

MECB UPDATE:

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Europe has a new central bank. The ECB must develop its own version of accountability and public debate over monetary policies. It is natural for CEPR, as a network of policy-oriented academic economists, to contribute to the establishment of a new tradition. *Monitoring the European Central Bank (MECB)* brings together economists internationally known for their work on macroeconomics and monetary policy. A full *MECB* Report is published each Spring, complemented by an Update published in the Autumn.

EXECUTIVE SUMMARY

This is an update of the fourth *MECB* Report published by the same authors in Spring 2002. It is divided into four parts that review the behaviour of the ECB in light of the most recent macroeconomic developments. The main points of this Update can be summarized as follows:

- Despite a strong reduction in the forecasts of output growth in the last months, the ECB has not changed the interest rate since the publication of our report. Despite higher inflation, both recent behaviour of output and lower forecasts of growth call for a reduction in the interest rate. Although there are signs that the ECB might react in the coming month, even if they do, they will be repeating the pattern of slow reaction during the Summer of 2001 that we had documented in our original report.
- The recent appreciation of the exchange rate should not have a significant effect on monetary policy decisions by the ECB.
- Despite the hope of the ECB that the 'perverse' signals given by money growth figures would disappear soon, they have continued in recent months. Our update reveals, once again, the difficulties of communicating monetary policy decisions using the first pillar.
- The need to rethink the Stability and Growth Pact (SGP) keeps growing. The recent increases in budget deficits and the increasing demand for political interpretations of the reference values do not provide the right environment for the ECB in which to set monetary policy.



THE MONETARY PILLAR REVISITED: IS THE ECB OFF THE HOOK?

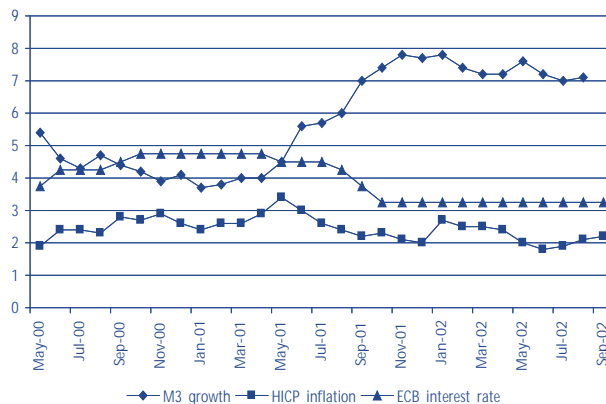
As in previous reports, *MECB 4* argued that the monetary pillar was not helpful in making and communicating interest rate decisions. Nominal money growth is a useful leading indicator when inflation is very high, but we showed that, across a wide range of countries, nominal money growth is a poor leading indicator of inflation when nominal variables are growing slowly. Nominal money growth deserves no special status in the low-inflation world over which the ECB presides.

In *MECB 4* we showed that nominal money growth had been negatively correlated with actual ECB interest rate decisions. When money growth rose sharply, the ECB tended to reduce interest rates rather than increase them, and vice versa. Quite properly, the ECB had viewed fluctuations in monetary aggregates as being largely driven by fluctuations in money demand - for example, following 9/11, there was a portfolio switch out of equities into bank deposits. Like other central banks, the ECB cut interest rates to restore confidence. It did not raise interest rates on the grounds that monetary targets had been greatly overshot.

The problem posed by the first pillar was not that it had greatly contaminated interest rate decisions, but rather that it had clouded the ECB's communication strategy. Having to devote half the first column of page 1 of each 2-page *Monthly Bulletin* Executive Summary to explaining away yet another set of perverse M3 indicators undermined the ECB's credibility with market participants. Since monetary policy takes time to affect inflation, it is necessary for the ECB sometimes to be able to take action in advance of changes in contemporaneous inflation data. In short, things that undermine ECB credibility impede its ability to conduct monetary policy efficiently.

In response to our report, ECB officials acknowledged that monetary indicators had temporarily been giving 'perverse' signals. They argued, however, that this perverse relationship was unlikely to continue, and hence that there was no need to amend the role of the first pillar. Half a year has elapsed since our

Figure 1: M3 growth, HICP inflation and ECB interest rate decisions



original report, bringing to light new evidence that can be examined.

During 2001 the ECB 'refined' its definition of M3, excluding some short-term instruments held by non-residents, in the hope that the amended measure would provide a better indicator of inflationary conditions in the euro area. Plotting these amended data, now available monthly from May 2000-September 2002, Figure 1 confirms that our original two contentions are unaffected by subsequent events. Our claims pass this 'out of sample' test. The rebuttals offered by the ECB do not.

