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# ECB rate rises and inflation expectations

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**

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The interest raise on December 1st 2005 signaled a change in the ECB very cautious and inactive stance on monetary policy for the last two and a half years. In general, it has been well received by many market participants because it reassures the credibility to the ECB as an inflation fighter, but, at the same time, it has been also much objected, as too premature, by many academics, analysts and investors. Moreover, the way the hike was communicated to the markets and to the public in general has produced additional confusion and worries about the future communication strategy of the ECB.

## The rationale behind the interest rate increase

The rationale for the rate hike was, according to what the ECB President said at his press conference, the following: first, it was needed "to adjust our accommodative monetary policy stance… and keep medium to long-term inflations expectations in the Euro Area solidly anchored at levels consistent with price stability". Second, because "we judge that with this new level we are in line with our mandate to preserve stability". Third, we need "to cope with risks that we see, before they materialize, otherwise they will no longer be risks and it will be too late to react". Fourth, "with this moderate increase in our rates, we have gained in terms of credibility, we have gained in terms of forward break-even rates and we have proved that our own interaction with global markets was making them judge that we were right in doing what we have done".

The initial perception by the markets about the rate increase was that it came as the result of a trade-off in the Governing Council (GC) between those members who wanted to wait and those who wanted a higher increase. Its President somehow confirmed this perception by saying: "We have various views inside the Governing Council… You exchange all possible sentiments, arguments… Some perhaps could have imagined rates would have been higher, while others would have thought we could wait still. But after the discussion those who wanted to go higher considered it was correct to have 25 bps".

The fact is that the ECB staff projections could have been used as an argument for raising rates as well as for waiting longer to raise them. The inflation rate forecasts for 2006 were revised up from 1.9 per cent to 2.1 per cent and, for 2007, the forecasted range oscillate between 1.4 per cent and 2.6 per cent, that is, it was centered at 2.0 per cent, (by incorporating Germany's VAT 3 per cent hike) otherwise it would have been centered at 1.7 per cent. The growth forecasts range for 2006 was revised up slightly from being centered at 1.8 per cent to being centered at 1.9 per cent and for 2007, at 1.9 per cent as well. Although the ECB President said that these projections were in line with those of various international organizations, the inflation forecasts by the OECD were lower, given that it still sees "core" inflation leading "headline" inflation to converge to its present rate of 1.5 per cent. The ECB, by contrast, sees headline inflation leading core inflation to its 2 per cent rate. Its President said that "it is very misleading to trust that core inflation is always a good predictor". (This issue will be discussed later in this briefing paper).

In sum, looking at the forecasts it seems clear that the ECB GC could have waited longer before raising rates given that medium term inflation seems to be well anchored in spite of the ECB staff range for 2007, which in my opinion is excessively wide (because 1.4 seems too low and 2.6 looks too high), and growth prospects for the two years do not show yet any major upward acceleration. Finally, looking backwards, the urgency of the hike does not seem to be warranted, especially when the ECB has been able to achieve a strong credibility as an inflation fighter in spite of inflation being out of its target for years while interest rates were kept low in the last two. But in any case, it must be recognized that the 25 bps rate increase is not an important movement and its impact will be small.

## The way the rate hike was communicated

For the first time in the very short history of the ECB, its President unexpectedly announced an interest rate hike two weeks in advance to its next GC meeting and only two days ahead of his quarterly "monetary dialogue" before the European Parliament ECON. Moreover, he preferred to choose a conference on banking in Frankfurt (unrelated to the subject of monetary policy), on a Friday, for announcing the hike instead of doing so before the EU Parliament the next Monday, which it would have made more sense. Finally, he announced the rate increase by surprise given that, two weeks earlier, at the end of his previous GC meeting in early November he said that "rates were still appropriate" and in October he said that "he was not pre-announcing a rate increase".

After the GC meeting on December 1st, the President launched another indication suggesting that the ECB was "not engaging, ex ante, in a series of interest rate increases". This sentence was introduced, most probably, to reassure markets, which feared that the ECB was acting prematurely (the Bank of Japan supposedly killing off recoveries in the 1990's by tightening policy, after limited signs of economic revival, is still very vivid in the memory of investors). That was, again for the first time, an unusual "forward looking indication" on future rate movements send by its President. Nevertheless, although this signal appeared "dovish", the "ex ante" nuance introduced in the phrase, could make it to end being rather "hawkish", given that "ex post" the ECB could decide to make as many rate increases as necessary if its new data on expected inflation and on the path of growth recovery would make them appropriate.

This new change in its communication strategy could be perceived by the markets as a return to the European central bankers' traditional "old style". The latter were used to be "masters in ambiguity" in order to consistently surprise markets to make monetary policy more effective. By saying, just after the 25 bps hike, that "the ECB (ex ante) was not engaging in a series of interest rate increases", the ECB was trying to reassure the markets that the rake hike may not be repeated in the successive months, so markets would not priced in more consecutive increases, at least in the near term.

This ambiguity has proved to be successful, given that the ECB was able to send a dovish rate movement indication but, at the same time, leaving an open door to raise rates when needed and the markets have not priced in any long series of hikes. To confirm that the ECB was keeping an open the door for further hikes, a few weeks later, the ECB President announced in London, at a meeting of the Institute of Economic Affairs, that "the ECB would raise rates if new information modified the present ECB perception about the risks to price stability" and he also said that "present experience shows that the market has understood this principle" and so reconfirming that the markets have well understood that "ex ante" the ECB may think one thing but "ex post" may do another one, if necessary.

These apparent changes in communication are raising again the critique about the ECB communication strategy and putting further pressure on the ECB by the markets to publish the minutes of its GC meetings. There is no doubt that the ECB has embraced a model of transparency and intense communication, breaking from the previous tradition by European central banks, for instance: The ECB President holds a long press conference after each meeting, unlike the US Fed or the British Monetary Policy Committee (MPC). The ECB monetary policy reports are published monthly, while the MPC does it quarterly and the Fed bi-annually. Its economic forecasts are released quarterly (as the MPC), while the Fed does it bi-annually. The main difference with the other two central banks is that the ECB does publish neither the minutes of the GC meetings nor the precise voting result.

Financial markets in general seem to prefer the publication of the minutes to the press conference for achieving more predictability, but the ECB main argument for not doing it is that there is an important difference in decision making among the three central banks, namely, that at the ECB decision making is collegial, therefore, its communication strategy should be collegial as well. The reason for being collegial makes sense because the appointment of the ECB GC decision makers is partly a responsibility of the Member States, so accountability should be more collegial than individualistic. The same system is followed, for the same reason, by the European Commission and the Court of Justice. By contrast, at he FED, decision making is collegial, but its communication is individualistic and at the MPC decision making is individualistic but its communication is collegial, so they have opted for mixed systems.

The fact is that ECB collegial communication strategy appears to make it more predictable to the markets than the other two central banks. A BIS study, in its annual report for 2004, shows that the 90 day forecast error made by future interest rate markets was approximately 13 bps for the ECB against 20 bps for the Fed and the MPC, but this rather small difference is due to the fact that the Euro Area underlying economic situation is less volatile and that the ECB tends to be less active at moving rates than the other two. Other tests by monetary policy academics on predictability show similar favorable results for the ECB.

It must also be said, in favor of the ECB, that its monetary policy strategy is much more difficult than in the US or in the UK, for a very simple reason: while Euro Zone monetary policy is conducted collectively by the 12 national central banks governors and the 6 members of the ECB executive board on the basis of a fully integrated framework (the GC), their budget policies are prepared individually by the 12 countries, at different times in the year, based on their national macroeconomic assumptions and submitted to their national Parliaments for approval without much coordination with the rest of the other members and with little attention paid to the European forecasts made by the EU Commission and often to its annual Broad Economic Policy Guidelines as well. Therefore, more European level coordination of budgetary policy among Euro Zone members would make ECB monetary policy easier.

Some of the ECB decision making and communicating problems derived from the need to get a collegial consensus within the GC, between the doves, the hawks and those in the middle. This is the reason why its President needs to play a very important role by showing his skills and his personal and institutional leadership, what is not so easy when dealing with highly independent and reputed academics and very experienced central bankers, many of them with different points of view about how monetary policy should be conducted and about its “real” short term effects on economic activity.

In any case, it still would be a very positive step if, at a given point in time in the future, the ECB would debate whether publishing the GC meetings minutes, without attribution to any of its members. That step would make it easier for the public and for the markets: to understand the difficulty and complexity of its decision making process; to see that all alternative views have been expressed and debated and also it would allow an easier consensus within the GC, because members would be formally more cautious in the way they are putting forward their views and their arguments. This step would also avoid the present "noise" that every month arises out of the increasing number of GC members (now 18, but soon many more) who tend to express their own views, although markets understand that they following a well intentioned ECB policy of communicating with markets, institutions and the public in general.

Alternatively, another important improvement step in the ECB communication strategy to the markets should come from not only explaining its rate movement decisions with greater detail but also to give, each time a rate decision is made, a monetary policy inclination or bias as is done by the FED, instead of using the more confusing different degrees of the "vigilant activity" of the ECB on prices, that is, "vigilance", "continued vigilance", "particular vigilance" and "strong vigilance". In sum, the ECB should eventually need to match its level of political transparency with its level of decision making process one, in order to become even more accountable and predictable.

## Inflation expectations and ECB monetary policy

It must be said that inflation expectations seem to be low and well anchored, even after more than two years with very low short term interest rates. One easy way of looking at expectations is the yield curve for the euro. At present there are only 0.5 pp between the three month rate and the forward rate for one year and a difference of 0.9 pp between the 3 month and the ten year bond yield, which does not make it steep. Moreover, the consensus is high because the interest rate forecasts by most important analysts are very close to the forwards.

Is the yield curve a good predictor of inflation expectations? There is no doubt that a rather flat yield curve, as that of the euro today, means that inflation expectations are perceived by investors as low and well anchored, this being the main reason why investors are ready to accept a lower yield than usual for the greater risk of investing long term versus short term. If the yield curve becomes inverted, as in the US or the UK today, it may also show that markets expect a recession or at least a pronounce reduction in the growth rate, after years of high and sustained growth. This is not the case of the rather flattened Euro Area yield curve, where, by contrast, growth is starting to pick up after years of serious weakness, so present low inflation expectations seem to be more a result of a credible monetary policy than of a falling rate of GDP growth.

Nevertheless, a flat or even an inverted yield curve may not be only a consequence of a successful inflation-fighting record and improved communication by central banks. In the three cases mentioned earlier, yield curves are also showing demand and supply changes. On the one side, a much larger demand of long term financial instruments due to the globalization of financial investment has been building up for some years. First, the higher savings of developing Asian and Middle East countries are being invested on OECD debt to diversify risk. Second, pension funds and other investment funds are looking desperately for long term bonds and other instruments, either forced by new government regulations or by a voluntary shift from equities to bonds, after their very negative experience in 2000 with the equity bubble burst.

On the other side, the supply of long term paper has been lower than before because many OECD governments are trying to reduce their large budget deficits and their high debt levels and many companies have already excellent and solvent balance sheets and debt to capital ratios after so many years of low interest rates and after making large investments to gain in productivity and earnings.

Nevertheless, there are some economic and monetary policy debates which need to be cleared up before being fully complacent with ECB monetary policy. The first is around how monetary policy needs to deal with the present energy price shock. The second is around the probabilities of a second round of effects of the energy price shock. The third is about if core inflation leads headline inflation or the latter leads the former. The fourth is about which is the neutral real interest rate in the Euro Area and finally, the fifth (and much older) debate is about the still apparent high weight that the ECB still gives to money supply growth.

## The monetary policy reaction to energy price shocks debate

To fight energy price shocks with monetary policy is a very difficult endeavor. The main reason being the dual effect that energy price shocks have in the economy, which, at the same time, tend to reduce the level of income and increase the level of inflation. A permanent rise in the price of energy leads, for energy importing countries as those members of the Euro Area, to a deterioration of their terms of trade (the ratio of the exports average prices to the imports average prices) and thus to a permanent reduction of their purchasing power and their equilibrium level of income. At the same time, as energy is used as an input in the production of most goods and services, its permanent increase affects the prices of most outputs and increases the general level of prices in the economy and thus reduces further the level of disposable income of their consumers.

After the experiences and lessons learned from the three previous oil price shocks, central banks know today that the optimal monetary policy reaction to them is to make a quick and precautionary raise in interest rates in order to keep inflation expectations well anchored. Other alternatives were used previously with very negative results. For instance, in the mid 1970s, central banks tried to counteract the effect of higher oil prices on income by stimulating aggregate demand under the pressure from economic agents which did not wanted to accept the oil shock reducing their disposable income. Its main result was an increase in the level of inflation which eventually triggered an inflation spiral across its pass-through by business to wholesale and retail prices and by trade unions to wages, without any final material impact on growth. As inflation expectations increased, central banks required to tighten substantially their monetary stance provoking a large output loss and eventually a recession.

Therefore, the two lessons learned from previous cases are: First, the greater is the resistance by economic agents to accept the negative consequences of the energy shock, which means like paying a tax to energy exporting countries, the more the central bank needs to raise interest rates later and the larger the ultimate negative impact on growth. Second, the slower is the central bank to make preventive increase interest rates in the emergence of a pass-through to other wages and prices, the worse will be the impact of the energy shock on growth.

Nevertheless, it should be recognized by central banks (notably by the ECB and the FED) that the present energy shock is happening under quite different circumstances than in the past and that they may risk overdoing their precautionary interest rate increase, provoking a downturn in economic activity. The reasons being the following: First, economies are much less energy intensive than before, for instance, oil intensity in the Euro Area has roughly halved since 1973. Oil consumption (in tones) relative to real GDP (in million euros at 1995 prices) has fallen from 160 in 1973 to 80 in 2001. Second, wage indexation is much less widespread than in the 1970s and, in the last ten years, wage moderation has been the rule in most of the Euro Area. Third, financial conditions have been now for many years very favorable and have allowed firms to engage in balance-sheet restructuring, reducing their debt to capital ratio, and to invest with high returns in their productive efficiency and flexibility, improving their earnings accordingly. Fourth, the pass-through of the energy price shock to consumer prices has been rather limited. Fifth, there are no signs yet of a second round of effects on wages and other prices, as it will be shown later.

Moreover, new research has found more subtle ways in which energy price shocks affect real economic activity, besides the well known terms of trade and inflation effects on to disposable income. The first is that higher energy prices dampen productivity growth in two ways: on the one side, by making obsolete that part of the capital stock which is more energy intensive and, on the other, by encouraging investment on saving energy consumption rather than on labor. The second is that lower labor productivity growth tends to depress economic activity in two ways. First, worsening the growth-inflation trade off, as well as lowering equity prices. Second, by worsening the inflation-unemployment trade off, that is, by increasing the NAIRU (the non accelerating inflation rate of unemployment) What is really dangerous about its lower labor productivity effect is that it means, on the one side, that growth tends to be lower, but paradoxically, on the other, that monetary policy needs to be tighter than expected because the economy is operating at a higher degree of resource utilization.

In sum, without demeaning the lesson learned by historical experience, monetary policy in the present context may need to be more cautious than in other previous circumstances because it may have more short term negative effects on activity than medium term positive effects on inflation.

## The energy price shocks second round effects debate

By contrast with previous energy price shocks, there is today a new environment which tends to keep wage inflation low. In the case of the Euro Area, wage growth has been dampened in the last couple of years by both a sluggish rate of growth and an increasing competition from low-cost emerging countries. In 2005, hourly labor costs rose on average around only 2.2 per cent and unit labor costs only around 1.1 per cent. There is not, of course, a clear certainty that wage growth may not pick up in the next months or years. This probability is what is worrying the ECB at the moment.

The fact is that, until now, wage growth has been low, in spite of the strong rise in energy prices, which under normal circumstances would have triggered some reactions by the trade unions trying to protect the purchasing power of their affiliated workers. The only justification for this performance is that the competitive and economic environment is today different than before.

Traditionally, there has been an inverted correlation between the unemployment rate and the wage growth rate: the higher the unemployment rate the lower the wage growth rate and vice-versa. Nevertheless since the mid 1990s wage growth has been less sensitive to changes in the unemployment rate and in the last two years, wage growth in real compensation per employee has declined to its lowest level, despite a decline in the unemployment rate by half a percentage point. One explanation for this non-conventional behavior may be that, in some large Euro Area countries, like Germany and France, their governments are promoting the creation of temporary (fixed term) employment for low skilled workers and thus, these contracts are pushing up employment artificially and reducing the average wage growth. Another, more permanent explanation, is that the acceleration in the process of globalization and the EU enlargement towards the East has also exerted a significant dampening effect on wage growth.

Enlargement is introducing new member countries slowly into the single market (without barriers) with much lower wage costs (and productivity) than the present western members and, therefore, while the labor costs of these countries will remain cheaper than in the present 15 members, there will be some pressure to keep unions and workers being prudent in their wage demands by fear of outsourcing or off-shoring of their employments to new members in the east. The same can be said about other new competing low wage countries in Asia. Therefore, a second round of effects, similar to those happening in previous oil shocks seems to be very unlikely and if there is one it will probably be rather mild.

## The "core" versus "headline" inflation debate

The ECB does not take comfort in the present currently low core inflation and it is quite worried about the possibility that overall or headline inflation will be leading core inflation and that the latter will go up to match headline inflation. The opinion of many economic analysts and academics is the inverse. They think that core inflation will lead headline inflation and the latter will go down to converge with the former. The ECB arguments for maintaining this different view are twofold. On the one side, the ECB thinks that it is not appropriate to exclude energy prices from the headline inflation measure. In the past, this exclusion has been justified on the basis of the volatility of energy prices, which are driven by global supply and demand conditions and show a large cyclicality, therefore, they affect significantly headline inflation but, in the medium term, energy prices tend to evolve more or less like core inflation (defined as headline inflation excluding energy and unprocessed food prices).

But the ECB does not seem to accept today this latter argument, because it believes that the process of globalization is altering relative prices and higher energy prices is going to be a largely permanent price to pay for exceptional growth in some economies of Asia, which are pushing up their demand for energy and, in turn, supplying the rest of the world with cheaper manufacturing good prices. Therefore as energy prices are going to keep being high (but not growing further) for quite sometime, contributing significantly to Euro Area inflation over the medium term, they should not be excluded from headline inflation.

The second ECB more substantial argument about the headline/core inflation debate is that it rejects core inflation as a proxy to price stability, because measures of core inflation have, at least in the past, been shown to lag behind, rather than lead, the developments in headline inflation.

The truth is that, when looking at the two different measures of inflation in the Euro Area over the past ten years, core inflation seems to move towards headline inflation rather than the other way around. The ECB rationale for this trend to continue in the next two years is according to the ECB that subdued wage and other prices pressures may finally appear (as they did in 2000/2001) given that growth in the Euro Area is again starting to pick up and would tend to move core inflation up towards headline inflation in the near future.

The ECB staff projections are consistent with core inflation rising from an average of 1.5 per cent in 2005 to an average of 1.8 per cent in 2006. Nevertheless, some private analysts think that core inflation may remain stable in 2006 at around 1.5 per cent because inflation pressures will tend to remain subdued. The reason for this view is that, on the one side, firms, contrary to 2000/2001, are still on a cost reduction mode, with a cautious stance on capacity expansion and hiring and with a negative stance for undue wages increases and, on the other side, workers are also cautious about asking large wage increases because they fear more outsourcing and off-shoring activities to the new EU member countries and to Asia. If this proves to be the case, productivity growth will pick up dampening unit labor costs and, therefore, core inflation.

The empirical evidence about who is right and wrong in this debate will be known soon, first, after the results of the German, French and Italian wage rounds and later, through the publication of inflation data until the end of 2006. It is understandable for the ECB to worry more about inflation than the rest of the analysts because it needs to gain credibility as an inflation fighter and to avoid inflation keeping above its medium tem target (as it has happened for most of its short historical record) but it is also a fact that, up to now, its worries about an expected upward move by core inflation towards headline inflation has not yet materialized. Only if, in the next months, the euro weakens against the dollar and/or the oil goes up above $70 for sometime, which it does not to be expected, then the ECB will prove to be right, but against its own projections.

There are also some divergent views about the evolution of headline inflation. The ECB staff projections for headline inflation show that if oil prices remain more or less stable around $60 a barrel of Brent average headline inflation will be centered around 2.1 per cent, in 2006, and around 2.0 per cent, in 2007 and in the next three years. Other forecasts by private analysts show different and less worrying results because being the weight of energy in the CPI basket 8.6 per cent and assuming a stable EUR/USD exchange rate and no second round effects, for inflation to grow 0.3 percentage points, average Brent oil prices should go up to $71 per barrel in 2006 and to $92 per barrel in 2007, large upward movements which have a rather small probability.

## The “neutral” real rate of interest debate

After the December move in interest rates by the ECB, its President said that the rate hike should not be seen as a first of many, (at least, “ex ante”), so markets are expecting that official rates at around 2.75 per cent at the end of the year. Nevertheless, some analysts, using the Taylor Rule (TR), argue that official interest rates will rise well above 3 per cent over the next 10 months. The ECB has suggested, rightly so, that to base the interest rate forecasts exclusively on the Taylor Rule is flawed.

The TR was never meant, by his father John Taylor, to be prescriptive, but only descriptive. It was used originally as an empirical description of the way the US FED set interest rates during the period 1982-1994. John Taylor found out that the real Fed Funds rate seemed to respond, with equal sensitivity, to movements in spot inflation and to the estimated output gap, (the difference between actual and potential GDP growth) around an apparently stable level of the neutral real interest rate. He did not claim that this is how policy should be set, but simply, how it was set by the FED during this particular period of time.

But, in any case is also understandable to rationalize why monetary policy has behaved in that way. If a central bank wants to stabilize the economy, it should raise rates when growth is above trend or potential, (because if productive capacity is close to full utilization it will feed inflation) or when spot inflation rates rise consistently over its target. Nevertheless, the TR ceased to work so well in the late 1990s, even as a descriptive analysis of monetary policy. For instance, in 2001 and 2002 the FED cut down rates below the level dictated by the TR because it was worrying about the possibility of deflation.

One reason for the breakdown of the TR is that the "neutral" level of real rate of interest appears to be lower than when it was first estimated by John Taylor. For instance, in the Euro Area, the simple TR cannot explain why the ECB rates have been as low as they have been over the past three years. The problem is that if the shift downwards in global interest rates is unrelated to monetary policy, reflecting low investment spending in OECD countries or high saving in the emerging countries, then monetary policymakers in the OECD have no other choice than to accept it, since imposing higher real interest rates would tend to lower inflation, but also, to raise the real exchange and to reduce growth.

Therefore, as a general rule, it makes sense for most central banks to tend to raise rates when growth is above long term trend and when spot inflation goes up, but the correlation between the two does not need to be stable and precise. Many monetary analysts and the ECB know that TR works better if it is based on changes rather than on levels and that the neutral real interest rate is not constant but changes over time. For this reason, a simple TR is not stable when estimated for the Euro Area and it is now a poor predictor of inflation expectations. This is the reason why it is not used or followed, in its more simple form, by the ECB.

## The money supply growth as a target or a reference debate

There is a growing perception in the markets that the ECB is again more "vigilant" about the second pillar than usual and that the present high growth rate of money, (more than doubling the 4.5 per cent reference value), may have been an important element taken into account in the GC decision to increase rates last December. This issue has reignited the traditional debate about the relevance of money growth for monetary policy as a target or as a reference.

It is today accepted, in general, that money and credit growth targets or references can be still be a useful toll for assessing asset price inflation, which has become an important issue in recent years, before in equity prices and now in housing prices. As a matter of fact the ECB has been warning about a house price overheating in some Euro Area countries, notably, in France, Italy, Spain and Ireland and lately also about a sharp increase in the ratio of mortgage debt to GDP, which has come up from 25 per cent in 1999 to more than 35 per cent in 2005. But at the same time, there is today an ample consensus, at least among academics and analysts, about the lack of any utility of money growth as a good predictor of headline inflation in the short to medium term.

In the last decade, the link between money growth and inflation has become increasingly imprecise and the present combination of low inflation and fast financial deregulation and innovation has eroded the stability of monetary aggregates, of money demand functions and, thus, the usefulness of money growth references or targets to monetary policy. This is the reason why today many developed and developing countries have switched from money growth targeting to inflation targeting (IT). Of all the major central banks only the FED has not a specific inflation target but maybe its new President, who has been a true believer on IT for many years and a staunch defender of switching to it, may break the previous tradition.

Although the Bundesbank was very successful in keeping inflation under control for some decades using money growth targets, new evidence (including that contributed by the new FED President) has shown that it missed its monetary targets very often, for instance, between 1979 and 1997, it missed it eleven times out of nineteen. Therefore, its success may have been due to something more than to its money growth targeting (some economists still think that the Bundesbank may have been using inflation targeting as a second pillar as well).

Something similar (but in the opposite direction) has been, apparently, happening at the ECB. It has been missing its harmonised HICP target of 2 per cent for some years while keeping its money growth target within its reference value of 4.5 per cent and, conversely, now its HICP is closer to target in spite of money growth being the double than its reference value. There are several reasons that can explain this paradoxical outcome.

