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DG INTERNAL POLICIES OF THE UNION
- Directorate A -
ECONOMIC AND SCIENTIFIC POLICY
POLICY DEPARTMENT

MONETARY DIALOGUE FEBRUARY 2005

Summary of Monetary Experts' Panel Briefing Papers

1. EXCESS OF LIQUIDITY IN THE EURO AREA

Charles Wyplosz

Liquidity is currently abundant, not just in the Euro zone but worldwide. It is not excessive in the sense that it is the consequence of an expansionary monetary policy stance entirely justified by current inflation and growth prospects. The abundance of liquidity reveals weak bank lending given historically low interest rates. The reason is that growth prospects are not so bright. Monetary policy is very expansionary but hardly effective. In the event of a solid improvement in growth prospects, liquidity could quickly become excessive. With very large amounts of available cash, banks can promptly expand lending if demand materialises. This could soon result in inflationary pressure. Thus the Eurosystem must stand ready to rapidly re-absorb much liquidity which means hiking up interest rates. This would be entirely appropriate in the event of a resumption of solid growth, but the abundance of liquidity over the last three years has created a situation that could soon appear as very risky. Three major risks are identified: a risk that monetary policy is tightened too late and acts too slowly. This would result in rising inflation; a risk that currently high bond and house prices fall precipitously when the interest rate is raised. This could abort the resumption of growth and generate a serious deterioration of the banking system; a risk that rising interest rates trigger a sudden stop of the large capital flows into the emerging market economies. In the past such flow reversals have often been followed by currency crises. These risks may never materialise. If they do, the major central banks will have to display great talent to contain the consequences. Unfortunately there is nothing to be done at this stage but to prepare for the worst and hope for the best.

Gustav A. Horn

Horn suggests that the ECB's concern that excess liquidity could lead to accelerated inflation and thus violate the ECB's inflation target may be exaggerated. While he agrees that there is excess liquidity with M3 growth hovering around 6% instead of the ECB's M3 growth target of 4,5%, he believes the problem is less pronounced than assumed. In his view, the ECB's M3 growth target is too conservative in two ways: firstly, the ECB had adjusted its inflation target upwards over the years and secondly, the estimate for potential growth were too low. More importantly, it had to be emphasised that after 09/11 the risk behaviour changed and led to a very high preference for safe assets. Furthermore, the uncertainty about future economic developments were still prevailing. Increased confidence in the economy would therefore lead to a decrease in M3 growth as people would re-allocate their money into long-term assets. Even if people were to spend more, there would be no inflationary pressure as long as capacity utilisation remained low. As a result, inflation fears were not justified as long as capacity utilisation remained idle. In fact, the still prevailing doubts on a sound economic upturn were a strong argument for a continued expansionary monetary stance. A tightening of monetary policy were only required when capacity utilisation recovered strongly and, at the same time, M3 growth remained well above 5%.

2. 6 YEARS OF A SINGLE MONETARY POLICY

Sylvester Eijffinger

Inflation differentials between Member States have been at the centre of attention since the Maastricht Treaty required nominal convergence towards the inflation levels of the three best performing Member States as one of the preconditions for joining the Eurozone. Since 1999 however, inflation rates seem to diverge rather than continue to converge. Possible explanations for this divergence are price level convergence, the Balassa-Samuelson effect, adjustments of the real exchange rate following asymmetric demand shocks and differences in pass-through of nominal exchange rate movements. Even though the present inflation differentials between EMU Member States can be regarded as benign to the extent that they contribute to real convergence or to adjustment after asymmetric shocks, they pose some challenges to policymakers calling e.g. for structural reforms, especially in labour markets.

Jean-Paul Fitoussi

An assessment of the conduct of monetary policy in Europe must necessarily be made along two distinct and complementary lines. The first is a comparison with the policies followed in the past. The second line has to assess whether monetary policy is adapted to the new conditions that came into existence with the inception of the Euro. The picture with respect to these two criteria is mixed. Monetary policy has certainly improved with respect to the policies followed in the 1990s, during the run up to the euro. In fact, the ECB proved to be much more growth friendly than its predecessors. On the other hand, though, the challenges posed by the new environment, the management of a large open economy, have not been internalised by the ECB, that was less reactive than the Fed, and too focussed on current inflation. The tightening of monetary conditions in the euro zone, mainly due to the euro appreciation, was not sufficiently cautioned by monetary policy. Especially considering the poor economic performances of the euro zone in the past few years, we must conclude that monetary policy was not helpful in fostering growth recovery in the euro area. The ECB did not fully recognise its new responsibility of conducting the monetary policy of a “big country”.

3. THE PRICE OF OIL AND MONETARY POLICY IN THE EUROZONE

Anne Sibert

Oil price increases, or indeed any negative supply shock, present an unpleasant situation for the ECB. The shock increases inflation at the same time that demand and economic activity are slowing. The appropriate policy response depends on how much of the shock is expected to be transitory and how much is expected to be longer lasting. There appears to be little argument for responding to a short-lived spike in oil prices with a more restrictive monetary policy aimed at further reducing aggregate demand. In the scenario where the shock is transitory, the uncertainty about the timing and size of the effects of the shock, the lags associated with monetary policy, as well as the further reduction in economic activity, suggest that monetary tightening may due more harm than good. The oil price shock will be clearly visible to the public. If it reverses itself quickly and if the central bank is widely assumed to be committed to low and stable inflation, the failure to react to a short-lived commodity-price shock should not lead to a loss of credibility. Clearly however, responding to an output loss caused by a temporary oil price shock with a loosening of monetary policy is undesirable. It would increase inflationary expectations at a time when inflation is already rising.

If the shock is believed to have a persistent component, as the current one may have, then the ECB should respond with a tighter monetary policy than it would have employed if there were no oil price rise. If it did not do this, higher prices of energy goods would be followed over time with higher prices of other goods as these are passed on to higher production costs to consumers. Not responding in the scenario where the shock is believed to be long-lived would lead to expectations of inflation, increases in wage demands and further increases in inflation. The challenge for the ECB is in determining how of the oil price shock is short-lived and how much is long-lived.

Lars Svensson

Svensson argues that the ECB and the Eurosystem should take past, present, and predicted future oil-price movements into account in its monetary policy depending on how these movements affect the inflation and output-gap forecast. To him, good monetary policy performs a flexible inflation targeting which aims to stabilise inflation on a low level but with some weight on also stabilising the real economy. To do this, the ECB had to find the optimal instrument plan. The first step were to make a forecast of future oil prices, the second step to assess what impact the shift in the oil-price forecast has on the inflation and output-gap forecasts. The third step were then to decide, given the shift in these latter forecasts, what revision, if any, of the interest-rate plan is required in order to make the inflation and output-gap forecast look good again. The fourth and last step were to announce and implement the new instrument rate, and to explain the analysis and the outcome of the three steps above to observes and the general public.

Guillermo de la Dehesa

Given that the euro has experienced a nominal appreciation of around 60% against the dollar, since its minimum bottom of 0.82, at the end of 2000, to its top peak of 1.35 at the end of 2004, and keeps in an appreciating trend, a large part of its inflation impact and its reduction in the purchasing power of consumers has been compensated by its appreciation. This strong appreciation of the euro has also notably reduced its negative impact over the terms of trade. The strong appreciation of the euro helps, then, to compensate most of the imported inflation derived from the oil price shock, but, on the other hand, it has also a negative effect on the Euro Area growth rate. An appreciation of the nominal effective appreciation of the euro of 5% produces a reduction of the Euro Area harmonised inflation rate of between 0.48 and 0.54 percentage points in the first year, and of between 0.96 and 1.2 percentage points after three years. But, at the same time, it produces a reduction in the Euro Area growth rate of between 0.45 and 0.91 percentage points in the first year and of between 0.81 percentage points and 1.31 percentage points after three years. Thus, consumer inflation in the Euro Area, is being helped by the strong appreciation of the euro, but, by contrast, the negative effect on growth of such a strong appreciation should be its major cause of worry. Thus the ECB is confronted with a major dilemma. If it raises short-term interest rates it may abort or make the so long expected Euro Area recovery much more difficult. If it lowers them it may risk higher inflation, if oil prices keep maintaining their present level or increase further and the present fiscal expansion is not curtailed. This is the reason why it has made sense for the ECB to keep rates on hold for such a long time. Nevertheless, at present there is much more certainty in the markets about a further appreciation of the euro than of further increases in oil prices, given that the future markets for exchange rates signal a larger appreciation of the euro over the whole 2005 and the forward curve of oil prices shows only a sustained level of oil prices for the same period. The twelve month consensus forecast for the euro versus the dollar is close to 1.40, from the current 1.35, while the twelve month forecast for the barrel of Brent is 42 dollars, similar price to the present one.

4. EFFECTS OF ENLARGEMENT ON THE EURO ZONE

Peter Bofinger

Because of the very low share of the new members in the GDP of EU 25, price developments in these countries would have very little influence on the HICP of an enlarged Euro area and thus on the ECB's interest rate decisions. As far as the ECB's philosophy and strategy for monetary policy is concerned, the enlargement of the Euro area requires per se no major modifications. When the majority of the AC-10 will enter EMU, they will have experienced almost two decades of economic transition so that a special treatment would not be warranted. Given a slight Samuelson-Balassa effect, the ECB might consider to shift from its target "of below, but close to 2 percent" to a more transparent target of 2 percent. Downward pressure on wages: it is well known that the wages in the new member countries are much lower than in the present Euro area countries. Especially in the Germany, the threat of outsourcing towards new member states plays an important role in the public debate and has lead a growing erosion of the traditional centralised wage bargaining system. In order to avoid an undue and potentially deflationary wage moderation in the whole Euro area, it would be advisable to develop a common guideline for stability-oriented wage developments.

Daniel Gros

A priori one would not expect enlargement to have highly visible effects on the Euro zone. There are two reasons for this: The relative economic weight of the new Member States is small and most of the economic effects of enlargement should concern trade, foreign direct investment and the relative price of certain labour-intensive goods. There is only a weak and indirect impact on monetary policy and macroeconomic variables. Enlargement took place on 1 May 2004. This event did not have important economic consequences per se. However, enlargement should be viewed as a process, not as a single event. This process is strongly influenced by the different speeds of adjustment of different markets. Capital markets tend to anticipate events. Other markets react more slowly and some have not yet been allowed to adjust to enlargement, in particular the labour market. It is often argued that enlargement was unprecedented in terms of the increase in population and other measures. However, this is not the case if one considers the size of the countries that joined during previous enlargements, relative to the size of the EC they joined. What is the economic impact of enlargement? The overall economic impact cannot be described by the increase in trade or investment flows. One should rather look at the net welfare gains. These show that enlargement will be beneficial both to the incumbents as well as to the newcomers.

Topic 1

Excess of liquidity in the euro area

Excess of liquidity in the euro area

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Charles Wyplosz
Graduate Institute of International Studies, Geneva and CEPR

Executive Summary

Liquidity is currently abundant, not just in the Eurozone but worldwide. It is not excessive in the sense that it is the consequence of an expansionary monetary policy stance entirely justified by current inflation and growth prospects. In fact, the abundance of liquidity reveals weak bank lending given historically low interest rates. The reason is that growth prospects are not very bright. Monetary policy is very expansionary but hardly effective.

In the event of a solid improvement in growth prospects, liquidity could quickly become excessive. With very large amount of available cash, banks can promptly expand lending if demand materializes. This could soon result in inflationary pressure. Thus the Eurosystem must stand ready to rapidly re-absorb much liquidity, which means ratchetting up interest rates. This would be entirely appropriate in the event of a resumption of solid growth, but the abundance liquidity over the last three years has created a situation that could soon appear as very risky.

Three major risks are identified:

- A risk that monetary policy is tightened too late and acts too slowly. This would result in rising inflation.

- A risk that currently high bond and housing prices fall precipitously when the interest rate is raised. Not only could this abort the resumption of growth but it could also generate a serious deterioration of the banking system.

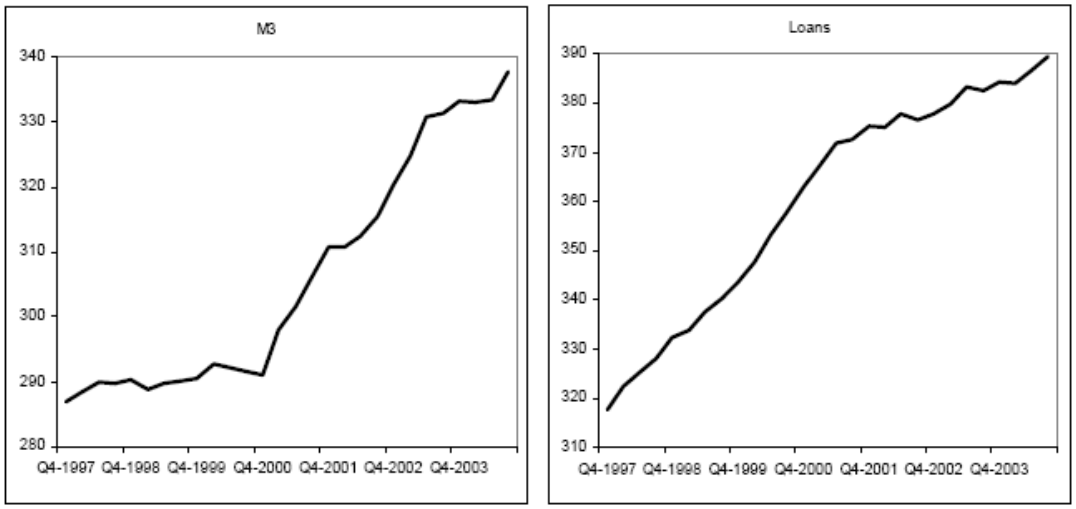
- A risk that rising interest rates trigger a sudden stop of the large capital flows into the emerging market economies. In the past, such flow reversals have often been followed by currency crises, with a dramatic impact in the affected countries. With such emerging giants as China and Brazil susceptible to be affected, the world economy could find itself lacking any growth engine.

These risks, a consequence of several years of abundant liquidity, may never materialize. If they do, the major central banks will have to display great talent to contain the consequences. Unfortunately, there is nothing to be done at this stage but to prepare for the worst and hope for the best.

1. Is Liquidity Abundant?

According to all available indicators, liquidity is abundant in the euro area. Figure 1 shows the evolution of two key monetary aggregates as a percent of GDP: the money stock (broad definition M3) and bank loans. From early 2001, M3 has been growing fast, slowing down in 2003. Bank loans exhibit almost the opposite pattern, slowing down from early 2001 onwards. This means that the banking system has been accumulating liquidity while it lending activity adversely has been limited in the midst of an economic slowdown.

Figure 1. Monetary Aggregates (% of GDP)



Source: ECB

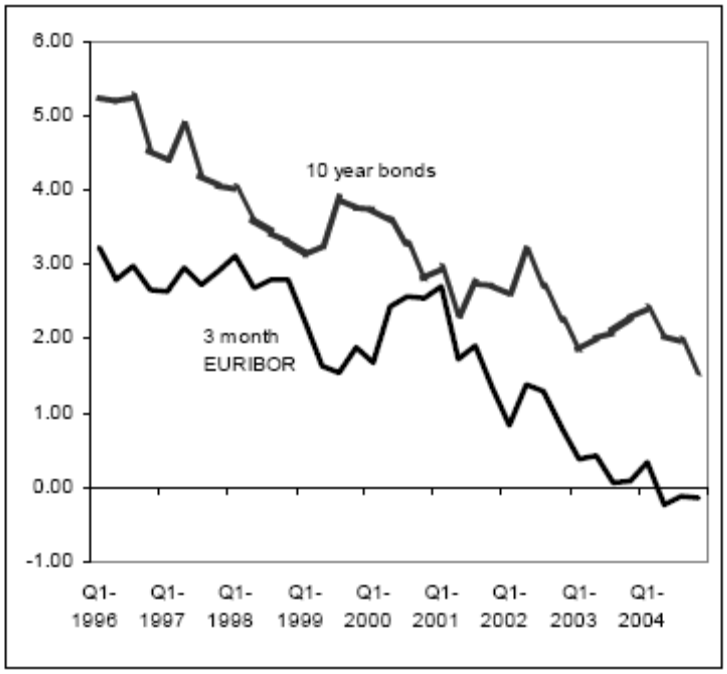
This conclusion is confirmed by the evolution of interest rates. Figure 2 shows two representative real interest rates, the 3-month EURIBOR and 10-year government bonds.[1] They are now at historical lows, the real short-term rate even being negative. Credit is abundantly available and cheap. Interestingly, the interest rate decline has accelerated since early 2001, exactly when liquidity started to rise fast, reflecting the abundance of liquidity. Other indicators, such as booming housing prices further confirm the diagnosis. This situation is not specific to the euro area. Much the same can be seen elsewhere, for example in the US and in the UK, even in Asia. The world at large is highly liquid.

