Six Months in the Life of the Euro
What Have We Learnt?*

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** The views and opinions expressed are those of the author only. They do not necessarily represent the views and opinions of the Bank of England or of the other members of the Monetary Policy Committee.

Abstract

The paper considers what lessons can be learnt from the launch and first 6 months of formal operation of the euro. On balance, the early performance has been creditable. The very fact that a broad, inclusive Euro Area took shape on January 1, 1999, confounded many sceptics. Payments and settlement systems have performed well. Monetary policy in the Euro Area has been conjuncturally appropriate. The 'weakness' of the euro since it launch has been a major boon to the Euro Area. Cyclical non-synchronisation among the members of the euro area, while a fact, is a non-issue, because even autonomous national monetary policies with flexible exchange rates cannot dampen, let alone eliminate, normal national business cycle fluctuations. The paper outlines a new approach to optimal currency areas, emphasising temporary nominal rigidities, international financial integration and a view of flexible exchange rates as a source of shocks and instability rather than as effective shock absorbers or adjustment mechanisms for fundamental shocks originating elsewhere.

The only low mark on the euro score sheet reflects the lack of openness and transparency and, because of that, the inadequate accountability of the European Central Bank.

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Non-technical summary

A year in the life of the European Central Bank (ECB) and six months in the life of the euro are very short periods indeed for even a preliminary balance sheet to be drawn up. Nevertheless, it is possible to make some tentative judgements about a number of aspects of the performance of the European Economic and Monetary Union (EMU) thus far.

First, confounding the sceptics, an inclusive 11 member EMU was launched on schedule, and without a hitch.

Second, payment and settlement systems for the new Euro Area have performed well.

Most important of all, the stance of monetary policy in the Euro area since the beginning of 1998 has been conjuncturally appropriate. A more expansionary policy was delivered, first through the non-synchronised interest rate cuts implemented by those prospective EMU members that did not belong to the greater DM zone, then through the co-ordinated rate cut of December 3, 1998 and most recently through the first formal ECB interest rate cut on April 8, 1999. These rate cuts were consistent with the Eurosystem's overriding objective of price stability and helped support flagging real economic activity in large parts of the Euro Area.

The much-discussed weakness of the euro since its launch has been an undoubted boon to real economic activity in the Euro Area. Much of the euro weakness can be readily explained in terms of diverging fundamental developments between the USA and the Euro Area. The part that cannot be explained is nevertheless welcome.

There continues to be considerable cyclical divergence between the various national economies in the Euro Area. This only constitutes an argument against the euro, if one believes that autonomous national monetary policies and the associated flexibility of nominal exchange rates, provide an effective mechanism for responding to asymmetric fundamental shocks. I argue that this is not the case, and that the theory of optimal currency areas (OCAs)

that underlies many of the assertions about the macroeconomic stabilisation costs of adopting a common currency, has much to answer for.

The OCA debate has been marred by two weaknesses in the original literature. The first was a failure to distinguish in a consistent way between short-term nominal rigidities and long-term real rigidities. Thus a nominal depreciation becomes a real depreciation, not only in the short run, while nominal rigidities persist, but even in the long run. This has led to a serious overestimation of the power of monetary policy, including variations in the nominal exchange rate, to influence real economic behaviour.

I start from what should be a non-controversial position, which maintains that nominal rigidities are transient: the long-run Phillips curve or long-run aggregate supply curve is vertical. Also, there is no hysteresis: temporary shocks do not have permanent real effects. The long-run Phillips curve is therefore vertical at a level of the unemployment rate or output gap that cannot be influenced by monetary policy. Monetary policy, whether it works through nominal interest rates, through the credit channel or through the nominal exchange rate, only has real effects at cyclical frequencies.

A related confusion is the jump from the correct statement that monetary policy influences the real economy at cyclical frequencies, to the incorrect conclusion that monetary policy can therefore be used to dampen or even eliminate the business cycle. This conclusion follows only if the magnitude of the effect of monetary policy in the real economy is reasonably predictable and if the lags between a monetary policy change and its impact are predictable. In practice these lags are long and variable (which in and of itself would not undermine the cyclical stabilisation role of monetary policy) as well as highly uncertain (which does deprive monetary policy of much of its cyclical stabilisation potential).

Monetary policy can certainly be used to prevent extreme swings in real economic activity. It can prevent and dampen financial crises and stop them from turning into

economic crises. The monetary policy actions that prevent real outliers and financial crises fall under the heading of 'lender of last resort' (LOLR). The LOLR is as effective in the Euro Area as it was under national monetary autonomy.

The duration and amplitude of normal business cycles are, however, effectively immune to monetary policy. Fine tuning ambitions for monetary policy that include ironing out the normal national business cycles risk increasing the amplitude and volatility of national business cycles, thus destabilising the national economies.