The first one is that there is no systematic relationship between monthly variations of M3 and central bank money (defined as the sum of bank deposits with the ECB and bank notes in circulation), which the ECB tries to influence directly trough its refinancing operations. Moreover, the correlation between the stocks of central bank money and M3 appears to be very loose even over longer periods of time. This outcome contradicts textbook assumptions of a fixed money multiplier and points to the importance of the banking system in generating money growth. Therefore, manipulations of the stock of central bank money through refinancing operations will not help to bring M3 growth closer to its reference value. Rather, the ECB needs to use interest rate changes to influence money creation in the banking sector as well as real GDP and the portfolio preferences for liquid funds, which really determine money demand.

The second one is that the ECB M3 reference value seems to be not well measured. On the one side, using the same ECB model of estimation of a stable function of the demand for M3 (that is, using an error-correction model, ECM it has been found that the money growth target of M3 compatible with a stable function of money demand is around 6 per cent, instead of 4.5 per cent. On the other, both higher potential GDP growth (due to a larger labour input growth and capital stock growth) and lower velocity of money (due to an increasing preference for liquidity, thanks to low inflation) increase the M3 compatible reference value up to 6.25 per cent. The same happened before to most central banks that were using money growth targeting. They had to be continuously changing the measurement of M3, due to financial deregulation and innovation, until they decided to move to inflation targeting because it proved to be more efficient. Moreover, even a situation of a stable money demand function does not imply that monetary targeting is advisable or that the money growth indicator is a good predictor of future inflation and there is no evidence that current money growth helps to predict future inflation in the Euro Area because there is no information in money growth that is not already available in other indicators.

The third one is that the two pillars seem to stand next to each other with little apparent connection and the ECB relates to one or the other to justify interest rate changes. Such a strategy has led to confusion, the reason being that interest rate changes affect variables in both pillars. Thus, it would be wrong for the ECB to set interest rates with a view to specifically address M3 growth since an interest rate increase affects not only M3 growth but also economic activity. The two pillars are interconnected and should be seen in conjunction. Although there are no signs of instability in the long run demand for money, the short-term demand for money tends to be unstable, inducing money growth to fluctuate substantially and over significant periods of time around its inflation neutral level without creating inflation. A reaction of monetary policy to these fluctuations could destabilise the economy.

What should, therefore, the strategy of the ECB be? A combination of the first and second pillar, relying in one pillar only, would be a good decision. All the information in the monetary aggregates that has implications for future inflation should be combined with other relevant information such as output gap estimates, cost and wage developments, international financial and monetary developments, exchange rate developments, private sector inflation expectations, etc. in order to construct reliable inflation forecasts (this is what the Swiss National Bank has recently done) Such a combination would make monetary policy decisions less confusing and easier to explain to the markets and it will be very well received both by the markets and the academics, enhancing the credibility of the ECB. Money growth should be one relevant indicator, among others, for monetary policy, but not a permanent reference or a target. The ECB mission is to maintain price stability in the medium term. The growth rate of M3 should only be a servant in this mission and not a target in itself. There should be, of course, a nominal anchor, and the money growth rate has been in the past the best one, but experience and research have proved that inflation targeting is a better one.

# Possible Entry into the Euro Zone of New Member States in January 2007

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**

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## Executive Summary

It is likely that the euro zone will be enlarged within one year. Some of the new EU Member States - e.g. Estonia, Lithuania and Slovenia - have adopted already ERM (Exchange Rate Mechanism) II and aspire to adopt the euro on 1 January 2007. Having entered EU recently, the new Member States face a difficult decision. It seems likely that the divergence of inflation and output (business cycles) between the 'old' and 'new' EU Member States will be further increased in a larger Economic and Monetary Union (EMU). What are the nominal and real implications of the entrance of new Member States? First, we discuss the nominal convergence in the short to medium term: how large will the inflation differentials be between the old and new EU countries? Second, we analyze the real convergence in the medium to long term: how synchronized are the business cycles? Third, we focus on the differences in financial structure: do they lead to diverging transmission of monetary policy measures? Finally, we formulate some conclusions for the possible entry of the new Member States into the euro zone. The first conclusion is that the future euro area countries will have to trade off exchange rate and price stability depending on their inflation differentials with the current euro area countries, implying that the Maastricht Treaty convergence criteria for exchange rate and price stability are in their present form incompatible. The second conclusion is the enlargement of euro zone reinforces the argument for reform of the monetary policy decision-making process of the ECB as most future euro area countries are subject to different macroeconomic shocks and thus different business cycles compared with the current euro area countries.

## Introduction

The purpose of this Briefing Paper is to discuss the implications of the upcoming enlargement of Economic and Monetary Union (EMU) in Europe. The current euro area countries will be joined soon by a number of new EMU entrants that have a substantially lower income per capita. As of May 2004 the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia have joined the European Union (EU). After a two-year waiting period, their convergence will be evaluated based on the Maastricht Treaty convergence criteria. It is likely that EMU will be enlarged within two years time. Some of the new EU Member States - Estonia, Lithuania, and Slovenia - have adopted already ERM (Exchange Rate Mechanism) II in June 2004, Malta, Cyprus and Latvia followed suit in April 2005 while Slovakia joined ERM II in November 2005. All of these countries will join EMU probably after a two-year period within ERM II, as they do not have an opt-out clause. We will assess the Maastricht Treaty convergence criteria and how consistent they are for the heterogeneous set of new EU countries. What are the nominal and real implications of the entrance of new Member States? First, we discuss the nominal convergence in the short to medium term: how large will the inflation differentials be between the 'old' and 'new' EU countries? Second, we analyze the real convergence in the medium to long term: how synchronized are the business cycles? Third, we focus on the differences in financial structure: do they lead to diverging transmission of monetary policy measures? Finally, we formulate some conclusions for the possible entry of the new EU Member States into the euro zone.

## The Maastricht convergence criteria: is there a trade off between exchange rate stability and price stability?

EU membership does not imply immediate membership of EMU. However, the new EU Member States have no formal derogation from EMU membership as obtained earlier by the UK and Denmark. In other words, the new EU members have an obligation to join EMU. Before they can enter EMU, the new members have to fulfill the criteria as stipulated in the Maastricht Treaty. However, whether and when the accession countries satisfy the Maastricht criteria will be to a significant extent at their discretion. After all, Sweden has thus far evaded the obligation to join EMU by not satisfying the exchange rate criterion. (Buiter and Grafe, 2002). The four Maastricht convergence criteria are:

1. *price stability*: an average inflation rate (measured on the basis of the consumer price index) that does not exceed by more than 1.5 percentage-points that of, at most, the three best performing member countries.
2. *sustainable fiscal position*, meaning that there is no excessive deficit. An excessive deficit exists if:

- the budget deficit is higher than 3 per cent of GDP, unless, either the ratio has declined substantially and continuously and has reached a level that comes close to 3 per cent, or the excess over the 3 per cent reference value is only exceptional and temporary and the deficit remains close to 3 per cent;
- the ratio of gross government debt to GDP exceeds 60 per cent, unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.

3. *exchange rate stability*, meaning that the currency has respected the 'normal' fluctuation margins of the Exchange Rate Mechanism (ERM), without severe tensions for at least two years (especially no devaluation on the initiative of the member country concerned).
4. *low interest rate*, meaning that the average long-term interest rate should not exceed by more than 2 percentage-points the interest rates in, at most, the three best performing countries in terms of price stability.

Although these criteria have been criticized for their lack of theoretical foundation (see e.g. Eijffinger and De Haan, 2000), the old EU countries have made it very clear that the new EU countries have to stick to this part of what is called the *acquis cummunautaire*. In this paper we will focus primarily on the convergence criteria of price stability (1) and exchange rate stability (3) and whether or not they are compatible with each other.

Many studies have addressed the question of the proper exchange rate regime for the new Member States in the period between entering the EU and becoming a (full) member of the EMU. The exchange rate regime is a key determinant of a country's macroeconomic stability, which affects the investment climate. Apart from the perspective of future EMU membership, the choice of exchange rate regime is therefore of great relevance for the accession countries. Table 1 shows the exchange rate regimes of the (potential) new EU members at this moment.

**Table 1. Exchange rate regimes of (potential) new EU member states**

| **Country:** | **Exchange rate regime:** |
|---|---|
| Bulgaria | Fixed peg to euro (currency board) |
| Cyprus | *Exchange Rate Mechanism II* |
| Czech Rep. | Managed float to euro (inflation targeting) |
| Estonia | *Exchange Rate Mechanism II* |
| Hungary | Crawling peg to euro with band +/- 15% (implicit inflation targeting) |
| Latvia | *Exchange Rate Mechanism II* |
| Lithuania | *Exchange Rate Mechanism II* |
| Malta | *Exchange Rate Mechanism II* |
| Poland | Full float (inflation targeting) |
| Romania | Managed float (monetary aggregates targeting) |
| Slovakia | *Exchange Rate Mechanism II* |
| Slovenia | *Exchange Rate Mechanism II* |

*Source*: Adapted from De Haan, Eijffinger and Waller (2005).

An important (political) issue that will influence the timing of EMU membership is the interpretation of the exchange rate criterion as provided for in the Maastricht Treaty. A strict interpretation is that the new EU Member Sates should be a formal member of ERM II for *two or more* years following EU accession. However, Buiter and Grafe (2002) argue that the exchange rate criterion can be satisfied without the candidate country being an ERM II member. Italy and Finland (and later Greece) joined EMU right from the start, even though they had not spent two years in the ERM when they were admitted. More substantive, is the question of the proper exchange rate regime from an economic perspective. An important consideration in choosing an exchange rate regime is that the accession countries have to liberalize international capital flows as part of the acquis communautaire, making them more vulnerable to speculative attacks.

As follows from Table 1, the relatively smaller, new EU Member States - like Cyprus, Estonia, Latvia, Lithuania, Malta Slovenia and Slovakia - have adopted ERM II and the relatively larger ones - the Czech Republic, Hungary, and Poland - have chosen for (implicit) inflation targeting or monetary aggregates targeting. From the candidate EU-countries e.g. Bulgaria has opted for a currency board and Romania for monetary aggregates targeting. The Baltics have waived the scope for fluctuation of their currencies within ERM II on their own initiative by retaining their previously existing currency board arrangements. These voluntary and unilateral commitments, however, do not place any additional obligations on the ECB. By contrast, Slovenia had previously allowed the exchange rate of its currency to fluctuate within a specific band around a depreciation path as part of a crawling peg system. At the other extreme, a country may choose a floating exchange rate regime with an independent central bank with some kind of an inflation targeting strategy. A currency board runs the risk of a real misalignment. If a country's inflation remains higher than that of the pegging country, the currency can become overvalued (Pautola and Backé, 1998). While fixing the exchange rate is a fast way to disinflate an economy starting with a higher inflation rate, pegging the exchange rate will not necessarily reduce the inflation rate instantaneously to that of the pegging country. There are several reasons why inflation will not fall right away (Roubini, 1999). First, purchasing power parity does not hold exactly in the short run since domestic and foreign goods are not perfectly substitutable and the mix of goods and services in the countries concerned may differ. Second, non-tradable goods prices do not feel the same competitive pressures as tradable goods prices, thus inflation in the non-traded sector may fall only slowly. Third, as there is significant inertia in nominal wage growth, wage inflation might not fall right away. Often wage contracts are backward looking and the adjustment of wages will occur slowly. Finally, differing productivity growth rates may be reflected in differences in price increases (*Balassa-Samuelson effect*). If domestic inflation does not converge to the level of the pegging country, a real appreciation will occur over time. As Roubini (1999) points out, such a real exchange rate appreciation may cause a loss of competitiveness and a structural worsening of the trade balance, which makes the current account deficit less sustainable. It follows from the preceding analysis that a currency board with a peg to the euro may be the proper exchange rate regime for accession countries on their road to full EMU membership. Apart from the (related) risk of misalignment, there may, however, be a serious problem. Together, the exchange rate and the inflation criterion restrict the scope for changes in the real exchange rate of the accession countries vis-à-vis the euro. Due to the Balassa-Samuelson effect, the accession countries may experience higher inflation than the euro area in case of a nominal fixed exchange rate. This even leads Szapary (2000) to argue that the inflation criterion of the Maastricht Treaty should be relaxed or reinterpreted. To examine whether this conclusion is justified, we will now first discuss the literature on the Balassa-Samuelson effect in the transition countries.

## Nominal convergence in the short to medium term: how large will the inflation differentials be?

It is often argued that due to the Balassa-Samuelson effect, transition countries have experienced a real appreciation of their real exchange rates. As a consequence of economic restructuring, many transition countries have experienced rapid productivity growth in their industrial sectors. As productivity growth in the traded goods sector exceeds that in the non-traded goods sector, non-traded goods prices increase due to the wage equalization process between both sectors.

When productivity growth in the transition countries exceeds productivity growth in the countries in the euro area, the transition countries will have a higher inflation rate. According to Eurostat (2001), average productivity in manufacturing in transition countries was only about 40 percent of the EU average in 1998. Therefore, we can expect further high productivity growth. This restructuring will, however, take some time. During this period, these countries will probably experience higher inflation than the current EMU countries. There is clearly no consensus in the literature on the magnitude of the Balassa-Samuelson effect in the transition countries. Table 2 provides a summary of various recent studies. Estimates vary widely. Whereas Rogers (2001), for instance, estimates that the Balassa-Samuelson effect is likely to imply two additional percentage points of annual inflation in the accession economies, Égert (2002a,b) finds little evidence of a higher inflation rate due to the Balassa-Samuelson effect in the Czech Republic and Slovakia. The extremely high inflation differentials implied by sectoral productivity developments and labor shares for Hungary and Poland as reported by Backé, Fidrmuc, Reiniger and Schardax (2002) attract attention. According to these authors, their figures reflect mainly the massive gains in productivity in the tradable-goods sector that have been achieved during the 1990s in these two countries. They argue, however, that past figures are probably not a good guide for the future as convergence implies that productivity increases will tend to decelerate as higher productivity levels are reached. These diverging outcomes are partly the result of differences in method. An important factor is that not all studies summarized in Table 2 are restricted to estimates of the Balassa-Samuelson effect. The literature has pointed out various other channels than can give rise to inflation differentials. Some of the studies take these into account. For instance, Halpern and Wyplosz (2001) have estimated the Balassa-Samuelson effect for a panel of nine transition countries also including demand factors. The same is true for Coricelli and Jazbec (2001), who, in addition, add a variable capturing structural misalignments. Pelkmans, Gros and Nunez Ferrer (2000) have followed a very different estimation procedure. These authors have based their estimation on relative price levels in accession countries compared to existing EMU member countries rather than on productivity growth differentials. The authors proceed in four steps. First, they regress the deviation of inflation rates of euro area countries form the euro area average on the relative consumer price levels of these countries. Next, they regress the relative consumer price levels of 29 OECD countries on the GDP-based comparative price levels of these countries (i.e. on ratios of the GDP measured in PPP and at current exchange rates). The coefficients of the independent variables in both equations are negative and highly significant. In a third step, Pelkmans et al. (2000) calculate the relative consumer price levels of the ten Central and Eastern European accession countries, based on their comparative price levels and the coefficient estimated for the OECD countries in the second equation. Finally, the authors use the coefficient estimated in the first equation for the euro area countries to compute the accession countries' inflation differentials form the average euro area, which are implied by their relative consumer price levels. Their results show on average an inflation differential of 3.8 percentage points between the accession countries and the euro area average due to estimated differences in the price levels.

**Table 2. Estimates of the inflation differentials (%) in the new EU countries**

| Study: | Countries: | Vis-à-vis | Size: |
|---|---|---|---|
| Jakab and Kovacs (1999) | Hungary | | 1.9 |
| Pelkmans et al. (2000) | CEE 10 | 29 OECD countries | 3.8 |
| Rother (2000) | Slovenia | | 2.6 during 1993-98 |
| Sinn and Reutter (2001) | Czech Rep.<br>Hungary<br>Poland<br>Slovenia<br>Estonia | Germany | 2.88<br>6.86<br>4.16<br>3.38<br>4.06 |
| Halpern and Wyplosz (2001) | Panel of 9 transition countries (incl. Russia) | Based on model for service-to-consumer goods price ratio | 2.9-3.1 for the period 1991-99 |
| Corizelli and Jazbec (2001) | Panel of 19 transition countries | Based on model for relative price of tradable goods | 1 in the medium term (1990-98) |
| De Broeck and Sløk (2001) | Panel of transition countries | | On average 1.5 |
| Égert (2002a) | Czech Rep.<br>Hungary<br>Poland<br>Slovakia<br>Slovenia | Germany | 0.648 0.303 for 1991-2000<br>2.589 1.295 for 1991-2000<br>3.245 1.901 for 1991-2000<br>-0.154 -0.075 for 1993-2000<br>1.321 0.661 for 1993-2000 [a)] |
| Égert (2002b) | Panel of Czech Rep., Hungary, Poland, Slovakia and Slovenia | Germany | With share of non-tradables as in GDP it ranges from 0.094 to 1.903 depending on time period and data. Estimates for 1996-2001 period range from 1.707 to 1.903. With share of non-tradables as in CPI the latter range from 0.810 to 1.059. |
| Backé et al. (2002) | Czech Rep.<br>Hungary<br>Poland<br>Slovenia | Main trading partners [b)] | 0.35 1995-2000<br>3.84 1995-2000<br>9.76 1995-2000<br>3.88 1995-2000 |

a) First column shows results using GDP deflator, second column shows results with CPI.
[b)] Under the assumption that there are no productivity-inflation differentials between tradable and non-tradable goods in the main trading partners, which seems unrealistic.

*Source*: De Haan, Eijffinger and Waller (2005)

As to the policy implications, the evidence reviewed suggests that accession countries with a fixed exchange rate regime may have problems in meeting the inflation criterion of the Maastricht Treaty. Countries with a somewhat more flexible exchange rate regime are unlikely to have problems to meet the Maastricht criteria for Balassa-Samuelson reasons. The Balassa-Samuelson effect is unlikely to exhaust the 15 per cent bands of the ERM II in two years. Some observers have argued that the convergence criteria should be modified (see e.g. Coricelli and Jazbec, 2001). One could, for instance, compare the inflation rates of the accession countries with those in the least developed EMU countries or allow for a higher than the 1.5 percentage-point differential. These suggestions have met little support from the current EMU countries. Admitting countries with relatively higher inflation rates could increase the HICP inflation in the euro area.

However, this argument should not be overstressed as the weight of inflation in the accession countries in the total euro area inflation rate is quite low. For instance, a 3 per cent difference in inflation rates between the 1998 Accession group and the rest of the euro area would only imply a 0.1% increase in the euro area's GDP-weighted inflation (Égert, 2002a).

Buiter (2004) warned very recently that forcing the new EU Member States to enter the ERM II waiting room for the euro is even "pointless and potentially dangerous". He thinks that creative reinterpretation is essential, if unnecessary risk to the financial stability of the EMU candidates is to be avoided. According to Buiter no monetary authority should be asked to pursue more than one nominal target. The simultaneous pursuit of three nominal targets (nominal exchange rate, inflation target and nominal interest rate target) greatly enhances the likelihood that a "major financial accident" will happen. He stated that EMU candidates should be allowed to have a free floating exchange rate between the time their date and rate for joining the euro are announced and the time their currency is locked into the euro. Buiter urged euro membership as soon as possible in the national interest of the new EU countries, noting that even the biggest country - i.e. Poland - is too small, too open and too financially vulnerable to run its own currency. Therefore, he concludes that without new rules for euro membership there are risks that the accession of a country being not ready for the euro could result in harm to other old and new EMU members.

## Real convergence in the medium to long term: how synchronized are the business cycles?

Eichengreen and Ghironi (2001) use a model from the empirical growth literature, estimated on data for the 1980s and 1990s, to forecast growth rates in an enlarged EMU in the subsequent period. Their results are reproduced in Table 3. The admission of new members will increase the dispersion of growth rates within EMU very considerably. They conclude that growth-rate variability will not be greatly aggravated by enlargement to include the members of the *1998 Accession Group* (the Czech Republic, Estonia, Hungary, Poland and Slovenia). The expansion of the monetary union to include the 1998 Accession Group should therefore be relatively easily accommodated, while expansion to include the *2000 Accession Group* (Lithuania, Latvia, Malta, Slovakia, Bulgaria and Romania) will pose a much more serious challenge for EMU. However, Eichengreen and Ghironi (2001) also argue that if institutions are quickly upgraded to EU levels, then the dispersion of growth rates will fall even in the short run, reducing the strains on monetary policy. In reaching this conclusion they use a measure of institutional quality based on indicators for voice and accountability (a measure of political and civic freedom), political stability, government effectiveness, adequacy of the regulatory framework, rule of law, and corruption control.

**Table 3. Standard deviations of growth rates in an enlarged EMU**

| | No institutional reform | Institutional convergence |
|---|---|---|
| Current EMU members in 1999 | 1.80 | -- |
| Current EMU members in 2006 | 0.79 | -- |
| All EU members in 2006 | 1.39 | -- |
| Plus 1998 accession group | 1.41 | 1.29 |
| Plus 2000 accession group | 2.10 | 1.18 |

*Source*: Eichengreen and Ghironi (2001)

Other authors reach less optimistic conclusions. For instance, Berger et al. (2004) argue that the correlation between the cyclical components of industrial production in the various (potential) member states and the cyclical part of industrial production in the euro area is quite low. Table 4 is reproduced from this study. Industrial production is decomposed into a trend and a cyclical component, using a Hodrick-Prescott filter. It follows that except for Slovenia and, to a lesser extent, Cyprus, the accession countries have business cycles, which are hardly synchronized with the business cycle in the euro area. Note, however, that this also holds true for some euro area countries, notably Greece and Portugal. Furthermore, as pointed out by Fidrmuc (2001), at the beginning of the 1990s the accession countries were in a transitional recession. Fidrmuc (2001) has calculated the correlation of business cycles in five accession countries and of Germany for the period 1993-1999 and finds that the business cycle synchronization of these countries is very similar to that of current euro area countries.

**Table 4. Business cycle correlation (with EU12) for the period 1990-2001**

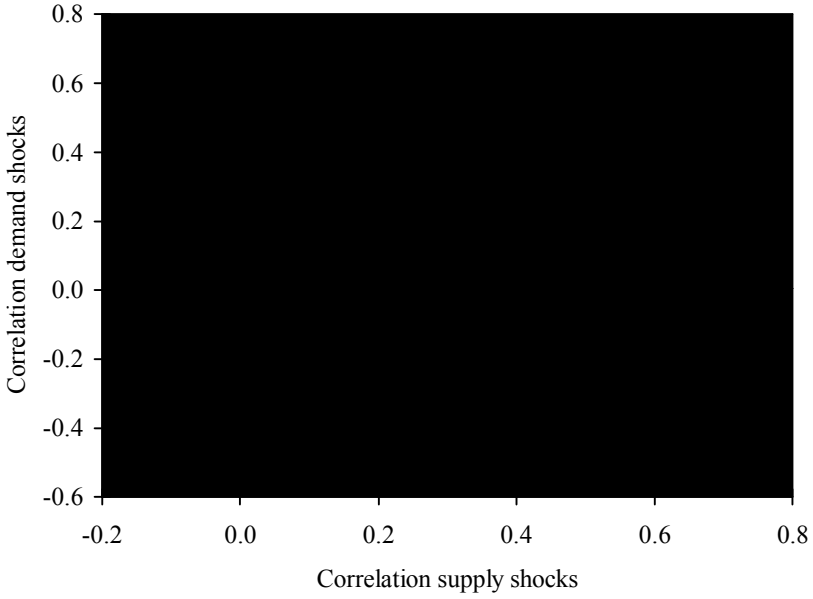
| Current euro area countries | | Future euro area countries | |
|---|---|---|---|
| Austria | 0.49 | Bulgaria | n.a. |
| Belgium | 0.36 | Cyprus | 0.32 |
| Finland | 0.36 | Czech Rep. | 0.11 |
| France | 0.76 | Estonia | 0.11 |
| Germany | 0.75 | Hungary | 0.20 |
| Greece | 0.18 | Latvia | 0.17 |
| Ireland | 0.26 | Lithuania | -0.17 |
| Italy | 0.62 | Malta | n.a. |
| Luxembourg | 0.38 | Poland | 0.17 |
| Netherlands | 0.33 | Romania | -0.04 |
| Portugal | 0.06 | Slovakia | 0.12 |
| Spain | 0.71 | Slovenia | 0.65 |
| | | | |
| *Denmark (opt out)* | *0.52* | | |
| *Sweden (no opt out)* | *0.36* | | |
| *UK (opt out)* | *0.31* | | |

*Source*: Berger et al. (2004)

Business cycles may differ across nations or regions within a nation for various reasons. First, nations and regions may experience different shocks. Second, they may respond differently to common shocks. This may be caused by differences in the reaction of policy-makers to a common shock, or because of differences in the national or regional composition of output. Also differences in financial and economic structure may lead to differences in the monetary policy transmission mechanism. Figure 1 sheds further light on the correlation of shocks. It displays the correlation of *demand shocks* (y-axis) and *supply shocks* (x-axis) in quarterly real GDP between individual euro area and accession countries with demand and supply shocks in the euro area aggregate computed by Fidrmuc and Korhonen (2003). The sample period is 1991/92-2000 for most countries. Shocks are identified using two-variable *vector autoregresssions (VARs)* for output and prices and the Blanchard and Quah (1989) assumptions. The results indicate that, even though there is considerable variance within groups, on average, demand and supply shocks tend to be more closely correlated in today's euro area. Most euro area countries are located in the upper-right part of the figure, while most accession countries find themselves in the lower-left, indicating non-significant or even negative coefficients of correlation. Notable exceptions from the rule are two of the more

advanced countries among the accession countries, Estonia and Hungary, which rank among the euro area countries. Greece, which entered the euro area late and is thus early in its real convergence process, and Ireland, which was among the fastest growing countries in the EU in the sample period, seem as loosely connected to the euro area as the average accession country.