2. Why All this Liquidity?

Abundance does not necessarily mean excess, though. Before we reach the conclusion that liquidity is excessive, we need to understand the reasons that stand behind them phenomenon. In fact, we need not go very far to answer this question. Much of the OECD has entered a cyclical slowdown in late 2000. Central banks have quite naturally moved to relax monetary policy, a process that picked up speed after 11September 2001 when uncertainty has suddenly risen. Two wars have followed, further stoking widespread uncertainty and leading to further relaxation of the monetary policy stance.

[1] These are *ex post* real rates, the difference between the nominal rate and realized HICP inflation over the same quarter.

Figure 2. Real Interest Rates



Monetary policy has been very expansionary but the slowdown in bank lending indicates that this stance has not been very effective. Credit is abundant and cheap, but there are few takers. The most likely interpretation is that mediocre growth prospects slow down borrowing even though the interest rates are low. To be sure, higher interest rates would have resulted in even less lending and, most likely, an even worse growth performance.

Thus the current abundance of liquidity results from an expansionary monetary stance that fails to rekindle sufficient credit expansion. There is little more that the Eurosystem can do at this stage. Further lowering the interest rate, with little room left for manoeuvre, is unlikely to have much of an impact. On the other hand, if it wanted to absorb this liquidity, the Eurosystem would have to raise its interest rate, which would have a contractionary effect quite unwelcome at this juncture. In that sense, current liquidity is not excessive. Not yet.

3. What Are the Risks?

While there is no reason to worry about the current abundance of liquidity, things could change rapidly if the growth prospects were to brighten up. Given their existing liquidity, Banks are in a position to quickly expand lending if demand materializes. If that were to happen, if kept unchanged, monetary policy would become very expansionary, precisely when the economy picks up speed. The obvious answer would be to quickly mop up liquidity by raising interest rates, but this is easier said than done, for two main reasons:

- It may take time for the Eurosystem to ascertain a change in economic conditions. The leading indicators are simply not accurate enough to allow for firm conclusions.

- A changed policy stance will not have an immediate effect. Meanwhile, inflation could rise quickly.

Another risk concerns the price of bonds and housing. A quick increase in interest rates, warranted in the event of a rebound in economic conditions, is likely to lead to a significant decline in bond and housing prices. Not only would this reduce spending as wealth is declining, it could also put banks in a difficult situation as the value of their assets falls. The quality of their portfolios of mortgages could quickly deteriorate as borrowers default when they discover that the value of dwellings does not justify loan repayments. In addition, inasmuch as they hold bonds, banks could find themselves with sharply deteriorated prudential ratios. A risk of systemic bank failure would put the Eurosystem in a very difficult position: just when it raises the interest rates to mop up what has become excessive liquidity, it might need to reverse gears to stabilize the banking system.

The risk extends beyond the European economy. Abundant liquidity in the OECD area has partly fuelled capital flows to the emerging market economies. A rapid rise in worldwide interest rates is likely to slow down, and quite possibly reverse, these flows. “Sudden stops”, as this phenomenon is aptly called, are quickly followed by currency crises. In the past, such crises have affected many countries in Latin America and South-East Asia, with devastating effects. Since the last wave of crises – which hit South-East Asia in 1997-98 – the emerging market economies have grown larger. Over the last few years, China, Brazil, and many other countries, have received significant capital inflows. A sudden reversal, if followed by a new wave of crises, would not only hurt these countries, it could have worldwide effects. The US is unlikely to further expand its fiscal policy in view of its currently very wide budget eficit. Nor can much be expected from a Europe strapped by the Stability and Growth Pact. With monetary policies busy absorbing excess liquidity, there would be no “locomotive” left to draw the world economy.

4. What is to be Done?

We live a paradoxical situation. Worldwide liquidity, currently abundant, is unable to generate sufficient growth, but if growth somehow picks up speed, liquidity will become excessive. This would force the major central banks to promptly and vigorously raise interest rates, with several risks that are the consequence of the currently abundant liquidity.

Unfortunately, there is no obvious solution. The Eurosystem – and the other major central banks as well – cannot pre-emptively raise its interest rates for fear of aborting the resumption of solid growth that is badly needed. The dark scenarios described above are not a certainty, they are just possible risks. It will take much luck, and a lot of central bank dexterity, to re-absorb the currently abundant liquidity.

Excess liquidity - is there a danger for the euro area

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Gustav A. Horn
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Executive Summary

There are a lot of fears mentioned also by the ECB that there exists an excess liquidity in the Euro area that in the end may lead to an accelerated inflation rate violating the ECBs target for price stability severely. In the following some statistics will be outlined and it will be argued that inflation fears resulting from these observations may be exaggerated. As long as capacity utilisation is idle no immediate inflation fears are justified. However monetary aggregates should be kept under close surveillance in order to detect any early sign of inflation feeding into the monetary system. Then a tightening of monetary policy would be recommendable.

1. The Actual Situation

There are a lot of fears mentioned also by the ECB that there exists an excess liquidity in the Euro area that in the end may lead to an accelerated inflation rate violating the ECBs target for price stability severely. In the following some statistics will be outlined and it will be argued that inflation fears resulting from these observations may be exaggerated. However monetary aggregates should be kept under close surveillance in order to detect any early sign of inflation feeding into the monetary system.

Monetary growth has been very strong during recent years in the Euro area. This applies in particular to those monetary aggregates that indicate the development of liquidity assets – money easy to mobilise for immediate spending. If one looks at the different monetary aggregates from M1 to M3, the former one denoting the most liquid asset and the latter one longer term assets, one can realise that M1 has been growing much stronger since almost three years than M3. Looking even deeper into the statistics, it turns out that it was in particular money in circulation that has expanded much stronger in recent years than previously, whilst the other components of M1 show a fairly constant pattern. This applies even more so for M2 and in particular for M3 components not part of M2. The growth rate of these monetary aggregates even has slowed down significantly since 2002. The overall picture emerging from this is that growth of M3 that includes all components mentioned above, is hovering slightly below 6 % since spring 2004 coming down from a rate of about 7 % in 2002. Hence it is liquidity that is booming while longer term aggregates are still rather flat.

2. The Reference Value

In order to assess monetary growth in its impact on growth or inflation the ECB has given herself a reference value that serves as yardstick. Its present value is that M3 should grow by about 4.5 % pa. The reasoning behind the setting of this value is that the ECB estimates potential growth in the Euro area to around 2 ¼% plus an inflation target rate of about 1 ¾% and a decline of money velocity of about ½% pa. This reference value is supposed to be met in the medium run, not in a short term and nor in a mechanical sense. After some misunderstanding in this respect, the ECB has now well established a proper interpretation of this value.

Given the valid reference value one can argue that the present figures for money growth are well above the yardstick. Since this is happening already since some time already it is fair to state the existence of a monetary overhang. In a mechanical interpretation it would mean there is a high potential for future inflation to which the ECB should react with a tighter monetary stance.

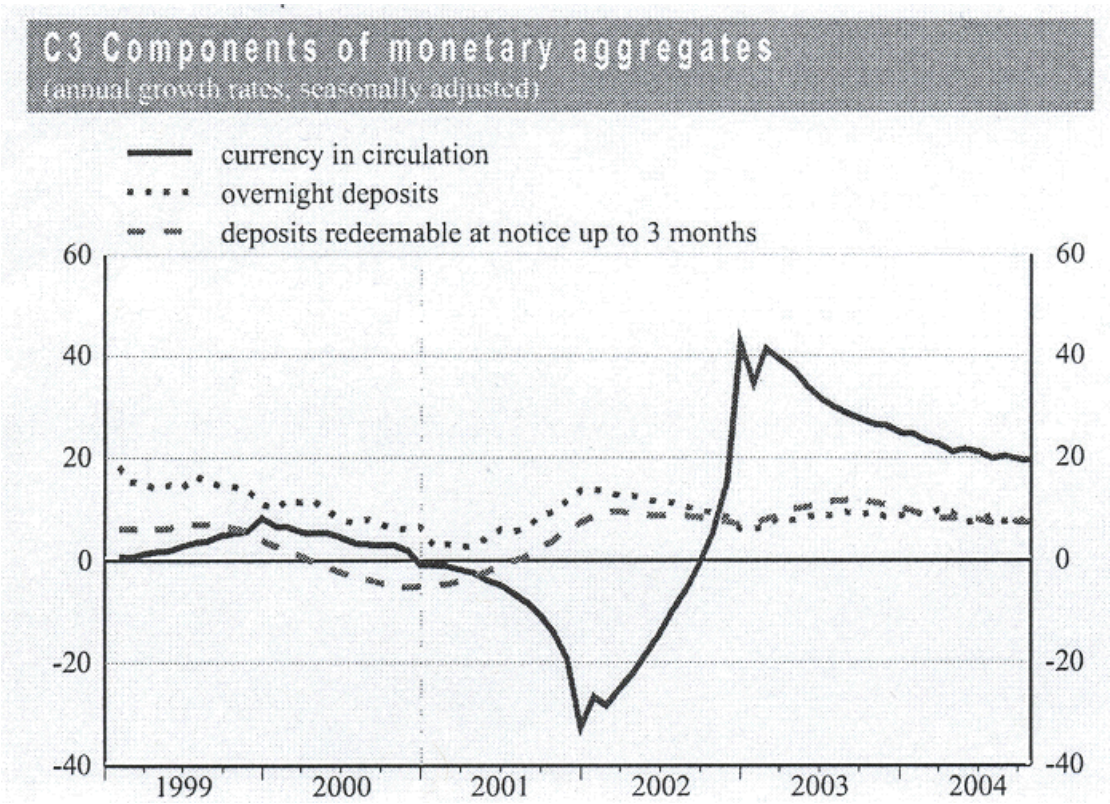
3. Will the Present Monetary Overhang Induce Inflation?

There are several reasons why the ECB should be careful in reacting too mechanically to the supposed overhang. First of all the reference value seems to be rather low for two reasons. The inflation target has been moved slightly upwards since the introduction of the reference value. The ECB now tolerates rather 1.9% instead of 1 ¾%. Secondly the estimation of the potential growth rate seems to be rather low. This figure more or less reflects trend growth of the Euro area in recent years. But potential growth should be understood as a growth that is feasible without triggering inflation. The development in 2000 contains some lessons with regard to that question. Then production capacities were much better used than presently and growth in the Euro area was 3.5%. Nevertheless it did not lead to a domestically induced inflation. That speaks in favour of a higher potential rate than presently from the ECB assumed. Given all that, the deviation from the reference value should be smaller than indicated by mechanical computations.

More important for a proper assessment of the present monetary expansion and the resulting potential for higher inflation is a close look on the nature of that expansion. As mentioned above it is in particular money in circulation that has expanded so strongly. On the one side this is certainly an expression of an expansionary monetary policy. On the other side growth rates of other components of monetary aggregates are relatively low. In particular components of long term nature show a very moderate growth. These developments indicate a substitution of assets. People try to avoid supposedly more risky long term assets and demand short term and thus secure money, even if interest rates in this market segment are comparatively low. There seems to be a very high preference for secure assets.

This interpretation of monetary developments is corroborated by the timing of monetary movements. Until mid 2001 money circulation showed rather low growth rates and even started to decline very dramatically. This can be attributed to the then still very cautious monetary policy that had even been restrictive earlier and particular to the slow down of the Euro area economies. But there was a dramatic turn around in the second half of 2001.

Then money circulation changed from deeply double digit negative figure to a plus of 40% growth in annualised rates. It happened without any major change in economic activity. This dramatic event had its roots in the attacks of September 11.



Source : ECB

Firstly monetary policy then had recognised that the recovery of all major economies was at stake and switched to a decisively expansionary stance. But more important as also surveys showed people became very uncertain on future global economic development. This is reflected by their demand of short money monetary assets. They switched to a very large extent from long term assets to liquid money. These included assets from outside M3. For example people sold their shares. It was this very strong movement that determined the dramatic change.

In the meantime growth rates have climbed down. But still money in circulation is growing at a rate of around 20%. That means apart from a certain economic recovery and also higher share prices there still seems to continue some economic uncertainty. If that is the case present monetary growth is no problem since M3 growth will decrease further along with people re-shifting their money again into long term assets outside M3. Then there is no danger of an inflation generating expenditure. Even if people start to spend more, capacity utilisation is still very low compared to 2000 and 2001. Since 2002 almost no progress has been achieved to increase the utilisation of production capacities. An increased spending therefore would meet idle capacities leading to higher production and not to higher inflation at least in the medium run. Only if capacities are fully employed inflationary dangers occur but that is still a far way to go.

4. Recommendations for Monetary Policy

Monetary policy should not be too much concerned about the present liquidity overhang. No immediate action is required for this reason. As long as capacities are idle and M3 growth is declining on tendency there is no need to worry. In addition to that the still prevailing insecurity on a sound economic upturn is a strong argument for monetary policy to stick to its expansionary stance. The actual appreciation of the Euro that will hamper economic growth in the Euro area makes it even easier to follow this line of wait and see.

Action is required only if capacity utilisation recovers strongly and M3 growth continues to be well above 5%. In that case there be would inflationary dangers at the horizon. Then a tightening of monetary policy is recommendable. Otherwise an excessive monetary growth would create a potential for inflation in the long run.

Topic 2

6 years of a Single Monetary Policy

The Evolution of Inflation Rates in EMU Member States

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Sylvester C.W. Eijfinger
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Abstract

Inflation differentials between Member States have been at the center of attention since the Maastricht Treaty required nominal convergence towards the inflation levels of the three best performing Member States as one of the preconditions for joining the Eurozone. Since 1999 however, inflation rates seem to diverge rather than continue to converge. Possible explanations for this divergence are price level convergence, the Balassa-Samuelson effect, adjustments of the real exchange rate following asymmetric demand shocks and differences in pass-through of nominal exchange rate movements. Even though the present inflation differentials between EMU Member States can be regarded as benign to the extent that they contribute to real convergence or to adjustment after asymmetric shocks, they pose some challenges to policymakers calling e.g. for structural reforms, especially in labour markets.

1. Introduction

During the last decade, inflation differentials between countries in the EU in general and, more recently, in the Eurozone specifically have received a lot of attention. With the aim of creating a low-inflation Euroland, the Maastricht Treaty required convergence of inflation rates towards the low level of the best performing Member States as a condition for participation in the single currency. Figure 1 illustrates that this convergence has indeed taken place until the end of the 1990s. However, from 1999 on - ironically just after the introduction of the Euro - inflation rates in EMU Member States seem to diverge rather than continue to converge (Figure 2, left panel). After having decreased steadily in the years prior to the introduction of the Euro, the standard deviation of inflation increases between 1999-2002, still, the level of divergence is lower in this period than in the pre-Euro era (Figure 2, right panel). With the exception of only a few countries, all EMU members show a higher deviation from the Eurozone average in 2002 than in 1997, the year with the so far lowest inflation differentials[1], with the most remarkable outliers (Ireland, Greece, Spain, Portugal and the Netherlands) being on the high side, thus having higher-than-average inflation (Figure 3).[2] Does this imply that after having tried hard to keep inflation at an acceptable level to get the ticket to EMU-entry, Member States are now more lenient towards inflation (again)?

[1] 1997 is the year with the lowest divergence in inflation rates for EMU-11, that is, without considering Greece. With Greece included in the sample, 1999 is the year with the highest level of inflation convergence.

[2] See Mentz and Sebastian (2003) for a thorough econometric analysis of inflation convergence after the introduction of the Euro.