The second fatal flaw in the OCA literature is its failure to allow for the international mobility of financial capital and for the frequent social inefficiency of the foreign exchange markets. The conventional emphasis on the desirability, when there are significant nominal price or cost rigidities, of nominal exchange rate flexibility as a shock absorber, buffer or adjustment mechanism in the face of asymmetric, nation-specific shocks, only makes sense in a world where the exchange rate clears the trade balance. Such a world without (significant) international financial capital mobility did indeed exist at the time the original optimal currency area literature was promulgated. It is out of date and dangerously misleading today.

Under conditions of unrestricted mobility of financial capital, exchange rates are notorious 'rogue elephants': very powerful in short bursts, but almost impossible to harness in the pursuit of the policy maker's objectives. They are sometimes responsive to comprehensible, 'fundamental' incentives but more often appear driven by mysterious impulses to move in arbitrary and destructive ways. Even if the foreign exchange markets are efficient in a technical sense, there is no presumption that they generate socially efficient price signals.

In this financial integration approach to OCAs, the potential attractions of exchange rate flexibility as a buffer or adjustment mechanism when a region or a nation is subject to asymmetric fundamental shocks are dwarfed by the 'dark side' of a flexible exchange rate as

a source of shocks and instability, inflicting the need for pointless adjustments and associated costs on the real economy. Excessive volatility and persistent misalignment are the price of exchange rate flexibility. A flexible exchange rate, often driven more by asset market fancies than by fundamentals, cannot be manipulated effectively to serve the needs of the real economy. Nor can it be relied upon to provide a spontaneous adjustment mechanism in the face of asymmetric shocks.

The result of these two failures of the traditional OCA approaches is that the debate on the merits of monetary union and other exchange rate arrangements in the first decade of the new millennium tends to be conducted with an intellectual apparatus from the 1960s. It is out of date, misleading and a dangerous guide to policy.

The Euro Area is fortunate that it is rather closed to trade in goods and services (with import and export shares of GDP comparable to those of the US and Japan). Euro instability and misalignment will therefore have less severe macroeconomic consequences for the real economy than it would for more open economies.

The only blemish on the blazon of the Eurosystem in its first six months of operation has been its lack of openness and transparency. This has resulted in an unacceptably low degree of effective accountability. Openness and accountability, including procedural transparency, are important political public goods in a democratic society. They also are an indispensable instrument of quality control for the monetary policy process of the Eurosystem.

(1) Introduction

The euro is officially 6 months old. There was some life before birth. The European Central Bank (ECB) was established on June 1, 1998 and there was a co-ordinated Euro Area -wide interest rate cut on December 3, 1998. Regardless of whether the baby is six or 12 months old, a 'happy birthday' seems appropriate.

It is of course early to make an attempt at an assessment. It will take years, even decades, before disinterested academics will be able to judge the performance of the new monetary system and the new central bank. Keeping that important *caveat* in mind, it is nevertheless possible to make some tentative judgements about a number of aspects of the performance of the European Economic and Monetary Union (EMU) thus far.

(2) It's here!

Even during 1998, there were many who doubted the enterprise would get off the ground at all. Others believed that what would start on January 1, 1999, would be a greater DM zone, consisting of Germany, Austria, the Netherlands, Belgium, Luxembourg and, in a pinch, France. The pessimists have been proven wrong. We have an eleven member EMU. Of the four European Union (EU) members that remain outside EMU, three (the UK, Denmark and Sweden) do so out of choice and only one, Greece, out of necessity.

Then there were those who believed that, between January 1, 1999 and the date of the final disappearance of the visible manifestations of the old national currencies (no later than July 1, 2002), speculative attacks among EMU member currencies would force some EMU members out of the currency union. These unfortunates still have a couple of years before an *apologia pro vita sua* becomes unavoidable, but the writing is clearly on the wall.

The reason that EMU cannot be brought down though speculative attacks among member currencies is simple. There are no more national member currencies. The DM, the lira and the guilder only exist as rather awkward non-decimal denominations of the euro. The

notion of EMU breaking up because of a speculative run out of lira into DM is as likely as the UK monetary union being brought down through a run out of £5 notes into £10 notes.

We still have national central banks and national regulatory authorities, but we no longer have national monetary authorities in the Euro Area. This is not really surprising, as there no longer are national monies. There is only one monetary authority in the Euro Area , the ECB.

(3) The technical bits work.

The new Euro Area payment and settlement systems, such as Target, have performed well from the start, with only minor hiccups. They have indeed performed rather more smoothly and efficiently that even the optimists expected.

The corporate eurobond market is thriving. Issues are growing at a staggering pace. There is nothing yet in the Euro Area to match the breadth and depth of the US corporate bond market. But it now looks increasingly likely that in five years or so, this may no longer be true.

(4) Conjuncturally appropriate monetary policy.