**Figure 1 Demand and supply shocks in the current and future euro area countries**




*Source:* Fidrmuc and Korhonen (2003)

The main message stemming from the analysis thus far is that most accession countries are subject to different macroeconomic shocks – and thus a different business cycle – than the current euro area. While real convergence will probably work to reduce these idiosyncrasies in the long term, they will certainly remain in the short and medium term. In the absence of reform of the present ECB framework, this could have an impact on monetary policy-making in the euro area.

## Differences in financial structure: do they lead to diverging transmission of monetary policy measures?

As pointed out before, differences in financial structure may lead to diverging transmission of monetary policy measures. Although the evidence for the current euro area is rather mixed, many authors have argued that the important differences between the current and future euro area countries in terms of their financial systems may lead to differences in monetary transmission between both groups. As far as the accession countries are concerned, there is only scant evidence on differences in monetary transmission among countries. Hardly any attempts have been made to compare the transmission mechanisms of the accession countries with one another. The existing evidence generally relates to just one or a few countries, while the link with financial structure is often absent in these studies.

Economic research on monetary transmission in accession countries is hampered by three major constraints. First, a lack of useable data caps the number of econometric tools that can be used. Second, the quality of the available data may be low. It is well known that many, if not most, macroeconomic time series are subject to measurement errors of unknown importance and this seems to apply in particular to transition countries. Third, a highly dynamic economic environment makes it difficult to distil the exact effects that stem from a specific development. Conditions for research will slowly improve over time, as time series data accumulate and as the reform process associated with post-socialist transition and the preparations for EU accession has come to an end. There are three main approaches to investigate monetary transmission in accession countries (Ganev et al., 2002). The first research method includes rather unsophisticated analysing techniques based on simple comparisons, which are used to make general inferences on what might have happened under different circumstances. A second, much more formal approach is based on the construction of (small) structural macroeconomic models. These can be used to investigate the development of certain economic indicators under specific monetary conditions in a highly stylised environment. The final research method that has been applied is based on vector autoregressions (VARs). This type of econometric modelling generally enables the researcher to limit the amount of strong theoretical constraints that has to be used to investigate the effects of monetary policy. Studies in which the VAR methodology has been used include Durjasz (2001), Gottschalk and Moore (2001) and Christoffersen et al. (2001) for Poland, and Kuijs (2002) for the Slovak Republic. Maliszewski (2002) compares monetary transmission in Poland and the Czech Republic, while Ganev et al. (2002) present VARs for ten accession countries. The various studies are hard to compare as they generally refer to different sample periods and also employ rather diverse modelling strategies. Despite the wide variety of models, some general conclusions can be drawn from these studies (Elbourne et al., 2003). Not surprisingly, various studies find evidence that the monetary transmission mechanism is rather unstable over time. Furthermore, the reported impact of monetary policy measures is often counterintuitive. Durjasz (2001), for instance, reports that the Polish experience suggests that only after the implementation of direct inflation targeting (which was introduced in Poland in late 1998) reasonable transmission patterns emerged. Another conclusion that is found in many papers is that the exchange rate mechanism is quite powerful in various transition countries in contrast to the interest rate channel. Especially in countries that have relatively flexible exchange rate regimes the exchange rate channel seems to be the dominant way in which monetary contractions affect inflation. Gottschalk and Moore (2001), for instance, find that prices respond quite quickly to a shock in the nominal exchange rate, usually within a year. The price level declines in response to an interest rate hike, but this effect is not clearly significant. Also the evidence for the Slovak Republic reported by Kuijs (2002) suggests a strong exchange rate channel. Although there is broad agreement about the importance of the exchange rate channel, there is less agreement whether this dominance remains in more recent period. According to Hamecz (2001), the dominance of the exchange rate channel under the tightly managed exchange rate regime becomes less clear after the Hungarian central bank switched to inflation targeting in mid-2001. However, Maliszewski (2002) concludes that the exchange rate channel is still dominant in Poland and the Czech Republic. One of the most comprehensive VAR studies is done by Ganev et al. (2002), who report impulse responses of industrial output, inflation and the exchange rate to a one standard error interest rate shock for ten accession countries.

Their study only covers the period January 1995 – December 2000. Positive short-term-interest-rate shock brings about very different reactions of industrial output in different countries. It dampens output in the short run in Slovakia, Hungary and Slovenia while it raises it in Lithuania, Estonia, Czech Republic and Poland. Latvia, Bulgaria and Romania have a mixed pattern. The impact seems to die out after 12 months for most countries. Likewise, core inflation response to interest rate shocks varies across countries. In some of them, e.g. Lithuania, Hungary and Slovenia, the response is consistent with the theory, i.e. higher interest rates dampen inflation. In Bulgaria after initial boost, inflation subsides. In Slovakia and Czech Republic interest rate shock raises inflation persistently which leads to higher inflation even after 3 years following the shock. In Romania, apparently, there is an instability problem – core inflation is still on the rise after 3 years. Also Elbourne et al. (2003) have estimated VARs for ten accession countries. Apart from inflation and output growth, these authors use the deposit rate and the lending rate as interest rates in the models. For those countries that had either a currency board or a fully fixed exchange rate for a large proportion of the sample period, they modelled the exchange rate as an exogenous variable. For the others, which had either floating exchange rates or crawling pegs, the exchange rate is endogenous. All variables are defined in the form of their deviation from their stochastic trend. German output growth, the German call money rate, and commodity prices are included as exogenous variables, as are dummy variables to take into account the effects of the differing exchange rate regimes and financial crises. They conclude that there appear large differences in monetary transmission among the countries considered.

**Table 5. Some indicators of the banking sector in EMU accession countries (2000)**

| | **Assets share of five largest banks (%)** | **Loans share of five largest banks (%)** | **Deposits share of five largest banks (%)** | **Domestic credit of banks (% GDP)** | **Non-performing loans (as % of loans)** | **Average capital ratio** | **Net interest margin** | **Average rate of return on assets** |
|---|---|---|---|---|---|---|---|---|
| Bulgaria | 60.5 | n.a. | n.a. | 25.6 | 10.9 | 0.1 | 4.1 | 4.1 |
| Czech Rep | 66.1 | 67.5 | 74.5 | 56 | 19.3 | 4.6 | 2.1 | 0.5 |
| Estonia | 98.8 | 99.5 | 99.5 | 38.1 | 1.5 | 12.6 | 0 | 1.1 |
| Hungary | 53.3 | 52.9 | 61.5 | 35.2 | 3.1 | 8.8 | 3.7 | 1.3 |
| Latvia | 62.3 | 71.9 | 66.2 | 21.7 | 5 | 8.4 | 4 | 2 |
| Lithuania | 88.5 | 85 | 93 | 16.8 | 10.8 | 10 | 3.6 | 0.4 |
| Poland | 48.6 | 48.4 | 49.1 | 36.5 | 15.9 | 8.2 | 4 | 1.1 |
| Romania | 70.1 | 65.4 | n.a. | 8.9 | 3.8 | n.a. | 7.4 | 2.3 |
| Slovak Rep | 63.4 | 63.8 | 69.1 | 61.4 | 26.2 | 6.4 | 1.8 | 0.5 |
| Slovenia | 62.5 | 49.1 | 53.2 | 44.6 | 8.5 | 8.1 | 4.2 | 1.1 |

*Source:* Buiter and Taci (2002)

The financial structure of the accession countries differs from that of the current euro area countries. As banks play an important role in the transmission of monetary policy, Table 5 shows a number of key indicators for the banking system of the transition countries. Bank assets in relation to GDP are almost three times higher in the euro area than in the accession countries. Still, this does not imply that the credit and bank lending channels will be less important in the accession countries, as capital markets are still in their infancy. As Buiter and Taci (2002) argue, the financial systems in the accession countries have developed more as *bank-based systems* than as *market-based systems*. Given the insufficient scope and effectiveness of legal contract enforcement and with inappropriately or imprecisely defined property rights, these countries had no alternative but to develop a relationship-based financial system, with banks as the main financiers. Comparative research on the relationship between financial structure and monetary policy transmission in the accession countries is scarce. Recently, Elbourne et al. (2003) have used a similar approach as suggested by Cecchetti (1999). They gathered various indicators for the financial structure in the accession countries, falling into three broad categories: indicators for the importance of small banks in a country's financial system, indicators for the health of the banking system, and indicators for the importance of external finance. In contrast to Cecchetti (1999), these indicators have not been combined into one single financial sector indicator as this is a rather subjective and ad hoc procedure. Instead, Elbourne et al. (2003) have used rank correlation coefficients of the estimated impact of monetary policy decisions and the various financial structure indicators. They find *no* clear evidence of a relation between financial structure and the impact of monetary policy shocks as most of the correlations are not significant.

## Conclusions

It is likely that EMU will be enlarged in one year. Some of the new EU Member States - e.g. Estonia, Lithuania, and Slovenia - aspire to adopt the euro on 1 January 2007. The future euro area countries face a difficult decision in trading off exchange rate and price stability depending on their inflation differentials with the current euro area countries. This implies that the Maastricht Treaty convergence criteria for exchange rate and price stability are in their present form incompatible. The enlargement of EMU reinforces our argument for reform of the monetary policy decision-making process of the ECB. It seems likely that the divergence of business cycles, inflation rates, and monetary transmission processes will be persistent and could even increase further in a larger monetary union. It may be that the estimates of the so-called Balassa-Samuelson effect differ substantially, it is quite certain that the accession countries will have higher inflation levels than the current countries in the euro area. Although this is not very problematic in terms of the impact on euro-area-wide inflation, the increased dispersion of inflation rates in the euro area may increase the probability that the decision-making process within the ECB will be less focused on price stability in the euro area as a whole. Most future euro area countries are subject to different macroeconomic shocks and thus different business cycles compared with the shocks and cycles in the current euro area countries. While real convergence will probably reduce these idiosyncrasies gradually in the long term, they will certainly remain present in the short and medium term. The lack of real convergence in the short and medium run stresses *a fortiori* the necessity of reform of the decision-making process of the ECB in favour of the accession countries in order to alleviate their burden of adjustment in the short and medium run.

## References


Backé, P., J. Fidrmuc, T. Reininger and F. Schardax (2002), Price Dynamics in Central and Eastern European EU Accession Countries, *Oesterreichische Nationalbank Working Paper*, No. 61.

Berger, H., J. De Haan and R. Inklaar (2004), Restructuring the ECB, In: H. Berger and T. Moutos (Eds.), *Managing European Union Enlargement,* Cambridge MA: The MIT Press, 29-66.

Blanchard, O. and D. Quah (1989), The Dynamic Effects of Aggregate Demand and Supply Disturbances, *American Economic Review*, 79(4), 655-73.

Buiter, W.H. and C. Grafe (2002), Anchor, Float or Abandon Ship: Exchange Rate Regimes for the Accession Countries, *Banca Nazionale del Lavoro Quarterly Review*, No. 221, 111-42.

Buiter, W.H. and A. Taci (2002), Capital Account Liberalisation and Financial Sector Development in Transition Countries, mimeo, EBRD.

Buiter, W.H. (2004), En Attendant Godot? Financial Instability Risks for Countries Targeting Eurozone Membership, Paper prepared for the 8th CEPR/ESI Annual Conference on 'EMU Enlargement to the East and the West', Magyar Nemzeti Bank, Budapest, 24 and 25 September 2004.

Cecchetti, S.G. (1999), Legal Structure, Financial Structure, and the Monetary Policy Transmission Mechanism, *Federal Reserve Bank of New York Economic Policy Review,* 5 (2), 9-28.

Christoffersen, P., T. Sløk and R. Wescott (2001), Is Inflation Targeting Feasible in Poland?, *Economics of Transition,* 9(1), 153-74.

Coricelli, F. and B. Jazbec (2001), Real Exchange Rate Dynamics in Transition Economics, *CEPR Discussion Paper*, No. 2869.

De Broeck, M. and T. Sloek (2001), Interpreting Real Exchange Rate Movements in Transition Countries, *IMF Working Paper*, No. 01/56.

De Haan, J., S.C.W. Eijffinger and S. Waller (2005), *The European Central Bank: Centralization, Transparency and Credibility,* Cambridge MA: The MIT Press.

Detken, C., V. Gaspar and G. Noblet (2005), *The New EU Member States: Convergence and Stability,* Third ECB Central Banking Conference, 21-22 October 2004, Frankfurt-am-Main, April.

Durjasz, P. (2001), Experiences with Monetary Transmission Mechanism in Poland, Oesterreichische Nationalbank, *Focus on Transition,* 2001/ 2, 142-46.

Égert, B. (2002a), Estimating the Impact of the Balassa-Samuelson Effect on Inflation and the Real Exchange Rate During the Transition, *Economic Systems*, 26(1), 1-16.

Égert, B. (2002b), Investigating the Balassa-Samuelson Hypothesis in the Transition. Do We Understand What We See? A Panel Study, *Economics of Transition*, 10(2), 273-309.

Eichengreen, B. and F. Ghironi (2001), EMU and Enlargement, mimeo, University of California at Berkeley.

Eijffinger, S.C.W. and J. De Haan (2000), *European Monetary and Fiscal Policy*, Oxford: Oxford University Press.

Elbourne, A., J. De Haan and B.M.C. Kiviet (2003), Financial Structure and Monetary Policy Transmission in Transition Countries, mimeo, University of Groningen.

European Central Bank (2004), *Monthly Bulletin*, Frankfurt-am-Main, July 2004.

Eurostat (2001), Candidate Countries: Labour Productivity Levels and Remuneration Levels Just Over 40% of EU Average, News Release, 55.

Fidrmuc, J. (2001), Migration and Adjustment to Shocks in Transition Economies, *ZEI Working Paper,* No. B01-23.

Fidrmuc, J. and I. Korhonen (2003), Similarity of Supply and Demand Shocks Between the Euro Area and the CEECs, *Economic Systems,* 27(3), 313-36.

Ganev, G., K. Molnar, K. Rybinski and P. Wozniak (2002), Transmission Mechanism of Monetary Policy in Central and Eastern Europe, Center for Social and Economic Research, Warsaw, *Case Reports,* No. 52.

Gottschalk, J. and D. Moore (2001), Implementing Inflation Targeting Regimes: The Case of Poland, *Journal of Comparative Economics,* 29, 24-39.

Halpern, L. and C. Wyplosz. (2001), Economic Transformation and Real Exchange Rates in the 2000s: The Balassa-Samuelson Connection, Mimeo.

Hamecz, I. (2001), Monetary Transmission in Hungary, Oesterreichische Nationalbank, *Focus on Transition,* 2001/ 2, 139-42.

Jakab, Z.M. and M.A. Kovacs (1999), Determinants of Real-exchange Rate Fluctuations in Hungary, *NBH Working Paper*, No. 1999/6.

Kröger, J. and D. Redonnet (2001), Exchange Rate Regimes and Economic Integration: The Case of the Accession Countries, *CESifo Forum*, Summer, 6-13.

Kuijs, L. (2002), Monetary Policy Transmission Mechanisms and Inflation in the Slovak Republic, *IMF Working Paper,* No. 02/80.

Maliszewski, W.S. (2002), Monetary Policy in Transition: Structural Econometric Modeling and Policy Simulations, Center for Social and Economic Research, Warsaw, *Studies and Analyses,* No. 246.

Papademos, L.D. (2004), How to Achieve Sustainable Convergence on the Road to EMU, Speech delivered at the 8th CEPR/ESI Annual Conference on 'EMU Enlargement to the East and the West', Magyar Nemzeti Bank, Budapest, 24 and 25 September 2004.

Pautola, N. and P. Backé (1998), Currency Boards in Central and Eastern Europe: Past Experience and Future Perspectives, Oesterreichische Nationalbank, *Focus on Transition* 1/1998, 72-113.

Pelkmans, J., D. Gros and J. Nunez Ferrer (2000), Long-Run Economic Aspects of the European Union's Eastern Enlargement, WRR Working Document, No. W109, The Hague.

Rogers, J. H. (2001), Price Level Convergence, Relative Prices and Inflation in Europe, Board of Governors, Federal Reserve System, *International Finance Discussion Paper*, No. 699.

Rother, C.P. (2000), The Impact of Productivity Differentials on Inflation and the Real Exchange Rate: An Estimation of the Balassa-Samuelson Effect in Slovenia, IMF Country Report No. 00/56, 26-39.

Roubini, N. (1999), The Case Against Currency Boards: Debunking 10 Myths about the Benefits of Currency Boards, Mimeo, Stern School, New York University.

(http://www.stern.nyu.edu/~nroubini/asia/AsiaHomepage.html).

Sinn, H.-W. and F. Reutter (2001), The Minimum Inflation for Euroland, *NBER Working Paper*, No. 8085.

Szapary, G. (2000), Maastricht and the Choice of the Exchange Rate Regime in Transition Countries During the Run-up to EMU, *NBH Working Paper*, No. 2000/7.

# New EU Member States and the euro

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**

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IMK Düsseldorf

## Executive Summary

The paper outlines the criteria that should be followed when deciding upon new members of the currency union. It is argued that basically those of the Maastricht treaty should be applied. But some changes are necessary since the currency union now is already existing in contrast to the situation 1997.

It is argued that the inflation criterion of the treaty should be changed and replaced by the ECB target rate. The same reasoning applies to the interest rate criterion. As the relevant exchange rate for assessing currency market stability only the Euro is of relevance. Only the debt ratio and not the actual deficit should be considered when the debt situation is analysed. Finally in addition to the criteria mentioned in the treaty the unemployment situation should taken not consideration.

Applying these criteria on the present candidates for an entry show that only two countries, the Czech Republic and Slovenia fulfil them all.

# 1. Introduction

In contrast to the United Kingdom, Denmark and Sweden the new EU member countries do not have an opting out clause with respect to the Euro currency area. That means they are obliged to enter a convergence path to the monetary union and should be part of the Euro currency area in due time. The question is when this should be the case. During the past years some governments of the new member countries seem to indicate that they venture a very fast track to accession. Some even wanted to join as early as 2007. Some members cautioned a fast entrance given the still huge differences in wealth and institutional frameworks between the "old" members of the currency union and the potential new ones.

The decisive question is which criteria should guide the decision when these countries should join or rather wait. There is a formal and an economic answer to that question. The treaty of Maastricht provides the formal answer. The convergence criteria were laid down in Article 122 (2) of the Treaty establishing the European Community.[1] There is a deficit criterion saying the state deficit must not exceed 3% of GDP and the debt burden must be below 60% of GDP. There is an inflation criterion that states, inflation rate must not exceed the average of the three lowest inflation rates of member countries by more than 1.5 percentage points. The same applies in principle to long term interest rates but the allowed difference is 2 percentage points to account for potential minor risk premiums. Furthermore the exchange rate must show two years of stability in advance of the planned entry into the currency union. These formal criteria were decisive at the set up of the currency union although they were liberally interpreted at times. So they should be also applied in the case of new member states as they were e.g. in the case of Greece that joined the currency union not in the first round, too.

However, one should keep in mind that the economic importance of above criteria is not the same for each criterion. So when taking a decision one should consider this and be liberal when economically minor targets are not met whereas one should be strict when important economic preconditions are not fulfilled. In the following section it will be outlined what important economic targets should be met in countries before joining the currency union. In the third part it will be analysed whether the necessary preconditions are fulfilled for single countries. In the final part recommendations will be outlined.

# 2. On Monetary Convergence

The most important criterion for a successful monetary convergence is a sustainable inflation rate that is compatible with inflation targets of the currency union. If a country's inflation rate would deviate significantly and resiliently from this target severe regional imbalances would be the consequence. If the inflation rates are higher than the target, firms would loose their competitiveness on the joint currency market at least in the long run. Lower exports and higher imports would deteriorate external balances. If the inflation rates are lower, the country would always gain in competitiveness and trade surpluses here would lead to trade deficits in other member countries. Imbalances would occur in a symmetric manner. This argument means that "structural" changes of real exchange rates should be avoided. If there is a need for a significant adjustment of real exchange rates this should be done before such a country joins the currency union.

[1] See Annex.

That implies e.g. that inflation processes resulting from high wage increase or even indexed wage settlements have to be abolished in advance. This is part of the monetary convergence. This argument also implies that fundamental differences in the macroeconomic price level should have been overcome before a country joins the currency union. Otherwise inflation differences would be unavoidable.

These considerations are the more important the bigger a joining country is. The impact of small countries is negligible whereas those of larger countries may be very significant. Furthermore these considerations are the more important the longer regional deviations from the inflations targets last. A negative example in this respect presently is Germany where the inflation rate is well below EMU average since the beginning of the currency union. As a result Germany acquired a high surplus in the trade balance, whereas other countries dived deep in the red. In the long run these imbalances require an adjustment process. Either prices in Germany start to rise stronger than in the rest of the EMU inciting the danger of inflation or prices in the other EMU countries also follow the Germany path taking EMU at the brink of deflation. In order to avoid these potentially painful adjustments right from the beginning countries should show an inflation rate close to the target of the ECB.

The benchmark outlined in the treaty and mentioned in the introduction is that the average inflation rate of those EU countries with lowest inflation rate plus 1.5 percentage points should not be exceeded. This may have been a useful concept before the currency union started in order to avoid too heterogeneous inflation rates. But since the currency union now is set up, the ECB target seems to be the only sensible yardstick. If the average plus 1.5 percentage point rate is higher or lower than the target the accession of these countries influence the Euro area inflation rate in a way that the ECB target is missed and that makes monetary policy more difficult. In addition to that the outlined imbalances would occur. Presently (latest figures from 2005) the three EU-countries with the lowest inflation were Sweden (0.8%), Finland (0.8%) and the Netherlands (1.5%) yielding an average of 1.03%. Thus new member countries would be allowed an inflation rate of about 2.5% according to the treaty criterion. With these rates the new members of EMU would not only drive the aggregate inflation rate upwards, they also would face severe competitive problems in the medium run. So the criterion should presently be even more strict than outlined in the treaty and the 2% target rate of the ECB should be applied. It makes anyway not much sense to consider inflation rates from outside the currency union (Sweden) although the treaty states it differently.

A very important aspect of the assessment is the sustainability of the actual inflation rate, because it is of no use if a compliance with the criteria is only reached for a short period of time and missed as soon as the country has joined the currency union. The treaty tries to capture the sustainability by applying a capital market criterion of long term interest rates differences. If capital market investors would not believe in a measured inflation convergence because they think inflation rates will rise well above the target as soon as the country has joined. Interest rates differences would show this disbelief and one should consider this when deciding upon the entry. In deviation from the way the criterion is phrased in the treaty and similar as in the case of inflation rates one should take now the average of comparable long term government bond of the present members of the currency union plus the risk premium of 0.5 percentage points implied by the treaty. Presently the appropriate rate would be in case of long term government bond yield (10years) about 4%. This would replace average of the three countries with lowest inflation rates plus 2 percentage points. Given the fact that the currency union now exists this criterion makes as in the case of inflation rates no longer sense.

To have a look on interest rates is one sensible way to assess the sustainability. Another related criterion is the exchange rate stability. If capital markets trust the credibility of the monetary convergence, there should be no excessive movements of the exchange rate. However whether this is a stable situation should also be assessed by looking on the current balance. If there are high surpluses or deficits and exchange correction may be appropriate before joining the currency union. Otherwise this has to be achieved by respective inflation movements not necessarily following the stability target of the ECB.

The interest rate criterion and the exchange rate criterion are phrased in an asymmetric way in the treaty. Interest rates are not allowed exceed the benchmark. They are allowed to be lower. Exchange rates are not allowed to show a tendency for depreciation above some limits against the currencies of the member states, now to be replaced by the single currency Euro. They are allowed to appreciate according to the treaty. Thus the treaty does not reflect the now prevailing symmetrical nature of the ECB target but follows the asymmetrical reasoning with respect to inflation the ECB also showed during the first years of its existence.