Or is the blame to be put on the existence of the monetary union itself and the concomitant loss of independent monetary policy as adjustment tool after shocks? Do these developments prove that EMU is not an optimal currency area - or do they in contrast contribute to turning it into one? In short, is there reason to worry about the increasing inflation differentials? In the following sub-sections, possible explanations for the inflation differentials present in EMU are put forward and analyzed. Section 2 deals with inflation as equilibrium phenomenon. Section 3 then turns to asymmetric demand shocks and real exchange rate adjustments as causes for inflation differentials. Other sources for inflation differentials are treated in Section 4 before Section 5 concludes.

2. Inflation as Equilibrium Phenomenon

If inflation differentials can be classified as equilibrium phenomena, they call for no further policy action. This is e.g. the case if absolute price level convergence to EU level requires temporarily higher inflation rates in those Member States whose price level is below average, but also if an adjustment of relative prices of tradable and non-tradable goods takes place in an economy with different productivity growth in these two sectors (*Balassa-Samuelson effect*).

2.1. Absolute Price Level Convergence in EMU

Prior to the introduction of the Euro, it has been widely expected that EMU will accelerate convergence towards a common price level within the Union because of increased price transparency due to the Single Currency and lower uncertainty and cost of doing cross-border business because of the elimination of exchange risk premia and currency exchange cost e.g.[1] Higher inflation in EMU seems indeed to coincide with a low initial price level (Figure 4). Where inflation differentials simply reflect convergence towards long-run equilibrium, diverging inflation rates can thus be regarded as benign (Honohan and Lane 2003). Even if there is little evidence for a significant narrowing of price differences after 1999 (Figure 5, see also Lutz 2002 and Koedijk et al. 2004), a number of studies underline the importance of the initial price level in explaining inflation dispersions. Analyzing inflation differentials within the Euro-zone over 1999-2001 using panel regressions, Honohan and Lane (2003) find that the price convergence effect is highly significant. More specifically, the data indicate that a country with a price level one-third below the European average would experience an additional one percentage point of inflation. Interestingly, analyzing the period 1970-2001, they also find that the index of price level dispersion is correlated with the DM/dollar market exchange rate implying that when the US dollar is strong, prices in Europe tend to converge. No explanation is offered for this phenomenon, however, Honohan and Lane (2003) conclude that whatever forces underlay it in the past are likely to have been the drivers once again of price level convergence in the first years of EMU. Rogers (2002) proves that price levels in the EU converged heavily throughout the last decades, especially for traded goods, with much of this convergence having taken place around 1993.

[1] See e.g. European Commission (1990)

With respect to the influence of the initial price level on inflation, he estimates that the contribution of price level dispersion in 1999 to observed annual HICP inflation dispersion at the end of 2002 amounts to 12% to 20%. However, the initial price level is not found to be uniformly important economically. Based on these results, he concludes that factors other than price convergence explain most of the cross-country inflation differences in recent years. All in all, convergence of absolute prices to a common long-run level is likely to explain to some extent the inflation differentials experienced in recent years, at least for the high-inflation countries Spain, Portugal, Greece and Ireland[1]. However, it is only part of the story. Moreover, since the Euro-zone seems to have achieved already by 1999 a level of price level convergence similar to that of US regions, Rogers (2002) argues that the effect of price level convergence on countries' inflation dispersion should be diminishing over time (see also Rodríguez Palenzuela 2003).

2.2. The Balassa-Samuelson Effect

Given that it is particularly countries at the periphery of the Union, notably Ireland, Spain and Greece, that report besides high inflation also above-average growth, the *Balassa-Samuelson (BS) effect* is often put forward to explain the differentials. Yet, estimations of how much of the inflation differentials in the Euro-zone can actually be attributed to the BS-effect vary considerably, depending on the sample periods, methodologies used and estimations of the sectoral productivity differential in each country considered. As an example, in the case of Ireland, Honohan and Lane (2003) state that little if any of the inflation deviation from EMU level is reflecting the BS-effect, mainly because they assess the Irish boom as largely caused by employment growth and less so by exceptional productivity gains. Alesina et al (2001) however find – when using very generous calculations prone to overestimation – that the BS effect accounts for about 1.5 percentage points of the 2.5% inflation above EU-average for the period 1999-2000. Similarly, using the estimations of Sinn and Reutter (2001) yields an above-average inflation of 1.4% for Ireland, thus explaining more than 50% of the country's inflation differential relative to the Euro-zone average. Estimates for the inflation differential vis-à-vis the Euro-zone average due to the BS-effect range from 0 to 1.1% for Spain[2], from 0 to 0.5% for the Netherlands, from 0.7% to 3.2% for Greece and go up to 0.7% for Portugal (IMF 2002).[3] As argued in IMF (2002), there are several reasons to believe that the estimates documented above may overestimate the magnitude of the BS-effect. For instance, many studies focus on labor productivity when quantifying the BS-effect. However, since productivity growth in the traded-goods sectors in catching-up countries is partly due to rising capital-labor ratios, total cost per unit and thus prices may diverge less than unit labor cost alone would indicate.

[1] In order to be able to exactly measure the actual price level convergence effect on the inflation rates of the 'outlying countries', case studies of individual countries are needed.

[2] Examining the case of Spain, Alesina et al. (2001) emphasize that Spanish growth has been driven by employment growth and not by productivity growth. As a consequence, they find no evidence for a BS-effect that is sizeable enough to explain part of the Spanish inflation divergence from EMU-average.

[3] An overview and comparison of different estimations of the BS-effect for all EMU countries except for Luxemburg with references to the respective studies can be found in IMF (2002) p. 17, Rodríguez Palenzuela (2003) p. 27 and De Haan, Eijffinger and Waller (2005), p. 157.

Furthermore, different sector productivity trends may have their source in shifts in the composition of labor (e.g. towards more use of low-skill and part-time employment in services relative to manufacturing), which may equally affect service sector wages and as such have little impact on relative prices. Overall, similar to price level convergence, the BS-effect may be part of the story explaining inflation differentials across EMU, although its magnitude is plausibly limited and, as Rogoff (1996) argues, should be declining over time (Rodríguez Palenzuela 2003). Consequently, the fact that in spite of its uncertain importance the popularity of the BS-argument is unbroken, hints at the possibility that it may simply be very convenient for policymakers to blame the BS-effect to justify above-average inflation (Alesina et al. 2001).

3. Inflation due to Adjustments in the Real Exchange Rate

As commonly pointed out as a cost of entering a monetary union, giving up national monetary policy implies abandoning a possible adjustment mechanism and thus some flexibility to respond to asymmetric (country-specific) shocks. Since there is no national nominal exchange rate anymore that can react to deviations of output from its equilibrium level, two ways of adjustment mechanisms are left, given that the ECB just looks at Euro-area-wide inflation and does not respond to shocks that do not alter this aggregate: (1) adjustment through the real exchange rate (and thus inflation differentials) and (2) adjustment through an appropriate response in fiscal policy.

With respect to (1), the reasoning is that an economy with higher-than-sustainable growth such as Ireland in the recent years e.g. would cool down through the concomitant increase in the relative price of domestic goods, implying a real appreciation and thus a decrease in foreign demand. However, this passive, market-based adjustment mechanism is likely to work rather slowly when compared to an adjustment in the nominal exchange rate - on the one hand because prices are relatively sticky in the short-run, on the other hand for the reason that higher inflation combined with the EMU-wide nominal interest rate leads to a relatively low real interest rate, which in turn contributes to an expansion of domestic demand considerably slowing down the process of real appreciation. Moreover, once the adjustment process is under way, there is the risk of 'overshooting', that is, achieving a too large real appreciation leaving a country with reduced competitiveness.[1] As a consequence, a period of below-average inflation is needed to recapture the lost ground which may be a painful and protracted exercise given downward rigidities for prices and wages (Favero et al. 2000). In sum, it is extremely hard to reduce inflation back to euro area average at the right time after a period of above-average inflation (see also EEAG 2002). As an alternative, fiscal policy (2) can bring the economy back to its equilibrium level through the direct manipulation of domestic demand - the above-mentioned case of an overheating economy would then require a fiscal contraction.

[1] This may e.g. occur because of price and wage rigidities. A more detailed discussion of possible mechanisms through which overshooting takes place can be found in Honohan and Lane (2003) and Deroose et al. (2004), pp. 5-6.

A problem associated with this tool however is the difficulty to get the right size and timing of the policy action required, not to mention the likely problem of lacking political support to restrict government spending and forgo potentially useful public investment in booms (EEAG 2002) and the constrained flexibility of fiscal expansion in downturns due to the Stability and Growth Pact (Honohan and Lane 2002).[1] Which adjustment tool is appropriate depends on whether the source of the demand shock is of internal nature, which generally calls for the use of fiscal policy to restore both internal and external balance, or of external nature, requiring in general a response through a country's competitiveness (Alesina et al. 2001, EEAG 2002). However, Alesina et al. (2001) give to consider that this is merely a rule of thumb, which might not necessarily be suitable for every country. They point out that for a fast-growing economy, it might be better not to restore external balance but run current account deficits now in anticipation of future surpluses, so that even with an *internal* demand shift, inflation may be the right instrument to reduce output to a sustainable level. In contrast, where the initial level of debt and deficit is already very high, there should be more focus on conservative fiscal policy rather than inflation, even with a positive *external* demand shift. In any case, the right policy response requires an identification of overheating pressures as being of domestic or external source, which may be cumbersome (Deroose et al. 2004). Whatever the individual conditions in each country, in the light of the analysis above, inflation differentials can actually be part of an optimal policy mix aiming at adjustment to asymmetric shocks. To what extent can this actually be applied to the current developments of inflation differentials in EMU? Out of the five countries that reported particularly high inflation differentials since the start of EMU[2], all of which were on the high side, only Ireland has received special attention from the literature because of its remarkable above-potential growth and clear signs of overheating. Alesina et al. (2001) find that internal and external demand have increased in equal proportions, thus both adjustment mechanisms mentioned above seem feasible at first sight. Nevertheless they suggest that more emphasis should be put on the reduction of external demand through inflation and not through fiscal contraction since the rapidly growing economy calls for high public investment in public infrastructure. As a consequence, they conclude that in the case of Ireland, the above-average inflation is indeed part of the optimal policy package contributing to cooling down the overheated economy and as such not a development one should particularly be concerned about. Still, Honohan and Lane (2002) warn that it remains to be seen whether wage and house-price inflation in Ireland embody overshooting dynamics that may require painful adjustment in future. As for the other countries, only Greece also had to deal with risks of overheating (see e.g. OECD 2002a), however to a much lesser extent than Ireland. As output which is significantly above potential is not identified neither for Spain nor the Netherlands or Portugal[3] in the post-1999 period, inflation differentials with the EMU-average cannot be explained by real exchange rate adjustments following overheating tendencies in those countries. In sum, inflation due to a necessary adjustment in the real exchange rate is likely to be part only of the Irish story.

[1] For a more detailed discussion of the adjustment mechanisms mentioned, please refer to Alesina et al (2001), pp. 18-20.

[2] Namely Greece, Spain, Ireland, the Netherlands and Portugal (see also Figure 3).

[3] See Alesina et al. (2001), OECD (2002b) and OECD (2003).

4. Other Sources of Inflation Differentials and Persistence

What other drivers have been behind the accelerating inflation differentials in EMU after the introduction of the Single Currency? Honohan and Lane (2003) prove that even though the exchange rate movements are the same for all EMU members, the impact on prices can be quite different resulting from differing exposure of each country to extra-union trade. Specifically countries with high imports from non-EMU countries, e.g. Ireland or Greece, are more than others exposed to higher inflationary pressures during a period of Euro weakness. More indirectly, countries in which firms are heavily relying on imported materials from non-EMU countries might get into a competitive disadvantage vis-à-vis their competitors in EMU when the value of the Euro falls. Empirically, the Euro has undergone a period of severe weakness compared to the Dollar and the Pound Sterling in the early years of its existence. Honohan and Lane (2003) estimate that the pass-through of these exchange rate movements to inflation differ widely across the Union, from 0.07 in Luxemburg to 0.35 in Ireland. When linking CPI changes to previous exchange rate movements (that is, to more lagged ones), the highest coefficients are found for Ireland, Spain, the Netherlands and Portugal, exactly those countries with the highest inflation differentials. When considering the Euro-zone as a whole, they find that a relative depreciation (that is, a depreciation larger than European average) of the nominal effective exchange rate (NEER) of 3.5% leads to an additional one percent point inflation. As Figure 6 illustrates, relative depreciation has been highest for Ireland followed by Greece, which suggests - together with the evidence on trade linkages in EMU - that the asymmetric pass-through of nominal exchange rate movements to domestic prices is indeed one of the causes for inflation differentials across the currency area. This conclusion can still be upheld when updating the analysis to the time after 2002 – this period of regained strength of the Euro vis-à-vis the Dollar and Pound Sterling is, as expected from the analysis above, accompanied by a fall in Irish inflation, especially during 2003 and 2004, despite clear signs of recovery in various measures of economic activity and demand (Honohan and Lane 2004). Furthermore, the strong appreciation of the Euro recently allowed Honohan and Lane (2004) to find some evidence that exchange rate depreciation passes through into inflation more quickly than does an appreciation. How persistent will inflation differentials stemming from asymmetries in pass-through of exchange rate movements across EMU Member States be? According to Honohan and Lane (2003), such asymmetries are of a temporary nature and should be diminishing as trade patterns continue to evolve towards a greater intra-EMU trade (especially if the current ‘outs’ such as the UK join) and more and more imports to the Euro-zone are priced in Euro rather than in foreign currencies reducing the impact of exchange rate shocks on EMU members.

To finalize this section, it needs to be mentioned that in principle, inflation differentials can also occur because of different weights of goods in the calculation of the HICP in each Member States, but as Honohan and Lane (2003) point out, the effect of these differences on inflation differentials is likely to be negligible given the small price movements that have occurred since EMU began.

5. Conclusive Remarks about Inflation Differentials

The previous sections have identified possible causes for inflation differentials in EMU Member States. Turning back to the initial question, what can be said based on the analysis in these sections – is there a reason (for the ECB or policymakers in general) to worry about inflation differentials in the Eurozone? In general, this question can be answered with 'no'. As far as the inflation differentials can be attributed to price-level convergence, the BS-effect or asymmetric path-through of nominal exchange rate movements, they reflect trends (such as catching-up) driven by structural, non-monetary forces, so there is not much that policy-makers can or should do to smooth this divergence. These trends are largely temporary and should diminish over time (in the case of price-level convergence until the common long-run equilibrium is reached, in the case of the pass-through until the trade patterns are increasingly similar between EMU members). Likewise, above-average inflation in a common-currency area may be desirable and can be part of the optimal policy when it fulfills the function of cooling down an overheated economy (real ER appreciation). In some cases however, adjustment through fiscal policy may be necessary. As the ECB puts it:

> [Only] if sizable and protracted inflation differentials not justified by the effects of market integration and real convergence were to emerge, this could result in disproportionate changes in competitiveness and in economic imbalances in individual Eurozone countries. In such cases, national policy response…would be warranted.[1]

Notwithstanding this favorable assessment of inflation dispersion in EMU since 1999, inflation differentials do pose some challenges to policymakers. First, after having taught the EU central banks and the public in the run-up to EMU that inflation is something that needs to be avoided, it is now the task of the ECB to explain to the public that *within* a currency area, inflation can be desirable and even necessary for macroeconomic adjustment (Alesina et al. 2001). Understanding the sources of inflation differentials is important to ensure public acceptance of the EMU monetary regime, but it is equally important for policymakers in order to identify the right policy actions facilitating smooth adjustment (Honohan and Lane 2003). Second, persistently large or growing inflation differentials may question the appropriateness of the ECB's inflation objective of 'close to 2 per cent'. In the presence of a strong BS-effect e.g., a stable aggregate price level of around 2 per cent may force some more advanced countries into deflation. However, De Haan et al. (2005) note that given that the evidence on the BS-effect is so mixed, it is not a convincing argument for a higher ECB inflation objective. Nevertheless, this point should be kept in mind when analyzing future developments in inflation differentials, especially in view of the enlargement of EMU in the time to come. In addition, with regard to adjustment to asymmetric demand shocks, finding institutional mechanisms that minimize the risk of real exchange rate overshooting is a high priority from the policy perspective (Honohan and Lane 2003 and De Haan et al. 2005). As Deroose et al. (2004) point out:

[1] ECB (1999), p. 44.