The conduct of monetary policy in Euro Area has been competent and appropriate in light of the Euro Area -wide conjuncture and given the ECB's price stability mandate.

Admittedly, circumstances were such as to make the selection of an appropriate monetary policy rather straightforward. For once, it was clear that interest rate decisions were not 'finely balanced'. The Euro Area was, by the middle of 1998, in danger of sliding into a fresh recession without the benefit of a noticeable prior recovery. Inflation was low and falling further. It would have been hard to make a case, during the period of interest rate convergence, that Euro Area-wide convergence to Italian or Irish levels was more appropriate than convergence to the German level. Likewise, it would have been a bit of a surprise if the April 8, 1999 rate cut of 50 basis points had turned out to be a rate increase instead. Still,

central banks have been known to do the wrong thing in the face of the obvious, so the appropriate thrust of ECB monetary policy is encouraging.

(4) The non-issue of euro weakness.

The euro has lost about 11 to 12 % of its value vis-à-vis the US$ since the beginning of the year. This was unexpected by many, including myself, as late as the second half of 1998.

While the exchange rate cannot be relied upon, even with appropriate policy support, to do the 'right thing' for the real economy, one should certainly welcome any currency movements that, whether by luck or by design, are conjuncturally appropriate. The Euro Area has been very fortunate in the measured decline of the external value of its currency since January 1, 1999. This decline is entirely appropriate from the point of view of the overall Euro Area conjuncture. Of course, those who went long in the euro at the time of its launch are deeply miffed, just as those who went short are very pleased. Losers make more noise than winners. I would welcome some of the current euro weakness for sterling.

The current weakness of the euro is certainly not unprecedented, if one considers the behaviour of a synthetic euro index prior to 1999. Figure 1 shows such an index, constructed by the staff of the Bank of England.

The recent decline in the external value of the euro can, rather unusually, be mostly explained by conventional economic fundamentals. The following come to mind. I list both those that make sense and a few that make no sense but that have been given some prominence.

Divergent conjunctural developments between the USA and Euro area . Since at least the second half of 1998, economic growth in the US has been stronger than expected while Euro Area economic growth has turned out weaker than expected. Both through money

demand and through the anticipated future path of short-term interest rates, this would tend to weaken the effective euro exchange rate.

The ECB's policy response to the unexpected weakness of Euro Area economic activity. Euro area interest rate policy has tried to dampen this unexpected downswing through a sequence of rate cuts, including the first formal ECB rate cut on April 8, 1999. I would not go so far as to argue that the ECB has been attempting to fine tune the Euro Area business cycle. The ECB denies any such strategy and I am inclined to believe them because any attempt to use monetary policy for fine tuning purposes would be pointless, and in all likelihood counterproductive, given the long, variable and uncertain lags in the transmission of monetary policy. Still, they have undoubtedly engaged in 'coarse tuning', leaning gently against a sustained and obvious wind.

Squabbles about 'exchange rate orientations'. Under Article 109 of the Treaty, the Council of Ministers has to the right to give the ECB Governing Council instructions about the external exchange rate of the Euro Area. The first kind of instruction non-controversial and harmless, from the point of view of ECB independence. It allows the Council of Ministers (acting unanimously) to conclude formal exchange rate agreements on an exchange rate system for the euro in relation to non-Community currencies. Basically, this allows the political leadership of Euro Area to create a new Bretton Woods, should they wish to.

The second kind of instruction is potentially a threat to the substance of ECB independence: "*In the absence of an exchange rate system in relation to one or more non Community currencies as referred to in (the previous) paragraph … , the Council, acting by a qualified majority either on a recommendation from the Commission and after consulting the ECB or on a recommendation from the ECB, may formulate general orientations for exchange rate policy in relation to these currencies. These general orientations shall be without prejudice to the primary objective of the ESCB to maintain price stability.*"

This clause gives the Euro Area ministers of finance a foot in the door of Euro area monetary policy design. Mr Lafontaine and Mr. Strauss-Kahn have used it to argue for exchange rate target zones. In a world with virtually unrestricted mobility of financial capital, binding exchange rate orientations come close to predetermining the path of (relative) interest rates. It is true that the Treaty also states clearly that any exchange rate orientations shall be without prejudice to the price stability objective. The Treaty, however, does not state explicitly who determines whether they prejudice the price stability objective. It ought to be the ECB. It would have been helpful if the Treaty had been explicit on this issue.

