comments by the ECB's Executive Board member responsible for economics, Otmar Issing, who seems to favour such a broadening of the scope of the monetary analysis.⁵ It is also disappointing as investment and asset price cycles have become much more important forces shaping cyclical economic developments in recent years. As we argued in our last report, the ECB's two-pillar monetary policy strategy has the potential to leapfrog simple inflation-targeting strategies which leave no room for an analysis of asset prices.⁶

⁵ See for example Issing (2003).

⁶ This is more and more recognised by advocates of inflation targeting. To make up for the deficiency, some observers have suggested lengthening the time

Moreover, while clarification of the monetary policy strategy has helped to improve understanding of the ECB's policies, a more circumspect style of communication by the ECB President has reduced transparency and again caused misunderstandings. It has been a long-standing demand of market participants and analysts that the ECB publish the minutes of their Council meetings or at least give a flavour of the discussion that took place. Towards the end of his tenure, Duisenberg took account of this demand by outlining the broad gist of the debate within the Council during his press conferences following the meeting. On some occasions, he indicated that the Council had reached its decision only after intense discussions. This allowed market participants to follow the thought processes in the Council to some extent, and to better anticipate decisions at economic turning points.

ECB President Trichet has taken a different approach so far. At the press conference on April 1st, which had been preceded by dovish comments of senior ECB Council members and market expectations of a monetary policy easing in the intermediate future, he gave no indication whether the tone of the discussion had changed compared to the previous meeting. He also fended off all questions about a change in the balance of risks to economic recovery perceived by the Council. This left market participants guessing about the meaning of his and other Council members' remarks before the meeting, which seemed to indicate a change in the Council's assessment.

Markets were indeed jolted by the ECB's communication. Market participants did not expect a rate cut on April 1, with the 1-month EONIA rate indicating a probability of only 12% for a cut and yields on two-year government bonds signalling that rates would remain on hold. At the same time, however, markets expected a rate cut at a later time. On the basis of Deutsche Bank estimates, the money market yield curve reflected a probability of 80% for a cut by the middle of 2004 (see last column in the table below). In the wake of the ECB's decision and press conference, markets sold off sharply. Thus, the 1-month interest rate 4 months ahead implied by the EONIA yield curve rose by 14 basis points, indicating a probability of now only 33% for a cut (see fourth column in the table below).

horizon for inflation targeting so as to allow asset price movements to be reflected in consumer price developments. However, this approach still fails to take account of asset price cycles if the latter do not affect consumer price inflation. The experience of Japan in the 1980s shows that asset price inflation without tangible effects on consumer price inflation is possible.

Table 4.1 Rate cut probabilities implied by EONIA rates

Duration	2 April*			31 March
	EONIA Rate	Implied 1m forward rate	Cumulative rate cut probability	Cumulative rate cut probability
1m	2.04	2.04	0%	12%
2m	2.01	1.98	16%	44%
3m	1.99	1.95	27%	64%
4m	1.98	1.95	33%	80%
5m	1.97	1.93	38%	80%
6m	1.97	1.97	28%	68%

* Calculated before the release of surprisingly strong US payroll data.

Source: Deutsche Bank Global Markets Research, Bloomberg.

Interest rate volatility increases financial market risks and gives rise to risk premia and insurance costs. Under normal circumstances, interest rate volatility reflects surprises about economic developments and is hence unavoidable (assuming that economic forecasts have been efficient). In the episode above, however, misleading comments and a lack of transparency by the ECB were the main causes for interest rate volatility. As one money market trader put it after the ECB press conference on April 1: “It would be nice if these people understood that their words can cost real money.”

By comparison, after its miscommunication of the perceived risks of deflation a year ago, the US Federal Reserve was relatively successful in steering market participants towards expecting a rate increase this year. This was achieved by the Fed hinting at a likely path of moderately rising rates in the future, thereby guiding market expectations and avoiding an overshoot of expectations with negative consequences for asset markets. In contrast, with its message that “all options are open”, the ECB failed to anchor market expectations and opened the door to interest rate volatility. Not only were markets left guessing as to what prompted the ECB’s change in tone ahead of the April 1 meeting, but they also received no hint about the ECB’s likely future rate path under the bank’s baseline economic scenario of a moderate economic recovery. As a result, the money market yield curve has taken its cues from developments in the US.

4.2 The ECB’s ‘secondary’ objective

According to the Maastricht Treaty, “...without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community...”. The latter include “...a harmonious and balanced

development of economic activities, sustainable and non-inflationary growth respecting the environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States”.

Monetary policy can obviously only contribute to the achievement of a subset of these objectives, and even this contribution may be limited in nature. Nevertheless, few economists would claim that monetary policy has absolutely no influence on economic growth and employment. Moreover, monetary policy will also have to cooperate with fiscal and general economic policies to achieve “a harmonious and balanced development of economic activities”. Does the ECB recognise its obligations under the secondary monetary policy objective, and has it lived up to it? Our answer to these questions – explained in more detail below – is “not entirely”. In particular, we advocate a more proactive role of the ECB in coordinating economic policies in the euro area.

4.2.1 Growth and employment

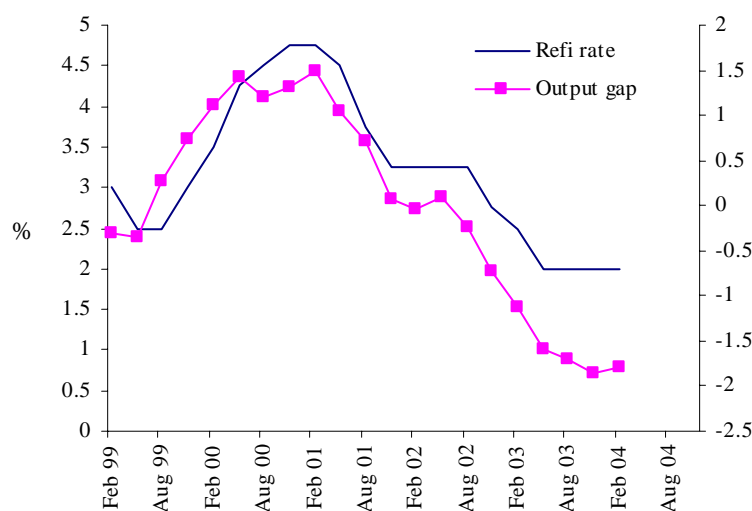
ECB policy-makers like to say that the best contribution the ECB can make to growth and employment is to achieve price stability over the medium-term. While we agree with this statement in principle, we find that it can give rise to misunderstandings. Does it mean that the ECB does not care about growth and employment? Should the ECB not support growth once price stability has been achieved, as is stipulated in its statutes? Questions like these arise when ‘price stability’ and ‘growth’ are seen to stand in a lexicographic relationship to each other (one follows the other). In our view, however, they condition each other (one cannot be reached without the other).

Traditional monetarists (and others) would perhaps argue that price stability is a necessary condition for growth. Hence, if the ECB secures price stability, ‘growth’ will follow. We agree, if we look at growth over the longer term. But causality also goes in the other direction. In an economy where the value of money is not debased by rampant money supply growth, real economic developments (‘growth’) have a visible influence on inflation. When growth of actual GDP is so much faster than growth of potential GDP that the level of the former exceeds the level of the latter, inflation generally rises (and vice versa). Hence, for a central bank aiming for price stability, ‘growth’ matters in a very tangible way. Since price stability is within reach when actual GDP is at the level of potential and both aggregates grow at the same rate, one intermediate objective (among others) for a central bank should be to minimise the output gap. The pursuit of this intermediate objective would be consistent with an anti-cyclical stance of monetary policy: rates would be

below the neutral level in case of an actual or expected positive output gap, and they would be above a neutral level in the opposite case.⁷ If European central bankers would be more articulate about this, politicians would perhaps be less eager to commit the ECB to a ‘growth objective’.

The ECB’s actual behaviour has indeed by and large been consistent with the above-described pattern. As we argued earlier, the ECB’s interest rate reaction function can be well described by a Taylor rule, where the output gap has a coefficient of close to 0.5. The interest rate response to variations in the output gap can also be inferred from Figure 4.8. According to our interest rate response function, the ECB also takes the development of headline inflation into account. At first glance, this appears to detract from the focus on the output gap. However, output gaps are difficult to estimate and even more difficult to forecast. Hence, keeping an eye on inflation in addition to output gap developments is likely to reduce errors and to steady interest rate policy.

Figure 4.8 ECB refi rate and Euroland output gap



With inflation reflecting past output gap developments, the cost of insuring against errors is the introduction of a backward-looking element into interest rate policy. Indeed, the ECB’s policy has been criticised for being reactive instead of proactive and it has been unfavourably compared with the more

⁷ Assuming that money demand fluctuates with GDP, the same anti-cyclical policy would follow from a strategy of minimising deviations of M3 growth from its reference value.

activist approach of the US Federal Reserve or the Bank of England. It should be noted, however, that a proactive policy based on erroneous forecasts of the output gap may be more destabilising than a slow response of policy to changing economic conditions.

A key problem in evaluating monetary policy in Euroland at present is indeed uncertainty about the size of the output gap. The problem is particularly acute because estimates of the potential growth rate for Euroland had to be revised downwards repeatedly (as anticipated in previous reports of this group). Such a situation is different from the normal case where one can assume that contemporaneous estimates of macroeconomic variables may have a certain margin of error around them, but no systematic bias. In recent years, however, output gap estimates had to be revised systematically as shown in more detail in the box below.

In the event, the choice of a more or less proactive monetary policy depends on the central bank's time horizon. A central bank applying a high discount rate to future events is likely to favour a more proactive approach as the near-term gratification of such a policy (in terms of its effects on output) outweighs the discounted expected losses (in terms of missing the inflation target) from forecasting errors emerging in the more distant future.⁸ At the same time, a central bank applying a low discount rate may find less consolation from the immediate benefits of a proactive policy when compared to the discounted expected losses from policy errors. From this vantage point, the ECB's non-activist and more gradual approach seems consistent with its emphasis on the medium- to long-term effects of its policies.

Box 4.3 Ex-ante vs. ex-post output gap estimates

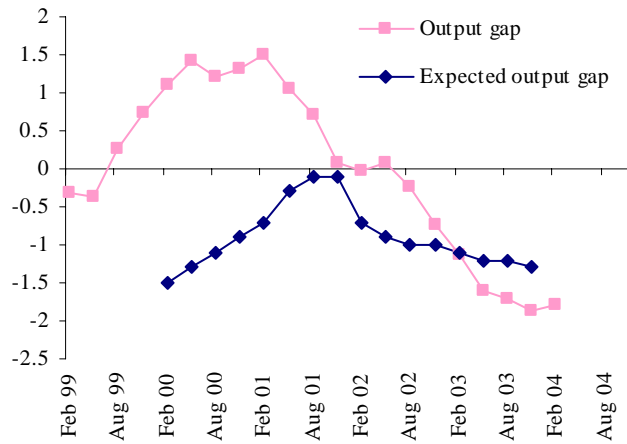
It is frequently argued that monetary policy decisions based on developments of the output gap are problematic because estimates or forecasts of the latter are subject to large errors. That these concerns are well-founded can be seen from a comparison of forecasted and estimated output gaps. The following figure compares the European Commission's forecasts of the output gap for a given year made in March of that year with output gaps calculated ex post using a Hodrick-Prescott filter to estimate potential GDP. Since the Commission's forecasts are only available on an annual basis, we have interpolated the data to obtain a quarterly series.

It is obvious from the figure below that the forecasted output gaps differ significantly from those estimated ex post. However, changes in output gaps

⁸ In this argument we follow conventional wisdom that the effects of monetary policy on output have a shorter lag than those on inflation.