> The amplitude of the economic cycle that is induced by the adjustment process depends crucially on the flexibility of wages and prices, as these cause output to deviate from its equilibrium and as they can move the real exchange rate back to its equilibrium. The more flexible prices and wages are, the smaller will be the volatility in output.[1]

In other words, when faced by the risk of an overheated economy, the real alternative for European countries is between the frequent use of fiscal policy contraction on the one hand, and policies promoting wage and price flexibility on the other, in order to reduce the long-run costs of inflation differentials (EEAG 2002).[2] A challenge additional to the one of undertaking the right policy actions is the one to get the right *timing* of these policies such as wage moderation e.g. (Deroose et al. 2004, p.24). So, the absence of national nominal exchange rate movements as adjustment to country-specific shocks, policymakers have to take care that the two remaining tools, fiscal policy and real exchange rate adjustment, work as efficiently as possible. Structural reforms are therefore at the core of macroeconomic stabilization in EMU (EEAG 2002). Another issue worth considering is pointed at by Weber (2004) who stresses that the credibility of monetary policy is crucial for stabilizing inflation expectations, thereby influencing and possibly reducing inflation persistence. He concludes that insofar as inflation differences across euro-area countries are due to differences in inflation persistence, credibility of the area-wide monetary policy also contributes to a reduction of inflation differentials. Finally, it might also be useful to compare the EMU experience so far to inflation differentials in other large currency areas, notably the US. Honohan and Lane (2003) report that between 1999 and 2001, inflation dispersion (as measured by the coefficient of variation) was not dramatically wider in the Eurozone than in the US, thus inflation differentials in EMU do not seem to be out of line (see also ECB 1999 and 2003). However, most authors agree that inflation dispersion in the Eurozone is likely to be, if not larger, at least more persistent than in the US to the extent that interregional smoothing mechanisms, such as migration or a strong federal fiscal system e.g., are weaker or completely absent (Angeloni and Ehrmann 2004, Honohan and Lane 2003). Again, this underlines the importance of structural reforms, especially in labour markets, to enhance such smoothing mechanisms. In this respect, after 6 years of a single monetary policy, EMU does not seem to be much closer to being an Optimal Currency Area. But again the comparison with the US may be enlightening:

> How long did it take the United States to become an Optimal Currency Area?
> A reasonable minimum might be one hundred and fifty years![3]

Fundamental structural reforms in the Eurozone countries can help to make this period considerably shorter for EMU. However, it is up to the political authorities (Council, Commission and Parliament) to enforce theses structural reforms in Europe.

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[1] Deroose et al. (2004), p. 4.

[2] For examples on how to achieve increased wage flexibility and a discussion of the (dis-)advantages of such policy, please refer to EEAG (2002), p.55. See also Deroose et al. (2004), pp.23-26, for a discussion of further policy actions enhancing adjustment to country-specific shocks.

[3] Rockoff (2000).

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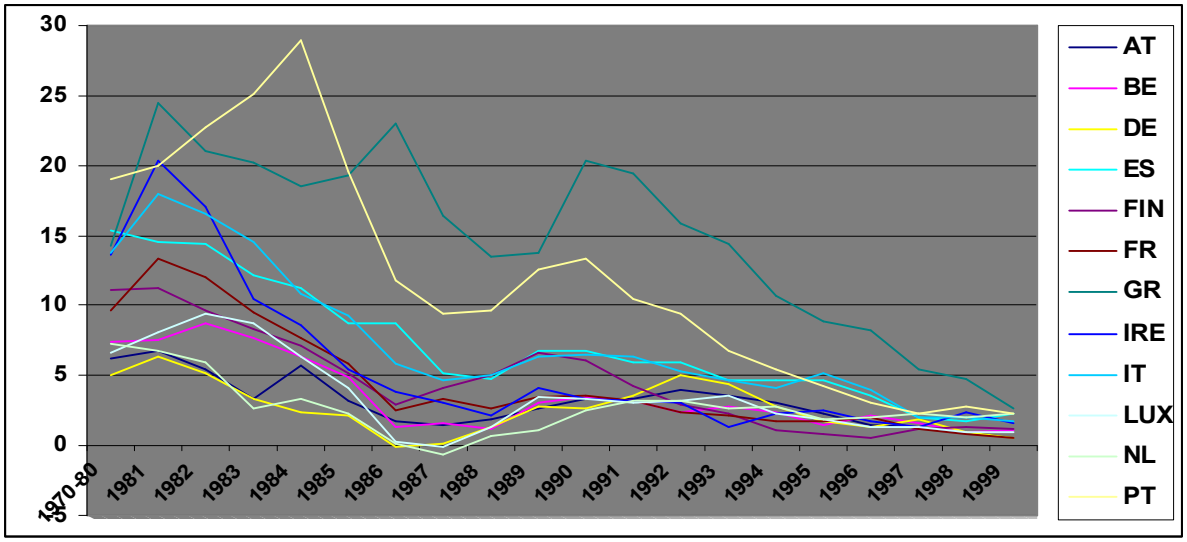
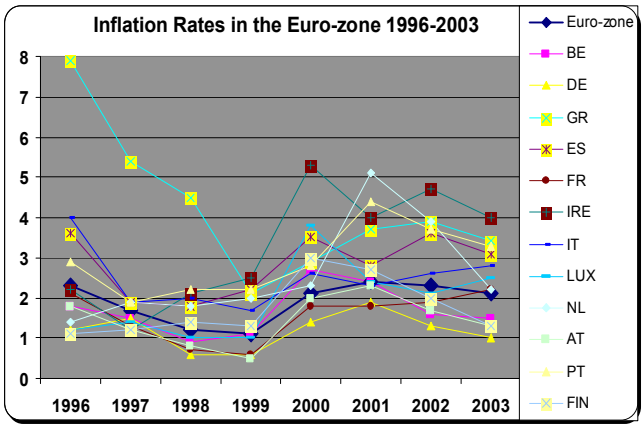
Appendix

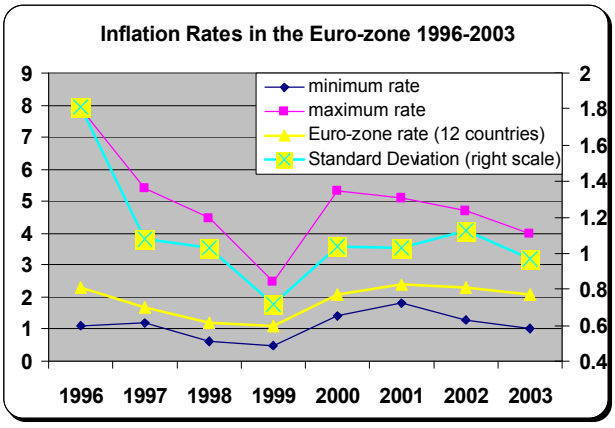
FIGURE 1: INFLATION IN SELECTED EU COUNTRIES UNTIL 1999



Data source: OECD Economic Outlook (2000)

FIGURE 2A,B: INFLATION RATES IN THE EURO-ZONE 1996-2003





Data Source: Eurostat

FIGURE 3: INFLATION RATES 1997, 1999 AND 2002
DEVIATION FROM THE EURO-ZONE AVERAGE

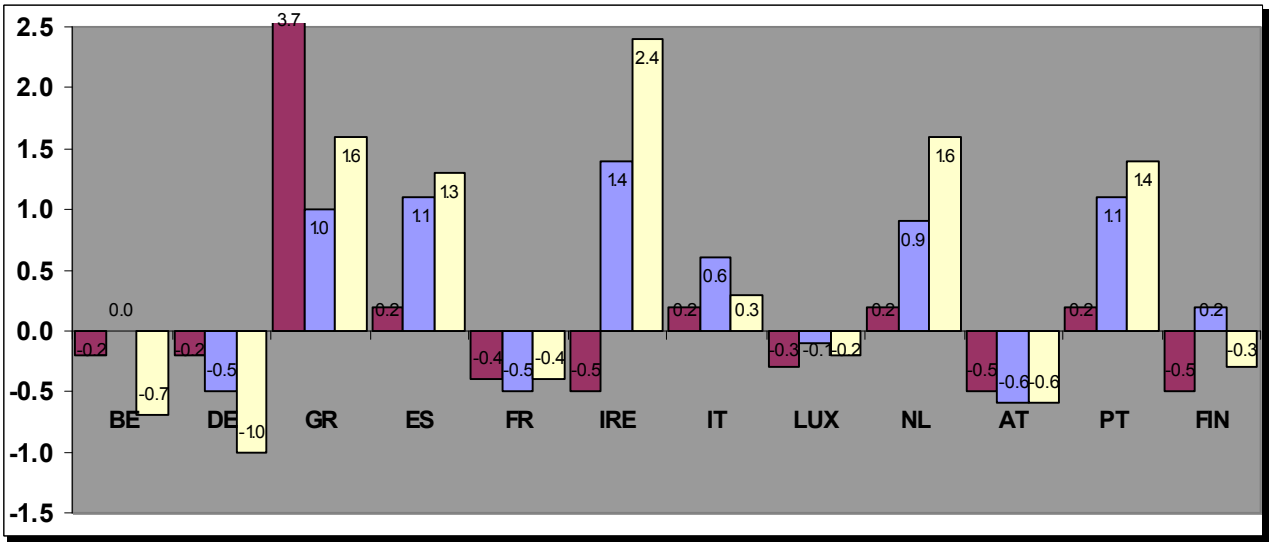
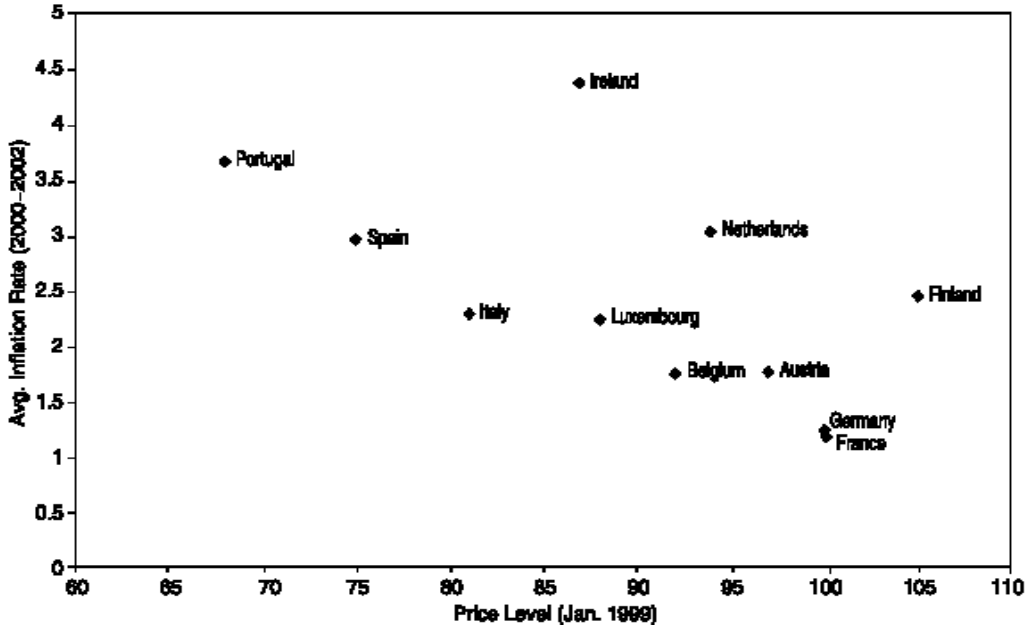


FIGURE 4: INITIAL PRICE LEVEL VERSUS RATE OF INFLATION



Source: Duarte (2003)

Data Source Eurostat

FIGURE 5: PRICE CONVERGENCE IN EMU 199

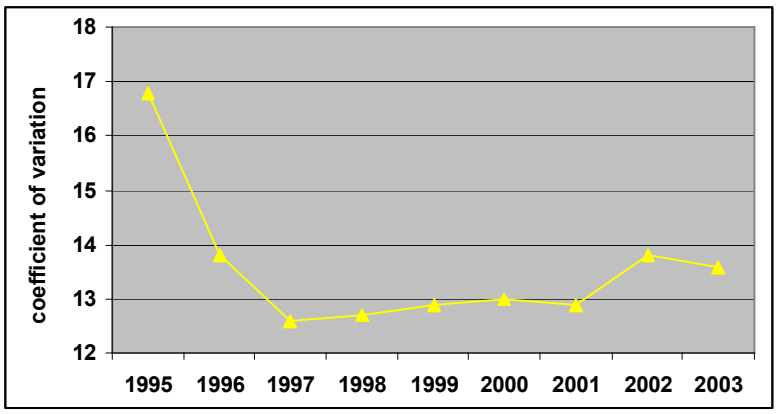
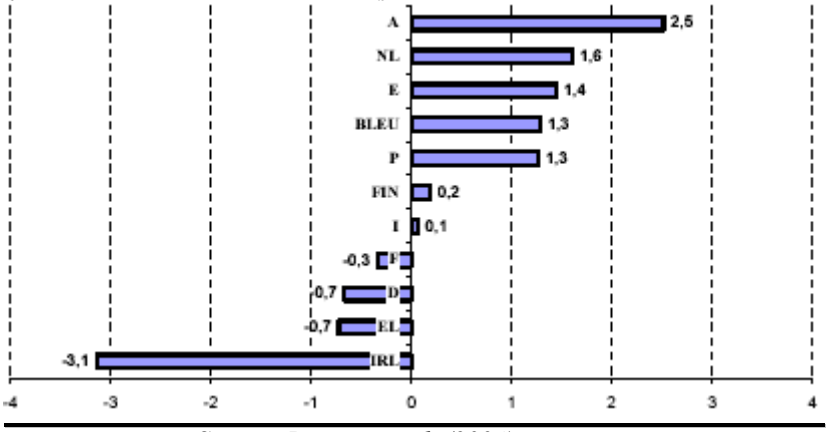


FIGURE 6: RELATIVE NOMINAL EXCHANGE RATE DEVELOPMENTS (BETWEEN JAN 1999 AND 2001)



Source: Deroose et al. (2004)

An Assessment of ECB Action

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Jean-Paul Fitoussi

Executive Summary

An assessment of the conduct of monetary policy in Europe must necessarily be made along two distinct and complementary lines. The first is a comparison with the policies followed in the past. The second line has to assess whether monetary policy is adapted to the new conditions that came into existence with the inception of the Euro. The picture with respect to these two criteria is mixed. Monetary policy has certainly improved with respect to the policies followed in the 1990s, during the run up to the euro. In fact, the ECB proved to be much more growth friendly than its predecessors. On the other hand, though, the challenges posed by the new environment, the management of a large open economy, have not been internalized by the ECB, that was less reactive than the Fed, and too focussed on current inflation. The tightening of monetary conditions in the euro zone, mainly due to the euro appreciation, was not sufficiently cautioned by monetary policy. Especially considering the poor economic performances of the euro zone in the past few years, we must conclude that monetary policy was not helpful in fostering growth recovery in the euro area. The ECB did not fully recognise its new responsibility of conducting the monetary policy of a "big country".