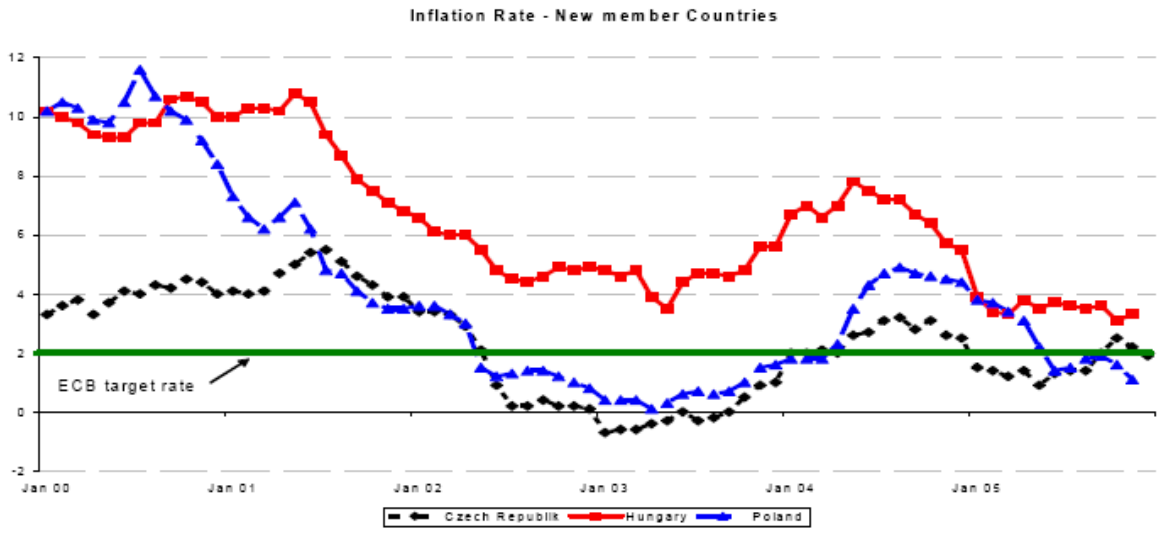
But next to these capital market criteria one should not neglect real economy developments. If a target compatible inflation is accompanied by an unemployment rate that is well above the EMU average there is the danger that with decreasing unemployment the target is no longer met. Lower unemployment may lead to increased wage settlements driving inflation upwards. The same reasoning applies for the symmetric case. If the target is accompanied by an unemployment rate well below the average then there exists the danger that with rising unemployment the inflation will be well below the target. Hence sustainability should be judged according to capital market criteria as well as by real economic developments.

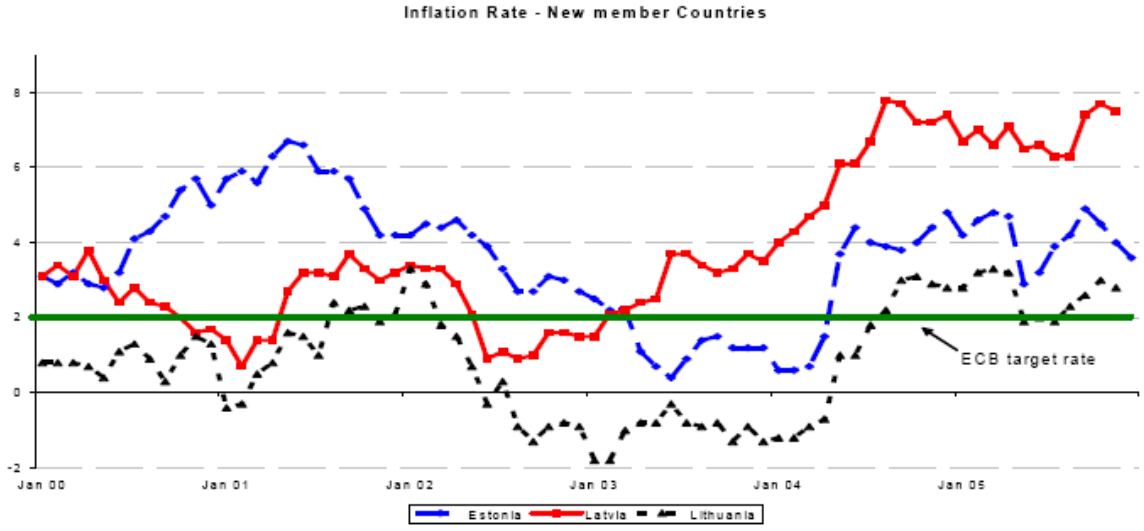
If both above mentioned criteria are fulfilled there should be no serious problem when new members join the currency union. From economic point of view the debt criterion is of minor importance for monetary convergence. In presence of an independent central bank the danger of debt financing monetary policy is low risking severe hyper inflation processes is low. This particularly applies with respect the ECB where one government is simply not in a position put enough pressure on the ECB council to follow such a policy. There is only one risk that needs to be considered. An excessive debt burden may in the very long run effect the banking sector in one country. In the end the ECB has to guarantee the stability of this sector. These kinds of pathological processes have occurred in recent times only in not fully developed countries. Therefore there is only a very remote reason to have a look on the debt burden. This is the more so since it is also in the national interest to avoid such a situation since every government would loose any financial leeway in a situation with an excessive debt burden.

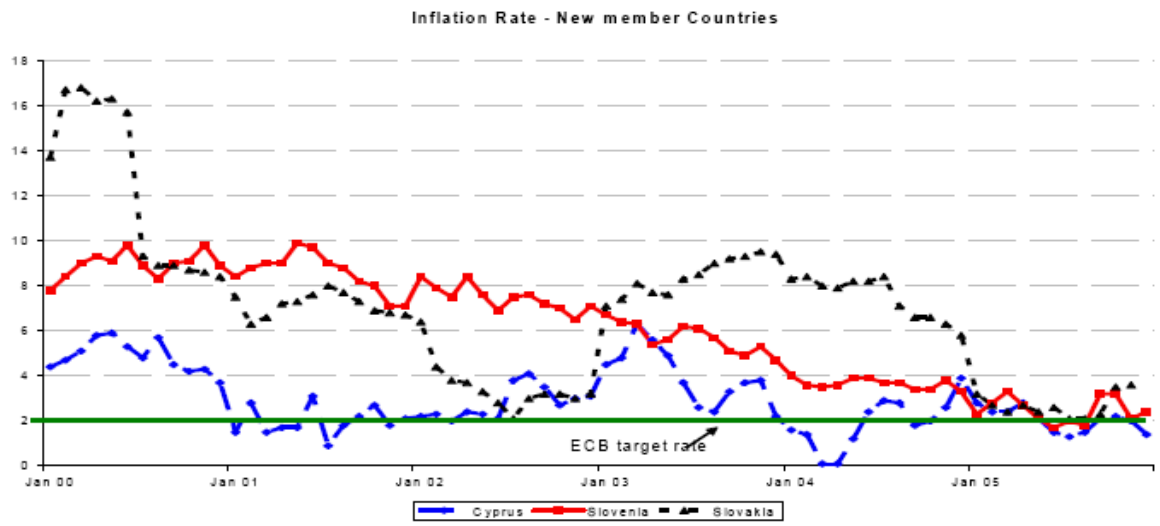
When considering the debt situation it is not the actual deficit that should be decisive but rather the debt ratio. Here for conventional reasons the benchmark of the treaty, 60 % of GDP, should be applied. A country with a low debt burden can afford a high deficit without endangering monetary stability. And as the past shown even a high debt burden like in Italy or Belgium can go well along with low inflation rates. Thus one should be very lenient when assessing the debt situation of candidate countries. When the decision on the first member countries was taken in 1997 the debt burden criterion was as the cases of Italy and Belgium show also not handled very strictly. This has not affected price stability during the consecutive years.

## 3. The Performance of the Candidate Countries

The inflation criterion is fulfilled only by some of the candidate countries. As many western European countries at forefront of the currency union that showed even double digit inflation rates, countries like Poland, the Czech Republic, Slovenia, Cyprus and with some doubts also Lithuania and Slovakia have reduced inflation rates from similar high values down to about 2 %. This certainly is a great success.

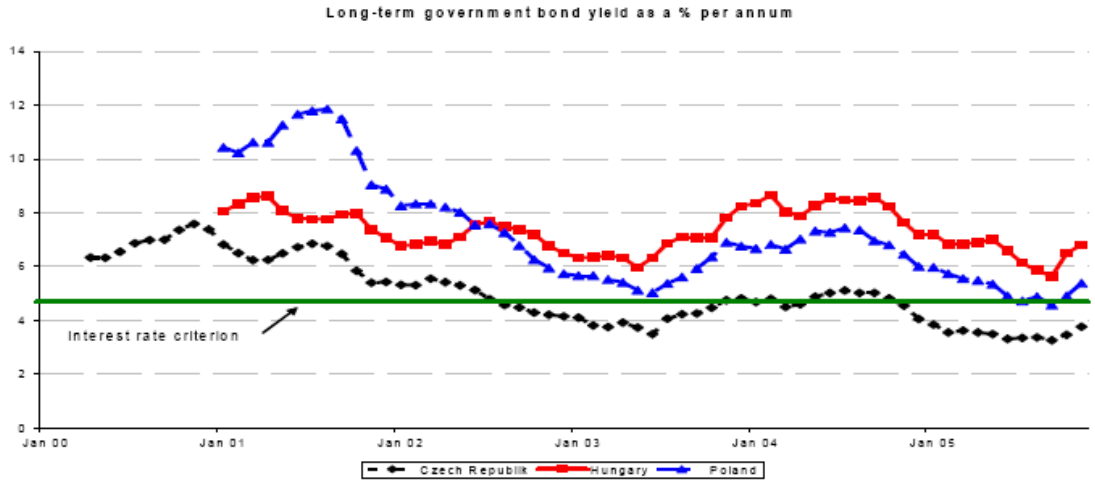


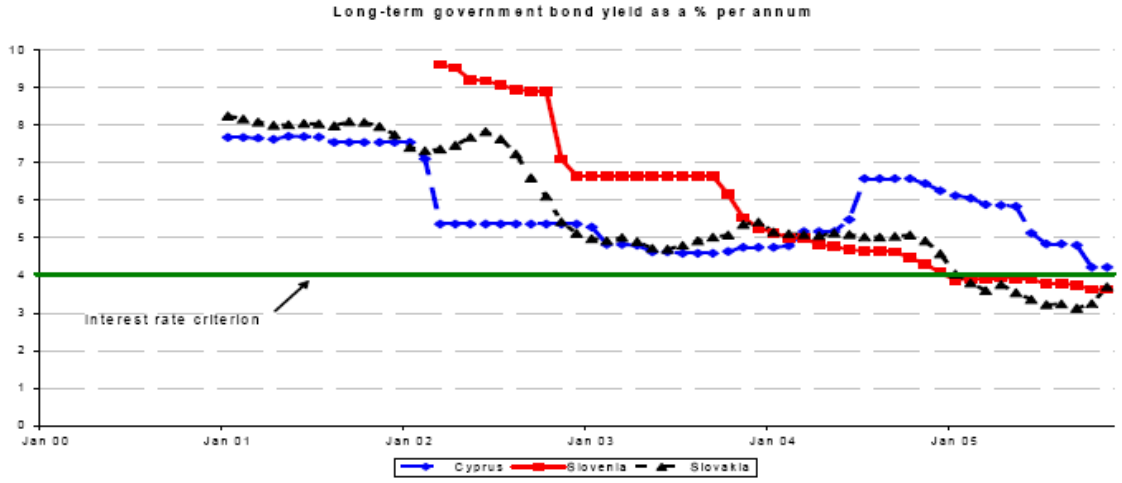



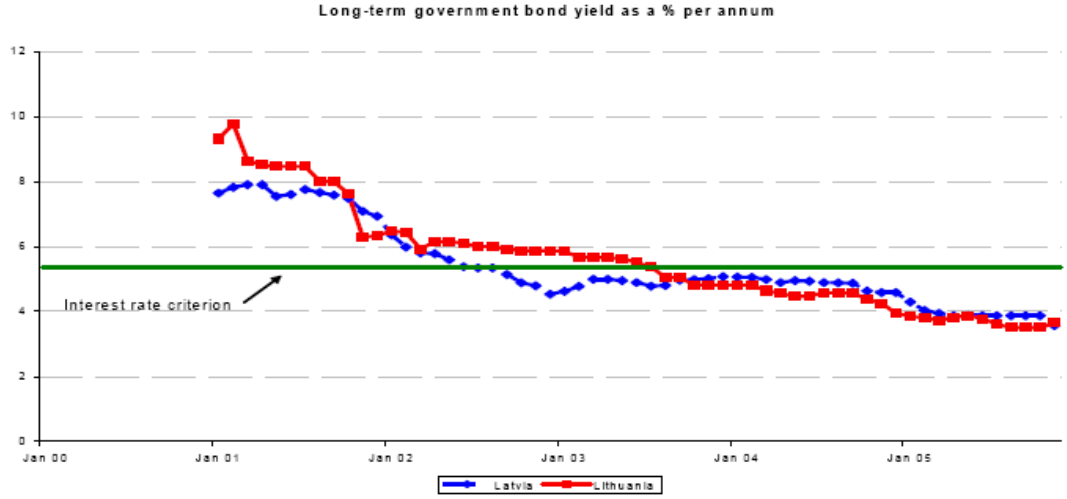



On the other hand it is fairly obvious that inflation in Hungary, Latvia and Estonia is still or again, in the case of Estonia, well above the ECB target rate. These countries presently do not fulfil the most important criterion.

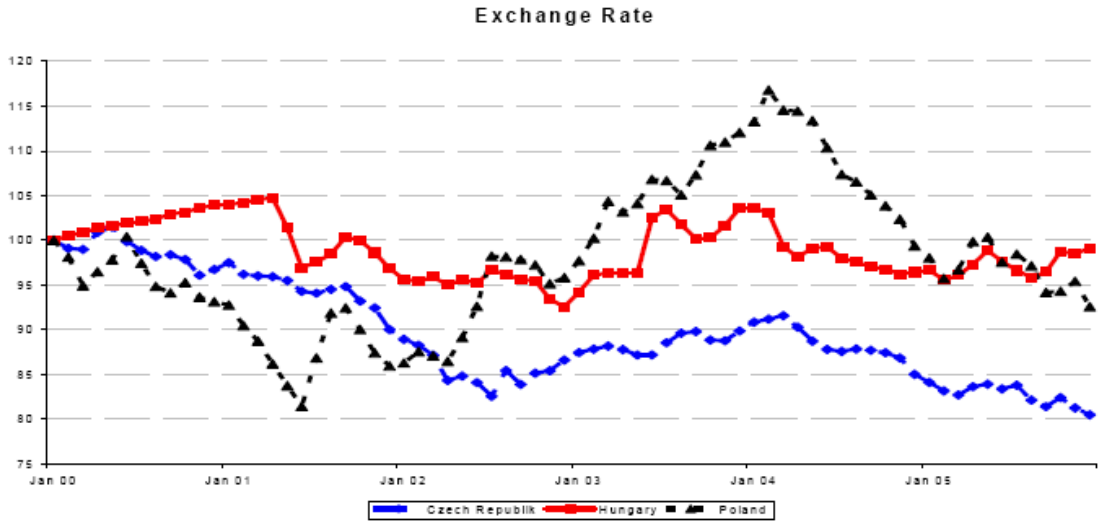
The sustainability of the inflation rates shall be judged according to the capital market performance the exchange rate movements and the unemployment rate.

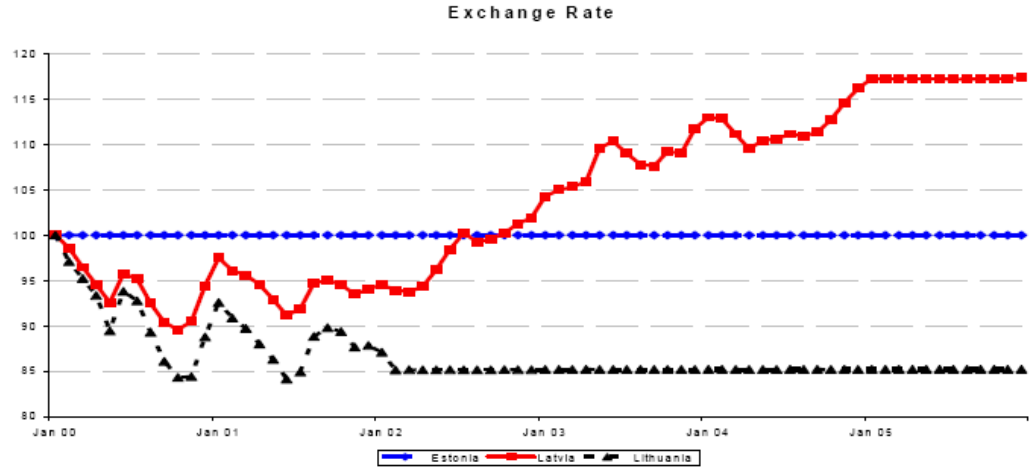


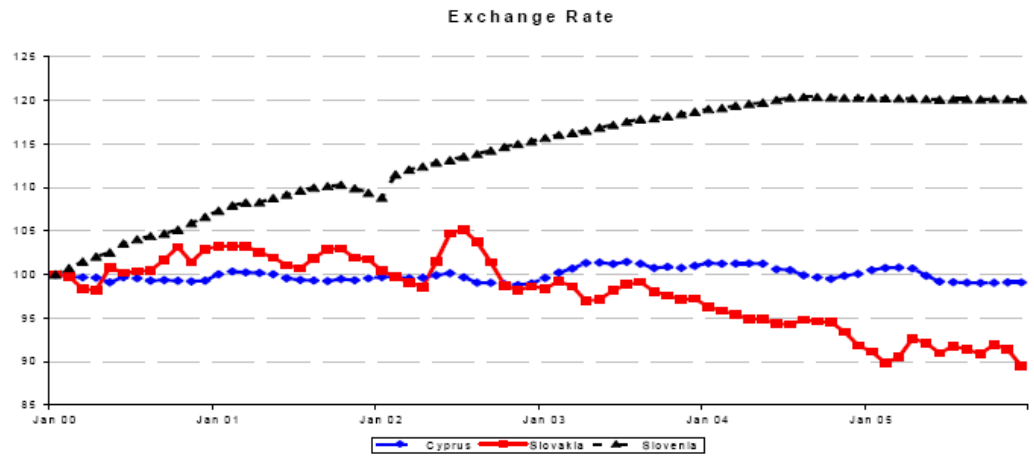



For Estonia no appropriate rates are available. From the rest of the countries only Hungary and Poland significantly do not fulfil the interest rate criterion applied here. This is not surprising in the case of Hungary where inflation is relatively high too. In the case of Poland there can be some distrust of capital markets as far as a sustainable low inflation rate is concerned. But there is also a major influence of relative restrictive monetary policy that keeps short term rates relatively high. Thus there seems to be some distrust of the Polish central bank with respect to the low inflation rates. For those countries that do no meet the inflation criterion but where interest rates are nevertheless relatively low capital markets expect this inflation process to be of temporary nature.



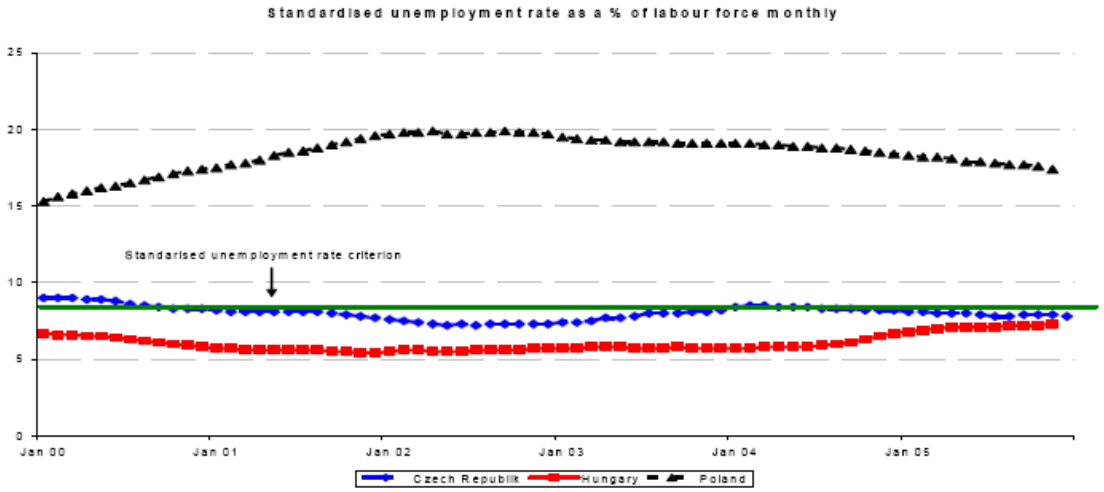



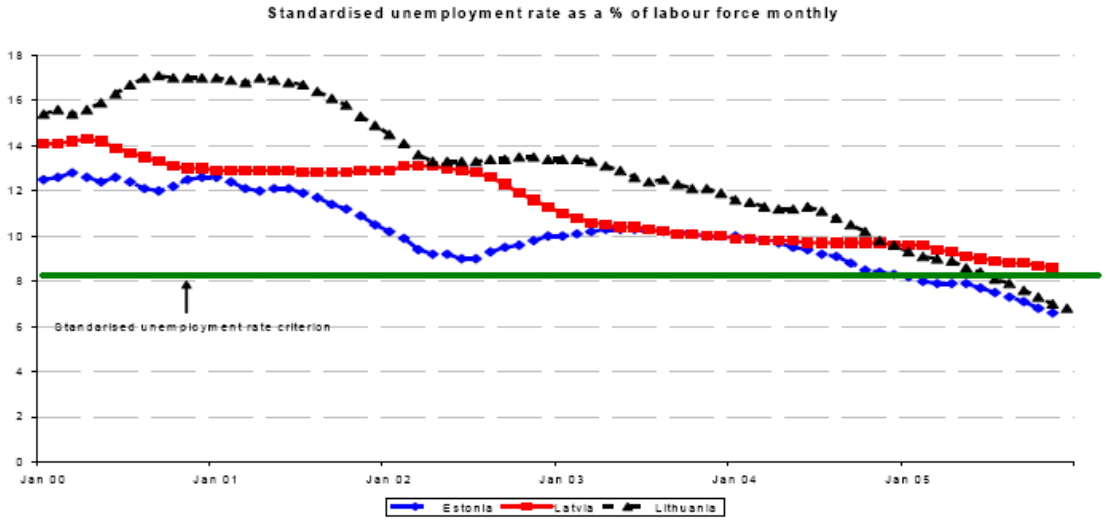




Looking at the development of exchange rates one can realize a high degree of stability. All countries fulfil the criterion if one allows for maximal depreciation of 15 % for the past two

years. In fact only Latvia had this depreciation but meanwhile follows pegged rate strategy. However some caveats are necessary. Since many candidate countries have pegged their exchange rate to the Euro and done so credibly one should expect significant movements. The current balances of all member countries show partly very high deficits. So al lot speaks in favour of a depreciation of many currencies before joining the currency union. This in turn may temporarily lead to higher inflation rates.

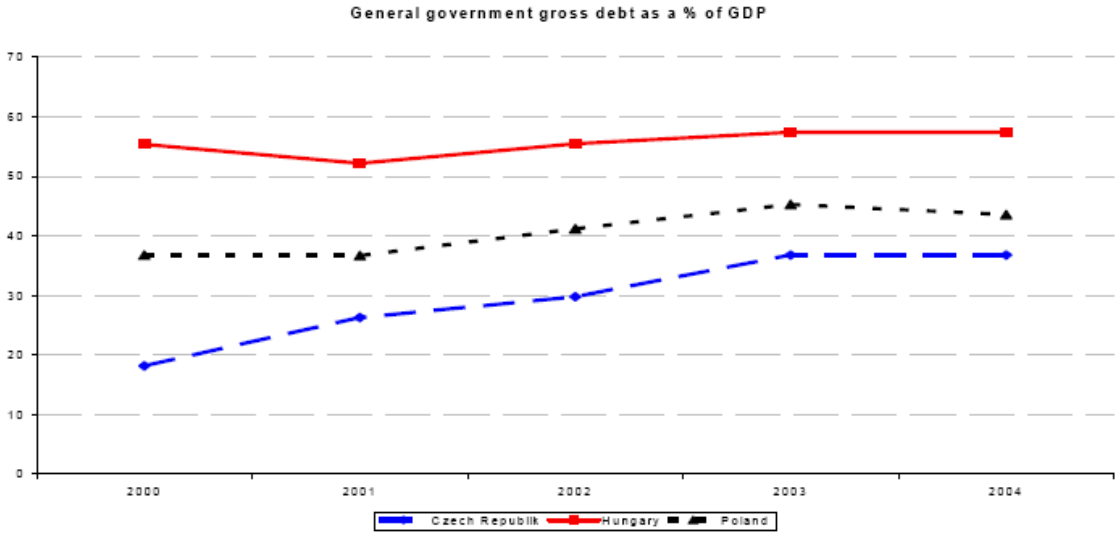
The last aspect to judge the credibility of ECB target compatible inflation rates was a look on unemployment.