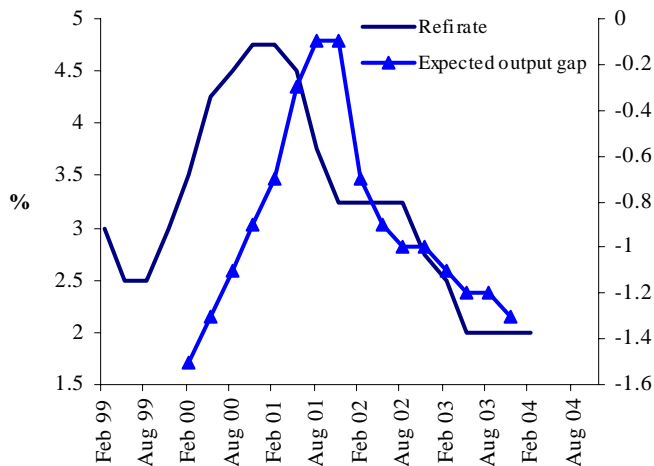
move in similar directions, although the forecasted changes lag those calculated ex post.

Figure 4.9 Output gaps in Euroland



Had monetary policy been conducted exclusively on the basis of the expected output gaps, the ECB would probably have been even slower in raising interest rates in 1999-2001, and it would have started the easing cycle a little later. The policy actually followed is consistent with two views: either the ECB may have been able to produce superior forecasts of the output gap, or it based its decisions on a broader range of information than that contained in the output gap forecasts.

Figure 4.10 ECB refi rate and expected Euroland output gap



The ECB indeed claims to analyse a large number of variables influencing price developments in the future, and it has warned against reducing their monetary policy strategy to a simple formula such as a Taylor rule. The above exercise supports the ECB's scepticism about simple rules for the ex-ante design of monetary policy. But it does not invalidate a Taylor rule as an ex-post explanation of monetary policy. With the benefit of hindsight, output gap estimates are of course more precise, and a Taylor rule is a reasonable reduced-form proxy of the more complex models used by the central bank as a basis for its forward-looking monetary policy decisions. Even though the ECB may not base its decisions on a Taylor rule, we can analyse its behaviour as if it had (akin to our analysis of, say, consumer behaviour as if it were based on utility maximisation, although few consumers are likely to have ever heard of the concept).

Obviously, any attempt to minimise the output gap would be futile if monetary policy would have little or no influence on economic activity. Following some controversy in the past, few economists today would disagree with the view that monetary policy has real effects in the short-term – which is tantamount to saying that it impacts the economic cycle. But the question remains: how big are the real effects of monetary policy? And how long do they take to materialise?

In 2002-03, the ECB conducted a comprehensive research programme focusing on the monetary transmission process in the euro area. The main conclusions were that monetary policy 1) has real effects in the short term but is neutral in the longer term and 2) determines the price level in the long-term. Its effects on GDP are felt mainly through its influence on investment, but private consumption also responds. Table 4.2 reports simulation results of a 100-basis point rate increase spanning eight quarters with the ECB's area-wide model published (among other results) in an ECB Working Paper, and Table 4.3 gives the breakdown of the domestic demand effects of a monetary policy change between private consumption and investment.

The simulations show that monetary policy has significant effects on output but fairly moderate effects on prices over a three-year horizon. We leave it to the reader to judge whether one should consider three years a short run, but the model implies that it takes three years to reach the peak impact on output. As mentioned above, the models imply that in the long-term, the real effects have to fade – real variables return to their baseline values – while the price effects build up and last.

*Table 4.2 Effects of a monetary policy shock in the ECB's area-wide model
(% deviations from baseline)*

	Year 1	Year 2	Year 3
Policy rate	1.00	1.00	0.00
10-year rate	0.16	0.06	0.00
Exchange rate	1.60	0.63	0.00
GDP	-0.27	-0.71	-0.79
Consumption	-0.19	-0.57	-0.63
Investment	-0.72	-2.29	-2.93
CPI	-0.13	-0.26	-0.37

Source: Angeloni et al. (2003, p. 40).

Table 4.3 Contributions to GDP effects of a monetary policy shock

	Year 1	Year 2	Year 3
Policy rate	1.00	1.00	0.00
Consumption	48	50	46
Investment	50	70	88
Other	2	-20	-34
Total (%)	100	100	100

Source: ECB *Monthly Bulletin*, October 2002, p. 45.

Within the components of total demand, monetary policy has the largest effect on investment. After three years, the change of investment accounts for 88% of the GDP effect. But private consumption accounts for about 50% of the GDP effect through the entire 3-year period. After a while, other factors (e.g. trade) dampen the effects from consumption and investment on GDP.

Thus, the ECB's own research shows that monetary policy has an influence on economic activity, albeit only temporary and of limited size. It does reach the consumer, with the effect in the first year almost as large as the effect on investment (although the latter dominates in later years). Moreover, by stimulating investment significantly, it gives a visible positive impulse to private consumption and GDP growth in the medium-term. There are no signs that the monetary policy transmission mechanism has weakened recently. Against this background, it is too pessimistic to argue that monetary policy can do nothing to support economic activity during a patch of weakness.

The real effects of monetary policy in the euro area are smaller than those in the US. There, monetary policy has a considerably stronger influence on private consumption (more than twice the effects in Euroland after 3 years).

The stronger influence of monetary policy on consumption in the US has been explained by its lower degree of social protection (making consumers more sensitive to cyclical developments) or wealth effects (operating through the stock and housing markets).⁹

The logical (and practical) consequences of the fact that after three years the impact of monetary policy on output changes sign are often overlooked. This feature of the model simply implies that one must look back at monetary policy actions over a period of more than three years if one wants to know the ‘effective’ monetary policy stance today. For example, there might be a considerable negative cumulative impact if interest rates were kept low for a couple of years and then increased: the following years would be subject to the short-term negative impact of recent higher interest rates and the delayed negative impact coming from lower rates much earlier. In order to check whether this consideration is important in reality, we have simulated the present and future impact of past and present monetary policy actions by the ECB using its own model (see annex for details). The result is presented in Table 4.4.

Table 4.4 The impact of the ECB’s policy so far

	2002	2003	2004	2005	2006
CPI ^a	-0.02	-0.07	0.01	-0.07	0.03
GDP ^a	-0.16	0.04	0.44	0.31	-0.44

^a Unchanged policies.

Source: Own calculations, based on Dieppe & Henry (2004)..

The numbers in Table 4.4 suggest that the ECB did indeed have a steady hand. The cumulative impact of its monetary policy decisions on prices until early 2004 (assuming rates do not change) would never exceed one-tenth of 1% even up to the horizon of 2006. By contrast, the impact of monetary policy on demand seems to have been more variable. For example, the delayed impact of interest rate hikes between 1999 and 2000 has now a positive impact, which cumulates with the positive impact of more recent lower rates. When the delayed impact of past changes is also factored in, one is thus led to the conclusion that monetary policy will give a sizeable positive impulse to demand in 2004. This will turn around by 2006, with a total swing of about 1% of GDP. This might be appropriate if the recovery does indeed start in earnest during 2005, but could be procyclical if the economy were to cool by then (a consideration to be taken into account for interest rate policy in the next few months). The level of the impact calculated above depends,

⁹ See Angleoni et al. (2004).

of course, on the assumption concerning the neutral rate, which was set at 3% (compatible with the Taylor rule estimates presented above). The use of any other neutral rate, however, would not change the result that the variability of the monetary impulse was very low in Euroland.

It is interesting to note that the impact of past policy changes by the Fed was much more variable.¹⁰ In terms of demand growth, the difference between 2004 and 2005 is about 1.25 percentage points, with an opposite movement in the following year. Again, the level of the impact of past and present US monetary policy calculated above depends, of course, on the assumption concerning the neutral rate, which was set at 4.5% (which seems reasonable since it implies a nominal growth difference between the US and Euroland of 1.5%). However, using any other neutral rate would not change the result that the monetary impulse in the case of the US forms a sort of ‘W’ pattern: it goes up and down by considerable magnitudes in subsequent years. As shown in the annex, this conclusion would only be reinforced if one makes the more realistic assumption that US monetary policy will soon be tightened.

Table 4.5 The impact of the US Fed’s policy so far

	2002	2003	2004	2005	2006
CPI ^a	-0.23	0.94	2.55	1.51	2.25
GDP ^a	0.715	3.47	1.98	3.24	1.88

^a Unchanged policies.

Source: Own calculations, based on Angeloni et al. (2003).

To sum up, the pursuit of price stability in the medium-term is indeed consistent with monetary policy support of ‘growth and employment’. Both policy goals, properly understood, require minimisation of the output gap over time. However, given the uncertainty of output gap estimates and forecasts as well as uncertainty about the monetary policy transmission mechanism, the ability of monetary policy to stabilise the real economy in the short-term should not be rated very highly. Hence, the ECB should not be faulted for failing to react more often and more quickly to business cycle developments.

4.2.2 Economic policy coordination

The ECB recognises the importance of fiscal and general economic policies in achieving non-inflationary economic growth. Each statement of the ECB

¹⁰ The simulations for the US are not exactly the same as for the euro area due to limited data availability. See the annex for details.

President at his regular press conferences and each editorial in the bank's *Monthly Bulletin* contains references – and very often admonitions – to fiscal and structural policies. Nevertheless, the ECB so far has refused to engage other policy-makers in active policy coordination, fearing political pressure and the failure of politicians to hold to their promises. Instead, the ECB has assured other policy-makers that it would take account of their actions in the design of monetary policy.

This approach has failed to induce any positive response from other policies. As economic growth grinded to a halt, government budget deficits rose with the result that a rising number of EMU member countries are now in breach of the deficit limits laid down in the Stability and Growth Pact. Application of the Pact itself has been temporarily suspended in the cases of Germany and France. Moreover, structural reform proceeded at a snail's pace in recent years and has come to a complete standstill in the major countries more recently. Governments have been unable to convince a sceptical public about the need for and benefits of reforms.

The unravelling of fiscal policy discipline and breaches of the Stability Pact are the logical consequence of Euroland's economic crisis. The latter has been caused by Euroland's inability to adjust to a changing economic environment characterised by low-wage competition from emerging economies and high-tech competition from the US, and by the lack of manoeuvre of macroeconomic policies to counter the downturn in the wake of the stock market crash in 2000. Reflecting the combination of negative structural and cyclical influences, growth of the Euroland economy has fallen behind that of other major regions with little hope for improvement in the foreseeable future.

The ECB has resisted political pressure for a more expansionary monetary policy emanating from the economic malaise. Moreover, vested interest groups and politicians' fixation on near-term election results have impeded the necessary structural reform. Hence, economic pain has broken the weakest link in the policy chain, fiscal policy discipline. As long as the economy remains near stagnation, further breaches of the deficit and debt limits established under the SGP are almost guaranteed.

The lack of policy leadership and the resulting malaise of the Euroland economy may seem unavoidable. Moreover, the ECB's exclusive focus on its own brief, the pursuit of price stability, may appear to be fully in line with its legal mandate. At the same time, however, the success of EMU is in serious danger if the status quo persists. Under these circumstances, it is not good enough for European policy-makers to hope for an economic impulse from abroad to come to the rescue. They need to break the present deadlock and adopt policies to stimulate non-inflationary and sustainable growth. The ECB is the only European institution with full sovereignty over an important

policy field. It is also the most respected economic policy-making institution in the EU.

Hence, even though it does not fall under its direct brief, the ECB should engage other policy-makers in an active dialogue about growth-oriented economic policies. The institution's aversion to *ex-ante* policy coordination is understandable under normal circumstances. Governments may be quick in promising structural reform and fiscal consolidation, but slow in delivering. However, the ECB must recognise that price stability is impossible without economic stability. Rising unemployment and ballooning fiscal deficits will eventually create political pressures that could undermine the foundations of EMU. Given the lack of policy leadership elsewhere, we see considerable risks for the functioning and even the survival of EMU in the longer-term if the ECB does not take a broader perspective.