"La critique est aisée, mais l'art est difficile"

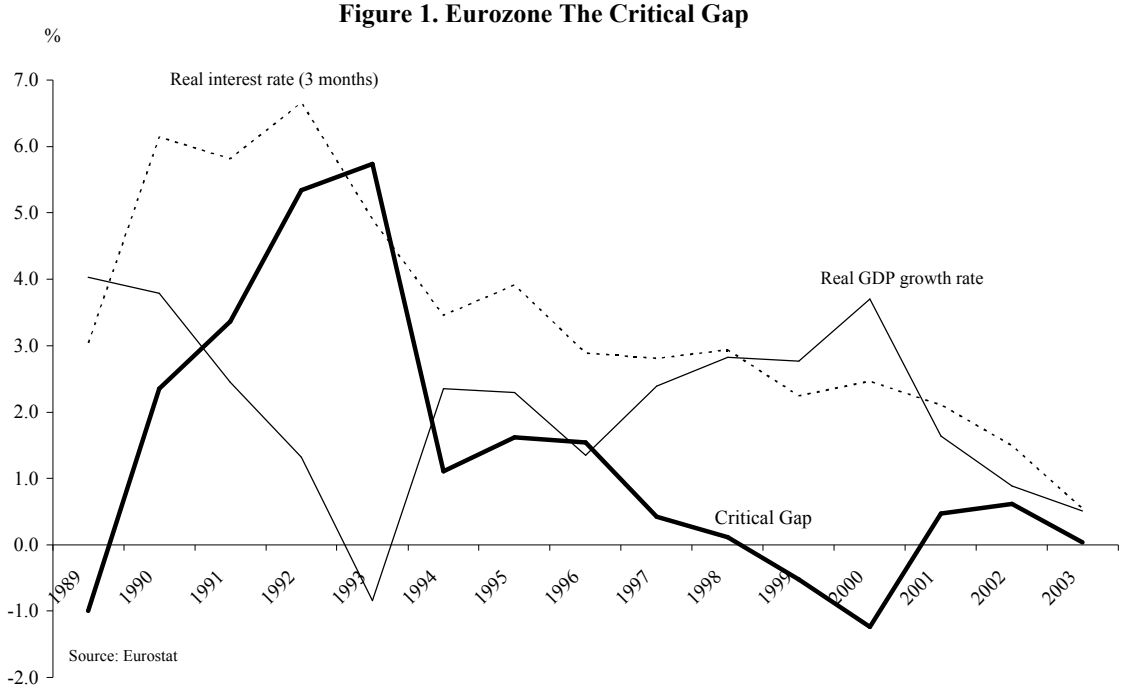
The most obvious way to assess monetary policy in Europe since the ECB came into existence is to compare it with the policies that preceded it, particularly in the years immediately preceding the inception of the euro. Nevertheless, such an analysis would necessarily be incomplete if we did not ask at the same time whether the policy framework put in place by the ECB is consistent with its environment. Such a dual assessment is all the more necessary, that the monetary union represented a regime change for Europe. Before, if we except Germany, monetary conditions in each single European countries of the EMS were determined by the exigency of keeping the exchange rate parity with the DM. No wonder then if most of the time, it was not adapted to internal economic conditions. Now, the ECB enjoys full monetary policy autonomy, and has to take into account the global effects of its policy. Thus, any assessment necessarily has to consider whether the ECB stood up to this increased responsibility. The natural benchmark against which to compare the ECB is of course the US Fed, the only other central bank that faces such a global responsibility.

To anticipate on the conclusions, if on one side the record of monetary policy under the ECB has considerably improved with respect to the policies followed in the 1990s, on the other it does not seem to have fully internalized the regime change, and has been too inertial if we consider its increased responsibilities.

A Comparison with the 1990s: A More Appropriate Monetary Policy

Figure 1 shows the short term real interest rate, and the growth rate, since 1989. It further reports the "critical gap", the difference between the two that can be seen as a first broad measure of the degree of restrictiveness of monetary policy (a more sophisticated measure will be discussed below).

Figure 1. Eurozone The Critical Gap



It is clear that since the run-up to the euro began, the monetary stance progressively became accommodating, and that since 1999 the critical gap remained stable at low levels. Thus, a comparison with past behaviour seems to show a monetary policy more growth friendly.

The ECB and the New Policy Regime

Limiting the assessment of ECB action to a comparison with past behaviours in Europe is not enough for at least two reasons. First, in general, evaluation should never be solely based on comparative terms; second, this is even truer when there is a regime change. Standard textbook analysis routinely separates the study of small open economies, facing external constraints, from the study of large economies. It is no doubt that with the Euro, the model of reference for Europe became the latter, reducing the constraints facing monetary policy, but at the same time increasing its responsibility. How did the ECB behave, faced with this new responsibility?

The First Years

The relatively short period since the European Central Bank came into existence was characterized by a number of important challenges for the authorities in charge with European economic policy management: the end of the internet bubble, the Afghan and Iraqi wars, the terror attacks of September 11, the droughts and the agricultural prices fluctuations, the animal diseases, the oil price fluctuations. The first three years of operation of the ECB were the object of a previous briefing paper (BP 1-2003, February[1]). The Bank was reactive to factors that directly affected inflation; thus, it was quite active in the years 1999-2000, in response to shocks in oil and food prices, and in trying to contrast the depreciation of the euro. On the other hand, it showed more inertia in reacting to shocks that firstly had an impact on income and employment, and only through that channel on prices: facing the US slowdown of 2001, and its consequences on output in the euro zone, it did react only slowly and under exceptional circumstances (notably the 9/11 events). In a sentence, the ECB strictly followed its main objective (price stability), but much less so its secondary one, the promotion of economic growth. While this behaviour could be justified by the institutional tasks of the ECB, it also showed two important problems with such a state of affairs. First, the objective of price stability was pushed too far, even when it was becoming evident to most observers that a cut in rates to sustain growth would not hamper the inflation objective of the ECB. Secondly, the excessive focus on inflation, unveiled an insufficiently forward looking attitude, as the future disinflationary effects of the slowdown were not taken into consideration. The briefing paper concluded by arguing that if the restrictiveness of the Bank's behaviour had to be explained by the attempt to establish a reputation, that attempt had not been entirely successful.

The Period 2002-2004

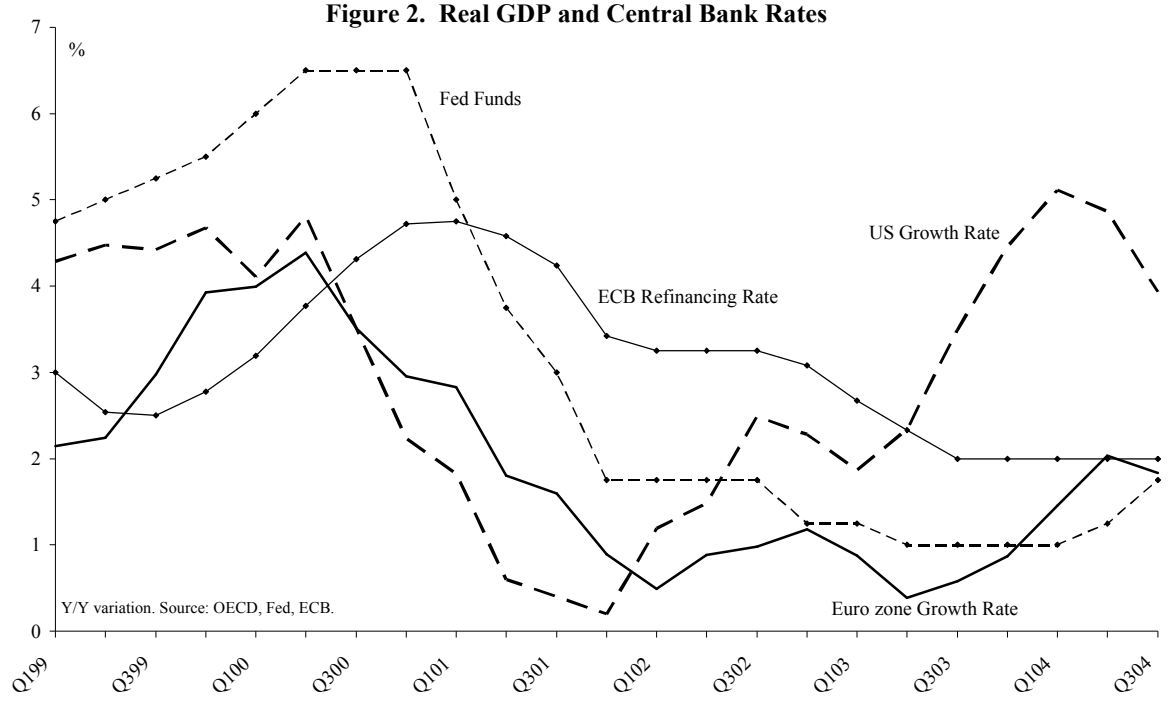
What are the main events that characterized the past two years, and against which we need to assess the conduct of monetary policy in the euro zone? We can enumerate three of them.

[1] http://www.europarl.eu.int/comparl/econ/pdf/emu/speeches/20030217/fitoussi.pdf.

(i) The prolonged stagnation of the European economy.

Figure 2 compares the growth performances of the US and of the Euro zone in the past few years. It clearly shows that, though deeper than in Europe, the recession on the other side of the Atlantic was very short lived, and followed by a growth recovery as soon as 2002, and impetuous growth in the two years 2003-2004. Europe, on the other hand, experienced a prolonged period of disappointing growth, with the three largest economies *de facto* stagnating. In spite of sluggish growth, since the first quarter of 2001, the ECB refinancing rate was always higher than the Fed Funds Rate, and the gap was closed only late in 2004, following the gradual rate increase in the United States.

Figure 2. Real GDP and Central Bank Rates



(ii) The stabilization of inflation

The second remarkable fact of the last two years is the stabilization of inflation. After the shocks of the years 1999-2001, inflation in Euroland fluctuated around 2%, the level targeted by the ECB (see figure 3). In fact, since April 2002, it oscillated between a minimum of 1.7% and a maximum of 2.4%. Much of this variation was furthermore due to the sharp increase of oil prices. If we consider core inflation, its level has been constantly below 2% since January 2003.

Figure 3. Inflation and ECB Rates

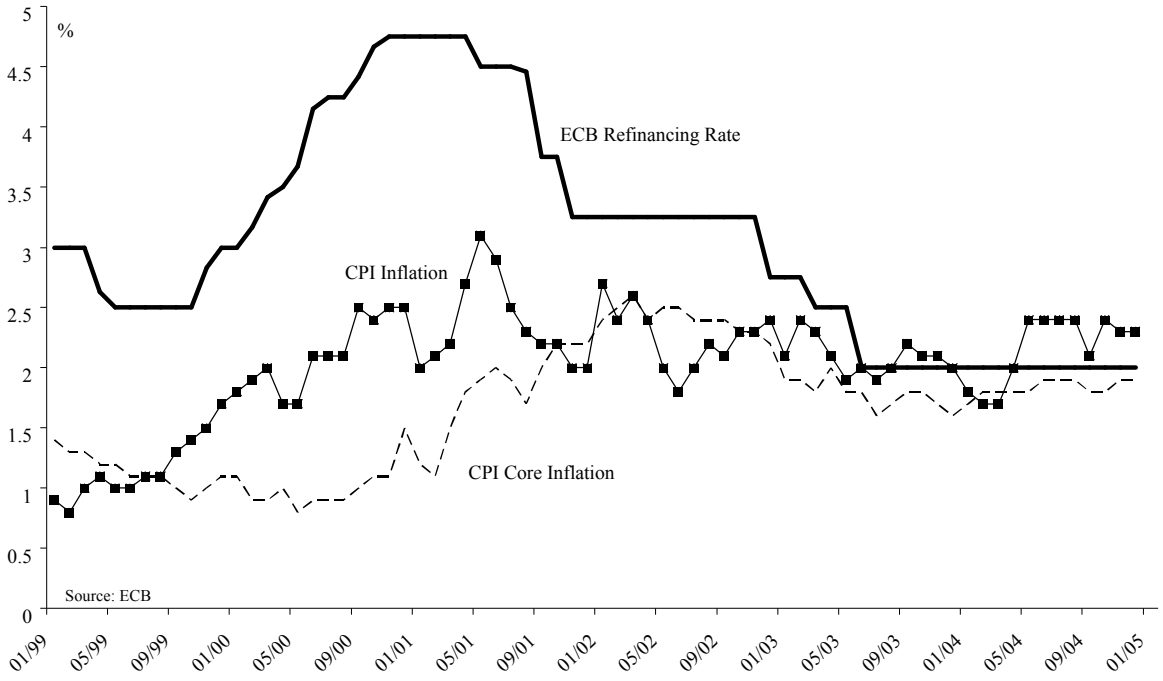
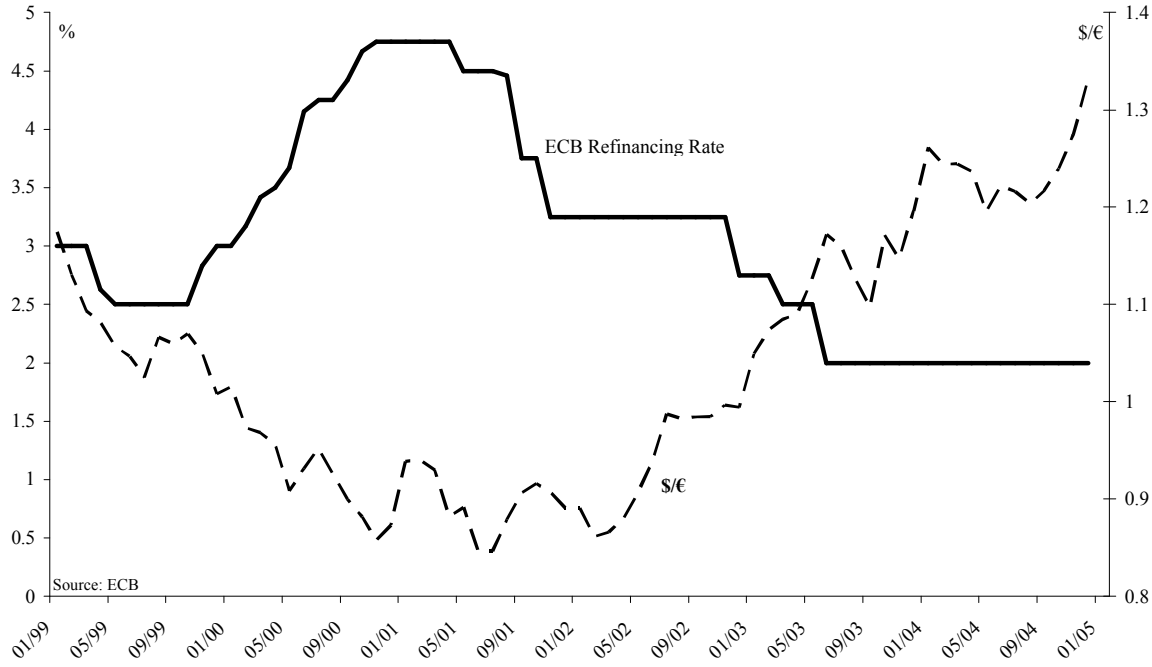


Figure 4. $/€ Exchange Rate and ECB Rates



(ii) The spectacular depreciation of the dollar

Since its minimum value (0.84 dollars for an euro) in July 2001, the exchange ratio between the US dollar and the euro has climbed almost 60% to its current level of around 1.30 (see figure 4). In the years 2003-04 the dollar depreciated by 35%. The euro also appreciated with respect to the currencies pegged to the dollar, in particular the Chinese Yuan. With some notable exceptions, European exports suffered from this exchange rate dynamics.

The ECB Inertia in a Changing World

The pattern that was appearing towards the end of 2001 – an extreme cautiousness of the ECB – has been confirmed by the policy followed since then. After the drop following the terror attacks, the main refinancing rate was left unchanged at 3.25% from November 2001 to November 2002. Then, over the following semester it was brought down to 2%, and since then (June 2003), it has been left unchanged. One could argue that this conduct was appropriate, given that the inflation rate was more or less regularly around its target level, and that the statutory mandate of the ECB is to maintain price stability.

Nevertheless, if we broaden the perspective, we obtain a somewhat different picture, in which the inertia of the ECB is harder to justify. Figure 5 exhibits the Monetary Conditions Indicator (MCI), built by OFCE (see box 1 for details on how the index is constructed). This indicator gives a synthetic measure of monetary policy tightness. It embeds both interest rates and the exchange rate; as such it is well suited to capture the remarkable appreciation of the euro. We can see that since 2002 monetary conditions have strongly loosened in the US, thanks to the strong depreciation of the dollar; not even the gradual tightening of monetary policy, over the past few months, has changed the trend. In Europe, over the same time span, the indicator of monetary conditions has been constantly tightening, mainly because of the euro appreciation that was not contrasted by an aggressive monetary stance. In other words, the combination of interest rates and the effective exchange rate is tighter today than it was in 1999, a period of higher growth.