First, there has been, and continues to be, a clear negative correlation between money growth and actual inflation. ECB interest rate decisions continue to flout the signal given by monetary aggregates, however, which is 'perverse' if monetary growth is supposed to indicate the future evolution of inflation, but 'normal' if money growth reflects changes in money demand. Second, the evolution of inflation offers a much more reliable guide to how the ECB sets interest rates. Sensibly, the second pillar is the real deal. So why not say so? We continue to advocate the demolition of the first pillar, not further attempts to plaster over its cracks.

INTEREST RATE DECISIONS DURING 2002

Since November 2001 the ECB interest rate has been unchanged, its longest period of fixity to date. Yet, since September 2001 the economic environment has been changing: the introduction of the physical euro, the slide of the dollar, the sharp drop in stock markets, the housing boom in many EU economies, stagnant output, and swings in inflation. Although actual inflation fell below 2% by June 2002, it has climbed up above 2% again in September 2002.

Given these new circumstances, we ask again the questions posed in *MECB 4*. Were there unexpected or unpredictable movements in HICP inflation or GDP growth that required special attention by the ECB?

To answer the first question, we set up a VAR model including output, prices, interest rates and money for the euro area and forecast HICP inflation and output growth using information available in September 2001 - the last date for which output data was available in *MECB 4* - for nine months up to June 2002 and compare the results with the actual path of these two variables. Table 1 shows the path of inflation and GDP growth relative to previous forecasts.

A similar pattern can be found in the recent changes in forecasts for annual growth for 2002 (and 2003) published by international institutions (See Tables 2, 3, and 4).

All the above numbers display a consistent message. First, early expectations of GDP growth rates have not been met. Growth rates have been below what was expected when we wrote our *MECB 4* report. Related to this, forecasts of growth for the coming quarters as well as next year have been revised downwards significantly. The most extreme change is in the case of the IMF, where in the last year the growth forecast for 2002 has been reduced by 1.3 percentage points. The European Commission has reduced its forecast by 0.5 percentage points. The OECD growth forecast has been reduced by a smaller amount.¹

¹Interpretation of differences in these forecasts is difficult because of differences in the date in which the forecasts are made. The IMF and European Commission forecasts are the most recent ones and reflect the deterioration of economic conditions during the Summer as indicated by consumer and business confidence indices as well as economic data.

Table 1:

Output and Inflation forecasts compared to actual figures				
	Inflation		GDP Growth	
	Forecast	Actual	Forecast	Actual
2001 Q3	1.8	2.4	1.3	1.4
2001 Q4	1.5	2.1	0.6	0.4
2002 Q1	1.2	2.6	0.5	0.3
2002 Q2	1	2.1	0.6	0.6

Forecasts done by VAR using data up to June 2002. Figures are percentage change compared to same quarter of previous year.

Table 2:

OECD projections			
Output Growth		2002	2003
Euro	Dec '01	1.4	3
	Jun '02	1.3	2.9
US	Dec '01	0.7	3.8
	Jun '02	2.5	3.5
Inflation			
Euro	Dec '01	2.1	1.6
	Jun '02	2.1	1.8
US	Dec '01	1.2	1.3
	Jun '02	1.5	1.6

Source: OECD *Economic Outlook*

Table 3:

European Commission projections			
		2002	2003
Output Growth	Autumn '01	1.3	2.9
	Spring '02	1.4	2.9
	Autumn '02	0.8	1.8
Inflation	Autumn '01	1.8	1.8
	Spring '02	2.2	2
	Autumn '02	2.3	2

Source: *European Economy: Economic Forecasts*

Table 4:

IMF Output Growth projections			
		2002	2003
Euro	Oct '01	2.2	
	Apr '02	1.4	2.9
	Oct '02	0.9	2.3
US	Oct '01	2.2	
	Apr '02	1.5	3.4
	Oct '02	2.2	2.6

Source: *World Economic Outlook*

In the case of inflation, the pattern has been exactly the opposite. Our simple VAR forecasts under-predicted inflation for the last four quarters while forecasts of inflation for the years 2002 and 2003 have been revised upwards by all international institutions. This behaviour of inflation has been partly attributed to the introduction of the euro in January 2002, which affected the dynamics of prices in the euro area. Public perception seems, however, to have been more pessimistic than the actual data subsequently published. For example, a recent EC consumer survey report suggests that perceived inflation in the first half of 2002 was twice as large as the inflation actually reported. As anticipated in *MECB 4*, the introduction of the euro led to a one-off rise in the price level, and hence to a temporary blip in HICP inflation. Using survey data, Goodhart and Pappa (2002) conclude that the euro changeover was a large sunk cost, temporarily contributing to inflation but quickly digested by the economy. A recent Eurostat news release put the annual effect on HICP inflation at about 0.2%.