The present crisis requires an unconventional approach to economic policy in Euroland. With the goal of medium-term price stability not seriously in jeopardy at present, the ECB should consider easing monetary policy in return for serious promises of a return to fiscal policy discipline and resumption of structural reforms. There is, of course, the risk that the ECB's downpayment in the form of an easier monetary policy may eventually not be matched by fiscal consolidation and structural reform. But the consequences for future inflation are likely to be minor in the present environment of lacklustre growth. With the possible maximum loss resulting from an ECB move relatively small, even a fairly high probability that fiscal and structural policy will fail to honour their commitments would result in a low expected loss of a monetary policy stimulus. Against this, the expected gain could be high even if the probability of successful coordination would be less than 50%, because the possible gain from successful coordination could lift economic growth significantly.

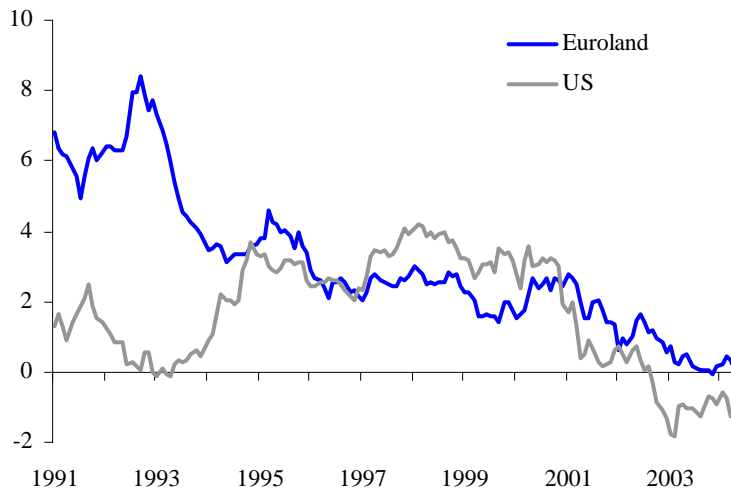
4.3 European monetary policy in the international context

With economies and financial markets becoming increasingly more integrated at the global level, an independent pursuit of monetary policy at the national (or regional) level is becoming more and more difficult. Foreign policies spill over into the domestic domain through the capital flows they induce. Affected central banks have the choice of allowing these capital flows to influence the external value of their currencies or the supply of domestic liquidity, with consequences for their economies in both cases. Moreover, uncoordinated monetary policies may lead to inappropriate monetary conditions at the global level.

In the recent past, the ECB has been confronted with a very easy monetary policy in the US (see Figure 4.11), matched by similarly easy policies in

Asia. The low level of interest rates and high liquidity growth have boosted economic growth and asset prices across the world. The ECB's reaction has been in line with that of European central banks in the past: it has allowed its currency to appreciate, but has at the same time dampened the economic effects of appreciation through a relatively easy monetary policy. Under the circumstances, this was probably all that could be done. For the sake of greater economic stability worldwide, however, the ECB should aim to intensify the debate among major central banks so as to minimise the spill-over from national policies and to achieve an appropriate monetary policy stance at the global level.

Figure 4.11 Euroland and US real 3-month interest rates



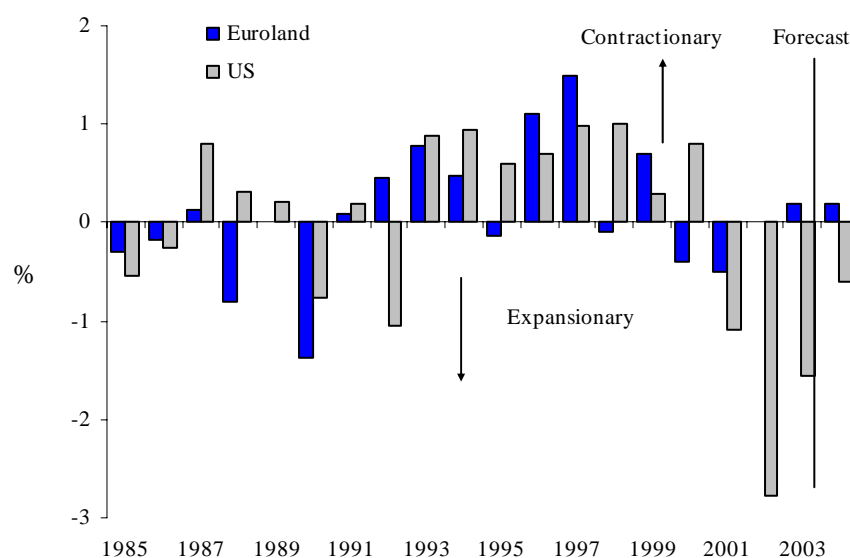
4.3.1 The US-Asian monetary policy twins

Following the drop in stock prices that began in 2000, US monetary policy-makers have worried about deflation. The experience of the 1930s and their analysis of developments in Japan during the 1990s alerted them to the potentially damaging effects of falling stock prices. If unattended, a drop in the stock market could depress consumption by making private households feel poorer, and it could depress investment by depriving companies of an important source of funding. Falling demand could lead to falling prices and the start of a deflationary spiral. Consumers would hold back spending in the expectation of lower prices in the future while companies would ache, or go bust, under a rising real debt burden.

Once a deflationary spiral had started, it would be extremely difficult to end it again. Monetary policy could lose its effectiveness as private households

might prefer to hoard instead of spend any additional money ('liquidity trap') and real interest rates would rise once the zero boundary of nominal interest rate had been reached ('debt deflation'). As the example of Japan demonstrated, even fiscal policy might not be able to rescue the economy when applied only in small doses and after deflation had become ingrained. From this, US policy-makers concluded that economic policy had to be applied in a forward-looking way and in large doses to quell the risk of deflation before it became critical. Erring on the side of inflation was a smaller price to pay than condoning a fall into deflation.¹¹ The extraordinary expansionary stance of fiscal policy in the US is illustrated in Figure 4.12, which also shows that, by comparison, fiscal policy has been more 'conservative' in Euroland.

Figure 4.12 *Euroland and US fiscal impulses: Fiscal impulse (change in structural budget deficit) as a % of GDP*



Against this background, US fiscal and monetary policies were eased aggressively and much more than in Euroland, where policy-makers were less preoccupied with the risk of deflation. While fiscal policy stimulated domestic demand directly, monetary policy boosted real estate prices –

¹¹ Federal Reserve Board Chairman Alan Greenspan has described this as the risk-management approach to monetary policy. Interest rate policy is aimed primarily at minimising the risk of deflation and hence is willing to accept possible errors with regard to future inflation.

which compensated for falling stock prices – and allowed homeowners to benefit from lower mortgage payments. As a result, the economy bounced back strongly and the risk of deflation receded. However, US economic policy has remained easy as consumer price inflation has been slow to respond and policy-makers wanted to build a strong ‘firewall’ against deflation. This has led to a rise in asset prices across the board and, more recently, to first signs of an increase in consumer price inflation.

Low US interest rates and high net imports have put downward pressure on the US dollar. However, Asian central banks have resisted appreciation of their currencies by intervening in foreign exchange markets in support of the dollar without sterilising the effects of intervention on the domestic liquidity supply. Thus, the very easy monetary policy in the US has been matched by similarly easy policies in Asia.

For Japan, the policy of easy money seemed the right answer to entrenched deflation. Thus, the authorities bought up record amounts of US dollars and issued yen against them. However, with the economy responding well to this treatment, the authorities have recently scaled back their intervention and allowed some yen appreciation against the dollar. For China, a low exchange rate and an expansionary monetary policy seemed useful tools to engineer the high growth needed to facilitate transformation from an agricultural to an industrial economy. With the economy growing at breakneck speed, signs of overheating have emerged more recently and the authorities have taken steps to slow money and credit growth. In the event, this will involve a moderate and controlled appreciation of the yuan against the US dollar. Southeast Asian countries have shadowed the policies of Japan and China, and will probably continue to do so in the future. Their main concern is to keep their exchange rates stable against their main customer and competitor countries.

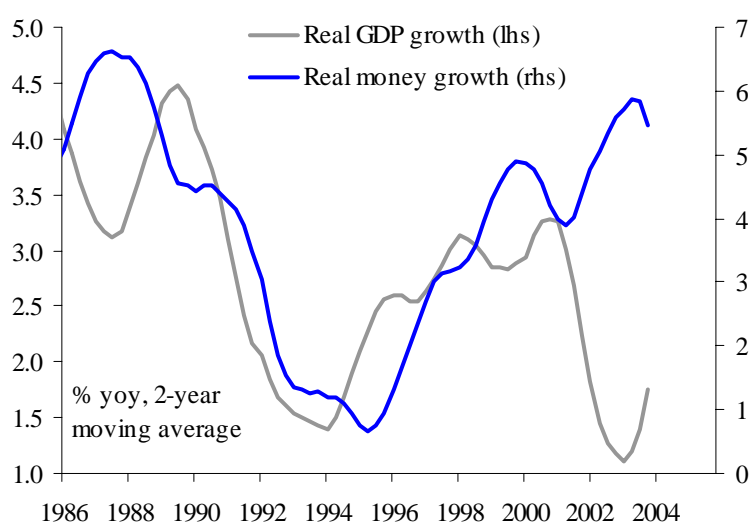
4.3.2 *Euroland: The step brother*

Although GDP growth has been sluggish and inflation receding, Euroland money growth has been strong and the euro has appreciated. Part of these developments may reflect the influence of international rather than domestic monetary policy and may have to be addressed at the international level.

According to Sousa and Zaghini (ECB, 2004), global liquidity has a significant effect on Euroland economic aggregates. Based on a structural VAR model, they find that a positive shock to extra-euro global liquidity leads to a permanent increase in Euroland M3 and inflation, a temporary increase in output and a temporary real exchange rate appreciation. The authors suggest that the transmission mechanism might work as follows: strong monetary growth abroad leads to capital inflows into the euro area in search of investment opportunities. This leads to stronger domestic money

growth, higher inflation and higher asset prices. These findings are supported by Baks and Karmer (1999), who showed that higher G7 liquidity growth was associated with higher G7 asset prices and lower interest rates. In a world characterised by increased global integration, it seems that national central banks are no longer able to follow entirely independent policies.

Figure 4.13 Breakdown in global real GDP – global money growth relationship



Source: DB Global Markets Research, Eurostat and OECD.

As a result of the policy of easy money on a global scale, there are signs of worldwide excess liquidity. As shown in Figure 4.13, which is adapted from the ECB's January 2004 *Monthly Bulletin*, real money growth and real output growth were reasonably well correlated until 2001. Since then, there has been a sharp dislocation between the two. The ECB feels uneasy about how the excess liquidity will be used: "Although it is possible that a higher liquidity preference of agents in their portfolio allocation will become a structural phenomenon, there are also risks of the excess liquidity leading to higher global inflation and/or renewed global asset price bubbles in the future".¹² The ECB concludes that intense monitoring of developments is needed, but fails to indicate a possible response.

¹² ECB, *Monthly Bulletin*, January 2004, p. 12.

Given the international spillover of national monetary policy, there is a strong case for closer cooperation between major central banks. Sceptics may argue that such cooperation is bound to fail because the US, being the world's leading economy and having its leading central bank, has no interest in it. However, if European and Asian central banks managed to establish a credible platform for such cooperation, the US Federal Reserve would probably not abstain. Greater awareness of the international effects of monetary policy and peer pressure could then lay the ground for some coordination. Even if the degree of coordination were very low, it would represent an improvement over the present situation.

Others may interject that a forum for international economic policy cooperation already exists in the form of the Group of Seven. However, the G7 has neither the structure nor the focus to foster monetary policy cooperation. Having been founded in the 1970s, it consists of the Finance Ministers – and is attended by the central bank governors – of the seven major industrial countries. Since then, however, Germany, France and Italy have adopted a common currency and need to be represented by only one central bank. More importantly, the G7 deals with exchange rate and other economic policy issues while the proposed platform is to focus exclusively on monetary policy on a global level.