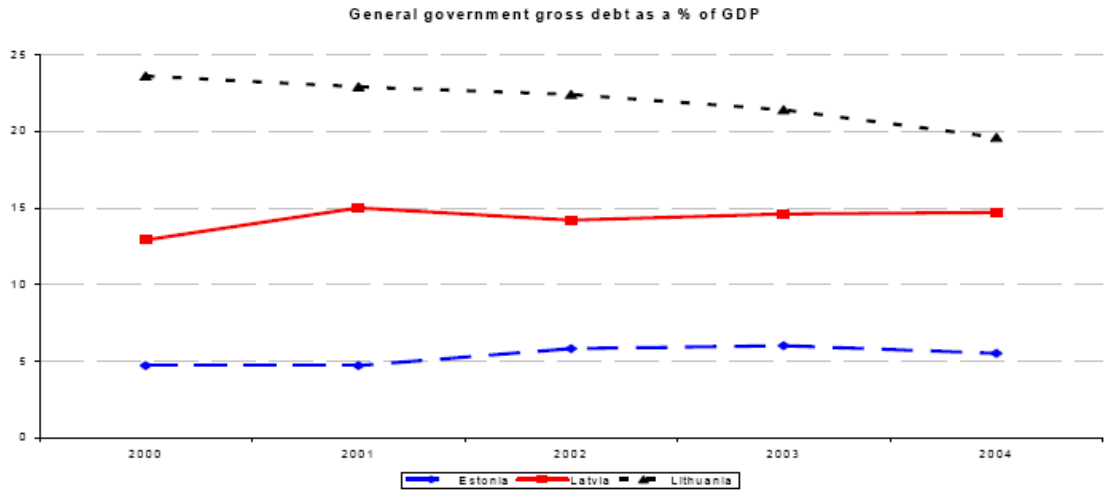


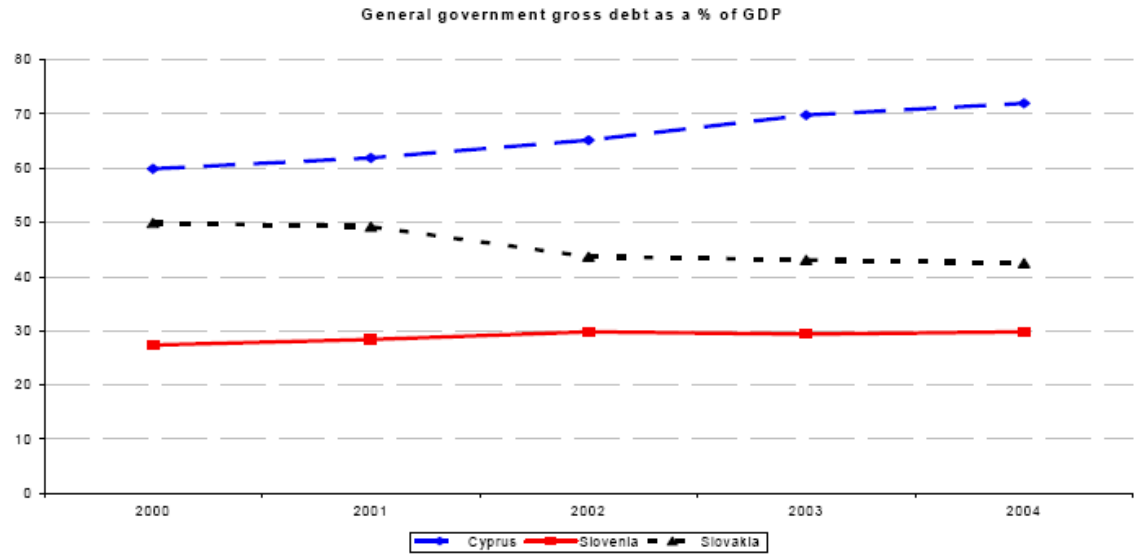




Except Slowakia and Poland all other countries are close to EMU average or even slightly below. That sheds some doubt on their inflation performance. If unemployment is reduced in these countries inflation may rise and trespass the target So credibility is an issue with respect to Poland and Slovakia.

The final criterion state in the last section was the debt burden.






All countries except Cyprus are well below that margin. The Baltic states especially Estonia have hardly any public debt burden to carry. The case of Cyprus is a bit critical since the debt burden is not just above 60% but also rising. Here a turn in around in fiscal policy is necessary in due time.

## 4. Conclusion

The assessment of the candidate countries shows that more or less all the countries in question are on the track to monetary convergence with the currency union. But one should be careful to avoid premature entry into the union. The cost in terms of growth loss of joining later than possible are much lower than those of joining too early. In the former case interest rates may be a bit higher outside the currency union than inside. The difference will incite some growth loss. But given the fact that everyone may expect an entry in the near future, this should be minor. If on the contrary the entry is too early and e.g. inflation is still too high a loss of competitiveness and thus growth is inevitable. Since inflationary processes are hard to break when a national monetary policy is no longer in charge, a lengthy process of low export growth maybe the consequence.

**Performance of the Candidate Countries**

| | Inflation | Interest Rate | Exchange Rate | Unemployment | Debt Burden |
|---|---|---|---|---|---|
| Cyprus | + | + | + | + | - |
| Czech Republik | + | + | + | + | + |
| Estonia | - | n.a. | + | + | + |
| Hungary | - | - | + | + | + |
| Latvia | - | + | + | + | + |
| Lithuania | +/- | + | + | + | + |
| Poland | + | - | + | - | + |
| Slovenia | + | + | + | + | + |
| Slovakia | +/- | + | + | - | + |

+ Criterion fulfilled
- Criterion not fulfilled
+/- undecided
n.a. not available

Given this the survey of the respective shows in the table shows that only countries out of the 9 analysed here should join the currency union under present circumstance. Beyond doubt only the Czech Republic and Slovenia fulfil all the criteria mentioned. For all the other countries there remain doubts whether the inflation rate is credibly close enough to the ECB target to ensure a stable further development within the currency union.

## Annex :

## Convergence Criteria of the Treaty establishing the European Union

### Price developments

Article 121 (1), first indent, of the Treaty requires: "the achievement of a high degree of price stability; this will be apparent from a rate of inflation which is close to that of, at most, the three best performing Member States in terms of price stability".

Article 1 of the Protocol on the convergence criteria referred to in Article 121 of the Treaty stipulates that: "the criterion on price stability referred to in the first indent of Article 121 (1) of this Treaty shall mean that a Member State has a price performance that is sustainable and an average rate of inflation, observed over a period of one year before the examination, that does not exceed by more than 1½ percentage points that of, at most, the three best performing Member States in terms of price stability. Inflation shall be measured by means of the consumer price index on a comparable basis, taking into account differences in national definitions."

### Fiscal developments

Article 121 (1), second indent, of the Treaty requires: "the sustainability of the government financial position; this will be apparent from having achieved a government budgetary position without a deficit that is excessive, as determined in accordance with Article 104 (6)". Article 2 of the Protocol on the convergence criteria referred to in Article 121 of the Treaty stipulates that this criterion "shall mean that at the time of the examination the Member State is not the subject of a Council decision under Article 104 (6) of this Treaty that an excessive deficit exists".

Article 104 sets out the excessive deficit procedure. According to Article 104 (2) and (3), the Commission prepares a report if a Member State does not fulfil the requirements for fiscal discipline, in particular if:

(a) the ratio of the planned or actual government deficit to GDP exceeds a reference value ( defined in the Protocol on the excessive deficit procedure as 3% of GDP), unless:

– either the ratio has declined substantially and continuously and reached a level that comes close to the reference value; or, alternatively,

– the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value;

(b) the ratio of government debt to GDP exceeds a reference value (defined in the Protocol on the excessive deficit procedure as 60% of GDP), unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace. In addition, the report prepared by the Commission must take into account whether the government deficit exceeds government investment expenditure and all other relevant factors, including the medium-term economic and budgetary position of the Member State. The Commission may also prepare a report if, notwithstanding the fulfilment of the criteria, it is of the opinion that there is a risk of an excessive deficit in a Member State. The Economic and Financial Committee formulates an opinion on the Commission's report. Finally, in accordance with Article 104 (6), the EU Council, on the basis of a recommendation from the Commission and having considered any observations which the Member State concerned may wish to make, decides, acting by qualified majority and following an overall assessment, whether an excessive deficit exists in a Member State.

**Exchange rate developments**

Article 121 (1), third indent, of the Treaty requires: "the observance of the normal fluctuation margins provided for by the exchange rate mechanism of the European Monetary System, for at least two years, without devaluing against the currency of any other Member State".

Article 3 of the Protocol on the convergence criteria referred to in Article 121 of the Treaty stipulates that: "the criterion on participation in the exchange-rate mechanism of the European Monetary System referred to in the third indent of Article 121 (1) of this Treaty shall mean that a Member State has respected the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System without severe tensions for at least the last two 16 years before the examination. In particular, the Member State shall not have devalued its currency's bilateral central rate against any other Member State's currency on its own initiative for the same period."

**Long-term-interest rate developments**

Article 121 (1), fourth indent, of the Treaty requires: "the durability of convergence achieved by the Member State and of its participation in the exchange_rate mechanism of the European Monetary System being reflected in the long-term interest_rate levels". Article 4 of the Protocol on the convergence criteria referred to in Article 121 of the Treaty stipulates that: "the criterion on the convergence of interest rates referred to in the fourth indent of Article 121 (1) of this Treaty shall mean that, observed over a period of one year before the examination, a Member State has had an average nominal long_term interest rate that does not exceed by more than 2 percentage points that of, at most, the three best performing Member States in terms of price stability. Interest rates shall be measured on the basis of long-term government bonds or comparable securities, taking into account differences in national definitions."

Source: ECB Convergence Report 2004.

# ECB rises rates: first time in two years

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**

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## Executive summary

The ECB was right to hike interest rates in December. Monetary policy had been far too expansionary. This does not represent any short-term risk to goods and services price inflation. But loose monetary policy is at least partly responsible for the inflation of asset prices. The ECB should therefore continue to hike rates to a neutral level. This would not pose a risk to euro-zone GDP growth which mainly suffers from the absence of labor market reforms.

## 1. An Evaluation of the December 2005 ECB rate hike

On December 1, 2005, the ECB raised the refi rate from 2.0% to 2.25%. It was the first change in rates since June 2003 and was effectively pre-announced by President Trichet on November 18th.

The increase in rates was overdue for three reasons:

• At 2¼% the refi rate is at a record-low level. No country joining the European Monetary Union has seen such low central bank rates since the end of World War II. Such low interest rates can only be justified by an economic emergency situation. However, in 2004 the euro-zone economy grew by 1.8%, last year it should have reached 1.4%. This is not very much below our estimate of the long-term growth potential of the eurozone (1¾%). Consequently, there has been no emergency situation to justify record-low interest rates.

• The ECB intends that money supply M3 expands at an annual rate of 4.5%. However, M3 has risen far in excess of the target since June 2001. Since then, the ECB has brought 13% more liquidity into circulation than needed to finance low-inflation growth. This oversupply has never been as high as currently (chart 1). It has not yet shown up in underlying inflationary pressures. Instead, easy money inflated asset prices. Since the start of EMU, ex-German house prices have risen as quickly as in Japan during the second half of the eighties (chart 2). If prices were to fall, this could put at risk both economic growth and the balance sheets of banks. I would not go so far as to say that the ECB caused the house price boom. But its overly excessive policy allowed house prices to rise.

CHART 1

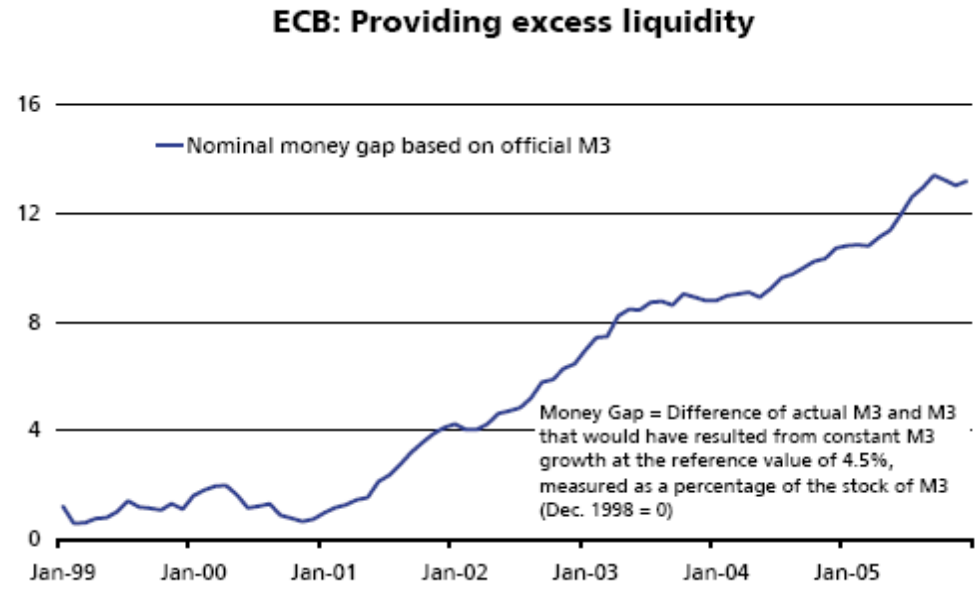
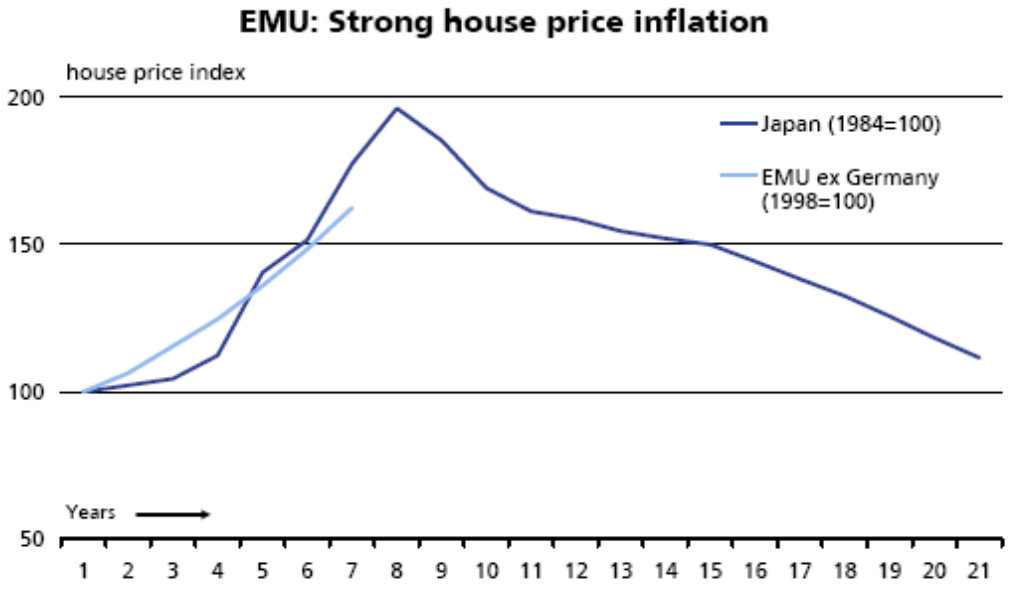



CHART 2




The ECB has been aware that monetary policy needs to be firmed for many quarters. In autumn 2004, the bank already created the impression that it wants to hike interest rates. During this time the market had priced in nearly two 25 basis points hikes until spring 2005. However, after it became clear that the economy had started to slow down, the ECB softened its tone and markets revised down their rate expectations. This shows that the December 2005 rate hike has a tortuously long history. The rate hike was overdue.

## 2. Can the December rate hike been justified by inflation fears?

The ECB said that the December rate hike was necessary to keep inflation expectations in check.

However, one has to say that prior to the rate hike market-based inflation expectations[1] had not risen significantly. They went up from 1.9% in early July to a mere 2.1% in November 2005 (chart 3); this represents the usual fluctuations within an established trading range. The decline in inflation expectations following the rate hike should be seen in this context.

CHART 3


Various measures of core inflation – inflation excluding energy and other volatile items - had also not signaled any short-term inflation risks before the rate hike. Chart 4 shows two commonly used measures which demonstrates that core inflation had been around 1½% and did not show any upward trend.

[1] Market based inflation expectations are calculated as the difference between the nominal yield of a conventional government bond and the real yield of an inflation protected government bond These bonds have a maturity of about 10 years.

CHART 4

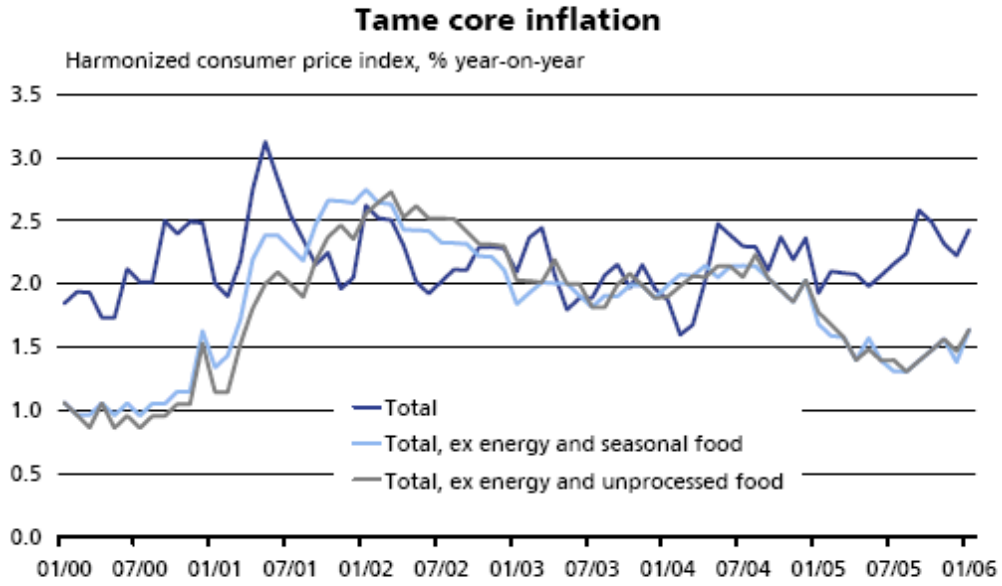



CHART 4

Finally, wages, as the most important driver of inflation, had risen modestly at about 2%, not showing any upturn.

All this means that prior to the rate hike there were no immediate risks that inflation or inflationary expectations would go up. The ECB may thus not have used the right argument for the rate hike. Nevertheless, the decision for higher rates was absolutely appropriate: The aforementioned excess liquidity cannot forever inflate only asset prices. At some point in the future, it will also have an impact on the prices for goods and services and drive inflation up. Consequently, ,the ECB is right to have started the process to normalize ultra-low rates.

## 3. Consensus or disagreement within the ECB Governing Council?

Prior to the December rate hike, some ECB council members publicly created the impression that they oppose a rate hike. This was interpreted by markets as a clear sign of a split within the council. This impression was also created by unknown sources from within the ECB or its council. The news agency "Market News" – which sells its services to financial markets participants – regularly cites such sources who admit to splits within the ECB council.

My impression is that the disagreement within the ECB council is stronger than compared to the US Fed. On the other hand, the council was able to reach a consensus despite earlier disagreements. This is what counts in the end.

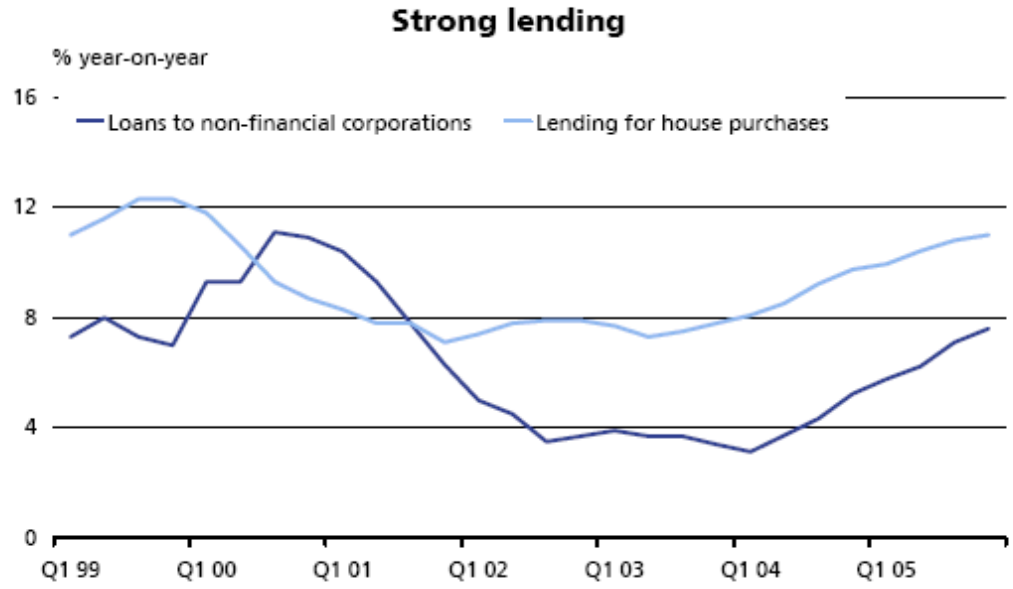
## 4. Are higher ECB rates a risk for the euro-zone growth outlook?

Monetary policy has the power to impact economic growth. But even if the central bank were to raise rates by an additional 25 or 50 basis points to 2.5% or 2.75%, monetary policy would still be accommodative:

• Low real rates: If one subtracts long-term inflationary expectations (2¼%, derived from inflation protected government bonds) from the ECB's refi to calculate real short-term interest rates, they would be below 1%, which is very low by historical standards.

• Despite the December rate hike, loans to the private sector are still expanding rapidly, especially lending for house purchases (chart 5).

CHART 5




The trend growth rate for the euro-zone has fallen from 2% to 1¾% over the past fifteen years. This was mainly caused by a huge decline in Germany's trend growth which can be explained by very rigid labor markets and by the fact that the costs of social security are linked to wages and thus raise the costs of labor. It is mainly the inability to reform labor markets which causes the underlying growth weakness in the euro zone. One should thus not blame weak growth on the ECB. The ECB should continue to hike rates until they have reached a neutral level which is in the region of 3% to 3½%.

## 5. Are the ECB staff projections for 2006 growth realistic?

According to the latest staff projection issued in December, the ECB expects euro-zone GDP to rise by 1.9% (mid-point of the 1.4% to 2.4% range) in 2006. This forecast is more or less in line with the consensus of private sector economists. After a growth slowdown in Q4 2005 (0.3% quarter-on-quarter after 0.6% q-o-q in Q3), growth is quite likely to pick up in Q1. However, the end of the house price boom in the US and some euro-zone member states (France, Spain) could cause growth to slow down in the second half of 2006. If anything, this is the main risk to the staff projection of the ECB. In the past, the forecasts of the ECB's staff had a tendency to overestimate GDP growth.

## 6. Further outlook for ECB rates

Industrial orders and survey-based leading indicators, such as the purchasing managers' index, currently point up. The euro-zone economy should grow quite nicely in Q1 2006 and to a lesser extent in Q2. All the signs are that in March the ECB can confirm its 1.9% 2006 GDP forecast which had been made in December. This makes it easy for the bank to justify a rate increase which is why we and many others expect the ECB to hike rates from 2.25% to 2.50 in early March. Most observers expect the ECB to deliver an additional rate hike in June. We are still not convinced that this will happen because growth risks stemming from the US will have become more visible during Q2.

# Possible Entry into the Euro Zone of New Member States in January 2007: An Evaluation of Medium- and Longer-Term Economic Consequences for Estonia, Lithuania and Slovenia

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**

**Leon Podkaminer**

## Executive Summary

By January 2007 Estonia, Lithuania and Slovenia will have spent more than two years in the ERM-2 without experiencing any (let alone *severe*) exchange rate tensions. The record of the three countries on the satisfaction of other Maastricht criteria is, overall, also positive. Inflation in Estonia (currently a bit too high) will be falling in the course of 2006. On purely formalistic grounds it seems rather difficult to object to the three countries' entry into the euro zone at the beginning of 2007.

Nothing in the past or present fiscal performance of the three countries justifies an expectation of a breach of the Maastricht public deficit criterion anytime soon – whether or not these countries adopt the euro as expected. Even if growth were to slow down after the adoption of the euro (which is highly unlikely), given the low levels of public debt and low interest costs, the fiscal deficits will remain low.

In all three countries the price stability and low interest rates have been achieved under stable exchange rates (in Estonia and Lithuania well before the entry into ERM-2, in Slovenia under ERM-2). It is difficult to find reasons why the formal adoption of the euro should provoke higher inflation.

It is often assumed that the real economic features of the three countries are still different from the ones prevailing in the current euro area. Actually, Slovenia is more developed, and affluent, than the euro country Portugal. The larger gap separating Estonia and Lithuania from the euro area countries is narrowing very fast.

The entry into the euro area is unlikely to affect negatively the short-term growth. Current expansion of credit to the private sector, which is a natural development given low interest rates and generally optimistic moods, has not become excessive. The private sector's debt-to-GDP ratios are still relatively low.

In the medium run the three countries will continue to perform quite well – with or without the euro. They have been performing quite very well with fixed exchange rates. The present exchange rate parities have not generated problems in foreign trade and/or current accounts that could signal overvaluation. The high growth of exports is a sign of a comfortable competitive position. The ongoing fast structural changes, technological upgrading, strong gains in labour productivity, high capital inflows, etc. make the erosion of external competitiveness unlikely in the foreseeable future.

With labour markets that are much more flexible than in the current euro area, lower (or much lower) wages, high levels of human capital, and many tax advantages, Estonia, Lithuania and Slovenia will probably remain competitive vs. the EU-15 even in a longer-run perspective. The catch-up process is likely to proceed swiftly even if these countries were denied entry into the euro club. But, most probably, their growth will be even more solid if they enter the euro zone sooner rather than later.