What about the evidence from policy rules previously fitted to actual data? Without replicating all the analysis of *MECB 4*, if we include recent numbers on inflation and GDP growth rates in the policy rules we had discussed, they suggest decreases in interest rates that range from 0.4 to 1.4 percentage points depending on the inflation rate used in the rule. If we use current inflation the implied decrease in interest rates is obviously less pronounced than if we use a measure of core inflation or if we adjust inflation rates downwards to take into account a one-time increase in the price level due to the introduction of the euro. In other words, the decrease in GDP growth rates more than compensates the increase in inflation and calls for a decrease in interest rate.

The comparison with the US makes this argument more compelling. From the tables above, we can see that growth forecasts for the US economy during the same period of time have been revised upwards and still the Federal Reserve has cut interest rates once more by 0.5 percentage points.

From the previous analysis we conclude that, although when we wrote *MECB 4* we stressed the consistency in ECB interest rate policies with the evolution of the euro economy and the policy rules followed in the past, the actions of the ECB in the last six

months have surprised us. Despite a worsening in the economic outlook, interest rates have not changed. There have been recent signals that a cut might come in the coming month, but even if it does it will be late relative to what economic conditions would have suggested. The slow reaction of the ECB was also evident (as highlighted in our previous report) during the Summer of 2001 when interest rate cuts also came late.

RESPONDING TO THE EASING OF FISCAL POLICY

Monetary policy in the euro area has to confront the reality that budget deficits have been growing. Cyclical widening of deficits is to be expected. More worrying, it is possible that the commitment to medium-run fiscal discipline is waning. The Stability and Growth Pact (SGP) has therefore come under increasing tension.

The early warning mechanisms about impending budgetary problems provided by the national stability and convergence programmes have led to recurrent conflicts between the European Commission and national governments (Germany, France, Italy and Portugal). There have been repeated calls for a more flexible interpretation of the Pact. Perpetual dispute is not a healthy background in which to build a reputation for fiscal responsibility. As we stressed in *MECB 4*, the pressing need is to devise a fiscal framework that combines short-run flexibility with a clear commitment to fiscal responsibility in the medium run. Unless this can be accomplished, the ECB may be driven to set real interest rates at uncomfortably high levels.

Certainly, the euro-capital markets are now fully integrated into the world capital markets. One might therefore suppose that real interest rates are determined primarily in world markets, and only minimally affected by behaviour in the euro area. Even if capital market integration was complete, real interest rates in the euro area could depart from those elsewhere to the extent that anticipated capital gains or losses on the exchange rate or the existence of a risk premium then restored total yields to world levels. In short, capital market integration itself will not constrain euro area yields to match yields elsewhere.

Thus, quite legitimately, the ECB continues to express concern about the medium run stance of fiscal policy in the euro area. Any need for fiscal constraints in order to bolster monetary rectitude look increasingly unnecessary, however. The issue now is not market fear that the ECB will not tighten monetary policy if necessary but rather that markets assume that the ECB will tighten monetary policy, thereby delivering higher real interest rates. Any subsequent redesign of the Stability and Growth Pact therefore needs to focus less on the implied problem of monetary commitment and more on the need to achieve the proper balance of monetary and fiscal policy in a regime in which fiscal free-riding remains possible.

The Stability and Growth Pact was also designed to prevent debt defaults within the euro area. Debt defaults by a member state might have severe fiscal repercussions on the other governments, and might force the ECB to intervene massively. Any expectation that this would not be rapidly reversed would then jeopardise monetary stability.

Since this problem could in principle arise in any country, why should the euro area face the problem more acutely and thus require more stringent fiscal constraints than other industrial countries, which are not part of a monetary union? Since the ECB reacts to the average behaviour of the member states of the euro area, any monetary response to fiscal misbehaviour in a particular country is diluted. Hence, the equilibrium is one of looser fiscal policy and faster debt accumulation by all countries.