Chapter 5

The Euro in the Global Economy

The events of the last 12 months have brought exchange rates back into the policy discussion. The G7 meetings in Dubai and in Boca Raton focused heavily on exchange rates, stressing stability and the need for adjustment in the regional areas that have not shown sufficient flexibility. The most recent meetings, although concentrating primarily on oil prices, have continued to emphasise the need for stability and global adjustment.

Back in February, EU officials complained that the cyclically weaker area was bearing the brunt of the global adjustment as a result of the rigidity in Asian exchange rates and the Chinese peg to the US dollar and the lack of fiscal adjustment in the US. A round of competitive devaluations ensued, with all countries talking down their currencies in one way or another. This has reopened the discussion about the role of the euro in the European policy framework, the need for international policy cooperation and the best framework to manage today's system of flexible exchange rates. Some analysts have advanced the need to establish a system of target zones among the main currencies (see Bergsten et al., 1999), or suggested the convenience of redefining international institutions like the G7 to accommodate increasingly relevant countries such as China (Kenen et al., 2004).

This chapter discusses the background to recent exchange rate movements and their implications for policies in the euro area. Two questions must be addressed before discussing the policy choices available to European policy-makers. First, is the US current account really a problem? And second, what is the equilibrium exchange rate for the euro?

5.1 Is the US current account really a problem?

The key to understanding the recent developments is the need to rebalance what has become a US-centric global economy. The imbalance is impressive. Based on IMF data, despite accounting only for about 30% of the world's GDP, but the US also accounted for 98% of the world's GDP growth over the period 1995-2002. In this process, the US current account has widened to about 5% of GDP, the largest deficit in more than a century. Using different metrics to give an idea of the magnitudes involved, the US absorbs 80% of the global aggregate trade surplus, measured as the sum of all countries' running trade surpluses, and its current account deficit represents more than 50% of its exports.

Historical evidence suggests that a current account deficit of 5% is the threshold of sustainability. In its latest annual report, the Bank for

The relative price structure has shifted somewhat over the last year. Since the peak, the trade-weighted dollar has depreciated about 11% in real terms. Rather than improving, however, the US trade balance has posted a new record deficit of 5% of GDP in the first quarter of this year (including a record trade deficit also with the euro area – see Figure 5.1 above). This might be due to the well-known J-curve effect, but the available projections, which incorporate this effect, do not predict a major improvement in the US current account deficit for the near future.

It thus seems that the price adjustment we have witnessed so far has not been enough. Perhaps the reason is that the relative demand balance not only has not shifted, but has deteriorated: the US-euro area growth differential has widened further in favour of the US, an effect that is compounded by the higher import elasticity in the US (see Mann, 2002). Therefore, it seems that not much adjustment in the current account has been achieved despite the depreciation in the US dollar.

Thus, unless the rest of the world can start growing faster than the US (possible), and unless US import elasticities fall (unlikely), a bigger fall in the US dollar than expected a year ago may be needed to solve the global imbalance.

Until recently, it could be argued that the US current account deficit made sense as the rest of the world invested in the only new economy in this world. However, as investment has fallen a lot since 2000, this argument is no longer valid. Indeed, if one compares 2004 to 1996 (see Table 5.1), US investment has barely increased as a percentage of GDP, but the current account deficit has widened by 4 percentage points of GDP.¹³ It is thus clear that most of the increase in the US external deficit over the last decade is not flowing into higher US investment.

The composition of the trade flows provides a similar picture. Interestingly, the biggest trade deficit is in consumer goods and autos, where there is a persistent, long-term trend towards a deficit which was exacerbated by the robust personal consumption in the US during the 1990s, the very resilient behaviour of consumption during the recession and recent fiscal policy-induced recovery in consumer spending. It is therefore fair to argue that it is a ‘non-productive’ current account deficit.

¹³ Using the early 1990s as the base for comparison would show that the current account deficit increased by 4.5% of GDP, compared to an increase in investment of about 1.5%.

Table 5.1 Changes in the savings-investment balance

United States	Average 1990-95	1996	2004	Difference 2004 – 1990-95
Investment	17.1	18.5	18.8	1.7
Current account	-0.8	-1.3	-5.2	-4.4
Real effective exchange rate	99.8	104.4	103.5	3.7

Euro area	Average 1990-95	1996	2004	Difference 2004 – 1990-95
Investment	21.5	20.3	19.9	-1.6
Current account	-0.2	1.1	0.7	0.5
Real effective exchange rate	96.7	100.9	94.7	2.0

Source: European Commission, spring 2004 forecast.

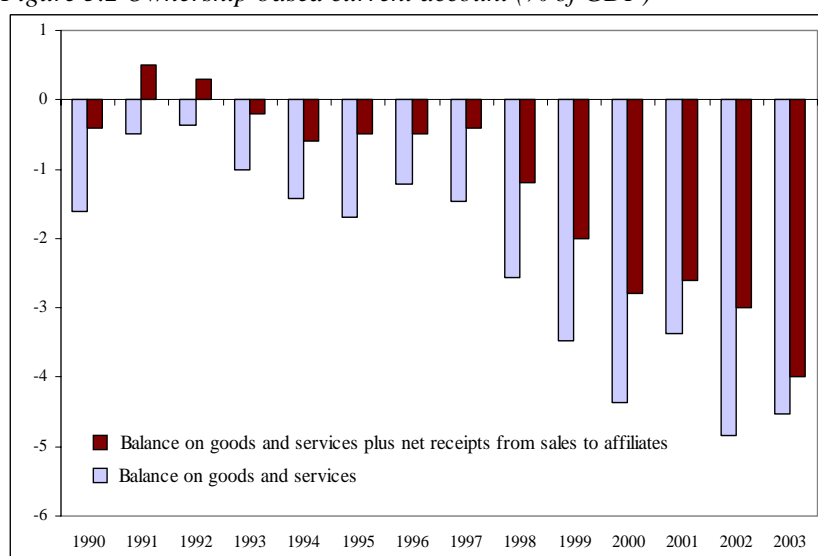
Box 5.1 How large is the US current account deficit?

Critics of the un-sustainability argument point out that the global current account discrepancy is increasing and mainly reflects services trade. Given that the US trades intensively in services, could it be the case that the global discrepancy could be allocated mainly to the US, thus reducing its current account deficit to about 3% – and thus making it sustainable? This argument is difficult to support, because the savings investment imbalance is similar to the current account imbalance, and it is more difficult to justify such a large mismeasurement there. In addition, the expansion in moving offshore, in as much as it lowers the services surplus in the US, lowers the amount of exports available to fund the current account deficit and thus increases, *ceteris paribus*, the dependence on foreign capital flows (see Baily & Lawrence, 2004). Moreover, it seems that US imports of services, if anything, are underestimated. For example, official trade figures show only very limited export of services from India to the US, less than \$2 billion per annum (and US exports of services to India of about twice this amount). At any rate, while the importance of trade in services has increased, it still remains of limited importance, accounting now for about 30% of goods trade.

Another route to justify the sustainability of the US current account deficit is the ownership definition of the current account. The development of offshoring implies that a significant share of trade takes place between affiliates and their parent companies. Intra-firm transactions account now for as much as one-third of total US exports and 40% of US imports. One could argue from the point of view of sustainability that these transactions

do not represent the same degree of funding problem that stand-alone imports do, given that they are inter-company operations (why would a company default on its sister company?). nevertheless, they do increase the potential exchange rate mismatch of the US economy. If we add the net receipts from sales by affiliates to the balance on goods and services, then the US current account deficit would be reduced by about 1% of GDP (see Figure 5.2).

Figure 5.2 Ownership-based current account (% of GDP)



Overall, taking all of these factors into account, perhaps the ‘real’ current account deficit, from a sustainability viewpoint, is lower than 5%, but it is doubtful that these adjustments could credibly reduce the deficit towards 2-3% from a trade viewpoint.

Let’s now discuss the mirror image, the availability of financing. The quality of the financing of the external US deficit has deteriorated. Since 2002, FDI flows have turned negative, and portfolio flows have constituted the bulk of financing, with a very large component of official flows (see Figure 5.3). As a result, by early 2004, over half of all public debt of the US was held by foreign official holders, with the bulk of it held by monetary authorities in Asia. Another way of looking at the same issue is to calculate the broad basic balance of payments, which adds to the current account balance net foreign direct investment and net portfolio flows. This aggregates trade and long-term capital flows, which are supposed to have a long-term impact on the evolution of the exchange rate, The broad balance of payments clearly shows

how the underlying fundamentals of the US dollar have deteriorated since 2001. Given this deterioration in fundamentals, only official purchases of US assets have prevented a marked decline in the currency – to wit, in 2004Q1 official purchases financed almost 90% of the current account deficit (see Figure 5.4).

Figure 5.3 Funding of US current account deficit (\$ billion)

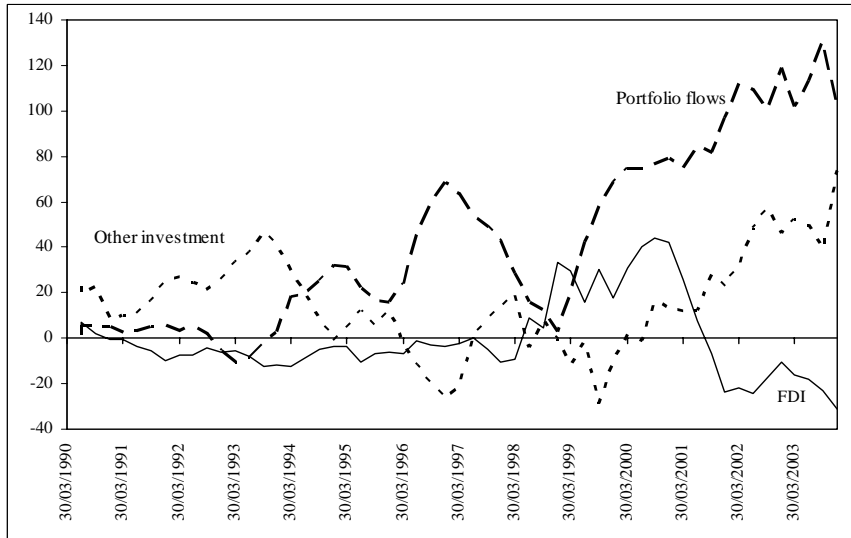
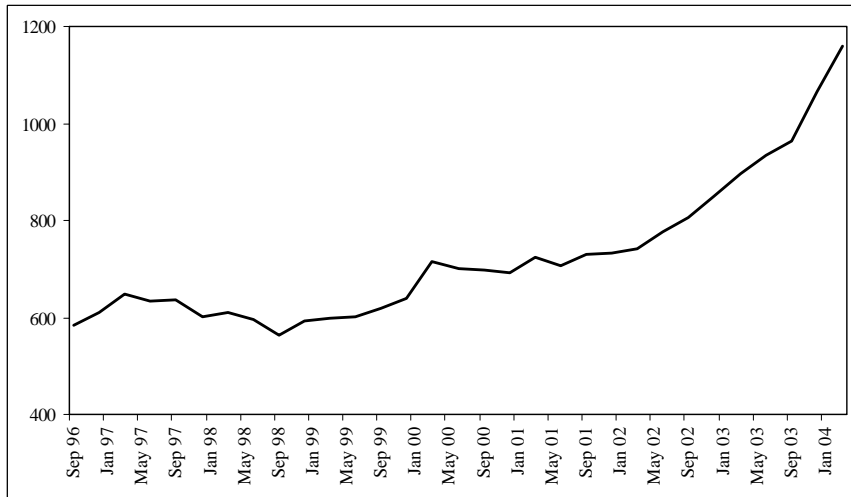