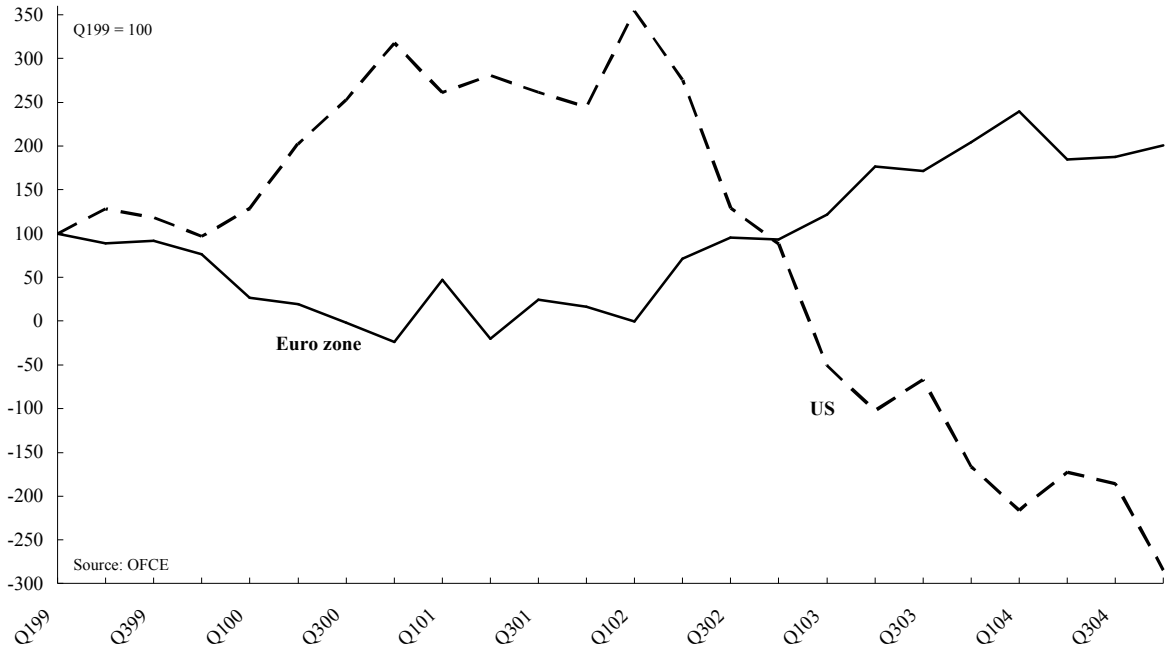
Box 1. The Monetary Conditions Indicator (MCI)

The MCI is aimed at giving a synthetic measure of the financial constraint faced by an economy. First it considers the deviation of real interest rates from the rate of growth (the "critical gap"), that affects the economy mainly through the investment function and the cost of credit. The second element is the effective real exchange rate, that represents an indicator of competitiveness.

The real interest rate variable is an average of the short term rate, determined by monetary policy, and the long term rate determined by the markets. By taking the critical gap, we obtain a relative measure that allows comparisons across countries. Comparability across countries is also the reason why the exchange rate variable is taken as a deviation from its 10 years average.

Finally, the weights come from the macroeconomic model OFCE uses for its forecasts: 1 for the interest rate, and 0.2 for the effective exchange rate.

Figure 5. Monetary Conditions Indicator



The second reason that calls for an in depth analysis of monetary policy is the inflation target *per se*. If it is true that inflation has been fluctuating around 2% in the past two years, justifying the stability of ECB rates with respect to its target, it is also true that precisely the decision of the ECB to set the target rate at 2% may be seen as the "original sin" of monetary policy in the Euro zone. In fact, the period of low inflation that preceded the inception of the single currency has created an historical anchor that in view of the following events proved to be too low, and hence induced a restrictive bias in monetary policy. I argued elsewhere[1] that a correct target rate for inflation should be 2.5% or 3%.

Fit for the New Role?

The preceding analysis gives a mixed picture of the ECB action. On one side, the bank showed more responsiveness to current economic conditions than the central banks of individual countries of the euro zone over the 1990s. On the other hand, though, the ECB policy did not prove to be completely adequate to the new regime introduced by the euro. Even if it can't be said that monetary policy was procyclical, it is quite evident that the overall monetary stance in the past few years was not supportive of growth. The bank did not seem able to meet the challenge posed on one side by its new capacity to influence global variables like the exchange rate, and on the other by the constraints on fiscal policy in the EMU that leave monetary policy as the only union-wide tool to sustain growth and income. It is not by chance that the other "large open economy", the US, statutory imposes growth as an objective for its central bank. The anomaly of the ECB statute, an exclusive focus on inflation, may be seen as a "small country" legacy and should be corrected. The European Constitutional Treaty is a missed opportunity in this sense.

[1] Fitoussi, J.-P., *La Règle Et Le Choix*. Paris, La république des idées, Seuil, 2002.

The inertia of the ECB, compared with the activism and the pre-emptive moves of the Fed may have two different explanations; one could think that the ECB correctly focused on inflation, and hence that its limited activism reflects the good accomplishment of its mission. Or, one could conclude, at the opposite, that the ECB has been unable to base its policy on anticipation of future events, as the Fed does, and that its inertia derives from a backward looking attitude (a "feedback policy"), unfit to the leading role monetary policy has to have in a currency union of such a big size.

Topic 3

The Price of Oil and Monetary Policy in the Eurozone

The Price of Oil and Monetary Policy in the Eurozone

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

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Abstract

This note considers the effect of the current oil price shock on the Euroland economy and the associated desirable monetary policy response. The first section provides some background on oil prices. The second section considers the importance of oil price shocks for inflation in Euroland. The third section analyses the current shock and the fourth section considers the appropriate monetary policy response.

1. Background on oil prices

Commodity prices are subject to wide price swings in response to variations in both supply and demand. The price of crude oil is no exception and since 1869 it has oscillated around a mean of $19.20 per barrel, adjusted for inflation in 2002 dollars.[1] In this section, I describe the recent behaviour of oil prices.

Uncertainties associated with the first Gulf War were the main factor that led to about an 80 percent rise in the price of oil between late 1989 and October 1990.[2] After the war the price fell, declining 60 percent by March 1993. In the early and mid 1990s there was increased demand from Asia and between March 1993 and January 1997 the price of oil rose by about 73 percent. In the late 1990s, economic problems in Asia and increased OPEC production led prices to decline by abut 55 percent between the start of 1997 and the end of 1998, to just $11.28. Strong demand, cutbacks by OPEC and bad weather led to a doubling of oil prices between the end of 1998 and September 2000. Recession and increased OPEC production led to subsequent price declines. Since then, unrest in Venezuela and tensions in the middle east have caused the price to rise by about 150 percent from the December 2001 low of $19.33 to the 26 January 2005 price of $48.79. Historically, the recent increase in the price of oil is large, but it is smaller than the increase in the late 1990s, the 210 percent increase during the first OPEC oil crisis (1972-4) or the 156 percent increase during the second OPEC oil crisis (1978-81).

2. The Importance for Euroland

Typically, increases in commodity prices lead to inflation as they increase the direct cost of consuming the commodity, and if the commodity is an input, then a rise in its price increases the cost of producing other goods. To the extent that this cost increase is passed on to consumers, this is an additional source of inflationary pressure. How important is the recent rise in oil prices for the Euroland economy? Increases in oil prices should immediately increase the prices of consumption goods such as gasoline and heating oil.

However, these goods are not a large share of the Euroland consumption basket; in 2004, total oil energy had a 4.3 percent share in the HICP basket. Adding gas and solid fuels eurozone

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[1] "Oil Price History and Analysis," *Energy Economics Newsletter,* 19 Oct. 2002.

[2] Here the oil price is defined as the monthly NSA spot dollar price of a barrel of West Texas Intermediate crude.

brings the share up to 5.7 percent.[1] As an input, energy represents a relatively small share of the cost of production, about six percent in the United States, and probably less in Euroland.[2] Oil is priced in dollars and the euro has been appreciating against the dollar. Measured in euros, the recent increase (since December 2001) in the price of a barrel of oil is about 100 percent, rather than 150 percent. Assume that the share of oil in consumption is 5.7 percent, the share of oil in production is 5.0 percent and all price increases are immediately passed on to consumers. Then, if nothing else changed, a rough estimate of the effect of an upper bound on the 100 percent increase in oil prices over the past three years on past HICP inflation is about 10 percentage points, or about 3.2 percentage points per year. However, declines in real income in an oil-importing area and higher input prices should lead to lower consumption and investment demand which would dampen the increase. Is the past increase in oil prices likely to have an effect on future HICP inflation and how large is that effect going to be? This depends on what one assumes about the time- lags and size of the effect of oil price increases on inflation, as well as what one assumes about the future path of the oil price. Estimating these lags and magnitudes is difficult as they change over time with changes in market structure and changes in developed economies' dependency on oil prices. Oil price increases appear to affect inflation more rapidly than they have in the past, but their effect is smaller than what is was previously.

Past increases in oil prices might affect future inflation in Euroland for a couple of reasons. First, firms may pass through the effects of higher energy prices with a lag. Second, wage setters might attempt to extract wage concessions following the energy price rises. This would increase the price of other goods and lead to higher inflation. Rigid labour markets in Europe tend to exacerbate this effect; the credibility of the ECB for being tough on inflation mitigates it.

3. The Current Oil Price Shock

The effects of oil price shocks can be substantial; oil price shocks have been a contributing factor in every global recession of the last thirty years.[3] In real terms, however, the current price of oil is lower than it was at its peak in the 1970s and developed economies have become much less dependent on oil. A worrisome feature of the current shock, however, is that instead of being a purely temporary rise, it may be associated with a permanent increase in the long-run price of oil. The dollar price of oil has already fallen significantly from its October 2004 high of $53.13, but an interesting feature of the current episode is the behaviour of the far future price of oil. During the period 1990 - 2001 this price was fairly stable, despite the oscillations in the spot price. Since 2001 it has risen sharply and the price for delivery in December 2011 is $39.58. While there is great uncertainty, this suggests that market participants expect the current elevated price of oil to be long lasting.

[1] ECB Monthly Bulletlin, January 2005, p. 34.

[2] The figure of six percent for the United States is from a speech by Jeffrey C. Fuhrer, senior vice president and director of research at the Federal Reserve Bank of Boston, at the Metals Service Center Institute's Aluminum Division conference in November 2005, Metal Center News, December 14 , 2004.

[3] This point is made by Roubini, N. and B. Setser, "The Effects of the Recent Oil Price Shock on the U.S. and Global Economy," August 2004.

This expectation appears reasonable. In the past fluctuations tended to be temporary, driven by time-varying supply shocks and business-cycle related demand shocks. The current shock is associated, in part, with a demand shock that may be less transitory: the burgeoning Chinese demand.

4. Policy Response

Oil price increases, or indeed any negative supply shock, presents an unpleasant situation for the ECB. The shock increases inflation at the same time that demand and economic activity are slowing. The appropriate policy response depends on how much of the shock is expected to be transitory and how much is expected to be more longer lasting. There appears to be little argument for responding to a short-lived spike in oil prices with a more restrictive monetary policy aimed at further reducing aggregate demand. In the scenario where the shock is transitory, the uncertainty about the timing and size of the effects of the shock, the lags associated with monetary policy, as well as the further reduction in economic activity, suggest that monetary tightening may due more harm than good.

The oil price shock will be clearly visible to the public. If it reverses itself quickly and if the central bank is widely assumed to be committed to low and stable inflation, the failure to react to a short-lived commodity-price shock should not lead to a loss of credibility. Clearly however, responding to an output loss caused by a temporary oil price shock with a loosening of monetary policy is undesirable. It would increase inflationary expectations at a time when inflation is already rising.

If the shock is believed to have a persistent component, as the current one may have, then the ECB should respond with a tighter monetary policy than it would have employed if there were no oil price rise. If it did not do this, higher prices of energy goods would be followed over time with higher prices of other goods as firms passed on higher production costs to consumers. Not responding in the scenario where the shock is believed to be long-lived would lead to expectations of inflation, increases in wage demands and further increases in inflation. The challenge for the ECB is in determining how of the oil price shock is short-lived and how much is long-lived.

Oil Prices and ECB Monetary Policy.

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

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Abstract

The ECB and the Eurosystem should take past, present, and predicted future oil-price movements into account in its monetary policy depending on how these movements affect the inflation and output-gap forecasts that should guide monetary policy. Oil price movements have complex effects on these forecasts, so the impact of oil price movements on policy is complex. Hence, an evaluation of whether the ECB has responded appropriately to past oil-price movements is a somewhat demanding exercise.

Oil prices have moved dramatically in the last two years. The price of Brent crude oil rose to an all-time high of USD 51 at the end of October 2004 and has then fallen somewhat and fluctuated around USD 42 (ECB [1]).[1] How should the ECB adjust its monetary policy to oil-price movements? The answer to this question follows from the general principles for good monetary policy, as explained, for instance, in Svensson [2] and [3]. However, whereas the principles for good monetary policy are simple, the practice of good monetary policy is difficult. The same is the case for the question of how to adjust monetary policy to oil-price changes: the principles are simple, but the practice is difficult. In particular, there is no simple relation between the appropriate instrument-rate adjustment and a given change in oil prices.[2]

So, the principles of good monetary policy are simple: Perform *flexible inflation targeting*, which means aiming to stabilize inflation around an explicit low positive numerical inflation target with some weight also on stabilizing the real economy, which can be expressed more precisely as stabilizing the output gap, that is, stabilizing output around a measure of potential output. Because of the lags between monetary-policy actions and the effect on inflation and output, the best way to do this is to look forward and perform *forecast targeting*. This means setting the central bank's instrument rate (more precisely, to choose an instrument-rate *plan*, a path for the current and future instrument rate) such that the corresponding inflation and output-gap forecasts "look good" in the sense of either achieving stable inflation at the inflation target and a stable output gap at zero or, more realistically, a good compromise between the two. In practice, "look good" normally means that the inflation and output-gap forecasts approach the inflation target and zero, respectively, often one-three years ahead (but, more precisely, the whole future forecast paths should look good, not just the forecast at some fixed horizon).

[1] The rise in oil prices has been mitigated by the fall in the dollar.

[2] The issues raised by monetary policy and oil-price movements are similar to those raised by monetary policy and central-bank judgment; see Svensson [4] on the latter

Although these principles are simple, as explained in Svensson [3], the *practice* of constructing forecasts, deciding on the appropriate instrument rate (plan), and communicating these to the general public and the market is quite complicated and difficult.

How do these principles apply to oil-price movements? How should the ECB find the optimal instrument-rate plan? The *first* step is to make a forecast of future oil prices. More precisely, past, current, and predicted future oil prices are one set of inputs in the construction of inflation and output-gap forecasts. Thus, any unanticipated change in current oil prices and any revision of the outlook for future oil prices call for a shift in the oil-price forecast.

The *second* step is to assess what impact the shift in the oil-price forecast has on the inflation and output-gap forecasts. In particular, estimating the impact on the forecast of the output gap, the gap between output and potential output, requires that the impact on *both* the output and potential-output forecasts is assessed. Potential output is a complex concept. The most appropriate concept for monetary-policy purposes is the hypothetical output level that would arise in the hypothetical situation where there is complete nominal price and wage flexibility but any real distortions such as taxes, imperfect competition, and information imperfections remain in place. This is not the same as the standard trend measures of potential output. Whereas potential output normally is independent of monetary policy, it does depend on the shocks hitting the economy, including oil-price changes. Oil is one of the intermediate inputs in production. For an oil-importing economy such as the euro area, an increase in the price of imported oil relative to the price of euro-area output implies an increase in production costs and is similar to a fall in productivity. A fall in productivity reduces potential output. Furthermore, an increase in the relative price of an imported commodity implies a terms-of-trade deterioration for the euro area as a whole. A terms-of-trade deterioration has a negative income and wealth effect on consumption, which reduces aggregate demand for output. Aggregate demand is also affected by expectations of changes in future incomes. Hence, a rise in oil prices is likely to have negative effects on both output and potential output. The relative sizes and the time profile of those effects are not obvious, though. To the extent that aggregate demand and output is sluggish, the negative effect on potential output may dominate and lead to a positive output gap (output less potential output) in the short and medium run, but generally the time profile of the shift in the output-gap forecast is complex.