If this is really the cause for concern, it is debt levels not budget deficits that should be constrained. Whether a country's budget deficit temporarily exceeds 3% or not has little bearing on their solvency. Italy apart, the countries that have recently been the focus of the Commission's concern (Germany, France, Portugal) have relatively low debt levels.

There is a clear need to redesign the SGP. Any change perceived as a general relaxation of the fiscal constraint may, however, further twist the term structure of interest rates. The ECB may then find that, despite maintaining low interest rates in the short run, it is powerless to bring down yields at the longer end. To the

extent that the latter are what drive private behaviour, this may impede recovery and sustained growth within the euro area.

For these reasons, we reaffirm our proposal of *MECB 4* as a practical step forward. Recast the SGP in terms of structural deficits while taking into account the debt levels of the member countries, and delegate the calculation of the structural adjustment to an independent body. This would have two large benefits. It allows fiscal easing during recession, and it enforces fiscal tightening during booms. Together these imply that the bond market has no need to fear any general easing of fiscal policy and consequent tightening of monetary policy.

THE EXCHANGE RATE AND MONETARY POLICY

The euro has recently appreciated by more than 10%, raising questions on whether the change in the exchange rate should affect monetary policy of the ECB (See Figure 2).

With the euro appreciating, some people will argue that this will put downward pressure on inflation by reducing import prices, allowing the ECB to pursue lower interest rates than would otherwise have been the case. This view is mistaken. Unless the euro appreciates substantially more than it has done to date, benign neglect remains the best attitude of monetary policy to exchange rate changes. What was appropriate when the euro was falling is also appropriate now the euro is rising.

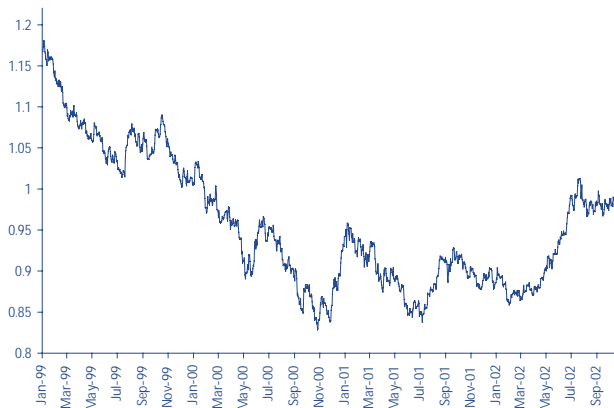
Why benign neglect remains best

First, trade with the US is only 15.5% of total euro trade.² Figure 3 shows that the effective exchange of the euro has moved much less than the euro/dollar exchange rate.

Second, estimates of the elasticity of the Consumer Price Index with respect to the exchange rate are generally small for economies as 'closed' as the euro area economy. Reasonable

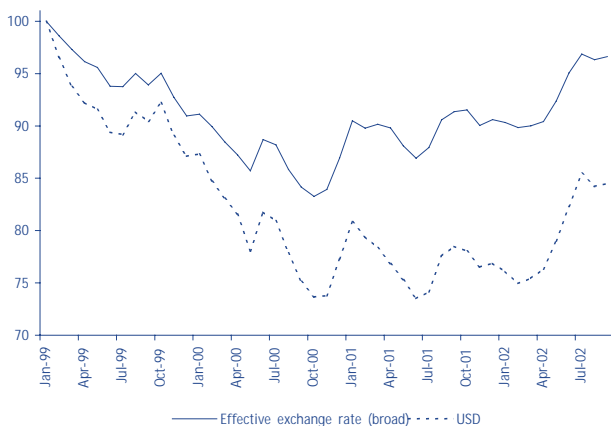
²Source: ECB statistical database. Figures refer to March 2002.

Figure 2: USD/EUR daily



Exchange rate data from www.oanda.com

Figure 3: Euro exchange rates, monthly



numbers for euro area are below 20% and perhaps as low as 5% (McCarthy 1999, Hufner and Schroeder 2002). These are long-run effects of a permanent change in the exchange rate on the price level. In the first year, most studies show short-run effects that lie between half and two-thirds of the long-run effect. Thus, 13% is probably an upper bound of the estimate of the short-run pass through from exchange rate to domestic prices.

Two factors suggest that these historical estimates still overstate the sensitivity of the CPI to the exchange rate in the short run. First, a US firm may previously have invoiced its European customers in dollars but may now set prices in euro. Price stickiness may then eliminate any impact on the euro price in the short run. Second, prices are likely to be stickier in a low inflation environment: the decline in inflation since the 1970s has made it less costly to delay price adjustment, slowing the rate of exchange rate pass through into consumer prices.