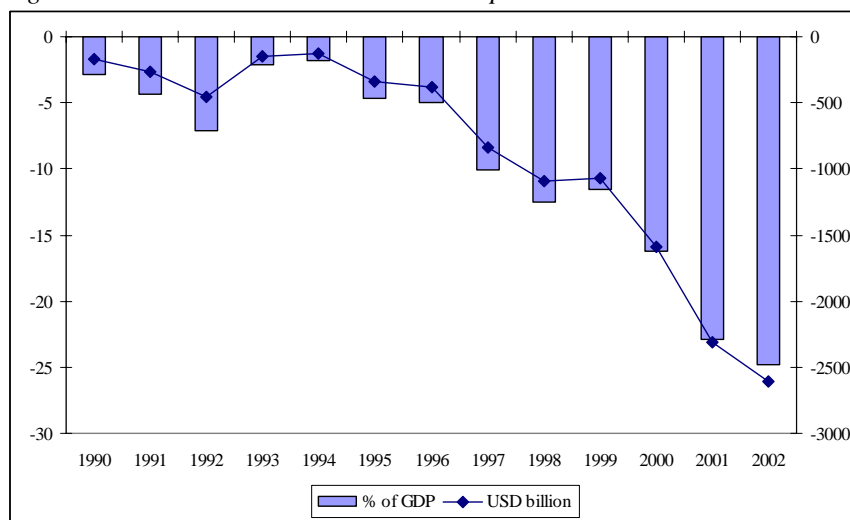
Figure 5.4 US custody holdings of US government securities for foreign official institutions (\$ billion)



There has been a lot of discussion about the sustainability of the policy of massive currency intervention and reserve accumulation in Asia, and the IMF has recently warned about the excessive accumulation of reserves in the region.¹⁴ In a nutshell, the export-led policies of these countries, combined with the Chinese peg and a desire to minimise the risk of currency crises, has led governments to intervene heavily in exchange rate markets to avoid an appreciation of their currencies. These additional reserves are typically recycled into dollar assets, which explains the sharp increase in official purchases of these assets.

The nature of the flows suggests that the financing of the US current account is becoming increasingly difficult and relies more and more on support from official institutions. But in addition to flows, an analysis of stocks – the US investment position – will shed some further light into the sustainability assessment. Since the late 1980s, the accumulation of the current account deficits financed by foreign capital inflows has transformed the net international investment position of the United States from positive to negative. That is, foreign investors now hold more US assets than US investors hold foreign assets. By the end of the year 2003, the net international investment position of the US economy was about \$3 trillion negative – more than 25 percent of US GDP (see Figure 5.5).

Figure 5.5 US net international investment position



¹⁴ See Aizenman et al. (2004) for a theoretical discussion of the rationale for and optimality of these policies.

The net international investment position bears on the question of the sustainability of the current account deficit and the associated inflow of capital. Large liabilities today increase the rate of growth of liabilities tomorrow, and the large stock of financial obligations implies outflows of interest, dividends and the like which will have to be serviced with the economy's current output. In addition, this huge negative net investment position means that even a dominant economy such as the United States must consider the consequences of a change in sentiment abroad about the desirability of holding a large share of US assets in one's portfolio and continuing to provide the net inflow of financial capital. The recent moves in Asia towards achieving currency independence – notably the issuance of Asian Currency Basket bonds – and the incipient enlargement of EMU poses a significant potential risk to US dollar demand.

In theory, a large and persistent current account deficit generates a negative net international investment position (NIIP) that grows ever larger. Eventually, the financial payments (for example, in the form of interest and dividends) arising from this NIIP will become large enough to cut into domestic consumption and business investment. However, these external imbalances have not yet affected the US external budget constraint. In fact, even though the net international investment position turned negative in the early 1990s, the United States still earned \$16 billion more in interest and dividend payments than it paid out in 2003, and the cost of capital – the real interest rates – has not risen significantly.¹⁵

How can the United States have such a negative net investment position, yet not owe any net servicing payments? A key factor here is the composition of foreign purchases of US assets. Most of the private capital flowing into the United States consists of foreign direct investment and portfolio investment, which do not require fixed interest payments, as is the case for bank loans. Moreover, US entities borrow almost exclusively in domestic currency: more than 90% of their external debt to banks is in dollars, and most portfolio assets are denominated in dollars. Consequently, the United States has hitherto been able to carry a larger current account deficit than a country whose obligations consist primarily of contractually fixed, short-term bank loans denominated in foreign currencies. In addition, the US has been skilful – or fortunate – in the selection of its investments: over the past 25 years, US FDI has yielded a return three times larger than foreign FDI in the US – a fact that casts doubt on the long-standing argument adduced in support of the US dollar that the US is the best place to invest one's money.

¹⁵ Certainly, the very loose monetary policy stance of the US Federal Reserve contributed to this.

The cost of servicing the large net US liabilities could increase sharply, however, if US long-term interest rates were to go up significantly or if there were a sharp change in dividend payment policies in US corporations. For example, if US interest rates were to increase from the present low levels to their longer-term average, which would imply an increase by about 2-3% for long-term and 3-4% for short-term rates, the debt service cost could increase by about 1% of GDP (given its net debtor position of 30% of GDP).

5.2 What is the equilibrium exchange rate of the euro, and what is the likely evolution?

The alternative to looking at sustainable quantities (the current account) is to look at equilibrium prices (equilibrium exchange rates). There are many different calculations of equilibrium exchange rates, ranging from simple PPP to sophisticated time varying calculations. Two of the main methodologies are FEER (Williamson, 1994) and BEER (MacDonald, 1997). The Fundamental Equilibrium Exchange Rate (FEER) focuses on sustainability but relies heavily on ad hoc assumptions about current account targets, while Behavioural Equilibrium Exchange Rate (BEER) embodies a mean reversion assumption but contains no assessment of sustainability. A methodology that is both workable and focuses on sustainability is that presented in Alberola et al. (1999, 2002) which calculates equilibrium exchange rates allowing for both internal and external balance while ensuring global consistency (this methodology has been adopted, among others, by the European Commission for its internal assessment of exchange rates). In a nutshell, the equilibrium exchange rate is a function of the stock of net foreign assets (NFA) and the evolution of relative prices or relative productivities.

The results in Alberola et al. (1999) show that the equilibrium value of the euro, at its inception, was about 1.25. We updated the estimation with data up to 2003 and learn that the equilibrium value of the euro has slowly declined to about 1.15, as the widening of the productivity differential between the US and the EU has more than offset the deterioration in the level of NFA. Note, however, that this recent downward revision is subject to high uncertainty because it is unclear how much of the recent productivity acceleration in the US may have been transitory, and thus of no consequence for the equilibrium exchange rate.

Looking ahead, however, the equilibrium exchange rate of the euro would be expected to appreciate again as the extraordinary productivity differential narrows and NFA deteriorates further as the US income account starts deteriorating faster. In addition, there are several structural factors that argue for a secular appreciating trend for the euro. These factors have at times been

overshadowed by cyclical or time-specific effects, but nevertheless remain the underlying trend. Let's review them:

Although all of them have disappeared by now, a few temporary factors induced the decline of the euro since 1999, as follows:

- 1) In the wake of the introduction of the euro, European central banks found themselves with too much domestic currency (assuming irreversibility of the euro, of course) and *diversified their portfolios* into US dollars, pound sterling and other currencies. This would explain the steady downward trend since the mid-1990s, as the euro idea was becoming more of a reality.
- 2) The '*new economy*' fad took hold in the US and somehow in the UK, but not in the euro area: European firms went on a shopping spree in the US, buying all types of companies to be able to participate in the new economy boom. This M&A boom pushed up the dollar as companies bought dollars to finance their transactions.¹⁶
- 3) Before the introduction of notes and coins, the *black market* was probably holding the euro down, as holders of Deutsche mark and other euro area currencies were switching into dollars and other non-euro area currencies to avoid having to 'legalise' their monies. Although the stock of money was small, it may have been important at the margin in keeping the euro down.

Since 2002, more permanent factors, in addition to the further deterioration of the US current account, have entered the scene and led to the euro rally:

- 1) *The successful introduction of notes and coins bolstered confidence in the euro and probably led to an increase in transactions demand for euros.* The size of the EU's GDP is similar to the US and its share of world trade is larger, but the US dollar is still the dominant currency for international trade. Data from the ECB and the Japanese Ministry of Finance show that, in fact, transactions demand for euros has increased: the use of the euro in the EU's external trade has increased and now about half of the EU's international trade is denominated in euros. And the use of euro in trade flows between Japan and EU has increased significantly in recent years.
- 2) *The events of September 11, 2001 and the US 'pre-emptive strike' foreign policy have introduced a negative correlation between*

¹⁶ This theory assumes that Europeans were not hedging the exchange rate risks; thus they were either taking a huge exposure or assuming that an exchange rate of below parity was a sort of medium-term equilibrium.

geopolitical risks and the US dollar. There has been a clear change in perception of what represents ‘flight to quality’ and markets since September 2002 – which coincides with the publication of the new US geopolitical doctrine – have routinely sold the US dollar when perceptions of geopolitical risk increased.

- 3) *The move towards protectionism in US politics has also been a major driver of US dollar weakness, given the large US dependence on foreign capital flows.* The mini-trade wars with China – as a result of the debate over offshoring and the perception among some US political circles that free trade was one of the main causes of the lack of job growth, which led some US Congressmen to introduce bills calling for tariffs as high as 27.5% on Chinese imports – and the EU – related to US subsidies to exports that the WTO has declared illegal – late last year were an important source of US dollar weakness.
- 4) *Since 1999, there has been a decline in the share of dollar holdings in foreign official reserves and a shift into euros and sterling, reflecting increased confidence in the euro as a store of value.* The share of euros, at around 15%, is still small, however, compared to the share of the euro area in global trade (see Table 5.2). This share can only increase, especially if we take into account the fact that Asian central banks are the main holders of foreign exchange reserves, and that their share of euro is very low compared to the share of trade flows between Asia and the EU. In addition, the possibility that China could move away from the dollar peg and towards a basket exchange rate system that will likely include the euro implies that China would probably have to increase its share of euros in its reserves.

Table 5.2 Share of national currencies in total identified foreign currency holdings, end of year (in %)

	1995	1996	1997	1998	1999	2000	2001	2002
USD	56.9	60.2	62.2	65.7	67.9	67.6	67.7	64.8
JPY	6.8	6	5.2	5.4	5.5	5.2	4.9	4.5
GBP	3.2	3.4	3.6	3.9	4	3.8	4	4.4
CHF	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.7
EUR					12.6	13	13.2	14.6
DM	13.7	13	12.8	12.2				
FF	2.3	1.9	1.4	1.6				
ECU	6.8	5.9	5	0.8				
Others	9.5	8.8	9.1	9.7	9.3	9.7	9.6	11

Source: IMF.

- 5) *In addition, the impact of enlargement on the equilibrium rate, although small given the small size of these countries relative to the current EMU, is likely to be marginally positive.* The equilibrium exchange rate will probably be marginally stronger owing to Balassa-Samuelson effects that will tend to increase the relative productivity of the EU, while relative inflation differentials should not change if countries adhere to the Maastricht entry targets. In terms of current account, given that the combined deficit of the new members (about 4% of GDP) is mainly with the EU, the resulting combined balance would probably be still a small (though marginally minor) current account surplus. Given their large inflows of FDI, the quality of capital inflows would marginally improve. On the other hand, there is the possibility of a higher risk premium owing to the more complicated governance structure: if EMU-12 has not been able to properly manage the Stability and Growth Pact, and given that the ECB is already a very slow-moving central bank – in part because of choice, but in part also because of the consensual nature of a very large Governing Council – it is fair to assume that an EU/EMU with 25 or more members will be even more complicated to manage based only on peer pressure, thus increasing the risks of fiscal slippages.