The shift in the oil-price forecast will also have an impact on the inflation forecast. Oil prices enter directly into the HICP as fuel for heating and for personal transportation. An increase in production costs because of higher costs of intermediate oil inputs in production will also increase the HICP. Finally, any shift in the output-gap forecast will have an impact on the inflation forecast via the standard output-gap channel in the Phillips curve. Expectations of future price changes will also have an impact on inflation, via various expectations channels. Although most effects on the inflation forecasts from an upward shift in the oil-price forecast would be positive, the time profile of the shift in the inflation forecast is not obvious.

We can think of the above shifts in the inflation and output-gap forecasts, resulting from the shift in the oil-price forecast, as being constructed for a given interest-rate plan. To isolate the effect of the shift in the oil-price forecast, we may assume that the interest-rate plan and the corresponding inflation and output-gap forecasts did ¡°look good¡± before the shift in the oil-price forecast.

The shift in the oil-price forecast has then resulted in shifts in the inflation and output gap forecast that may no longer look good. The *third* step is then to decide, given the shift in inflation and output-gap forecasts, what revision, if any, of the interest-rate plan is required in order to make the inflation and output-gap forecasts look good again. The new current instrument setting is then the first element in the new instrument-rate plan. It follows from the above that the new instrument setting is a very complex function of the initial movement of oil prices. It is so complex that it cannot be summarized as a simple formula. Therefore, there is no point in trying to determine a simple reaction function for the appropriate instrument-rate response to a movement in oil prices. It all depends on the whole shift in the oil-price forecast, how that shift affects the inflation and output-gap forecast, and what shift this requires in the instrument-rate plan for the inflation and output-gap forecasts to look good. The reaction function is best left implicit, defined by the three steps I have outlined above. The *fourth* and last step is to announce and implement the new instrument rate, and to explain the analysis and the outcome of the three steps above to observers and the general public. The latter is what is done in the monetary-policy reports by the best flexible inflation targeters. It follows that an evaluation of whether the ECB has responded appropriately to past oil price movements is a somewhat demanding exercise. Ideally, it would require a detailed report by the ECB of how it has done the first three steps outlined above.

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[3] Svensson, Lars E.O. (2004a), ¡°The Euro Appreciation and ECB Monetary Policy,¡± briefing paper for the Committee on Economic and Monetary Affairs (ECON) of the European Parliament, www.princeton.edu/~svensson.

[4] Svensson, Lars E.O. (2004b), ¡°Monetary Policy with Judgment: Forecast Targeting,¡± working paper, www.princeton.edu/~svensson.

Oil Price Shocks and Monetary Policy.

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Guillermo de la Dehesa
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1) The Euro Area is highly vulnerable to oil price shocks

The world economy is vulnerable to oil price shocks and so it is that of the Euro Area. In principle, a country vulnerability to energy prices depends on its total volume of net oil imports as a percentage of GDP and of its total oil consumption as a percentage of GDP. The higher its ratio of net oil imports to GDP the higher will be the deterioration of its trade and current account balance and the more adverse will turn its terms of trade. This first effect tends to have a negative impact on the supply side of the economy by increasing the cost of the production of goods and services due to the increase of the relative price of the energy inputs, thus, reducing the profit margins of firms and their investment flows and employment rates.

The higher the ratio of oil consumption to GDP, the higher will be its negative impact will be on the Consumer Price Index, reducing the purchasing power of consumers and their disposable income therefore, reducing overall consumption demand. Given a budget constraint, as the oil consumption demand is far more rigid, mainly in transport services, the reduction of consumption affects other goods and services which are considered by the consumer to be less superior. The magnitude of this second effect will depend on the degree of monetary response by the central bank and the response by trade unions to the price/wage spiral.

Moreover, relative oil price increases provoke a transfer of income from oil consuming to oil producing countries. This third effect is the result of the fact that the marginal propensity to consume oil by consuming countries is higher than that of producing countries. Finally, oil shocks affect financial markets conditions as well, because investors expectations about lower future company profits and higher interest rates tend to deteriorate the market prices of equities and bonds, making tougher and more expensive for firms to get finance.

For the OECD as a whole, net oil imports accounted for 1.1% of GDP in 1973 before the first oil shock, then went up to 2.4% in 1978, before the second oil shock, but since then have been steadily coming down to 0.9% of GDP in 2002. Given that some OECD countries are net exporters, as the UK, Canada and Norway, for the rest, the net oil import ratio is slightly higher: 1% of GDP in the same year. Thus, import vulnerability has been declining for many years.

Oil consumption in OECD countries, by contrast, has been increasing as a percentage of GDP up to 0.8% in 1998 and to 1.6% in 2002, because there is a very high correlation between growth of income and oil consumption, both in developed countries and even more in developing countries.

In the Euro Area, oil net imports represented, in 2002, 1.6% of GDP and oil consumption 1.8% of GDP, higher percentages than the OECD average, mainly in net oil imports, where the ratio is close to the double than the OECD.

The world has been suffering another oil shock in the last four years. Nominal oil prices have been increasing persistently fast since 2000, when the year average price of the Brent barrel was 20 dollars. By 2002, the average Brent price reached 25 dollars and by 2004 went up to 38 dollars, that is, a nominal increase of 90% in five years. In real terms, deflated by US inflation, its rate of increase has been even higher, from 16 dollars in 2000, to 34 dollars in 2004 that is over 100%. Nevertheless, its present real level is still lower than in the first oil shock, at the end of 1973, when it went up from 8 to 43 dollars in real terms and far lower than at its peak in 1979, after the Yom Kippur war and the Iranian revolution where it reached almost 100 dollars in real terms. Thus, nominal levels are relatively high, similar to the early 1980s, but real levels are still low.

Nevertheless, the most important factor for its impact on growth and inflation is its rapid rate of increase more than its level. The problem is that the oil market, for the first time, is discounting the same level of present high nominal prices for the next few years. The forward curve for the Brent barrel keeps showing a price at around 42 dollars for contracts expiring at the end of 2005, and then, in a soft declining trend keeps still high for some more years. Markets, of course, often get it wrong, but it is the first time in history that, after an oil shock, the forwards do not go down fast, what it is a bad future signal to economic agents when they try to plan their investment decisions.

Most econometric models find that every sustained 10% rise in oil prices reduces the world's growth by around 0.3% after one year, thus, maintaining the present 90% increase over the next years could reduce it by 2.7%. But the dispersion by country of that average is very high, given that there are countries much more vulnerable than others, even in the Euro Area. There are countries in the Euro Area like Greece, Portugal, Spain and the Benelux, which have an average net import and consumption ratios of between 2.2% to 2.8% of GDP, while others, like Austria, France and Germany have an average net import and consumption ratio of around 1.1% to 1.3% of GDP, just half. Doing a simple arithmetic calculation, a sustained increase of 90% of the oil price, from 2000 to 2005, will produce a deterioration of the terms of trade or a balance of payments loss of 2.5% of GDP for the first group of countries, along the five years period and a loss of purchasing power by consumers due to an increase of the CPI of the same proportion, over the same period, while the second group will suffer half the loss of GDP through both effects, over the same period.

2) Which monetary response by the ECB?

According to the conventional view, oil price shocks tend to produce, at the same time, an increase in inflation and a reduction of real GDP, what has been called "stagflation", making it very difficult for macroeconomic policy to reduce at the same time the two negative effects.

The first oil shock, which started at the end of 1973 and lasted until 1978, which multiply by almost four the nominal oil price, generated a Keynesian macroeconomic policy reaction by most OECD countries, of expansive fiscal policy and monetary accommodation, which created a period of high inflation rate, which double the CPI OECD average to 10%, over the five year period, but its average growth rate, which turned slightly negative in 1974, grew at an average of 4% until the end of 1978.

In the second oil shock, which lasted from 1979 to 1982, where nominal oil prices were multiplied the nominal price by three, the policy reaction was different, fiscal policy was more neutral and monetary policy was more restrictive. Inflation did not rise over the period and kept at an average of 9.5%, but growth was very low, resulting on an average over the period of 1.4%. The third, but minor oil shock in 1991 and 1992, where nominal oil prices nearly double for a short period of time, the policy reaction was a mix of expansive fiscal policy and restrictive monetary policy, which kept inflation at an average of 4% in the two years, but the OECD average growth rate came down from 3.1% in 1990 to 1.3% in 1991 and to 2% in 1992. In all cases, the short term effect of monetary policy was more important than the fiscal policy effect, as indicated by economic theory.

But this conventional and predominant view is hotly disputed. For some economists (Bohi, 1989) (Barsky and Killian, 2002 and 2004) oil shocks may produce a recession but not necessarily stagflation, which can be the result of the implementation of certain macroeconomic policies. For others (Bernanke, Gertler, and Watson, 1997), the monetary policy response can be as or even more important to produce stagflation than the oil price shock. According to Barsky and Killian, oil shocks have a clear short term negative impact on growth but there is no convincing empirical evidence that oil price shocks are associated with higher inflation rates in the GDP deflator, although there is strong evidence of sharp increases in the CPI inflation rate following major oil price increases.

According to Bernanke et al., the monetary policy response may be a necessary condition to produce stagflation, because of its negative effect on real GDP growth. To support their view, they separate the direct effects of oil price shocks from the indirect effects operating through the monetary policy response. Then they compare the total effect of an oil price shock, including the endogenous monetary, with the effect of monetary tightening of the same magnitude. To the extent that the two responses are quantitatively similar, it seems reasonable to attribute most of the total effect of the oil price shock to the monetary policy response, which leads to a rather strong conclusion: the majority of the impact of an oil price shock on the real economy is attributable to the central bank's response to the inflationary pressure engendered by the shock.

This view seems to fit with the data. For instance, the US Fed started to raise short term interest rates some months before the end of 1973 oil shock, from 4.1% in 1972 to 7.0% in 1973 and 7.9% in 1974, which resulted, contrary to other OECD countries, in a negative GDP growth of the US economy in 1974 and 1975, while its CPI index went up from 5.6% in 1973 to an average of 9% in 1974 and 1975. In 1979, at the beginning of the second oil shock, US Fed funds rates were raised from 5.3% in 1977 and 7.4% in 1978 to 10.1% in1979, to 11.5% in 1980 and to 14% in 1981. US GDP growth came down from 5.2% in 1977, to 4.7% in 1978 and to 2.4% and -0.2% in 1979 and1980, while CPI inflation went up from 6.0% in 1977 and 6.9% in 1978 to 9.0% in 1979 and 10.3% in 1980.

If this is the case, the present oil price shock has come at a moment in which both fiscal and monetary policy have been expansive, thus its negative impact on growth may be smaller. But, why inflation keeps being low in most OECD countries after a 90% rise in nominal prices since 2000, which should have generated an increase in consumer inflation? The obvious answer is that, most probably, the OECD economies are under a different paradigm, which somehow confirms the so-called "Lucas critique", who pointed out that when trying to predict the effects of a policy change, it could be very misleading to take as given the relations estimated from past data (Lucas, 1976).

The fact is that oil vulnerability has been slowly reduced over the last decades in most OECD countries; the oil consumption is now much more concentrated in the transport sector and less in the rest of the economy; the transport sector fuel consumption has been tamed by the government increases of fuel taxes and the total oil bill as a percentage of GDP have tended to be smaller. Inflation seems to be less of a problem for the OECD economy than a decade ago.

Moreover, new econometric models show that the negative effect of oil price shocks is smaller than what is conventionally thought. Traditional econometric models which consider non linear asymmetries consider that the impact of the oil price change is higher in the case of price increases than that of price decreases, with the result that oil price increases tend to have a larger negative impact on growth (Hamilton, 1996 and 2003) The same happens with traditional VAR models in a reduced form, which also tend to generate larger negative effects. By contrast new econometric models developed by the IMF, OECD and LINK, based on simultaneous structural equations, result in much less negative impacts on growth by oil price shocks. But still, the monetary response continues to be a key factor for the size of final impact. Thus, a less aggressive monetary policy response to the oil price shock and a lower degree of worry with inflation by central banks seem to be now more adequate.

Let's turn now to the ECB monetary policy in the Euro Area. Given that the euro has experience a nominal appreciation of around 60% against the dollar, since its minimum bottom of 0.82, at the end of 2000, to its top peak of 1.35 at the end of 2004, and keeps in an appreciating trend, a large part of its inflation impact and its reduction in the purchasing power of consumers has been compensated by its appreciation. This strong appreciation of the euro has also notably reduced its negative impact over the terms of trade. Therefore, its total negative effect in growth and inflation in the Euro Area could be much lower than elsewhere in the dollar OECD countries.

The strong appreciation of the euro helps, then, to compensate most of the imported inflation derived from the oil price shock, but, on the other hand, it has also a negative effect on the Euro Area growth rate. The ECB two econometric models, which look at the monetary transmission in the Euro Area, show that an appreciation of the nominal effective appreciation of the euro of 5% produces a reduction of the Euro Area harmonized inflation rate of between 0.48 and 0.54 percentage points in the first year, and of between 0.96 and 1.2 percentage points after thee years. But, at the same time, it produces a reduction in the Euro Area growth rate of between 0.45 and 0.91 percentage points in the first year and of between 0.81 percentage points and 1.31 percentage points after three years (Angeloni, Kashyap, Mojon and Terlizzese, 2002)

Thus, consumer inflation in the Euro Area, is being helped by the strong appreciation of the euro, thus, inflation should not be at present its major concern, but, by contrast, the negative effect on growth of such a strong appreciation should be its major cause of worry. Thus the ECB is confronted with a major dilemma. If it raises short-term interest rates it may abort or make the so long expected Euro Area recovery much more difficult. If it lowers them it may risk higher inflation, if oil prices keep maintaining their present level or increase further and the present fiscal expansion is not curtailed. This is the reason why it has made sense for the ECB to keep rates on hold for such a long time.

Nevertheless, at present there is much more certainty in the markets about a further appreciation of the euro than of further increases in oil prices, given that the future markets for exchange rates signal a larger appreciation of the euro over the whole 2005 and the forward curve of oil prices shows only a sustained level of oil prices for the same period. The twelve month consensus forecast for the euro versus the dollar is close to 1.40, from the current 1.35, while the twelve month forecast for the barrel of Brent is 42 dollars, similar price to the present one. Therefore, its bias should be more towards lowering interest rates towards raising them and it should be ready to lower them if the euro appreciation starts to produce a major negative impact on growth. This has not happen yet because most Euro Area exporters had discounted in advance such appreciation and were already hedged, but it will be more difficult to do it now.

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Topic 4

Effects of enlargement on the euro zone

Effects of enlargement on the Euro area

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

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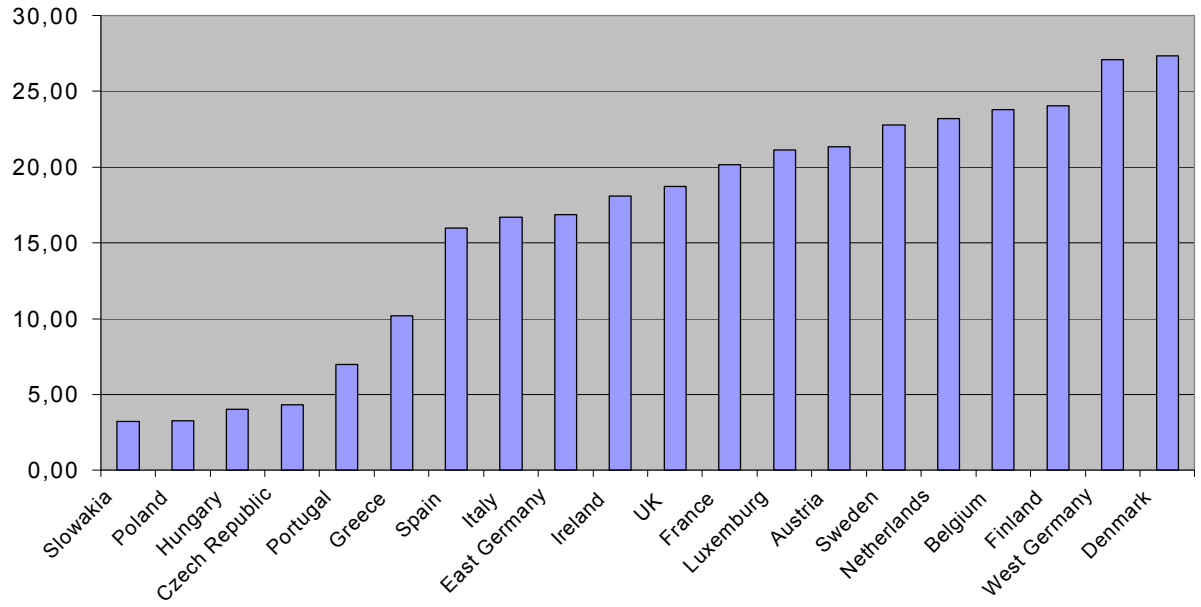
1. Some stylized facts

For a short assessment of the impact of enlargement on the Euro area it is important to highlight some stylized facts of the 10 acceding countries (AC-10) in comparison with the previous European Union (EU-15) and the Euro area:

- The economic size of the AC-10 is relatively small. Their GDP share in the EU-25 is only 4.5%. In a hypothetical monetary union with the present 12 Euro area members and the AC-10 their GDP share would be 5.7%.
- The economic structure of the AC-10 is much more agricultural (15.8% of total employment) and more industrial (31.2%) than in the EU-15 (3.9% and 28.2%).
- The openness of the AC-10 economies is rather high. In 2002 the degree of openness in the AC-10 was 99% of GDP, while it was 69% in the weighted average of the EU-15 (including intra EU-trade).
- Income levels in the AC-10 are still relatively low. In 2002 their per capita GDP (measured in PPP units) reached 40% of the EU-15 level.
- Accordingly, wages in the AC-10 are much lower than in the EU-15. Data by the Institut der Deutschen Wirtschaft show that hourly wage costs in the new member countries in 2003 were only 12% to 15% of the wage costs in Denmark which currently has the most expensive wages in the EU (Chart 1).