## Introduction

Three out of the seven New Member States that currently participate in the ERM-2 may be entering the euro zone in January 2007. These are Estonia, Lithuania and Slovenia. By January 2007 all three countries will have spent more than two years in the ERM-2, without experiencing *any* (let alone *severe*) exchange rate tensions. Their record on the satisfaction of other Maastricht criteria is, overall, also positive. Inflation in Slovenia and Lithuania is currently fairly low – and is unlikely to accelerate anytime soon. Only in Estonia is inflation currently slightly too high. Nonetheless, inflation is expected to fall substantially in the course of 2006. Then, all three countries have enviably low, or very low, levels of public debt. All have conducted fiscal policies resulting in quite low public deficits (actually mostly surpluses in Estonia), all have fairly low interest rates. On strictly formalistic grounds it may be rather difficult to argue against their entry into the euro zone.

However, a more relevant set of questions is about the possibly *negative* economic consequences of their entry into the euro zone. More specifically, one is interested in the possibly negative consequences for *these* countries. (It must be stressed here that an eventual entry of Estonia, Lithuania and Slovenia is highly unlikely to have any real impact whatever – positive or negative – on the euro itself and on the present euro zone countries. The economic size of the three countries combined is truly microscopic when compared with the present euro zone).

I shall be briefly considering two questions:

1) Assuming that the three countries adopt the euro at the beginning of 2007, what are the chances of their observance of the Maastricht criteria in the medium run ?

2) Given the fact that '*... the real economic features* [of the countries considered] *are still substantially different from the ones prevailing in the current euro area ...*', is the adoption of the euro likely to affect their real convergence negatively in the longer run ?

## Breaches of the Maastricht criteria unlikely in the medium term

### The fiscal/debt criteria

Several present members of the euro area had quite a hard time prior to the adoption of them euro. To meet the Maastricht criteria they had to go through a period of painful 'fasting' that took up to several years. Their records on public debt and fiscal balances were improving rather gradually – sometimes probably not without a good deal of creative fiscal accounting. Then, several years *after* being admitted into the euro zone, Greece, Portugal, and Italy have apparently returned to their 'old habits' – with the fiscal deficit-to-GDP ratios persistently violating the magical 3 per cent Maastricht threshold. Of course, it would be incorrect to attribute the high fiscal deficits in Greece, Italy or Portugal primarily to the authorities' inadequate determination, or ability, to 'fight the deficit'.

Whatever the reasons for the reemergence of fiscal deficits in these countries, one must admit that high deficits are more likely to reappear in the traditionally high-deficit countries, than in the traditionally lowdeficit ones. In other words, countries in which the authorities had to force major changes in fiscal policy (in order to qualify for membership in the euro area) seem susceptible to recurring high deficits – once the danger of not being admitted into the euro area is over. On the same principle, the n opposite statement seems valid: countries that have not, in the past, shown any obvious propensity to run high fiscal deficits, should be expected to run low deficits also *after* being admitted into the euro zone.

Equipped with that criterion, let us reflect briefly on some facts from the past fiscal behaviour of Estonia, Lithuania and Slovenia:

1) Fiscal deficits of the three countries have been low, or very low, all along – essentially since they became independent states. Not infrequently public finances were in *surplus* (as is recently the case in Estonia).

2) Roughly balanced public finances prevailed long *before* the appearance of the euro, and long before the countries in question could realistically expect to accede the European Union. Thus it would be rather odd to ascribe, to the (successive) governments in these countries, some mischievous intentions. Obviously, they have not been engineering balanced budgets in order to impress the EU authorities *before* being admitted into the euro club. And there is nothing to suggest that they intend to generate high deficits anytime *thereafter*.

3) There is relatively little magic behind these countries' good fiscal performance. They all started as independent nations (in the early 1990s) with very small levels of public debt. This was especially the case in the Baltic countries. Because of this the interest costs on public debt are tiny in all three countries (and particularly in Estonia). As percentages of the GDP, the interest costs in these countries are small fractions of the costs that burden public finances in Italy, Greece or even Portugal. Of course, other factors have been important too (especially in Estonia and Lithuania): continuing strong GDP growth, relatively ungenerous social spending, and also the systemic restrictions on public sector borrowing implicit in their exchange rate regimes (currency boards).

**Summing up**: Nothing in the past or present fiscal performance of the three countries justifies an expectation of a breach of the Maastricht deficit criterion (and of course of the public debt criterion as well) anytime soon. Even if growth were to slow down after the adoption of the euro (which is unlikely, as will be discussed later), given the low levels of public debt, and correspondingly low interest costs, the fiscal deficits will remain low.

**The inflation/interest rate criteria**

Inflation in Estonia and (especially) in Lithuania has been generally low for quite some time (since about 1998-9). The 'hard peg' exchange rate regimes (currency boards) adopted in both countries proved efficient in containing inflation. Of course, neither country is entirely immune to unwelcome price developments, such as occasional deflation (e.g. in Lithuania), or occasional inflationary acceleration. The recent inflationary acceleration in both countries (stronger in Estonia) is of a temporary nature. It has much to do with the fast expansion of consumer credit – which is driven by optimistic consumer sentiments and very low interest rates. It must be added that interest rates are essentially beyond the control of the domestic monetary policy in these countries.

Under the currency board regime the monetary authorities do not have the powers to interfere with the monetary aggregates or interest rates. Nonetheless, the credit boom in both countries is certainly not getting out of control. The domestic banking systems in both countries are dominated by prudent and experienced international institutes that are unlikely to overextend their lending to the private sector.

Slovenia approached the current price stability/low interest rates gradually. Over the years the Slovenian authorities conducted a policy of crawling peg. The exchange rate was (nominally) weakening more or less in line with inflation. This strategy prevented real appreciation (and helped preserve price competitiveness of Slovenia's exports) – while at the same time slowing down the process of disinflation. Under the ERM-2 regime, the authorities stopped engineering the nominal devaluation – and this paid off in the form of faster disinflation and convergence in the levels of interest rates.

**Summing up**: In all three countries the price stability and low interest rates have been achieved under (and due to) stability of the exchange rates: in Estonia and Lithuania even before the entry into the ERM-2, in Slovenia just under the impact of ERM-2. It is difficult to find good reasons why the adoption of the euro – which implies an ultimate stabilization of the exchange rates – should provoke higher inflation and/or rising interest rates. It may be added that inflation has generally been no problem for the current euro zone countries – even for those which had had persistently high inflation until only shortly before adopting the euro (Greece, Portugal, Italy and Spain).

## Good prospects for real convergence

### Real position of the three countries vs. the present euro area

The real economic features of the three countries under consideration are still different from the ones prevailing in the current euro area. How much different ? Judging by the GDP level, not very much really – at least in the case of Slovenia. In 2006 Slovenia's per capita GDP (at Purchasing Power Standards) will be about 73% of the average EU-15 level – higher than Portugal's (ca. 65%) and close to Greece's (ca. 75%). Portugal and Greece were actually not much more affluent (in relative terms) when entering the euro area. Their per capita GDP in 1999 stood at about 70% and 62% respectively of the then EU-15 level (while Slovenia's equalled 67%). Lithuania and Estonia are still much poorer: in 2006 their per capita GDP levels are likely to approach 47% and 51% respectively of the average EU-15 level. However, the speed at which they have been catching-up with the EU-15 is phenomenal. In 1999 their relative per capita GDP levels had been only 34% and 37% respectively.

The question to be answered is this: can the adoption of the euro adversely affect further medium- and longer-term growth (and convergence) of Slovenia, Estonia and Lithuania ? But first it may be useful to consider the likelihood of some shorter-term negative impacts which are connected with the nominal convergence of these countries.

### Current credit booms unlikely to impair shorter-term growth

As already mentioned, falling interest rates and optimistic expectations have been propelling expanding consumer credit in all three countries. A similar development was observed for a couple of years also in the so-called cohesion countries (Greece, Ireland, Portugal, Spain) during the run-up to euro introduction.

Sometimes the opinion is expressed that the credit boom in Portugal got out of control, resulting in e.g. excessive levels of the private sector's debt burden. This has been one of the factors contributing to the very weak performance of Portugal (virtually a protracted stagnation since 2001). Portugal's lesson is not, however, relevant for the three countries considered. The levels of private debt (relative to GDP) are incomparably lower in the three countries, ranging between about 30% (in Lithuania) and 70% (in Estonia) – against Portugal's about 140%. Perhaps it should be added that the effects (positive as well as potentially negative) of the past and present credit expansions in Slovenia, Estonia and Lithuania will be materializing whether or not thesecountries enter the euro area in 2007.

**Positive medium-term growth prospects**

The adoption of the euro is commonly believed to bring many advantages (elimination of the exchange rate risk and currency speculations, lower transaction costs, greater price transparency, etc.). All these good things should be accelerating the overall growth. Of course, any quantification of the gains from the euro adoptions is tricky. But surely, our three countries will be benefiting from lower risks, costs, etc. In addition, their (already good) reputation will be further improved on becoming a member of the euro club – and this will be conducive to higher foreign direct investment.

The only *potential* disadvantage of adopting the euro is that this would rule out the option of devaluing the national currency. Devaluation (whether guided – under a managed exchange rate regime, or spontaneous – under flexible exchange rate regimes) might prove essential for restoring external competitiveness, should this be eroded by e.g. insufficient progress in domestic productivity, or an excessive rise in domestic production costs.

Now, it must be observed that the countries considered are highly unlikely to be in need of any 'competitive devaluation', at least in the *medium term*. Estonia and Lithuania have been functioning for over a decade without any devaluation: their exchange rate parities (vs. the euro) have proved more or less appropriate. Under their fixed exchange rates exports have been rising at high (and recently even accelerating) speeds – a clear symptom of a strong competitive position. Of course, they have also run large (though falling as a percentages of GDP) trade and current account deficits. This is a normal situation under very high inflows of foreign capital and explosive rates of growth of fixed investment and overall GDP.

In the case of Slovenia the period of exchange rate stability is of course much shorter, as it effectively started with the entry into the ERM-2. However, Slovenia's exports have also performed very well during the past two years, growing as fast as they did when they were 'assisted' by (gradual) devaluation. Actually, Slovenia's trade and current accounts have always been close to balance – and even improved in 2005 (despite near stagnation in the EU-15). This is an expression of Slovenia's competitiveness, which is unlikely to be eroded in the medium term.

Of course, one has to remember that the present strong competitive position of the three countries has been due to ongoing strong gains in labour productivity, fast structural changes combined with the introduction of new technologies and products (foreign direct investment), moving up the 'quality ladder', etc. This is reflected in the fast convergence of prices received by these countries for their exports to average EU-15 import prices. Labour productivity in Slovenia has been rising about three times faster that in the EU-15, in Estonia and Lithuania five to six times. It is quite natural that, given such positive real-side trends, the three countries do seem to deplore the loss of the devaluation option.

**Summing up**: Estonia, Lithuania and Slovenia have been performing very well with fixed exchange rates. The present exchange rate parities have not produced tensions in foreign trade and/or current accounts that could signal overvaluation. The high growth of exports is a sign of a strong competitive position. The ongoing fast structural changes, technological upgrading, strong gains in labour productivity, high capital inflows, etc. make an erosion of external competitiveness highly unlikely, at least in the medium term.

**Good longer-term prospects**

While in the medium term none of the three countries is likely to need any competitive devaluation, and thus an own national currency, *hypothetically* at least, the situation may be different in the long-run perspective. One, or all, of our countries may then regret not having the devaluation option. (Incidentally, this seems to be a sentiment sometimes voiced in some present euro area member states which cannot withstand the competitive pressures emanating from Germany, which is conducting a wage-deflation policy.)

A hypothetical possibility of growth in the three countries under consideration coming to a standstill – just because of the erosion of external competitiveness and inability to devalue – belongs to a rather remote future. In a more meaningful long run, the three countries are likely to fare very well with the euro (and not much worse *without* it). The reasons for this are simple, though manifold. First, they have a clear advantage over the present euro area member states as far as the levels of wage and non-wage costs are concerned. Even though wages in these countries are of course rising, they will remain much lower (especially in Lithuania and Estonia) than in the EU-15 for a long time. Second, the labour markets in these countries are much more flexible than is the case with the major euro area countries. As such they are more likely to absorb eventual losses in competitiveness (e.g. due to a slowdown of productivity growth) than the rich EU countries. Third, despite lower wage rates and higher labour market flexibility, the quality of human capital (skills and levels of education of the labour force) are generally very high – actually much higher than in many present euro area countries. (Lithuanian and especially Estonian education indicators are not much worse than in the European leaders.) Fourth, the present tax systems in Lithuania and Estonia (and the planned tax system changes in Slovenia) will continue to attract foreign capital, even if occasionally at the expense of the present euro area countries. Fifth, the combination of all four factors just listed will be producing strong synergies. Under such conditions an erosion of competitiveness seems rather unlikely, even in a reasonably long run. Of course, *beyond* the reasonable time horizons, things may change.

**Summing up**: With labour markets much more flexible than in the current euro area member states, lower (or much lower) wages, high levels of human capital and many tax advantages, Estonia, Lithuania and Slovenia are likely to remain competitive vs. the EU-15 even in a longer-run perspective. The catch-up process will be proceeding swiftly, even if these countries were to be denied entry into the euro club. But, most probably, their growth will be more solid if they enter the euro zone sooner rather than later.

# Possible Entry into the Euro Zone of New Member States in January 2007

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**

**Anne Sibert**

## I. Summary

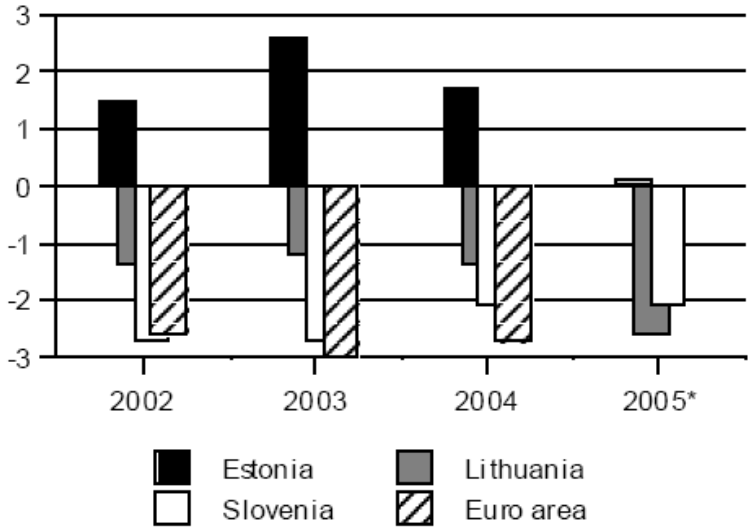
Estonia, Lithuania and Slovenia joined the ERM in June 2004 and hope to become members of the Euro area by 1 January 2007. Each of them satisfies four of the five Maasctricht criteria for full membership in EMU: the two fiscal criteria, the exchange rate criterion and the interest rate criterion. Unfortunately, while Slovenia is likely to satisfy the fifth criterion, the inflation criterion, Estonia is unlikely to satisfy it in either 2006 or 2007 and it is uncertain whether Lithuania will be able to comply by 2007. In this note I detail the progress each of these countries has made toward satisfying the Maastrict criteria and their performance in this regard relative to the Euro area as a whole. In addition to considering the likelihood of these countries satisfying the Maastricht criteria in the short run, I assess their longer-run prospects for economic convergence.

## II. What are the prospects for Estonia, Lithuania and Slovenia to satisfy the convergence criteria?

Estonia, Lithuania and Slovenia aspire to adopt the Euro on 1 January 2007. Slovenia is likely to be successful in meeting the Maastricht criteria; Estonia is unlikely to be and it is uncertain whether or not Lithuania will comply.

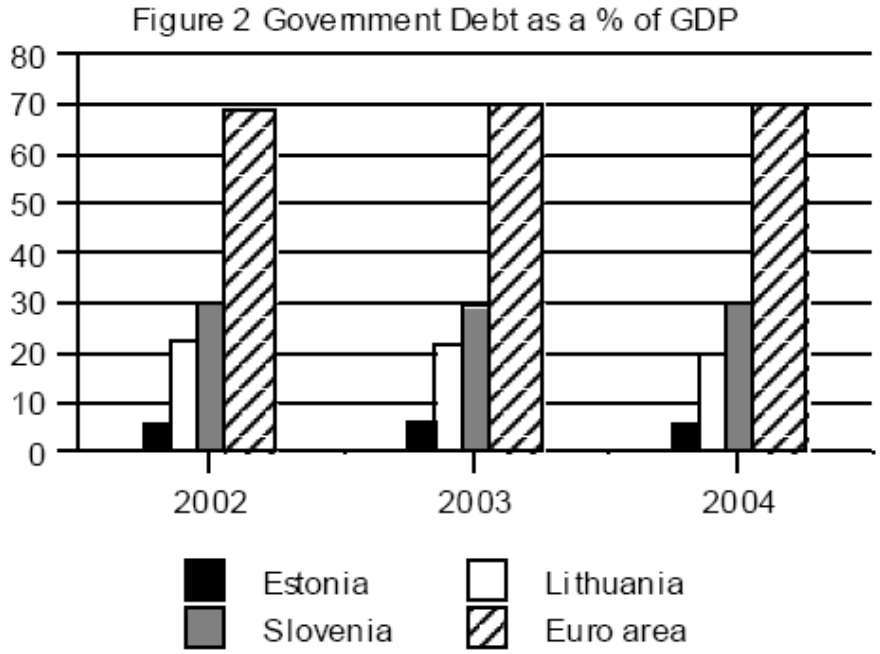
The Maastricht Treaty requires that potential Euro area members have a sustainable fiscal position. This is measured by a pair of criteria: countries are to have a general-government-deficit-to-GDP ratio of less than three percent and a gross-general-government-debt- to-annual-GDP ratio of less than sixty percent. The general government surplus (deficit, if negative) is depicted in Figure 1 and it can be seen that the three candidate countries are in little danger of exceeding the three percent limit. Estonia has been running surpluses and Slovenia and Lithuania are running small deficits. Slovenia is running the largest deficits, but the Slovenian central bank projects that its deficits will continue to decline and to reach one percent in 2008. The same fiscal austerity has not characterised Euro-member countries; in 2004 the Euro area as a whole had a 2.7 percent deficit-to-GDP ratio and the three-percent limit was exceeded by Germany, Greece, France and Italy.

Figure 1. Government Surplus as a % of GDP




Source: For years 2002 - 2004, *ECB Monthly Bulletin* Feb. 2006. The 2005 estimates are from the EBRD *Transition Report* 2005.

General government gross debt as a share of GDP is depicted in Figure 2 below. As is seen -- unlike the Euro area as a whole -- the three candidate countries are well below the sixty percent upper bound. The Estonian debt-to-GDP ratio hovers at about five percent, lower even than Luxembourg's. The debt-to-GDP ratio is about twenty percent in Lithuania and thirty percent in Slovenia, well below the debt-to-GDP ratio in most of the current member states.



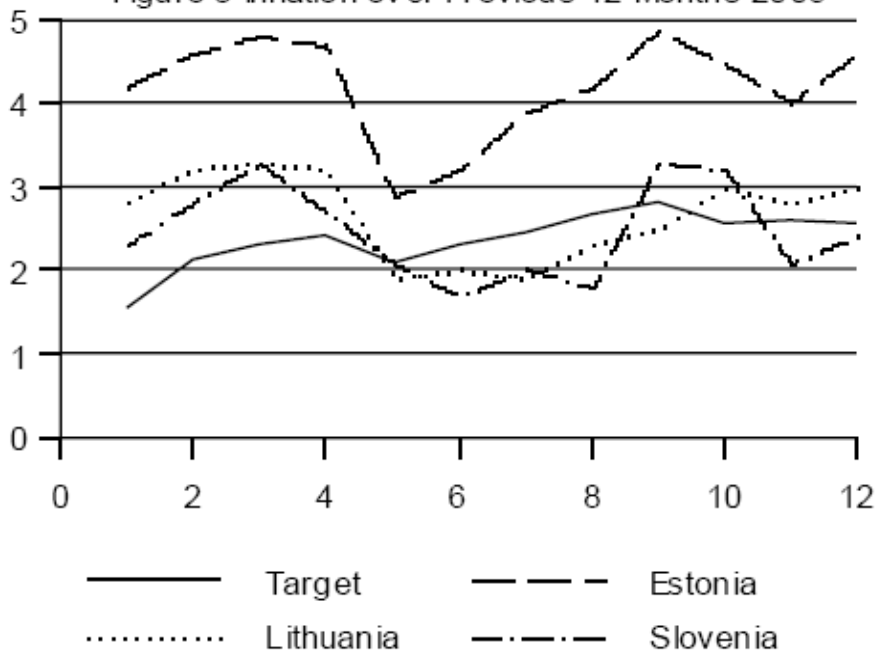

Source: *ECB Monthly Bulletin* Feb. 2006.

Aspiring member countries must join the exchange rate mechanism (ERM) of the European Monetary System. They are required to maintain the value of their currency within ± 15 percent bands around a fixed central parity with the euro for two years prior to joining, the Euro area. Estonia, Lithuania and Slovenia joined ERM II on 28 June 2004. Estonia and Lithuania maintain currency board arrangements and assumed a unilateral commitment to peg their currencies to the euro; the kroon and litas have traded at their central parity rate since Estonia and Lithuania joined the ERM. Slovenia's monetary policy is aimed at stabilising its exchange rate and the tolar has traded close to its fixed central parity rate since entry.

Potential entrant countries must satisfy an interest rate criterion: Long-term (ten-year) nominal interest rates on their public debt must be on average within two percent of the average of interest rates on the government debt of the three countries in the wider EU25 with the lowest inflation rates for one year prior to examination. This criterion should be easily met; bond yields within the Euro area have converged and the average of the three lowest inflation countries' interest rates is close to the Euro area average. In December 2005, the ten year interest rates on public debt in Lithuania and Slovenia were 3.79 and 3.69 percent, respectively. The Euro area average was 3.41 percent, making the target rate well over five percent. Estonia has lacked an instrument for comparison (that is, at least a five-year bond), but based on its low public-sector kroon interest rates and sound budgetary position, it should not face difficulties meeting this criterion.

The criterion that is likely to provide grounds for excluding Estonia and perhaps Lithuania is the inflation criterion: the annual inflation rate cannot exceed the average of the three best performing countries in the wider EU25 by more than 1.5 percent for one year prior to the examination. Inflation over the previous twelve months for the three candidate countries is shown in Figure 3 below. Target inflation is monthly inflation over the previous twelve months in the three lowest inflation countries plus 1.5 percentage points.

Figure 3 Inflation over Previous 12 Months 2005




Source: Eurostat.

Estonia provides a good example of the difficulties inherent in trying to satisfy both the exchange rate and inflation criteria. The legislated primary objective of the Estonian central bank is to ensure price stability and Estonia has operated a remarkably successful currency board since 1992 and, since 28 Jun 2004, Estonia has been part of ERM II with an unchanged exchange rate. As a small open economy with a fixed exchange rate its inflation is primarily determined by external events and – mainly as a result of oil price rises – its inflation rose to 4.1 percent in 2004. As a consequence, Estonia will not meet the Maastricht inflation criterion by Jun 2006; it is unlikely to meet it in 2007.

Even without an energy price shock, the Balassa-Samuelson effect implies that as the accession countries catch up with Euro area countries their real exchange rates will appreciate. For currency-board countries such as Estonia and Lithuania with a fixed nominal exchange rate this implies that their inflation will be higher than in Euro area countries. Short data sets and cyclical factors make it difficult to assess the size of the inflation increase due to the Balassa- Samuelson effect on the accession countries, but current estimates are in the range of 1.5 percent to 2.5 percent.[1] As the Maastricht Treaty only allows for inflation to be 1.5 percent above the *best*-performing members of the EU, this creates a serious problem for Estonia and Lithuania.

As a consequence, Estonia and Lithuania may simultaneously satisfy the inflation and the exchange rate criteria by luck. The only policy options are either to abandon their highly successful currency boards and adopt a more flexible exchange rate system: the fifteen percent bands in ERM II permit more leeway than the 1.5 percent band in the inflation target. Or, they can use fiscal policy to drive down domestic demand to the point where both criteria can be met. Neither choice seems particularly appealing.

Recent inflation performance has been better in Slovenia than in Estonia and Lithuania. Partly this may reflect Slovenia's greater convergence towards Euro area levels. Per capital income in Slovenia is already 70 percent of the average of current area members and, thus, Slovenia is likely to be experiencing less of a Balassa-Samuelson catch-up effect. In addition, it is possible that Slovenia is more able and willing than are Estonia and Lithuania to influence inflation through its control of administered and regulated prices.[2]

## III. Medium-term prospects for Estonia and Lithuania

As very small open economies, a fixed exchange rate system is unlikely to be viable for Estonia and Lithuania in the long run. If they fail to enter the Euro area, they face the eventual possibility of a financial crisis followed by a currency crisis. In the medium term, however, this risk is not substantial. Both Estonia and Lithuania have a reputation for being committed to their currency boards and their primarily foreign-owned banking sectors are healthy.

## IV. Longer-term prospects for Estonia and Lithuania

Both Estonia and Lithuania have experienced rapid growth in recent years. Real GDP growth in Estonia and Lithuania was an estimated 7.9 and 7.3 percent, respectively, in 2005. It is projected to be 6.5 percent Estonia and 6.25-6.50 percent in Lithuania in 2006.[3]

Although it is still low relative to other new EU members, income per capita in both Estonia and Lithuania has been converging toward EU levels.