Thus, it seems that structural forces overall point towards an appreciation of the equilibrium rate of the euro, and this trend may become self-reinforcing as the value of the euro increases (for example, its appeal as a store of value may be positively correlated to its strength).

5.3 Events in 2004

Summarising, there seems to be conclusive evidence pointing towards the need for a current account adjustment in the US which will require some degree of US dollar depreciation, and there are indications that the demand for euro will grow. With this in mind, let's now look at recent events and their implications for the policy mix in the euro area.

The ECB has adopted a policy of benign neglect towards the exchange rate, with two exceptions: it intervened in 2000 when the euro reached a low of 0.83, and it intervened verbally in 2004 when the euro reached 1.29. The two events would be compatible with a de facto target zone centred around 1.06 with a $\pm 20\%$ band around it. But this might just be an impression created by hindsight. As reported above, most estimates of the 'equilibrium' exchange rate of the euro are somewhat higher than the centre of this band. Inside the band, however, the euro has been free to fluctuate, and has followed a clearly procyclical pattern: periods of weak growth have been accompanied by a strong euro, and vice versa. Interestingly, the US dollar has been countercyclical – from a US point of view. This difference in the co-movement of the exchange with the business cycle is not surprising given the

close correlation between the US and the euro area cycle (and the fact that a stronger euro means a weaker dollar).

The pro-cyclical pattern of the euro raises an interesting question: given that a very important channel of transmission of monetary policy in the euro area seems to be the exchange rate (see Chapter 4), does this policy stance of benign neglect make sense? In other words, is a strong euro in the interest of the EU? It is, provided that the policy mix takes this into account and accommodates the structural strength of the euro. We explore this issue further in the policy discussion below.

A second issue for discussion is whether verbal intervention at 1.29 was the right thing to do, or whether it would have been more appropriate to cut rates. It depends on the source of the shock. Judging from the analysis above, it is difficult to disentangle whether cyclical or structural factors are at play at any given time. At the time, intervention was justified on the basis that markets were perceiving a one-way bet on the euro, and thus there was the risk of a very rapid, self-fuelling appreciation that had to be eliminated. After the (verbal) intervention, and despite the fact that the growth differential has clearly widened and that the interest rate differential is now expected to move in favour of the US, the euro has traded in a tight range of 1.18-1.24 over the last few months.

From a positive standpoint, it seems that these structural factors constitute an important floor for the euro and are likely to continue to support its appreciation in the medium term.¹⁷ If this hypothesis is correct, then intervention is likely to be useful only to slow down the process but not to reverse it, and a looser monetary policy that accommodates a stronger exchange rate would be more appropriate.

An argument for intervention is that the euro area is broadly in internal and external balance, and thus it should not accept an excessive appreciation of the exchange rate. Moreover, it is commonly believed that the unwillingness of Asian countries to adjust their exchange rates is putting an excessive burden on the euro area. Let's discuss these arguments in turn.

Is the euro area really in balance? The euro area enjoys at the moment a small surplus in its current account, and given its demographic outlook this is considered appropriate. The question is: would the EU have achieved this small surplus without the 'excessive' demand from the US that has created the global imbalances? Let's not forget that the EU runs an ever-growing

¹⁷ A normative analysis would argue that aging and the relatively worse demographic profile of the euro area would indicate the need for the euro area to run a current account surplus, and thus would argue for a weaker euro. We discuss this issue in the next section.

bilateral surplus with the US. Williamson (2004) runs a simple exercise: what would the economy of the rest of the world look like if the US were to halve its current account deficit? He distributes this adjustment proportionally across regions in terms of their GDP shares and does not require any area to move into deficit. For the EU, the required adjustment to move into bilateral current account balance would imply about \$68 billion lower EU (net) exports into the US, a bit less than 1% of EU GDP. With this result we can then run a simple back-of-the-envelope calculation: if this adjustment had happened over the last two years, it would have meant essentially zero growth in the euro area. Would we be talking now in terms of the euro area being in internal balance, after two years of zero growth? Probably not, unless there had been a much larger contribution from domestic demand – which probably would have required a looser stance of monetary policy – to offset the weakness in external demand.

In some sense, the EU continues to free ride on the excessive US consumption. Recent data show that the euro area has not been contributing at all to the financing of the US current account deficit. During the first quarter of 2004, and on a global scale, there were \$253.7 billion worth of foreign portfolio flows into the US. Of this, only \$1.1 billion came out of the euro area. The bilateral trade surplus with the US is not showing any signs of shrinking. The year-to-March surplus in 2004 is exactly the same as in 2003, €9.3 billion – despite a euro appreciation of more than 10% over the same period. Looking at the equivalent bilateral trade statistics released in the US, it appears that the trade gap is widening further from \$16.4 billion year-to-March in 2003 to \$18 billion over the same period in 2004.

The second issue relates to the need for a globally consistent exchange rate adjustment. European policy-makers insist that the lack of adjustment in Asia – and especially in China – puts more pressure on the euro to appreciate. In a recent paper, Benassy et al. (2004), building on the Alberola et al. (1999) methodology, try to quantify the impact of the lack of adjustment of some countries' currencies. The theoretical argument suggests that blaming Asia for the appreciation of the euro may not necessarily be correct, for it depends on the numeraire: in a three-country world, if the euro is undervalued in effective terms and it becomes more undervalued as a result of the appreciation of the yuan, the euro will have to appreciate even more towards equilibrium. In that case, a constant yuan would imply less need for euro appreciation than an appreciating yuan. Overall, the undervaluation of the yuan magnifies the bilateral misalignment of undervalued currencies (i.e. the euro) but reduces the misalignment of overvalued currencies (i.e. the dollar). Since both cannot be true at the same time, the impact is an empirical question, and depends on the relative weight of non-adjusters in the calculation of euro and dollar effective exchange rates. Benassy et al. (2004) find that the euro in 2003 was still marginally undervalued in REER terms.

Lack of adjustment in Asia implied that the euro had to appreciate against the dollar an extra 10-15% towards equilibrium, whereas if all currencies had adjusted, the euro would have been close to its equilibrium level. Therefore, the data suggest that some exchange rate adjustment in Asia would have alleviated some of the pressure on the euro.

5.4 Policy conclusions

The large global imbalances created by the huge US current account deficit imply that exchange rates issues can no longer be discussed in isolation, and that perhaps a new framework for policy coordination is needed. The key question is the following: the world economy has moved from a group of small open economies towards a three-bloc regional complex – the US, the euro area and the Asian region¹⁸ – where all three regions have an incentive to play Stackelberg leaders.

The US has tried to minimise the probability of falling into deflation with a very loose monetary policy and a fiscal expansion that, ex post, proved to have been properly timed, at the expense of correcting its savings imbalance.

The euro area tried to maintain price stability and was constrained in using fiscal policy¹⁹ – at the expense of stimulating growth to offset the needed reduction in US domestic demand.

The Asian region tried to prevent an appreciation of their currencies in order to preserve their export-led recovery, and accumulated excess reserves in order to minimise the risk of currency crisis.²⁰

The problem is that only two of these strategies are compatible, namely the US fight against deflation and the Asian foreign exchange intervention, leaving the euro area in the worst situation. One could argue that the Asian central banks, through their active buying of long-term US treasury bonds and agency paper, performed ‘quantitative easing’ in the US, by preventing a steepening of the dollar yield curve. At the same time, the Asian

¹⁸ Intra-Asian trade has increased significantly in recent years and now accounts for almost half of total trade in the region. The Chinese peg provides an anchor to the region, which now behaves in a pseudo currency area fashion.

¹⁹ As we have argued repeatedly in these reports, it is unclear that Keynesian fiscal policies have any expansionary impact in the euro area. In addition, the large deficit at the beginning of the slowdown did not allow for a discretionary fiscal expansion.

²⁰ Given the very large output costs associated with a currency crisis, and the risk of sudden stops brought about by the liberalisation of capital flows, this precautionary demand for reserves is a welfare-improving policy.

intervention, by allowing a lower interest rate in the US, has precluded some of the adjustment in US consumption that could have advanced the resolution of the global imbalance. In some sense, the US and Asia are running a de facto currency area, but one based on extreme policy stances and distorted prices, which thus cannot be more than a temporary unstable equilibrium.

From the point of view of policy, it seems clear from the analysis above that the risk of a sharp dollar correction exists, although the probability may not be too large. In fact, the ECB has in public warned about the global imbalances, citing them in its monthly press conferences as one of the downside risks to the outlook. There is thus a clear inconsistency between the warning of the risk and the failure to actively work to minimise it.

We have shown that the argument that the euro area is in balance and that it is therefore for the others to adjust, is not decisive. In this inter-connected world, the euro area cannot isolate itself from global imbalances. If we agree on the fact that the longer we postpone the adjustment, the more painful it could be, a net present value approach to policy would indicate that adjustment should be facilitated now. The question is sustainability. From a capital account viewpoint, if the situation is not corrected, the sheer size of the funding needs will just overwhelm the world capital markets and could generate a sharp exchange rate correction. This scenario, a high-cost/low-probability event, must be taken into consideration when deciding the policy mix of the euro area.²¹ A different composition of growth in the euro area, with more domestic demand and less external demand, would be preferable.²²

However, from a longer-run eurocentric standpoint, considering the relatively worse demographic profile of the euro area documented above, the EU should run a current account surplus that could be used later to provide the resources needed to finance the retirement needs of older generations.

But where would the ageing EU (and Japan) invest? Without a US deficit, the relatively younger emerging markets would have to run persistent current

²¹ If we consider the fact that the impact of an exchange rate shock is likely to be asymmetric across euro area countries, given their rather different degrees of openness, allowing this shock to happen would only further complicate an already difficult policy framework in the euro area.

²² A typical argument points out that a looser monetary policy would lead to a weaker exchange rate and thus to a higher current account surplus. Yes, but this is a relative statement: in the context of a structurally strengthened euro that will (and should) lead to a current account deficit, a looser monetary policy will indeed smooth the exchange rate adjustment process and allow for higher domestic demand.

account deficits against the developed world. Unfortunately, the combined GDP of the emerging markets is not large enough to generate the resources necessary to resolve the generational problems of the G7.²³ In addition, these countries are prone to sudden stops and exchange rate crises, and thus this solution would not be sustainable – and probably suboptimal in expected value terms given the high cost of these crises.

From a world social-planner viewpoint, therefore, what would be the optimal constellation of current account positions? As mentioned above, a US deficit of around 2.5% of GDP could provide a useful counterpart to the EU surplus. But then the US still needs to make another adjustment of 2.5%. It seems clear that the incompatibility of present policies in the three-country game and the demographic outlook imply that the solution to the global imbalances will have to be found in the realm of domestic policies in the developed world. In order to reduce the risk of a sharp US dollar correction that could inflict substantial economic costs on the world economy, the US should correct its savings imbalance and reduce its fiscal deficit. Emerging markets should work towards improving their domestic fundamentals so that they can slowly afford to run sustained current account deficits without risking sudden stops. If these conditions were to materialise, the US deficit would be reduced to a sustainable level and as a counterpart the developing Asian countries could swing from a large surplus into balance.

However, if this does not happen, what should Europe do? The euro area will have no choice but to allow the euro to appreciate to facilitate the adjustment of the US current account deficit. As we have discussed above, there will likely be a structural excess demand for euro as financial markets integrate and the euro increases its share in global trade and portfolios, which implies that the EU could run a sustainable small current account deficit. At the same time, it should adopt a policy mix that is conducive to a rebalancing of the

²³ Gros (2004) shows that the EU would need to run a current account surplus of close to 3% to be able to finance its retirement-related expenditures out of net foreign investments. But given the differences in GDP sizes, this would imply that emerging markets would need to run a sustained current account deficit of about 15%! And this does not assume that the US would need to run a current account surplus, given its relatively better demographic outlook.

composition of growth, making it more intensive in domestic demand. Given that it will not be able to invest abroad to finance the costs of future retirement, the brunt of the adjustment will have to come through fiscal consolidation and structural reform.