Chart 1: Hourly wage costs in selected EU countries (in Euro)



Source: Institut der deutschen Wirtschaft

2. Impact on the conduct of monetary policy by the ECB or on the philosophy and strategy which guides the ECB

As the ECB is only responsible for economic developments in the Euro area in its present size, developments in the new member countries should not and did not have an impact on the ECB's interest rate decisions and more generally on its monetary policy strategy.

Because of the very low share of the new members in the GDP of EU 25, price developments in these countries would have very little influence on the HICP of an enlarged Euro area and thus on the ECB's interest rate decisions. For instance, in 2004 the EU-15 inflation rate was 1.9% and 4.1% in the AC-10. For the EU-25 this leads to an inflation rate of 2.0%. Thus, even if due to the Samuelson-Balassa effect the inflation rate in the new member countries were to remain significantly higher than the ECB's target for price stability, this would not imply a significantly more restrictive policy stance for the present members of the Euro area.

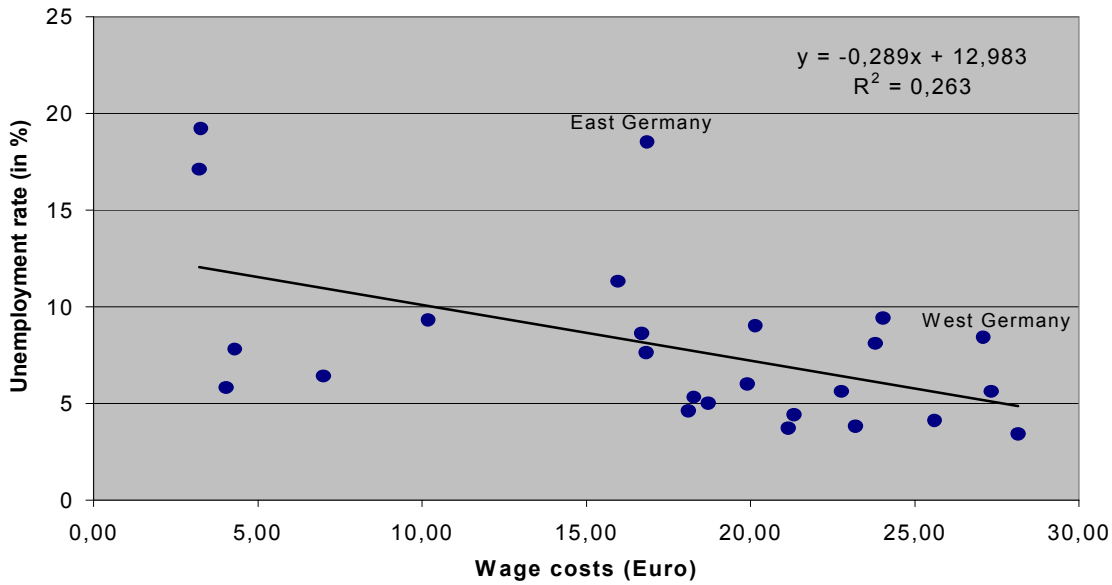
As far as the ECB's philosophy and strategy for monetary policy is concerned, the enlargement of the Euro area requires per se no major modifications. When the majority of the AC-10 will enter EMU, they will have experienced almost two decades of economic transition so that a special treatment would not be warranted. Given a slight Samuelson-Balassa effect, the ECB might consider to shift from its target "of below, but close to 2 percent" to a more transparent target of 2 percent.

The only area where some special treatment might be considered is the support of the AC-10 in the interim phase of ERM II membership. According to the ERM II rules the unlimited intervention support by the ECB is only available if a currency reaches the lower limit of the very broad ± 15% band. In a situation of a speculative attack an abrupt depreciation to this margin could have negative effects on market confidence. Therefore, it could be useful to intervene intra-marginally well before the lower threshold is reached. But for such intra-marginal interventions the ERM II facilities which are available for an AC-10 country are extremely limited. Thus, the ECB might consider and publicly express an early support in the case of speculative attacks as long as the overall macroeconomic situation in an ERM II member country is in line with the broad policy guidelines.

3. Downward pressure on wages

It is well known that the wages in the new member countries are much lower than in the present Euro area countries. Especially in the Germany, the threat of outsourcing towards new member states plays an important role in the public debate and has lead a growing erosion of the traditional centralized wage bargaining system ("Flächentarifvertrag"). The German discussion is very much dominated by the view that the relatively high unemployment rate in Germany is due to high labour costs. But as Chart 2 shows for the EU 15 plus the Czech Republic, Slovakia, Poland and Hungary, there is no such thing as *positive* correlation between wage costs and the unemployment rate. This applies above all to Germany, where in East Germany wages are only 62 % of the West Germany level, but the unemployment rate is almost twice as high.

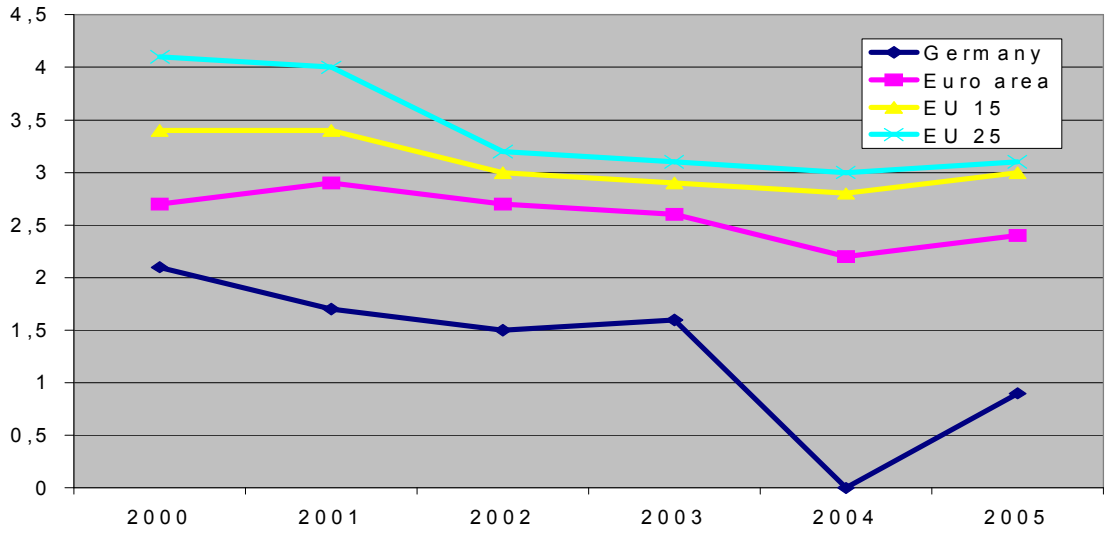
Chart 2: Unemployment rate and hourly wage costs in EU 15 plus Slovakia, Poland, Hungry and Czech Republic



Source: Institut der Deutschen Wirtschaft

As a result of this debate in 2004 a strong negative wage drift has lead to a stagnation of nominal effective wages. This reflects a longer-term trend of a pronounced wage moderation of Germany compared to the average of the Euro area (Chart 3).

Chart 3: Compensation of employees per head (percentage change on preceding year)



Source: European Commission

The result of this moderation is strongly growing trade surplus of Germany vis-à-vis the other EU member countries. This may have a dampening effect on wages in the whole EU-15. Thus, there is a risk that the enlargement process is no longer leading to an upward adjustment of real wages in the AC-10 to the EU-15 levels, but, at least partially, to a downward adjustment especially in the high wage countries towards to the AC-10 levels.

Economically such an adjustment is neither necessary nor desirable. The experience since the early and mid 1990s, when the first so-called Europe Agreements were concluded between the EU-15 and the current Member States, does not call for such a race-to-the bottom. While the EU-15 imports from the AC-10 did increase significantly, the EU-15 exports to this country group grew almost at the same pace. As a result the overall trade balance of the EU-15 with the AC-10 remained positive throughout the last 15 years.

In the same vein, the development and the size foreign direct investment of the EU-15 in the AC-10 is not alarming. In 2002 the EU-15 invested about 12% of their total FDI (outside the EU 15) in the AC-10. From the perspective of a single country the share is even smaller. For instance, in German FDI the share of the AC-10 in the period 2001-2003 was only 6%. In addition, it is well known that FDI is not only motivated by cost considerations but also by the intention to enter and to develop new markets.

Thus, in order to avoid an undue and potentially deflationary wage moderation in the whole Euro area, it would be advisable to develop a common guideline for stability-oriented wage developments. As already emphasized by the European Council on 25 June 2003, wages in the EU 15 should increase in line with national productivity increases plus an inflation compensation which equals the inflation target of the ECB. This would reduce inflation differentials in the Euro area considerably and would avoid a dangerous low wage competition between the Euro area member countries.

Effects of enlargement on the Euro area

Briefing Paper for the Monetary Dialogue of February 2005 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

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A priori one would not expect enlargement to have highly visible effects on the eurozone. There are two reasons for this: first, the relative economic weight of the new member countries is small. Secondly, most of the economic effects of enlargement should concern trade, foreign direct investment and the relative price of certain labour intensive goods, with only a weak and indirect impact on monetary policy and other macroeconomic variables.

Formally, enlargement took place in May of 2004. This event did not have important economic consequences per se. However, the entire process, which started almost 10 years ago (and which includes also Bulgaria and Romania) will have significant economic consequences as it increases the supply of labour by more than a quarter and adds substantial new opportunities for trade, investment and specialisation. Moreover, the new member countries are mostly smaller and more open than the incumbent members, which will increase policy competition in a number of areas.

Enlargement: a process rather than a point in time

On May 1, 2004 ten new member states joined the EU. However, "all" that happened on that day was that the EU's acquis communitaire became the law in the new member states. In order to make this happen a decade of intense preparations on both sides was necessary and it will certainly take another decade before the full consequences of this enlargement will be felt. Enlargement should thus be viewed as a process, not a single event taking place on one day.

The development of this process is strongly influenced by the different speeds of adjustment of different markets. For example, capital markets tend to anticipate events. Once accession becomes a virtual certainty capital tends to flow into the future member countries. This capital flow can take a variety of forms, but the most important one so far has been foreign direct investment, which incorporates usually also the transfer of new technology.

But there are other markets that react more slowly and some markets have not been allowed to adjust to enlargement. This applies in particular to the labour market. As most euro zone member countries have decided to keep restrictions on the movement of workers for probably another 6 years it is apparent that the full impact of enlargement on labour markets will be felt only the next decade.

Was it such a big deal?

It is often argued that this last enlargement was unprecedented in terms of the increase in population and other measures. However, this is not the case if one considers the size of the countries that joined during previous enlargements, relative to the size of the EC they joined: This last enlargement leads to an increase in GDP of less than 5%, much less than the Iberian enlargement. Looking at the increase in trade flows this enlargement is also marginal as the 10 CEECs (thus including not only the 8 CEECs from the 2004 wave, but also Romania and Bulgaria) account only for 11% of the external trade of the incumbent EU-15. This is more than Spain and Portugal, but less than the increase during the first enlargement. Even in terms of the increase of the population, this enlargement is not qualitatively different from the Iberian enlargement. The population increases by 28% including all 10 CEECs, or around 20% if one considers only the wave of 2004, close to the value of 17.5% for Spain and Portugal. (These percentages are calculated for the entire EU, not the eurozone, but the proportional impact on the eurozone should be the same as for the entire EU.)

For those looking ahead to future enlargements it is interesting to note that accession of Turkey will be even less important in economic terms than this enlargement. Moreover, one rule of thumb might become very useful: Turkey equals 2-3 times Romania; it has a very similar GDP per capita, a track record in terms of growth over the last years, a similar share of Agriculture, and also problems with macroeconomic stabilization.

Table 1: Size of this enlargement compared with previous ones

	Population	GDP in euro	Trade
UK+DK+IRL as % of EC-6	33.5	27.9	13.1
E+P as % of EC-10	17.5	8.3	4.7
CEEC-10 as % of EU-15	28.0	4.1	10.9
Turkey as % of EU-15	17.0	2.4	7.0
Turkey as % of EU-25	13.2	2.3	6.0

Source: Own calculations of EU and EBRD data

What is the economic impact of enlargement?

Table 1 above showed that the economy of the EU-15 is 20 times larger than that of the 10 (and even the 12) new members. This implies immediately that the impact on the economies of the EU-15 will be marginal, but there can be no doubt about the sign of the impact. Enlargement will be beneficial for the incumbents as well. The overall economic impact of enlargement cannot be described by the increase in trade or investment flows. One should rather look at the net welfare gains. In this respect there can be little doubt that enlargement does not just lead to a cost for the EU's budget, but also to non-negligible welfare gains for the incumbent EU members.

These gains are real, but of course much smaller in terms of EU-15 GDP than the gains for the new member countries whose economies are still relatively small. The key for any estimate of the welfare gains to the EU-15 is that expansion to the East increases trading opportunities for them as well. The new member countries account for less than 5% of the EU-15 GDP but about 10% of the EU-15's external trade. Enlargement thus increases the internal market (and after some time, also the common currency area) by about 10%. It has been estimated that the internal market among the current 15 EU members yields welfare gains of about 4-5% of GDP. This implies that the gain to present EU members from the inclusion of the ten new members in the internal market should thus be about 0.4-0.5% of GDP, or about 38-48 billion euro p.a. The welfare gains from enlargement would thus be about twice as large as the budgetary cost, which is likely to be around 0.2-0.25% of the GDP of the EU-15.

This approach is likely to be a lower bound for the welfare benefits because it does not take into account that the differences in capital labour ratios between the old and the new member countries creates a huge potential for capital reallocation. Hence, another approach starts from the differences in factor endowments and asks what could be gained through a re-allocation of capital towards Turkey (through direct investment and other channels). Gros and Steinherr (2004) estimate that a full convergence of capital labour ratios between the EU-15 and the ten Central and Eastern European countries (the 8 that entered during 2004 plus Romania and Bulgaria) should increase income in the incumbent members by a bit over 1%. This is substantially more than the previous estimate and one could argue that it should come in addition to the first estimate, which was implicitly based on savings of transactions costs.

Has enlargement had any visible repercussion on the conduct of monetary policy by the ECB or in the philosophy and strategy which guides the ECB?

No effect has been visible so far and one would not expect this to change.

Has enlargement affected or will affect Euro area inflation?

Enlargement might affect a number of relative prices (labour intensive goods imported from the new member countries might become cheaper whereas capital equipment might become more expensive). But there is no reason to expect that this will affect the overall price level.