[1] A discussion of this is found in Willem Buiter, "To Purgatory and Beyond: When and How should the Accession Countries from Central Europe Become Full Members of the EMU," 2004.
[2] The European Bank for Reconstruction and Development ranks countries on their degree of price liberalisation from 1 (a rigid centrally planned economy) to 4+ (an industrialised market economy). Estonia and Lithuania scored 4+; Slovenia scored a 4. Some other countries scoring a 4 were Azerbaijan, Kazakhstan and Ukraine.
[3] International Monetary Fund.

Estonia and Latvia have been remarkably successful in transforming themselves into market economies. The World Bank publishes an index measuring the ease of doing business in different countries. The index depends on such factors as business regulations, property rights and labour market rigidities. On this index, Lithuania and Estonia rank 15th and 16th in the world, respectively, not far behind the best EU25 performer (Denmark in 9th place) and ahead of Germany (19th place) and France (44th place).[1] Lithuania and Estonia's placing so high is a remarkable achievement; all of the reforms have taken place in only fourteen years since independence. The Heritage Foundation ranked Estonia fourth in its 2005 Index of Economic Freedom.

Estonia and Lithuania face some challenges, however. First, Estonia's persistent external imbalances are cause for some concern. Estonian growth has been achieved, in part, by borrowing from abroad. In recent years Estonia has run large current plus (new definition) capital account deficits.[2] These grew to 12.7 percent in 2004, but have declined to 10.4 percent in the first half of 2005. As a consequence, Estonian external indebtedness rose to over 80 percent of GDP in 2004 and is estimated to have risen to over 90 percent in 2005.[3] In Lithuania, current account deficits were 6.4 percent of GDP in 2004 and the IMF predicts that deficits will remain in the range of 7-1/4 - 8 percent of GDP in the next few years. Estonia's recent external imbalances smooth consumption and are not necessarily undesirable for a rapidly developing economy; Lithuania's smaller imbalances are certainly reasonable for a country in its stage of development. However, neither country can sustain its current external imbalances in the long run. A challenge for both countries will be to mobilise domestic savings: at 19 and 14 percent of GDP, respectively, Estonia's and Lithuania's savings are among the lowest of new EU countries.

Second, output appears to be close to potential in Estonia and above potential in Lithuania and there is a danger of overheating. The policy options are limited; fiscal policy and supervision of the banking system are the obvious tools. Fiscal policy could be tightened, although Estonia ran a small surplus in 2005. Regulatory measures may help protect both economies from some of the effects of large-scale credit expansion.

Third, some structural rigidities persist in Estonian and Lithuanian labour markets. It costs 33 weeks salary for a firm to fire a worker in both countries; this contrasts with no cost in the United States and 66.7 weeks salary for Germany. As do many European countries, Estonia has rules regulating working hours. The World Bank measures these rigidities; on a scale from zero (best) to 100 (worst), Estonia scores an 80 and Lithuania scores a 60. This compares with zero for the United States and 80 for Germany. This lack of flexibility reduces firms' incentives to respond to increased demand by hiring new workers.

[1] World Bank, *Doing Business in 2006*, overview. The first three countries are New Zealand, Singapore and the United States, respectively.

[2] The old definition capital account is now called the financial account. The new definition capital account comprises some former current account transactions: capital transactions and the acquisition and disposal of non-produced non-financial assets.

[3] Much of this is owed to the foreign parents of Estonian subsidiaries.

## V. Longer-term prospects for Slovenia

Slovenia is the wealthiest and mostly likely of the three candidate countries to gain full EMU membership in 2007. Real GDP growth was 4.2 percent in 2004. While fiscal policy satisfies the Maastricht criteria, longer-run sustainability requires tightening. The banking system is healthy.

Slovenia's problems are structural: in many ways it has converged less toward countries in the Euro area than have Estonia and Lithuania. Recent policy appears to have been aimed more at ensuring an early entry into the Euro area than at promoting the long-run health of the Slovenian economy. Slovenia faces significant rigidities, standing in 63rd place in the World Bank's ranking of the ease of doing business. It costs firms in Slovenia 43 weeks of salary to fire a worker. Increased labour market flexibility would enable Slovenia to better absorb asymmetric shocks in a monetary union, but there are indications that matters have worsened rather than improved in recent years.[1] It takes 60 days to complete the procedures necessary for starting a new business in Slovenia, compared to 26 days in Lithuania, 8 days in France and 2 days in Australia.[2] Improving matters would promote increased direct investment.

[1] Respondents too the 2005 EBRD/World Bank Business Environment and Enterprice Survey, cited in the EBRD *Transition Report 2005*.
[2] 9 Krueger, *Ibid.*

# Estonia, Lithuania, Slovenia: poised to adopt the euro. Views on medium and long-term convergence

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**


## Prof. Dr. Norbert Walter

Chief economist of Deutsche Bank Group and managing director of Deutsche Bank Research


## Executive Summary


**Medium-term nominal convergence is on track.** The alignment of nominal interest rates with EU levels is expected to persist as a credible monetary policy of the ECB keeps inflation expectations low and risk premia do not diverge either. Relatively tight fiscal policies and low public debt levels will ensure the sustainability of debt levels over the medium term. Inflation rates are anticipated to exceed EMU-average levels in the medium term due to price level adjustments, the Balassa-Samuelson effect, increases in taxes and administered prices and second-round effects from demand side pressures. If current market exchange rates are chosen as conversion rates, the risk of a medium-term competitive distortion is quite limited.

**Progress in real convergence fuelled by EMU entry.** Real convergence is defined as similar levels of per capita income as well as low susceptibility and high adaptability to asymmetric shocks. The real convergence path of the three EMU candidate countries crucially depends on how well they will exploit the benefits of EMU, for two reasons. EMU membership is estimated to raise GDP up to 20% over the next 20 years due to trade stimuli and is expected to lessen the susceptibility and enhance the adaptability to asymmetric shocks.

**Convergence of per capita incomes will take time.** Slovenia will have reached roughly 80% of the EMU-12 average per capita income levels in 2020 (purchasing power parity standards). By then Estonia will have surpassed Portugal to reach 67% and Lithuania will end up at below 60%. This implies that even a vigorous catching-up process is likely to take decades rather than years.

**Low susceptibility and high adaptability to asymmetric shocks to make life easier within EMU.** Business cycle correlations between the three countries and the euro area can be expected to increase even further and do not constitute an obstacle to a vigorous real convergence process. The countries will be able to absorb asymmetric shocks due to a relatively high flexibility of prices and wages and a certain degree of labour mobility.

**Current account deficits are to be monitored closely.** With the external debt stock having grown to above 45% of GDP in Lithuania and to above 80% in Estonia in 2005, debt service – let alone the redemption of debt – might take a considerable toll on future consumption and investment. For a vigorous convergence scenario it will be essential to ensure that the high current account deficit reflects sound private investment rather than conspicuous consumption.

**Watching out for credit booms.** While buoyant credit growth is an expected feature of real convergence, the very fast pace of credit growth raises concerns from a financial and macroeconomic stability perspective. Several studies provide evidence of excessive credit growth in Estonia and Lithuania since 2001. Contin-ued intense monitoring and adequate policy responses will be crucial during the entire convergence process to avoid problematic boom-and-bust cycles.

# 1. Looking beyond euro adoption

Estonia, Lithuania and Slovenia are the first of the new EU member states applying for EMU entry at the beginning of 2007. Precondition for EMU entry in 2007 is passing the convergence test in 2006. The three countries will be subject to the same nominal convergence criteria of low inflation rates, interest rate convergence, budget discipline and exchange rate stability as the twelve countries already in EMU. The convergence examination will also consider aspects of real convergence (according to EC Treaty, Art. 121) including the progress with market integration, the development of the current account, unit labour costs and other price indices. The three countries have to prove a "high degree of sustainable convergence". Thus, an intense debate is under way about the sustainability of the convergence process in these three countries especially concerning inflation rates and current account deficits, which are believed to imply big risks regarding competitiveness after entry into EMU.

This briefing paper aims to look beyond the short-term fulfilment of the Maastricht criteria. We check the medium and long-term convergence prospects in both nominal and real terms in those three countries. The task of this paper is to identify the scope of convergence that still has to take place as well as risks and possible setbacks that could slow down the convergence process after the introduction of the euro. It is, however, not the aim to propose new entry hurdles. A key question also is how much will EMU membership speed up the convergence process and what speed limits should be kept in mind?

# 2. Medium-term nominal convergence assured

Looking at the five Maastricht criteria (chart 1) shows that the three countries have already achieved a high degree of nominal convergence. Those values are taken as a starting point to draw conclusions about medium and long-term nominal convergence.

## 2.1. Interest rate convergence locked in

Long-term interest rates of all three countries were already strongly aligned with EU-average rates into 2005. This indicates that the current inflation trends are perceived as credible by the financial markets and inflation expectations are locked in at low levels. After the three have joined the euro area, we expect this alignment to persist as a credible monetary policy of the ECB keeps inflation expectations low and risk premia do not diverge either (as proven e.g. by the low spreads of Greek 10-year government bond yields versus 10 year Bund yields). Although a "no bail-out" clause among EMU member states in case of sovereign distress exists, markets will continue to ignore it and not discriminate against any sovereign debts rated above A-. Thus, the three countries' fiscal position will not benefit from further convergence gains by even lower interest rates. Apparently most of the credibility gains from adopting the euro have already been priced in.

## 2.2 Tight fiscal policies to continue

All three countries pursue relatively tight fiscal policies (chart 2). They are even more likely to stay on track to nominal convergence in terms of fiscal discipline, since the stability and growth pact allows for country-specific budget targets over the business cycle providing more room for fiscal manoeuvre for countries with a good fiscal performance. A positive impact on fiscal performance can be expected by the reinforced "corrective arm", e.g. the obligation to use good economic times to reduce the budget deficit by 0.5 percentage points of GDP per year.[1]

*Estonia's* fiscal policy credibly aims for a balanced budget over the medium term, after recording surpluses in recent years.

*Lithuania's* general government deficit will hover around 1.4% of GDP from 2006 onwards. The government's longer-term target of a cyclically balanced budget seems reachable in the light of the envisaged improvement in tax collection and the proven political ability to restrain expenditure.

*Slovenia's* planned budgets anticipate further fiscal tightening to-wards 1.2% deficit levels in 2008. Given the established track record of better-than-projected budgetary outcomes in recent years this seems reachable. But a considerable amount of uncertainty has to be attached to the negative effects which the introduction of a flat tax system may have on revenues.

In general, fully funded second pillar pension schemes (introduced in Lithuania in 2004 and in Estonia in 2002) provide a sufficient cushion against ageing societies. In Slovenia further reforms of the pension system are necessary to put it on a sounder financial footing. The pre- and co-financing of EU backed projects from government funds might put some pressure on the future budget position in all three countries.

### 2.3 Public debt ratios will stay at current levels

The sustainability of public debt levels seems to be assured over the medium term. In our baseline debt sustainability projections (assuming robust growth for all three countries, a slightly negative primary budget balance for Lithuania and Slovenia and a slightly positive one for Estonia), the public debt/GDP ratios stay at the respective current levels until the year 2010. Only in a severe downside scenario (assuming a marked slowdown in growth and primary deficits reflecting a quite substantial fiscal loosening) would the debt/GDP ratio slowly rise until 2010, but still not come close to the 60% Maastricht threshold (chart 3). The indebtedness will not (over)strain the future sustainability of public finances and not bring pressure to bear on monetary policy. Moreover those levels of public debt still leave ample room for the governments to use fiscal policy anti-cyclically and as shock absorber.

### 2.4 Higher inflation in parallel with the catching-up process

Above EMU-average inflation rates in the three countries reflected a variety of influences, some of which are expected to prevail in the future: the Balassa-Samuelson effect[2], indirect tax and administered price increases, second-round effects from domestic demand pres-sure and rising energy prices. Recent studies investigating the magnitude of the Balassa-Samuelson effect have found that productivity differentials explain on average only between 0.2 and 2.0 percent-age points of annual inflation differentials vis-à-vis the euro area.[3] The potential long-run impact of the Balassa-Samuelson effect is estimated to amount to the same range of 0.2 - 2.0%.[4] As the three countries continue their catching-up process, the adjustment of relative prices to EU prices will cause fluctuations in the annual inflation rates. They should be properly interpreted as price level adjustment rather than inflation (chart 4). Measures of core inflation (excluding energy, food, alcohol and tobacco prices) are currently somewhat more reassuring, suggesting that inflation pressures may abate in the future. But especially in Estonia and Lithuania, rising energy prices, increases of administered prices and second-round effects from domestic demand pressures might result in higher inflation rates over the medium term. Although high and persistent inflation is highly unlikely, we expect inflation rates to temporarily exceed EMU-average levels.

### 2.5 The conversion rate may affect long-term convergence

The irrevocable fixing of the conversion rate[5] vis-à-vis the euro after tension-free participation in ERM II over at least two years is crucial regarding inflation and competitiveness. Unfortunately, there is no economically reliable yardstick to calculate the "right" entry rate for EMU. If the wrong conversion rate is chosen, sustainable medium and long-term convergence could be hampered.

If the conversion rate is fixed at *too low* a level, a country enters EMU with an advantage in price competitiveness. But it runs the risk that this will add to the structurally higher inflation rate.

If the conversion rate turns out to have been *too high*, a candidate country will suffer a loss in competitiveness. After EMU entry a loss in competitiveness can no longer be healed by an exchange rate change. There is only one cumbersome medium-term strategy of regaining competitiveness available which Germany willy-nilly implemented between 1999 and 2005 and which thus can be termed the "German way". Germany managed to keep the inflation rate below the euro area average by wage restraint in combination with weak growth. It remains, however, to be seen whether such a "weak-growth strategy" would be feasible for a dynamic new EU member state in the catching-up process.

At present there are good arguments that current market exchange rates are appropriate given the robust export performance (chart 5).

In Estonia and Lithuania, those exchange rates have been maintained in a currency board regime over years without tensions, while Slovenia managed a smooth exchange rate development within ERM II. If current market rates are chosen as conversion rates, the risk of a medium-term competitive distortion is quite limited.

## 3. Real convergence: mixed bag

Real convergence is defined as similar levels of per capita income as well as low susceptibility and high adaptability to asymmetric shocks, i.e. countries are hit by the same shocks or manage to absorb asymmetric shocks without relying on own monetary policy. The real convergence path of the three EMU candidate countries crucially depends on how well they will exploit the benefits of EMU, for two reasons. Firstly, monetary union membership is estimated to boost GDP by up to 20% over the next 20 years due to trade stimuli on account of lower transaction costs[6], greater competition and transparency of prices.[7] Secondly, EMU membership is expected to lessen the susceptibility and enhance the adaptability to asymmetric shocks. [8]
The theory of Optimum Currency Area suggests that for fully exploiting the benefits of EMU membership certain criteria should be met. These criteria include business cycle synchronisation[9], similar structures of the economy, price and wage flexibility, labour mobility and the ability to use fiscal policy anti-cyclically. We are using the above-mentioned indicators in order to judge how fast the three economies have been converging in terms of similar susceptibility and adaptability to asymmetric shocks. We also assess whether the precondi-tions are met for EMU membership to fully fuel real convergence in terms of closing of the income gap.

### 3.1 Real income convergence will take time

Standard neoclassical theory suggests that given the free mobility of capital, goods, services and information the income levels of different countries or regions within an economic area would converge over time. As the three countries seem to largely meet those basic preconditions, we assume as a working hypothesis that full convergence will constitute the long-term equilibrium those countries will eventually reach.

Chart 7 should serve as an indication as to where a vigorous convergence process would lead the countries over the next 15 years. It also shows how crucial it is to prevent this catching-up process from stalling considering the low current income level of the three economies. Translating our medium-term growth projections into real convergence paths yields the slopes

depicted in chart 7[10]. In 2020 Slovenia will have reached roughly 80% of EMU-12 average per capita income levels in purchasing power parities. By then Estonia will have surpassed Portugal to reach 67% and Lithuania will end up at below 60%. This implies that even a vigorous catching-up process is likely to take decades rather than years.

### 3.2 Business cycles highly correlated

Although business cycle correlation is likely to be endogenous to EMU membership, backward-looking research may provide clues for gauging the future. Recent studies[11] suggest that business cycle correlations between the ten new EU member states and the euro area – measured e.g. in terms of changes in output growth and changes in inflation rates – have increased during the review period from 1993 to 2003. But the results are mixed. Business correlations between new EU member states and the euro area are lower on average than between individual EMU member states and the euro area, but they were higher than in some smaller EMU countries such as Portugal and Greece. Moreover, recent studies show that the transmission of common euro-area shocks to the new EU member states does not seem to differ significantly from the spillover to EMU countries in most cases.

Estonia and Slovenia seem to meet the real convergence criterion of business cycle synchronisation. Estonia, in particular, is strongly interlinked with the euro area via trade and FDI and exhibits similar industry structures. Lithuania seems to be a special case as its out-put growth correlation with the euro area is very low while inflation growth correlations and changes in inflation explained by euro-area factors are quite high. One reason for the low growth correlation is that Lithuania is specialised in different industries than the euro area (e.g. agriculture, trade and transports).

These insights cannot simply be extrapolated into the future. There are, however, also good arguments for a further strengthening of the synchronisation of the business cycle between the euro area and the three EMU candidate countries.

1. Trade and FDI linkages have been intensified following the EU enlargement in May 2004.

2. The EMU entry of the three countries will trigger a further deepening in trade relations due to the elimination of currency-related transaction costs.

3. Financial integration of the three countries into the euro area will be stimulated, for instance in terms of better access to the euro financial markets once the exchange rate risks have vanished.

4. The three countries will be integrated into the monetary policy of the ECB and the fiscal policy framework of the reformed stability and growth pact.

Business cycle correlations can be expected to increase further and do not constitute an obstacle to a vigorous real convergence process.

### 3.3 Intra-industry trade with EU only strong for Slovenia

A similar structure of the economies is also believed to reduce the incidence of asymmetric shocks. The similarity of structures is reflected in a high share of intra-industry trade in the total trade of each of those countries with the euro area. Specific shocks then spread stronger to the whole area. The Grubel-Lloyd index for intra-industry trade shows that for the same goods the trade interlinkage of Slovenia with the euro area is already very high (chart 8). Given the high business cycle correlation also found for Estonia and Lithuania, the susceptibility to asymmetric shocks is not expected to stall the real convergence process in any of three countries.

### 3.4. Shock absorbers in the real economy in place

Flexible product prices and wages or alternatively a high degree of labour mobility help to absorb the effects of an asymmetric shock in a monetary union.

*Product prices* in the three countries have achieved a high degree of flexibility in the past due to price liberalisation through structural reforms in the transition process and the implementation of the *acquis communautaire* on the occasion of joining the EU in May 2004. Overall price flexibility is marginally restrained by the still existing price regulations in the utility sector.

*Wage flexibility* is limited as nominal wages in the three countries are rather inelastic. But two elements in the organisation of their labour markets may add to flexibility. Firstly, the wage setting process is based on a relatively low level of unionisation and is less centralised than in several old EMU countries. Secondly, wage settlements are primarily agreed at the company or local level. This allows for the productivity level of individual firms to be taken into account.

*Labour mobility* within Lithuania and Estonia is quite high by international standards[12] reflecting the relatively low degree of regulation of their labour markets[13]. Moreover, there are significant regional disparities in wages. By contrast, labour mobility is rather low in Slovenia. To grasp the international component of labour mobility, we refer to the statistics of the EU[14] which have, however, the disadvantage that immigration data are not disaggregated for the three EMU candidate countries. Although the substantial income gap provides a clear economic incentive, there has been far less migration to the 15 old EU member states than originally forecast[15]. Opinion surveys indicate that the readiness to migrate is rather low given the cultural and family ties and, in particular, the fact that the sustained economic dynamism in all three countries offers good job and income opportunities at home. Thus, labour mobility should not be overestimated as an alternative shock-absorbing instrument if wages prove to be too inflexible.

## 4. Do not misinterpret a high current account deficit

The development of the current account balance is not only a real convergence criterion of the Maastricht convergence test, but also deserves special attention in assessing the sustainability of real convergence. Estonia and Lithuania have relatively high current account deficits, while the current account of Slovenia is almost balanced. With regard to the sustainability of the convergence process there are concerns that the high current account deficits will lead to an accumulation of an unsustainable level of foreign debt[16] and adjustment pressure in the real economy if the conversion rate is fixed at too high a level.

In fast-growing catching-up countries like Estonia and Lithuania a current account deficit is considered to be normal, reflecting the fact that domestic savings are too small to finance investments. This is assessed to be unproblematic as long as the corporate sector is internationally competitive and the current account deficit is, to a considerable extent, financed by FDI, which has been the case so far (chart 9 and 10). FDI is expected to strengthen the export capacity and thus the ability to reduce the deficit in the future. It is also argued that the ability to save will increase during the catching-up process and the deficit will decrease over time. The latter is, how-ever, more likely if the budgetary position is sound and a crowding-out of the private sector is avoided.

Looking at the current account deficits from an intertemporal perspective leads to the conclusion that Lithuania's future income prospects explain their current account deficits.[17] The high deficits nevertheless pose a certain risk to medium and long-term convergence. With the external debt stock growing above 45% of GDP in the case of Lithuania and above 80% in the case of Estonia (chart 11), debt service – let alone the redemption of debt – might take a consider-able toll on future consumption and investment. For a vigorous convergence scenario it will be essential to ensure that the high current account deficit reflects sound private investment rather than conspicuous consumption.

## 5. Watching out for credit booms

While fast credit growth is an expected feature of real convergence, the aggressive pace of credit growth (chart 12) raises concerns from a financial and macroeconomic stability perspective. There are several studies providing evidence of an excessive credit growth in Estonia and Lithuania since 2001 while explicitly accounting for the catching-up process in incomes.[18] So far supervisory and prudential oversight have offered considerable protection to prevent banking distress from materialising. Intense monitoring and the choice of adequate policy responses (including enhancing risk-management capacities of banks, linking minimum capital ratios to indicators of financial stress, quantitative limits on credit and temporary controls on capital inflows) will be crucial alongside the entire convergence process to avoid problematic boom-and-bust cycles[19].

## Footnotes

1. This may have a positive effect on maintaining fiscal discipline in the medium and long term as the pact can be used as a scapegoat in order to push through tough consolidation measure on the domestic political front.

2.Catching up to the income levels of more advanced countries is driven by productivity gains stemming from increases in both capital-labour ratios and total factor productivity. As these gains are faster for tradables than for non tradables and wages in the tradables sector rise with productivity, they also bid up wages in the nontradables sector. To maintain profit margins, non tradables' prices must increase relative to those of tradables.

3. Susan Schadler et al. (2005). Adopting the Euro in Central Europe. Occasional Paper No. 234. IMF.

4. Balazs Egert (2002). Nominal and Real Convergence in Estonia: The Balassa-Samuelson (Dis)connection.

5. A revaluation of a currency relative to the euro is in line with the fulfilment of the exchange rate criterion while a devaluation on a country's own initiative is not.

6. Particularly fuelling trade among small and medium-sized enterprises via the elimination of exchange rate risk.

7., Jeffrey A. Frankel and Andrew K. Rose (2000). Estimating the effect of Currency Unions on Trade and Output. NBER Working Paper, No. 7857.

8. Jeffrey A. Frankel and Andrew K. Rose (1998). The Endogeneity of the Optimum Currency Area

9. Synchronisation is expected to reduce the susceptibility to asymmetric shocks or to sustain common action to solve problems. For instance, if business cycles are synchronised within EMU and an asymmetric shock triggers a recession in the whole euro area then the ECB can stimulate the economy by lowering interest rates. However, if the business cycle is not synchronised and an asymmetric shock triggers a recession only in one new EMU member state while the other EMU countries are booming then monetary policy of the ECB – being designed for EMU as a whole – cannot take into account the problems of the "shocked" country by keeping interest rates low.

10. . The neutrality of price and population movements is assumed.

11. Sandra Eickmeier, Jörg Breitung (2005). How centralised are central and east European economies with the euro area? Evidence from a structural factor model. Deutsche Bundesbank. Discussion Paper. Economic studies, No. 20.

12. Mihails Hazans (2003). Determinants of inter-regional migration in the Baltic coun-tries, University of Latvia and BICEPS.

13. OECD (2004). Employment Outlook

14. European Commission (2006). Report on the Functioning of the Transitional Arrangements set out in the 2003 Accession Treaty (period 1 May 2004-30 April 2006).

15. Three countries have completely opened up their labour market since enlargement in May 2004 (UK, Sweden and Ireland), while the other 12 old EU members have implemented transition rules. Nationals of the ten new EU member states represent less than 1% of the working population in the old EU-15 countries (with the exception of Austria 1.4% in 2005 and Ireland 3.8%). Migrant workers helped to relieve bottlenecks in the labour markets of the recipient countries.

16. Deutsche Bundesbank (January 2006), Monthly Report.

17. IMF (2005). Article IV report on Lithuania.

18.Boissay F. et al. (2005). Is Lending in Central and Eastern Europe developing too fast? ECB working paper draft.