Chapter 6

Conclusions

The economy of Euroland is set on a path to grow at an unsatisfactory rate for yet another year. While it is now commonly accepted that the problems of Europe are structural, the temptation remains to use the two classical levers of macroeconomic policy to speed up the recovery. Neither, however, seems at present of much use.

Monetary policy is in a quandary: real interest rates are low by historical standards and there is considerable excess liquidity. But the recovery remains hesitant and inflation projections one year forward remain somewhat below the ECB's ceiling of 2%. Should the ECB try to give the economy a quick boost?

The argument that the ECB should loosen policy usually starts from the observation that there is still an output gap, which should be closed before one should worry about inflation. But this rests on the assumption that one can actually measure the output gap with some accuracy. We document that ex-post estimates of the output gap have varied widely. For example, during the year 2000 (the year of the Lisbon bubble), it was widely believed that the Euroland economy could expand even faster so that there was at that time still an output gap left. With hindsight, however, it has now become apparent that the potential growth of the economy was much smaller than believed then so that today it is widely accepted that in 2000 the Euroland economy was actually operating above potential.

This line of reasoning implies that much of the criticism of the ECB at the time (that its policy was too tight) was wrong. Uncertainty about the output gap (and other variables contained in simple monetary policy formulas) justifies the ECB's approach of 'looking at everything'. Still, even if it follows a more comprehensive approach to interest rate policy, with today's data on potential growth, it appears that the ECB's policy can well be described by a standard Taylor rule according to which monetary policy reacts to both inflation (relative to target) and the output gap. This is a familiar phenomenon in economics. We explain ECB policy as if it would follow a Taylor rule, similar to, say, our explanation of consumer behaviour, as if consumers maximised a utility function subject to a budget constraint (although few consumers ever heard of the concept).

Fiscal policy seems stuck in a trap: deficits are already so high (compared to the low potential growth rates in most of Euroland) that further fiscal expansion would lead to such an accumulation of debt that it might be counterproductive. But the governments of the large countries also do not

seem to be able to muster the political will to introduce the reforms in old-age protection systems that would make them sustainable in the face of a rapidly ageing population. Fiscal policy is thus no longer available for demand management, especially in the larger countries where it might still have at least a marginal impact.

Allowing deficits to increase even further (say to 5% of GDP) would probably do little to strengthen demand, and might even be counter-productive in a number of countries hit hardest by the growth slowdown and ageing. Fiscal policy thus needs to be tightened. Moving to structural balance will actually counteract the slowdown of potential growth in Europe because it would crowd in private investment.

One key finding of this report is that the ongoing slowdown in productivity seems to stem in the first instance from insufficient investment. Investment-to-GDP ratios have not declined dramatically, and the capital stock is still rather high. But there are indications that a large part of it is not in the sectors of the economy where it is needed. Too much of the existing capital in Euroland is immobilised in declining sectors (especially in industry) and too little is invested in the growing sectors (especially services) to sustain productivity there.

Why would investment not flow spontaneously into the new sectors? The likely reason is that many of them, including a number of services sectors, are still heavily regulated in many countries. This is possible because the market opening programmes of the EU are usually restricted to trade in goods, and only recently has the focus of the internal market programme shifted somewhat towards services. A recovery of the European growth potential thus needs a combination of structural reforms, fiscal consolidation and low interest rates to increase investment and direct it to the new sectors.

But fiscal policy seems unable to move and structural reforms are not advancing. Europe thus appears to be stuck in a slow-growth trap: structural reforms are not forthcoming, thus keeping potential growth down, which in turn limits the room for manoeuvre for macroeconomic policy. To get Europe out of this trap requires one of the players to move first. Despite the usual caveats that apply to a proactive monetary policy aimed at influencing the real economy, we propose that the ECB should move first. It is the one European institution with a reputation for prudent economic management and it has some room for manoeuvre since there is no visible threat to price stability at present. The ECB could thus adopt a policy of giving the economy 'room to grow', stating clearly that it does this in the expectation that fiscal policy is consolidated and structural reform undertaken in earnest. We realise that this approach requires the ECB to go beyond its immediate remit of maintaining price stability, but we believe that difficult times require unorthodox solutions. Moreover, helping to initiate some policy coordination

should actually be in the long-term interest of price stability. If the present policy gridlock were to continue much longer, one must doubt whether the ECB would be able to defend its policy much longer.

6.1 Implications of expensive oil

The sharp increase in the price of oil in the first half of 2004 has increased the dilemma facing monetary policy as it is likely to increase the pressure on prices and dampen growth at the same time. However, the finding that the effects of monetary policy are manifested only after a long time lag also has implications for how the ECB should react to oil prices. Since the mechanical, pass-through effect is immediate, there is little the ECB can do about any jump in the consumer price level due to higher oil import prices.

How large might the impact of higher oil prices be on the Euroland economy? A first element to keep in mind is that the oil price has moved much less in terms of the euro than in US dollar terms. The level reached in early summer of 2004 represented a 13-year high in terms of US dollars (around \$40 per barrel), but in terms of euro (around €33 per barrel) this was actually below the peak of €35 per barrel reached briefly in late 2000. The present oil price level in euro terms is thus only about 20% above the average over the last five years.

6.2 EU enlargement does not affect the economy of Euroland

This is the first report by the CEPS Macroeconomic Policy Group since the EU enlarged from 15 to 25 members. We do not dwell on this historic development for the simple reason that enlargement by itself will have no significant impact on the economy of Euroland, or even the EU-15. A very substantial increase in trade and investment relations between the 'old' EU-15 and the 10 new members has already taken place in recent years and has thus in a certain sense anticipated the economic effects of enlargement. But this does not change the fact that the combined GDP of the 10 new members amounts to only around 5% that of the EU-15. Most empirical studies thus concur that the economic impact of enlargement on the EU-15 will be small (but positive).

Of more interest to our report is the prospect that four small new member countries could join the euro by late 2006 or early 2007. Given that their combined economies would account only for around 0.5% of Euroland's GDP, this would also have no economic implication for Euroland. However, they might have an impact on the equilibrium in the Governing Council of the ECB. With three new members, the first stage of the rotation system

proposed by the ECB itself should in principle come into force. While it would not greatly change the number of Governing Council members with the right to vote, it might have a profound impact if it leads to a situation in which national central bank governors become more inclined to represent their home economy instead of taking a Eurozone-wide point of view. In this case, enlargement of the eurozone might have an impact on monetary policy since the 'representatives' of the new member countries will probably have a tendency to vote for a tight policy.

References

- Aizenman, Joshua, Yeonho Lee and Yeongseop Rhee (2004), *International Reserves Management and Capital Mobility in a Volatile World: Policy Considerations and a Case Study of Korea*, NBER WP 10534, National Bureau of Economic Research, Cambridge, MA.
- Alberola, Kike, Susana Cervero, Humberto Lopez and Angel Ubide (1999), *Global Equilibrium Exchange Rates. Euro, Dollar, ins and outs in a panel cointegration framework*, IMF WP 99/175, International Monetary Fund, Washington, D.C.
- (2002), “Quo Vadis, Euro?”, *European Journal of Finance* 8 (4), December.
- Angeloni, I., A.K. Kashyap, B. Mojon, and D. Terlizzese (2003), *The output composition puzzle: A difference in the monetary transmission mechanism in the euro area and US*, ECB Working Paper No. 268, September.
- Baily, Martin and Robert Laurence (2004), “Trade and US Jobs Loss”, unpublished manuscript, International Institute for Economics, Washington, D.C.
- Baks, Klaas and Charles Kramer (1999), *Global Liquidity and Asset Prices: Measurement, Implications, and Spillovers*, IMF Working Paper number 99/168.
- Bennassy, A., P. Duran, A. Lahreche and V. Mignon (2004), “Distributing Key Currency Adjustments: A G20 panel cointegration approach”, CEPPI and University of Paris X, unpublished manuscript.
- Bergsten, Fred and John Williamson (eds) (2003), *Dollar Overvaluation and the World Economy*, International Institute for Economics, Washington, D.C.
- Bergsten, Fred, Olivier Davanne and Pierre Jaquett (1999), *The Case for Joint Management of Exchange Rate Flexibility*, IIE WP 99/09, International Institute for Economics, Washington, D.C.
- Biggs, M. (2003), “M3: Does Euroland have too much money?”, *Focus Europe*, Deutsche Bank, November.
- BIS (2003), Annual Report, June, Bank for International Settlements Basel.
- Blanchard, Olivier (2004), “The Economic Future of Europe”, forthcoming in *Economic Perspectives*.
- CEPS (2003), “Study on the Broad Economic Guidelines for the European Parliament”, Centre for European Policy Studies (CEPS), Brussels.
- Daveri, Francesco (2004), “Why is there a productivity problem in Europe?”, Centre for European Policy Studies (CEPS), Brussels.

- Daveri, F. (2000), "Is growth an information technology story in Europe too?", IGIER Working Paper No. 168, July.
- Daveri, F. (2002), "The New Economy in Europe, 1992-2001", *Oxford Review of Economic Policy*, October, 345-362.
- Daveri, F. (2004), *Delayed IT usage: Is it really the drag on European productivity?*, CESifo Economic Studies, forthcoming.
- "Why is there a European productivity problem?", mimeo, April (forthcoming CEPS publication).
- Deutsche Bank (2004), "Inflation is Dead, Long Live Inflation", *Deutsche Bank Global Markets Research*, 8 April.
- Dieppe, A. and J. Henry (2004), "The euro area viewed as a single economy: How does it respond to shocks?", forthcoming in *Economic Modelling*.
- Fertig, Michael, and Jochen A. Kluve (2004), *Conceptual Framework for the Evaluation of Comprehensive Labor Market Policy Reforms in Germany*, Institute for the Study of Labor (IZA) Discussion Paper No. 1099.
- ECB (2002), *Monthly Bulletin*, October.
- Gros, Daniel (2004), "Economics of Reform", remarks to the ARGE, 67. Wissenschaftliche Tagung 22 April, Bundesministerium für Wirtschaft und Arbeit, Berlin
- Gros, Daniel, Juan F. Jimeno, Carlo Monticelli, Guido Tabellini and Niels Thygesen (2001), *Testing the Speed Limit for Europe*, 3rd Macroeconomic Policy Group Report, Centre for European Policy Studies (CEPS), Brussels, May.
- Gros, Daniel, Klaus Durrer, Juan Jimeno, Carlo Monticelli and Roberto Perotti (2002), *Fiscal and Monetary Policy for a Low-Speed Europe*, 4th Macroeconomic Policy Group Report, Centre for European Policy Studies (CEPS), Brussels, June.
- Gros, Daniel, Juan F. Jimeno, Thomas Mayer, Niels Thygesen and Angel Ubide (2003), *Adjusting to Leaner Times*, 3rd Macroeconomic Policy Group, Centre for European Policy Studies (CEPS), Brussels, June.
- Gros, Daniel, Thomas Mayer and Angel Ubide (2004), *The Nine Lives of the Stability Pact*, Special report of the Macroeconomic Policy Group, Centre for European Policy Studies (CEPS), Brussels, January.
- Inklaar, R., M. O'Mahony and M.P. Timmer (2003), "ICT and Europe's Productivity Performance; Industry-level Growth Account Comparisons with the United States", GGDC Research Memorandum GD-68, December.