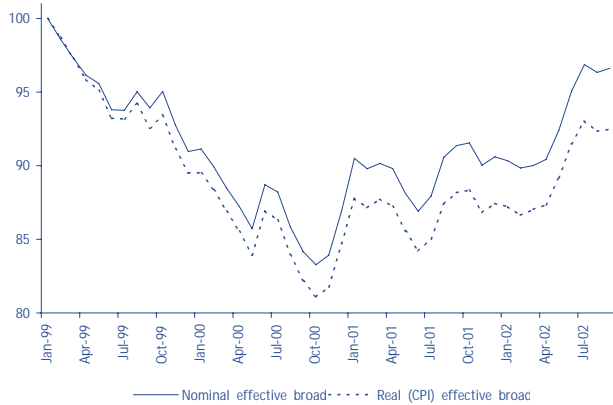
For exchange rate movements that are perceived to be temporary, the impact of the exchange rate on the CPI may be even smaller. The euro depreciated by more than 30% during 1999-2001. If this depreciation was believed to be temporary, firms and distributors may have let profit margins absorb the impact of the exchange rate depreciation, in the expectation that the euro depreciation would be reversed. The current appreciation will then reverse this effect, rather than reduce consumer prices.

One way to confirm how little exchange rate changes show up in prices is to compare movements in the nominal and real effective exchange rates for the euro. Movements in these two series are highly correlated in Figure 4, implying that nominal exchange rate changes induce little offset in domestic prices.

Even if the consumer price level were more sensitive to the exchange rate, one might argue that the ECB should give the exchange rate little special attention. Just as earlier we argued that monetary aggregates matter largely through their effect on expected inflation rather than through any independent influence, so too with exchange rate movements.

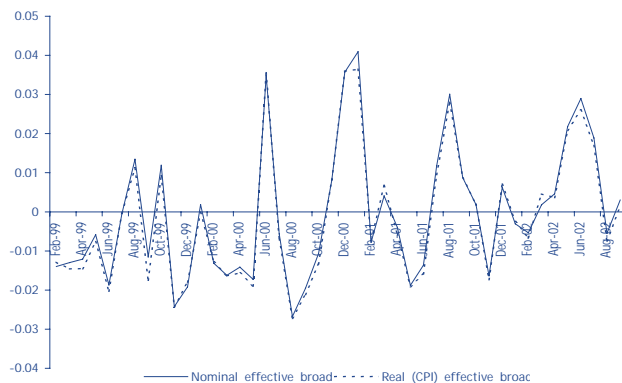
Thus far, we have argued that low exchange rate pass-through means that nominal exchange rate movements lead largely to changes in real exchange rates not prices, especially in the short run. This has two further implications. First, in the short run the

Figure 4: Nominal and real euro exchange rates



Source: ECB statistical data

Figure 5: Monthly change in euro exchange rate



expenditure-switching channel is ineffective. It may then be optimal for the ECB to respond to real exchange rate movements in order to avoid inefficient misallocations in the economy (Smets and Wouters 2002). At an empirical level, an extreme upper bound estimate is that a 10% real appreciation might reduce interest rates by 50 basis points relative to a simple Taylor rule.³

When the performance of policy rules that include the real exchange rate are compared with standard policy rules that do not include the exchange rate, however, the differences are very small. Moreover, standard Taylor rules may be more robust to uncertainty, since the sources and persistence of exchange rate shocks are so diverse and uncertain that actively responding to exchange rate movements may do more harm than good.

Second, to the extent that real exchange rate changes affect output, real appreciation may be expected to reduce interest rates by reducing the output term in the Taylor rule. This applies whether one interprets the ECB as caring about output directly or as using the output gap as a leading indicator of future inflation. Again this effect should be expected to be fairly small. The euro area is already a fairly closed economy, and will of course become more closed as more countries join.

Finally, having argued that exchange rate fluctuations should have only a small effect on ECB interest rate policy, we reiterate a point made in *MECB 4*, namely that there may be a role for sterilized intervention if the appreciation of the euro is too rapid or overshoots any plausible estimate of its long-run equilibrium value. As is argued in previous *MECB* reports, such intervention should be limited to establishing a ceiling for the euro and would be most effective if coordinated with the other major central banks.

³See Clarida, Gali and Gertler (1998). This estimate is for Germany: the sensitivity for the eurozone economy would be considerably lower.

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