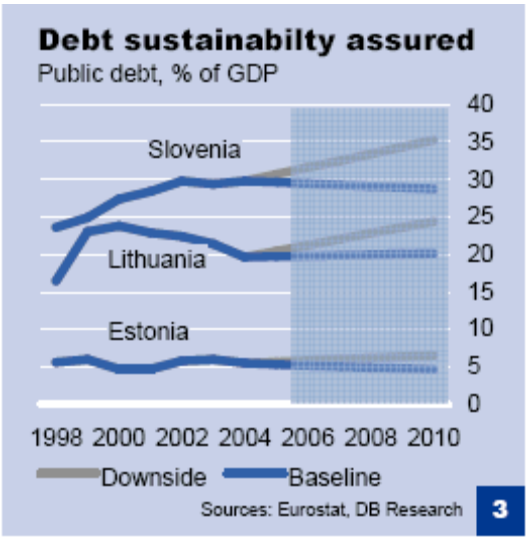
19. Especially newly available mortgage refinancing could lead to unsustainable asset or real estate price inflation.

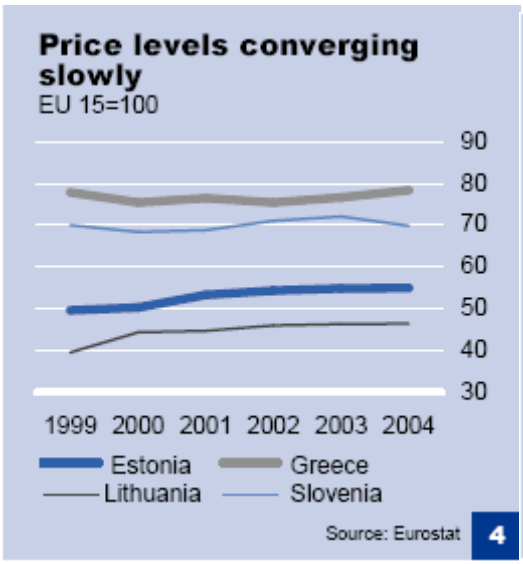
## Charts

**High degree of nominal convergence**

| | Inflation % yoy 2005 | Interest rates 10Y 2005 | Fiscal balance % of GDP 2005F | Public debt % of GDP 2005F | Exchange rate ERM II +/-15% |
|---|---|---|---|---|---|
| *Reference value* | 2.5 | 5.4 | -3.0 | 60.0 | smooth participation for 2 years |
| Estonia | 4.1 | 3.7 | 0.3 | 5.5 | since June 04 |
| Lithuania | 2.7 | 3.7 | -2.0 | 19.6 | since June 04 |
| Slovenia | 2.5 | 3.8 | -1.7 | 29.8 | since June 04 |

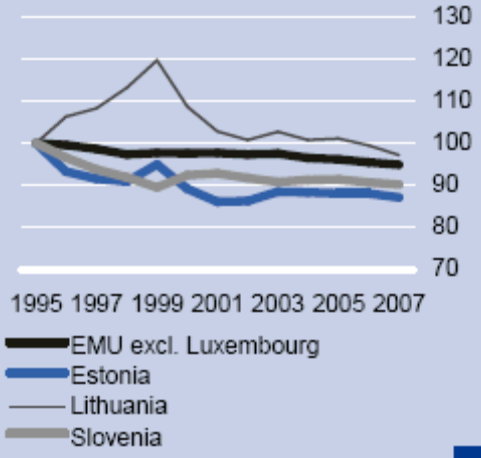
Sources: Eurostat, DB Research 1


**Competitiveness assured**

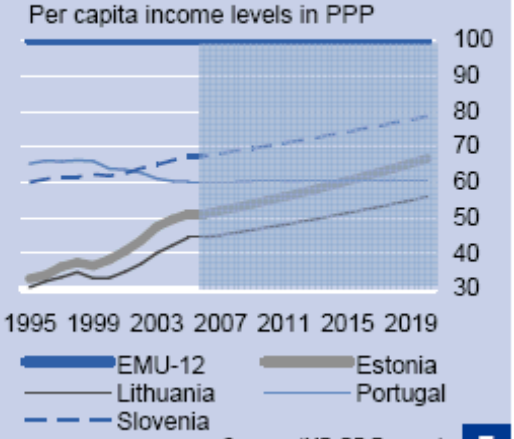
Real unit labour costs, 1995=100




Source: European Commission **6**

**Slowly approaching EMU-12**

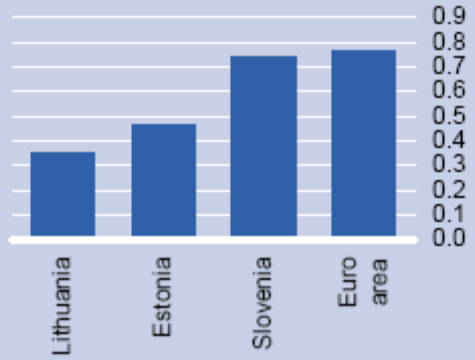
Per capita income levels in PPP




Sources: IMF, DB Research **7**

**Intra-industry trade interlinkages only strong in Slovenia**

Grubel-Lloyd Index*

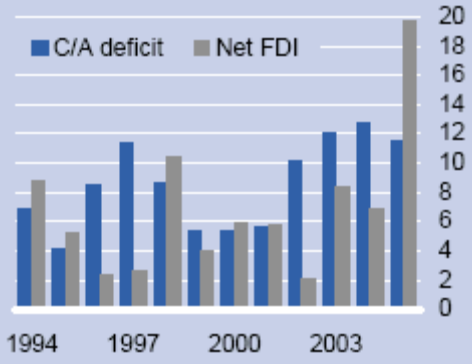



* 1 indicates exclusively intraindustry trade

Source: Council of wise men, 2004 **8**

**Estonia: Deficits largely covered by FDI**

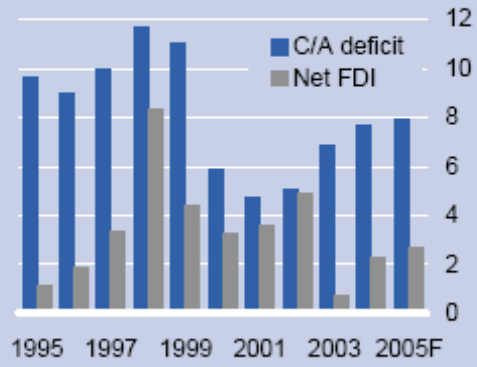
% of GDP




Sources: EBRD, DB Research **9**

**Lithuania: FDI coverage by far lower**

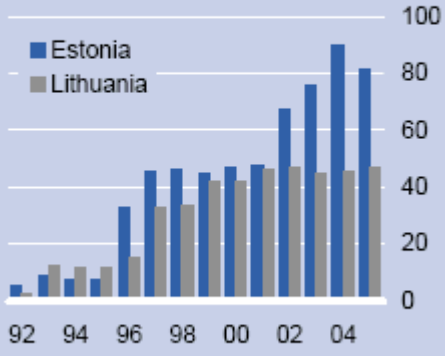
% of GDP



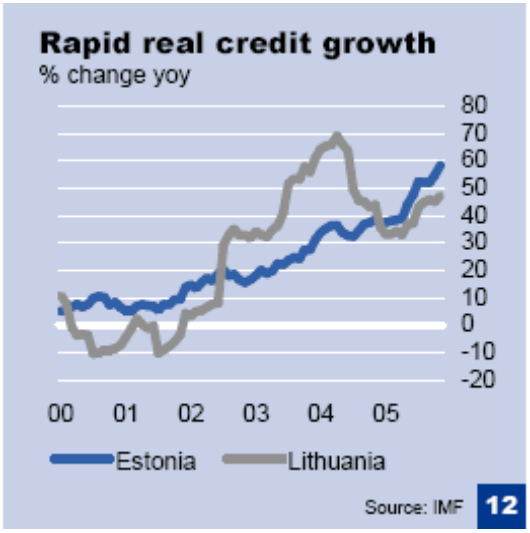

Sources: EBRD, DB Research **10**

**Rapidly rising external debt levels**

% of GDP




Source: EIU **11**


Rapid real credit growth
% change yoy
80
70
60
50
40
30
20
10
0
-10
-20
00
01
02
03
04
05
Estonia
Lithuania
Source: IMF
12

# Turning point and expectations

**Briefing Paper for the Monetary Dialogue of February 2006 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank**

**Charles Wyplosz**

## Executive Summary

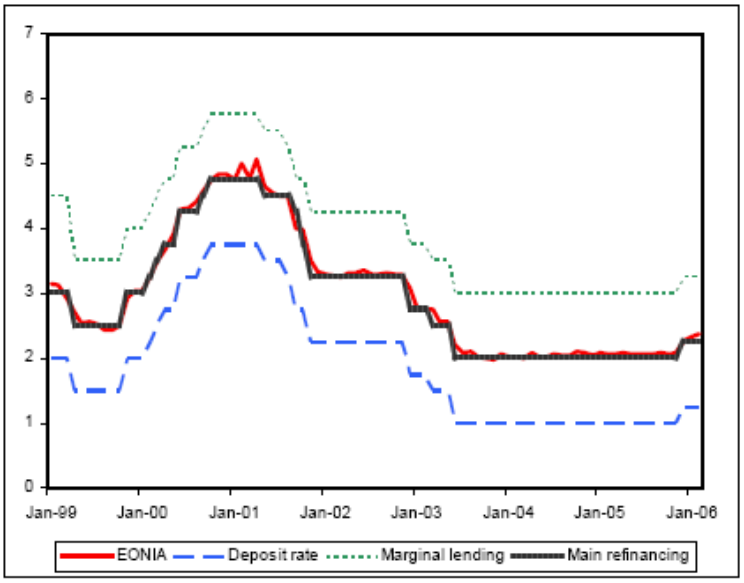
The December 2005 increase in the Eurosystem interest rate marks the end of the period of very low interest rates. If, as is currently likely, the economic recovery takes hold, monetary policy will endeavour to gradually bring its expansionary stance to an end. This means a series of interest rate hikes toward a neutral zone, which the Eurosystem has still to specify. During 2005 the Eurosystem has been caught in a dilemma. Inflation expectations have gradually risen as the result of the oil shock. This called for starting to move interest rates up and remove the expansionary impulse. At the same time, however, growth has remained weak and the recovery prospects have been undermined by the oil shock. This called for reducing to err on the side of prudence and to keep the interest rate unchanged as along as possible, while cautioning against inflationary second round effects of the oil shock. But admonishing cannot substitute for action. In the end, the Eurosystem had to act. It did so in December.

The relationship between central bank actions and inflation expectations is tight; it also works in both directions. First, inflation expectations send clear signals to the central bank: if, for instance, the inflation rate is expected to exceed the target, monetary policy must be tightened. Second, monetary policy operates mostly through its impact on expectations that drive long-term interest rates, asset prices and exchange rates. Shaping expectations is a key condition for monetary effectiveness. Yet the impact of central bank actions on expectations is not immediately clear; in fact, if these actions are correctly foreseen, they are long anticipated and do not affect expectations when implemented. A review of the Eurosystem's actions and inflation expectations in the euro area yields the following observations: - The Eurosystem's actions over 2004-5 are well explained by market expectations. The Eurosystem missed its 2% definition of price stability but, given the 12-24 months that it takes for monetary policy to have a sizeable effect, there is no evidence that the Eurosystem had received relevant signals early enough to act differently from how it did. - Based on market expectations, the December 2005 interest rate increase was predictable and indeed well expected by the markets. On the basis of market inflation expectations, it came a bit late. On the basis of information on the economic recovery, it came early. - Based on current information, an interest rate of 2.5% is seen by the markets as appropriate to achieve a 2% inflation rate in 2006 and 2007. The key question, now, is how far the Eurosystem will raise its interest rate. It has not signalled what it sees as a neutral rate, a rate at which monetary policy is neither expansionary nor contractionary. This is likely to emerge as a central issue in the months to come.

## 1. End of a period

It had been clear for quite some time before last December that the next move of the ECB would be to increase the interest rate. The cycle had started in May 2001, when a series of cuts started and continued until June 2003. The very low rate of 2%, which had been maintained since then, implied a zero real rate, i.e. a sharply expansionary policy stance. It has taken a fairly extraordinary period of poor growth and unemployment in the Euro area to justify such a long period of near-zero real rates. It has always been clear that the interest rate would be raised as soon as the first signals of renewed growth would materialize.

**Eurosystem interest rates**




Source: *Monthly Bulletin*, ECB

Note: EONIA is the market overnight rate. It is driven by the Eurosystem's main refinancing rate (REFI), which is bracketed by the Eurosystem's deposit and lending rates.

Turning points are always dramatic and particularly hard to time accurately. Two main reasons explain the timing of the Eurosystem decision:

- increasing indications that indeed, the recovery is solidifying and broad-based.

- The fear of second-round effects from the oil shock. These two reasons are now examined.

## 2. What recovery?

It was not clear by last December that the recovery was solid, and it still is not yet clear now. Should the Eurosystem have waited longer for a firmer signal? This has been argued by a number of analysts and by some governments. Obviously, the Eurosystem has weighed this argument for several months since the early signs of recovery date back to early Fall. In order to understand the December decision, one must consider two questions:

- What is the risk of a premature increase? Obviously, there are fears that such a move could jeopardize the long-awaited recovery.

- What is the risk of too late a move? The concern here is that the recovery could be strong and rapid, fuelling a resurgence of inflation before the Eurosystem's actions can stop it.

The difficulty is that monetary policy has slow effects, spread over a period from 12 to 24 months. The December 2005 decision aims at affecting economic conditions over 2007. The Eurosystem has concluded that it is more willing to take the first rather than the second risk. With inflation currently at 2% and rising, this is a reasonable conclusion, even if it remains controversial.

## 3. The oil shock

It is generally agreed that an oil shock is a source of headaches for central bankers. It raises inflation mechanically by raising the prices of energy-related products. It represents a tax on oil-importing countries, which reduces growth and raise unemployment. These effects are inescapable. The policy question is how to limit the duration of these effects. The much-tested answer is that monetary policy ought to avoid significant second-round effects. Second-round effects arise when wages and non-energy related prices rise as employees and firms try to avoid the oil shock tax. These efforts are futile, the tax must be paid. They are self-defeating once everyone tries to get ahead of the others. This is why they ought to be resisted.

Over much of 2005, the Eurosystem has repeatedly warned against second-round effects. It could not act because the recovery was too weak. It was only to be expected that it would match words with deeds as soon as it felt it could afford to raise the interest rate. The 25bp increase of December was just that: a warning that the Eurosystem is determined to prevent the much feared vicious cycle of wage increases and to prevent leapfrogging.,

Such a small increase is too small in and by itself to dent the recovery.[1] This is why the Eurosystem made it clear that it did not intend to immediately embark on a full withdrawal of its policy stance. Indeed, the rate has remained unchanged in January and February, confirming that the December move was more a warning shot than the signal of impending deliberate tightening. Meanwhile, the recovery has continued to strengthen. Further increases in the interest rate are now becoming more likely, which justifies the December move.

## 4. Effects on expectations

While monetary policy is slow to affect output and inflation, its impact on inflation expectations is immediate. In fact, monetary policy mostly affects output and inflation through expectations. These expectations play a crucial role in driving the longer term interest rates, asset prices and the exchange rate. In most countries, it is longer rates that matter for borrowing, not the overnight rate that the Eurosystem controls. [2] Asset prices also affect borrowing costs and private wealth, which in turn partly drives consumption spending. The exchange rate completes the transmission of monetary policy by changing external competitiveness.

Given their crucial role, a key function of any central bank is to influence expectations. This is why central banks communicate extensively in direction of markets. How well does the Eurosystem do in this area? The question is complicated to answer. It might seem that its decisions, if credible, should have a marked effect on market expectations, but this is not quite correct. In fact, its actions should have NO effect at all on the markets if they are well understood and therefore correctly anticipated by the markets.[3]

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[1] When he was a member of the Bank of England's Monetary Policy Committee, Willem Buiter once famously dubbed such a step as chickenfeed.

[2] In the euro area, Spain is an exception because long-term rates are indexed on the short-term rate.

[3] In central bank jargon, this is why they "prepare" the markets, to avoid any surprise. The Bank of England Governor, Mervyn King, once wrote that "central banks should be boring".

## 5. Expectations as drivers of monetary policy decisions

Inflation expectations are not only a key channel of monetary policy effects, they also drive central bank actions. Willy nilly, the Eurosystem is an inflation targeting central bank. It has announced a target; even if it insists in referring to the 2% markpost merely as its definition of price stability; its constitutional duty, to maintain price stability, implies that it *de facto* targets inflation from somewhere below 2% to 2%. It is unfortunate that the Eurosystem adamantly refuses to identify fully the range that it sees as comfortable, but it does not change the fact that de facto it wishes to see an inflation rate between 1% and 2%. It follows that inflation expectations outside this safe range impose on the Eurosystem an obligation to react.

## 6. The facts

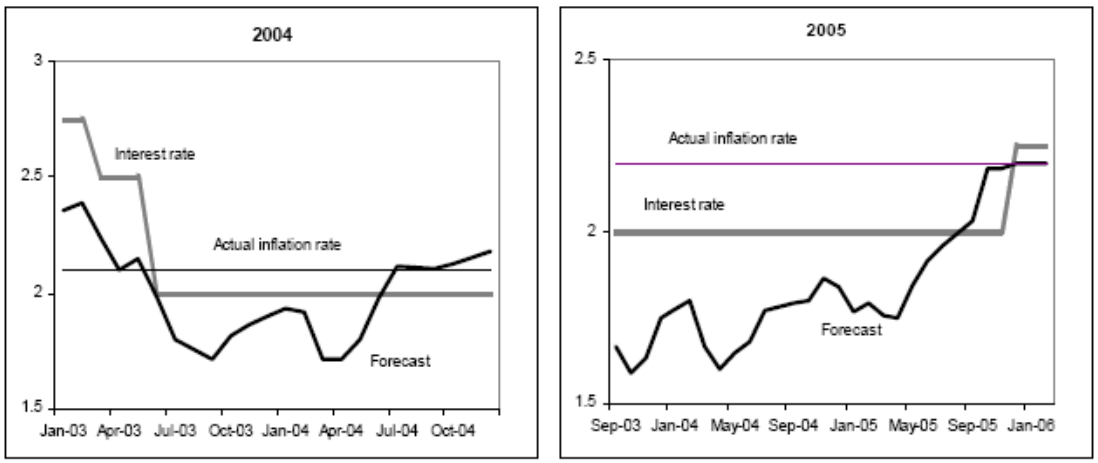
Since 2002, one week before the Eurosystem's decision, the German newspaper *Handelsblatt* convenes every month its Shadow Monetary Policy Council.[1] In preparation of its meetings, the Council collects forecasts from those of its members ho make such forecasts, all of them banks. Thus the Shadow Council forecasts well represent market expectations. The averages of these forecasts for 2004 and 2005 are presented in the figures below. The dates at the bottom show the month when the forecast was produced and published in *Handelsblatt*.

The first figure looks at the inflation record over 2004, which ended up at 2.1%, a result that only became known in early 2005. We see that during much of 2003, the inflation forecasts continuously declined while the Eurosystem was reducing its interest rate. In this instance, causality ran from the forecasts to the Eurosystem decisions: as markets expected inflation to decline in 2004 below 2%, the Eurosystem eased its policy stance, as any good inflation-targeting central bank would. In the second half of 2004, forecasters gradually realized that they were wrong. As they raised their forecasts accordingly to above 2%, the Eurosystem did not react. Was it a mistake? Not at all. It was just too late for the Eurosystem to affect inflation in 2004; by then, the Eurosystem was already thinking about 2005 and 2006, as it should indeed.

The second figure looks at 2005 and the forecasts published as of September 2003. The late 2004 correction for the 2004 forecasts also affected the 2005 forecasts, but in a subdued manner. As they were still safely below 2%, the Eurosystem kept its interest unchanged. Since, in the end, 2005 inflation is likely to be 2.2% (final numbers are still not available), this is when the Eurosystem should have raised its interest rate, but it did not know then – and no one knew – what was in store: the oil price shock of 2005. It is only in mid-2005 that it became clear that inflation would rise and, by then, there was nothing that the Eurosystem could do to keep inflation below 2%. By mid-2005, the Eurosystem could only be concerned with inflation in (late) 2006 and 2007.

[1] See http://www.handelsblatt.com/pshb/fn/relhbi/sfn/buildhbi/GoPage/200013,204028.

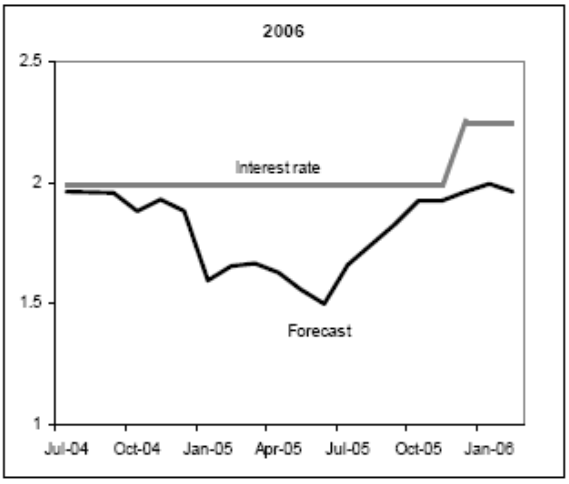
**Inflation expectations, eventual outcome and the ECB interest rate: 2004 and 2005**




Source: *Handelsblatt* Shadow Monetary Policy Committee.

Current Shadow Council forecasts for both 2006 and 2007 stand at about 2%. These forecasts assume an interest rate of 2.5%, a moderate increase from the November 2005 rate. This is why the markets expected the December 2005 increase and a further moderate tightening in the coming months. Interestingly, the figures above and below show that the December 2005 decision had no significant effect on market expectations for 2005 and 2006. It was too late for 2005, of course, and fully anticipated to match the Eurosystem's target in 2006 and 2007.

**Inflation expectations, eventual outcome and the ECB interest rate: 2006**




Source: *Handelsblatt* Shadow Monetary Policy Committee.

The real, and meaningful, sense in which the Eurosystem affects expectations is that it has now convinced the markets that it is well positioned to achieve its target. In 2006 and 2007 the outturn will be different from expectations, as has been the case in the past. Based on today's information, there is nothing that the Eurosystem can do.

## 7. How long? How Far? The neutral interest rate issue.

Now that we moved to a new phase during which the Eurosystem will change policy from its current expansionary stance, the important question is how far will it go and at which speed. In recent years, monetary economists and central banks have envisioned the existence of a "neutral interest rate". The idea is that a very low rate, for example the 2% rate that we have had for two years, is associated with an expansionary policy while a very high rate is a symptom of a contractionary policy. Somewhere in-between lies the neutral rate.
Simple as it seems, the concept must be dealt with with great caution. The first obvious observation is that we need to take into account inflation. When inflation is low, the neutral rate is low as well. For example, when Japan was facing deflation, there were indications that the zero interest rate that prevailed was still associated with a policy stance that was not really expansionary, or not expansionary enough. The correct concept, therefore, is the real interest rate, the difference between the observed nominal rate (e.g. 2.25% in the euro area these days) and expected inflation.[1]

The second observation is related to the argument presented in Section 4 above according to which monetary policy operates via loans but also via long term interest rates, the exchange rate and asset prices. Just looking at the short-term real interest rate ignores these channels. If the stock market is booming, for example because of technological innovations as in the US in the second half of the 1990s, the neutral rate is higher than when stock prices are depressed. Much the same applies to the exchange rate – an overvalued exchange rate implies a lower neutral interest rate because exports are lower than otherwise – and to various aspects of credit availability. For example, another reason why the Japanese zero rate failed to re-start the economy was that banks were largely bankrupt and therefore unable to lend to firms and consumers, no matter how cheap credit was.

In spite of all these important caveats, the neutral interest rate is useful when it comes to anticipate where the Eurosystem is heading to. There is no pretence that the neutral interest rate can be pinpointed with precision, but a range can be specified. If the Eurosystem wants to inform the market fully, it ought to send signals regarding the range of interest rates that are compatible with monetary stance neutrality.[2]

There is no reason why the Eurosystem should raise its interest rate to the neutral level and stop there. Prevailing economic conditions in the future may warrant overshooting the neutral rate – if the economy is booming and inflation pressures build up – or undershooting it – if the recovery looses steam early. But knowing where the Eurosystem sees the neutral rate will greatly help markets in forming their expectations, and therefore in determining long-term interest rates, stock prices and the exchange rate.

[1] Why *expected* inflation? Because those who borrow correctly relate the cost of borrowing to them evolution of the purchasing power of money over the duration of the loan.
[2] The debate has been active in the US ever since the Fed has turned the corner and started to raise its mic data have been uneven, the expansion in economic activity appears solid. Core inflation has stayed relatively low in recent months and longer-term inflation expectations remain contained.

An equally important question is how quickly the Eurosystem intends to bring the interest rate to a neutral position. When it raised its interest rate in December 2005, the Eurosystem indicated that it was "adjusting [its] accommodative monetary policy stance". The implication is that it will keep doing so until the stance is not accommodative anymore. This can take one year, two years, or more. It will depend on the evolution of the economic situation, so the Eurosystem does not know yet how soon it will stop raising the rate. With inflation expectations currently anchored at 2%, there is no urgency to get there quickly. But what does quickly mean for the Eurosystem will become *the* question in the months to come. [1]

[1] Nevertheless, possible increases in resource utilization as well as elevated energy prices have the potential to add to inflation pressures." This statement has been widely interpreted as indicating that the current Fed Funds rate of 4.5% is slightly below the neutral rate, which the Fed seems to set at around 5%.