- Issing, Otmar (2003), “Monetary and financial stability: Is there a trade-off?”, in *Monetary Stability, Financial Stability and the Business Cycle: Five Views*, BIS Paper No. 18, Bank for International Settlements, Basel, September, pp 16-23.
- Jorgenson, D.W. (2003), *Economic Growth in the Information Age*, Cambridge, MA: MIT Press.
- Kenen, Peter, Jeff Shafer, Nigel Wicks and Charles Wyplosz (2004), “International Economic Cooperation in the 21st Century”, ICMB manuscript.
- MacDonald, Ronald (1997), *What determines the exchange rates? The long and short of it*, IMF WP 97/21, International Monetary Fund, Washington, D.C.
- Mann, Catherine (2002), “Perspectives on the US Current Account and Sustainability”, *Journal of Economic Perspectives*, 16 (3).
- Rubin, Robert, Peter Orszag and Allen Sinai (2004), “Sustained Budget Deficits: Longer-Run US Economic Performance and the Risk of Financial and Fiscal Disarray”, paper presented at the 2004 AEA meetings, January.
- Sousa, João and Andrea Zaghini (2004), *Monetary Policy Shocks in the Euro Area and Global Liquidity Spillovers*, ECB Working Paper No. 309, February.
- van Els, Alberto Locarno, Julian Morgan and Jean-Pierre Villetelle (2001), *Monetary policy transmission in the euro area: What do aggregate and national structural models tell us?*, ECB Working Paper No. 94, December.
- von Hagen, J., M. Hallerberg, and R. Strauch (2003), “The Design of Fiscal Rules and Forms of Governance in European Countries”, mimeo.
- von Hagen, J., M. Hallerberg, and R. Strauch (2004), *Budgetary Forecasts in Europe – The Track Record of Stability and Convergence Programmes*, ECB Working Paper No. 307, February.
- Williamson, John (1994), “Estimates of the FEERs” in John Williamson (ed.), *Estimating Equilibrium Exchange Rates*, International Institute for Economics, Washington, D.C.
- (2004), “Current Account Objectives: Who Should Adjust?”, IIE manuscript, International Institute for Economics, Washington, D.C.
- Wolfe, Martin (2004), “Economic policy should not be a popularity contest”, *Financial Times*, 17 June.

Annex

Calculating the Future Impact of Monetary Policy Decisions

Since monetary policy acts with long lags, as repeatedly emphasised in this report, it is difficult to find out easily what the impact of monetary policy will be on current and future economic conditions. The rule of thumb that an easing this year will lead to an expansion of demand next year is not enough since economic conditions next year will also be affected by past monetary policy decisions.

Our aim is to assess which past policy decisions by the ECB might still be in the pipeline, specifically for 2005 and 2006 since monetary policy should be forward-looking. We concentrate on the impact of monetary policy on two key variables: prices (the CPI) and growth (real GDP). In order to estimate what effects resulting from past policies are still to come, we simulated the effects of past interest rate changes. The simulations are based on the impulse responses given in Dieppe & Henry (2004, Charts 2B and 2C, p. 25), which are calculated with the ECB's euro-area macroeconomic model (AWM). These correspond to the same impulses reported in Table 2 in the text (but there only years 1 to 3 are shown).

Table A.1 Effects of an increase of 100 bp over 8 quarters in EMU

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
CPI	-0.15	-0.28	-0.37	-0.50	-0.71	-0.97	-1.25
GDP	-0.34	-0.71	-0.71	-0.63	-0.57	-0.53	-0.48

Source: Dieppe & Henry (2004), estimates provided by the authors.

The impulse responses shown in Table A.1 (and also those in Table 2 in the main text) are for a 100-basis point interest rate increase spanning 8 quarters. After one year, a Taylor rule is switched on to ensure smooth convergence to the steady state. The output response is hump-shaped with a maximum decline in the third year after the shock. Prices respond gradually in the first year and then fall steadily for about six years until they settle on a new steady state level. If a Taylor rule is not implemented after the 1st year and instead the policy rate is brought back to the baseline after two quarters, the deflationary effects are more persistent and output returns to the baseline more slowly (see Dieppe & Henry, 2004), but the results of our analysis do not change significantly.

To simulate the effects of the ECB's monetary policy so far we calculate the eight-quarter shocks compatible with the observed path of the policy rate.

The simulation period starts in the 1st quarter of 1998 and the shocks are in relation to a natural rate of 3%. We then multiply the shocks by the estimated marginal impact (per basis point) for years 1 to 7 (after that the impact of monetary policy becomes less important).

Table A.2 Simulations for different policies in 2004 in EMU

Impact on the CPI					
	2002	2003	2004	2005	2006
(a)	-0.02	-0.07	0.01	-0.07	0.03
(b)	-0.02	-0.07	0.01	-0.11	0.00
(c)	-0.02	-0.07	0.01	-0.15	-0.04
(d)	-0.02	-0.07	0.01	-0.18	-0.08

Impact on GDP					
	2002	2003	2004	2005	2006
(a)	-0.16	0.04	0.44	0.31	-0.44
(b)	-0.16	0.04	0.44	0.23	-0.54
(c)	-0.16	0.04	0.44	0.14	-0.63
(d)	-0.16	0.04	0.44	0.05	-0.72

(a) Unchanged policies.

(b) 2004 Q3 +25; 2004 Q4 +25.

(c) 2004 Q3 +25; 2004 Q4 +50.

(d) 2004 Q3 +50; 2004 Q4 +75.

Source: Own calculations, based on Dieppe & Henry (2004).

The results are shown in Table A.2. For 2002 to 2004, these do not depend on future policy decisions, but the results in 2005 and 2006 do. Notice that, in order to assess the impact of policy decisions in the 3rd and 4th quarters of 2004 we carried out four simulation scenarios:

- status quo: corresponds to maintaining the loose stance;
- less loose stance: 25 bp increase in each quarter;
- even less loose: 25 bp increase followed by 50bp; and
- tightening: 50 bp increase followed by 75bp, taking the rate to 3.25.

We also carried out similar simulations for the US. The simulations are based on the impulse responses reported in Angeloni et al. (2003, columns 1 to 3 of Table 3) and shown in Table A.3. These were calculated with the Federal Reserve Board's macroeconomic model of the US economy (FRB/US). The policy exercise is a 100-basis point interest rate increase spanning over eight quarters, with subsequent return to the baseline, but the results of an

experiment where a Taylor rule is active are not significantly different (see Angeloni et al., 2003, p. 16). In the FRB/US model, the output response is hump-shaped with a maximum decline at the beginning of year 3. Prices remain virtually unchanged for the first four quarters after the tightening begins but then fall steadily for about two years (Angeloni et al., 2003).

Table A.3 Effects of an increase of 100 bp over 8 quarters in the FRB/US model

	Year 1	Year 2	Year 3
CPI	-0.07	-0.41	-1.01
GDP	-0.35	-1.28	-1.37

Source: Angeloni et al. (2003, p. 40).

To simulate the effects of the Fed's monetary policy so far, we calculate the eight quarter shocks compatible with the observed path of the policy rate. The simulation period is the same as before and the shocks calculated in relation to a neutral rate of 4.5%. We then multiply the shocks by the estimated marginal impact (per basis point) for years 1, 2 and 3 (the only years for which the responses have been published). In order to assess the impact of policy decisions in the 3rd and 4th quarter of 2004, we again carried out four simulation scenarios:

- status quo, which corresponds to maintaining the loose stance;
- less loose stance: 50 bp increase in each quarter;
- even less loose: 75 bp increase followed by 50bp; and
- tightening: 75 bp increase in each quarter, taking the rate to 3.50.

The results are shown in Table A.4. The effects of monetary policy on output seem to be stronger in the US than in the euro area. One important difference between the two models is that in the US model the proportion of the effects on real activity attributable to consumption (as opposed to investment) is estimated to be 74% after eight quarters and 66% after 12 quarters. In the euro area model, on the other hand, consumption accounts for 43% of the impact on real activity after eight quarters and 34% after 12 quarters, the remainder being the impact on investment. Hence the impact on investment is relatively stronger in the euro area model and the impact on consumption relatively stronger in the US model (see Angeloni et al., 2003, for details). The mechanism that drives the strong effects on consumption in the US model is the wealth effect from the stock market. Changes in the federal funds rate result in changes in long-term interest rates, which affect the value of the stock market and consequently the value of wealth, a variable to which consumption is estimated to strongly respond.

Table A.4 Simulations for different policies in 2004 in the US

Impact on the CPI					
	2002	2003	2004	2005	2006
(a)	-0.23	0.94	2.55	1.51	2.25
(b)	-0.23	0.94	2.55	1.47	2.08
(c)	-0.23	0.94	2.55	1.47	2.08
(d)	-0.23	0.94	2.55	1.46	1.99
Impact on GDP					
	2003	2003	2004	2005	2006
(a)	0.715	3.47	1.98	3.24	1.88
(b)	0.715	3.47	1.98	3.06	1.41
(c)	0.715	3.47	1.98	3.06	1.41
(d)	0.715	3.47	1.98	2.98	1.18

(a) Unchanged policies.

(b) 2004 Q3 +50; 2004 Q4 +50.

(c) 2004 Q3 +75; 2004 Q4 +50.

(d) 2004 Q3 +75; 2004 Q4 +75.

Source: Own calculations, based on Angeloni et al. (2003).

21 Years of CEPS Macroeconomic Policy Group Reports

The Nine Lives of the Stability Pact, Special Report of the CEPS Macroeconomic Policy Group, Daniel Gros, Thomas Mayer and Angel Ubide, February 2004

Adjusting to Leaner Times, 5th Annual Report of the CEPS Macroeconomic Policy Group, Daniel Gros, Juan F. Jimeno, Thomas Mayer, Niels Thygesen and Angel Ubide, July 2003

The Euro at 25, Special Report of the CEPS Macroeconomic Policy Group, Daniel Gros, Massimiliano Castelli, Juan Jimeno, Thomas Mayer and Niels Thygesen, December 2002

Fiscal and Monetary Policy for a Low-Speed Europe, 4th Annual Report of the CEPS Macroeconomic Policy Group, Daniel Gros, June 2002

Testing the Speed Limit for Europe, 3rd Macroeconomic Policy Group Report, Daniel Gros, Juan F. Jimeno, Carlo Monticelli, Guido Tabellini and Niels Thygesen, June 2001

Quo vadis euro? The Cost of Muddling Through, 2nd Report of the CEPS Macroeconomic Policy Group, Daniel Gros, Olivier Davanne, Michael Emerson, Thomas Mayer, Guido Tabellini and Niels Thygesen, May 2000

Macroeconomic Policy in the First Year of Euroland, 1st Annual Report of the CEPS Macroeconomic Policy Group, Daniel Gros, Olivier Blanchard, Michael Emerson, Thomas Mayer, Gilles Saint-Paul, Hans-Werner Sinn, Guido Tabellini, January 1999

Towards Economic and Monetary Union: Problems and Prospects, Daniel Gros for the CEPS Economic Policy Group, December 1995

European Labour Markets: A Long-Run View, Charles Bean, Peter Bernholz, Jean-Pierre Danthine and Edmond Malinvaud, April 1990

The Macroeconomics of 1992, Charles Bean, Edmond Malinvaud, Peter Bernholz, Francesco Giavazzi, Charles Wyplosz, and Paul De Grauwe, February 1990

The Two-Handed Growth Strategy for Europe: Autonomy through Flexible Cooperation, Jacques Drèze, Charles Wyplosz, Charles Bean, Francesco Giavazzi and Herbert Giersch, December 1987

Reducing Unemployment in Europe: The Role of Capital Formation, Franco Modigliani, Jacques Drèze, Herbert Giersch, and Richard Layard, July 1986

Employment and Growth in Europe: A Two-Handed Approach, Olivier Blanchard, Rudiger Dornbusch, Jacques Drèze, Herbert Giersch, Richard Layard, and Mario Monti, May 1985

Europe: The Case for Unsustainable Growth, Richard Layard, Giorgio Basevi, Olivier Blanchard, Willem Buiter, and Rudiger Dornbusch, with comments by Samuel Brittan, Jürgen Donges and Per Kleppe, May 1984

Macroeconomic Prospects and Policies for the European Community, Rudiger Dornbusch, Giorgio Basevi, Olivier Blanchard, Willem Buiter and Richard Layard, April 1983