There has been an agreement to desist from exchange rate orientations except under exceptional circumstances. Again, it is not clear who determines when circumstances are exceptional. Furthermore, this agreement is not part of the Treaty, and can be revoked at the sole discretion of the Council of Ministers. It is clear that the conduct of monetary policy in Euro Area, and the cause of macroeconomic stability, would be well-served by revoking the power of the finance ministers to give exchange rate orientations.[1]

Fears of breaches of the Growth and Stability Pact. There was quite an ado recently, including stern lectures on budgetary probity from the top of the ECB, when Italy asked for its general government financial deficit ceiling for the current year to be lifted from 2.0% of GDP to 2.4% of GDP. It is very difficult to make sense of this storm in a tea cup. When the real economy is unexpectedly weak (as it was in the case of Italy), it does not seem unreasonable for the government deficit turn out rather larger than was planned previously. It is what God made the automatic fiscal stabilisers for. This episode highlights the economic

[1] Article 109 raises doubts about the operational independence of the ECB. The operational independence of the Bank of England is qualified in a different way. Under the 1998 Bank of England Act (Bank of England Act [1998]), the MPC's power to set interest rates is qualified by the clause that in "extreme economic circumstances", the Chancellor can give instructions to the Bank of England for a limited period and subject to (ex-post) approval by Parliament. These Treasury 'reserve powers' have not been invoked since the Bank of England became independent.

nonsense of specifying deficit targets as numbers rather than as rules, for instance, as cyclically corrected deficits. The argument that cyclical corrections are difficult and potentially subject to manipulation and window dressing does not bear scrutiny, if the only alternative on offer is a number that is bound to be wrong, except in the highly unlikely case that forecasts are realised exactly.

If the relaxation of Italy's deficit target was indeed a surprise, the implications for the euro are not at all obvious. If the Euro Area monetary authorities follow their mandate, they would not accommodate the larger deficit, and there would be upward pressure on the value of the euro. Only if the ECB is perceived as likely to give in to pressures from national ministers of finance (violating their Treaty-based mandate), and pursue a lower interest rate policy when fiscal policy becomes unexpectedly loose in a member state, would there be downward pressure on the external value of the euro. I am convinced that the ECB is extremely serious about its mandate. The link from an Italian budgetary overshoot to a weaker euro is therefore unconvincing.

Slow adoption of the euro as a reserve currency. There have been reports that the adoption by central banks world wide of the euro as a reserve currency has been slower and on a smaller scale than had previously been expected. As I don't know what these prior expectations were, it is hard to know how much significance to attach to this. In any case, the numbers involved would always have been small. Furthermore, the demand for additional reserve euros could have been met by new issuance at a given exchange rate.

Confidence factors. This is a grab-bag of *ad-hoc* explanations, few if any of which manage to convince. 'Kosovo' is one such. Why Euro Area combatants in Kosovo should see their currency weaken while a non-Euro Area EU member state that is also a combatant in Kosovo should see its currency strengthen is by no means obvious. After all, it is just 25 miles from Dover to the Euro Area .

Euro-US$ 'parity' (or fears of such) are another unconvincing market story. Perhaps there is something that resonates in the chartists' collective consciousness about a 1 for 1 exchange rate. As far as economic fundamentals go, parity is just another number.

The key point to note is that a weak or a strong external value of the currency is only of concern to the ECB insofar as it affects the achievement of its primary objective, price stability, and without prejudice to that price stability objective, the 'objectives of the Community'. The exchange rate is a key element in the transmission mechanism of monetary policy (and in the transmission of other shocks). Even so, the Euro Area is much less exposed to external trade than the UK. So even as part of the transmission mechanism, the external value of the euro is bound to be less important to Euro Area policy makers than the external value of sterling is to UK policy makers.

(5) One-size-fits-all-monetary policy: how serious a problem is it?

Autonomous national monetary policies have been a major cause of cyclical non-synchronisation among EMU members prior to the advent of EMU. Throwing away the national monetary keys therefore eliminates an important source of cyclical divergence. Nevertheless, national cycles will no doubt continue to be aligned imperfectly. How serious an issue this is depends on how effective one believes autonomous national monetary policies to be as instruments for dampening, and possibly even eliminating, the national business cycle. In my opinion national monetary policy (working though differential national nominal interest rates, through the credit channel and through a flexible nominal exchange rate) has not been and cannot in practice be, an effective conjunctural stabiliser. With unrestricted international mobility of financial capital, exchange rates tend to be characterised by excessive volatility and persistent misalignments, causing national monetary autonomy to result in greater macroeconomic instability than membership in a much larger common currency area.

Indeed, the potential attractions of exchange rate flexibility as a buffer or adjustment mechanism when a region or a nation is subject to asymmetric fundamental shocks are in my view dwarfed by the 'dark side' of a flexible exchange rate as a source of shocks and instability, inflicting the need for pointless adjustments and associated costs on the real economy. Excessive volatility and persistent misalignment are the price of exchange rate flexibility. A flexible exchange rate, often driven more by asset market fancies than by fundamentals, cannot be manipulated effectively to serve the needs of the real economy. Nor can it be relied upon to provide a spontaneous adjustment mechanism in the face of asymmetric shocks.

The Euro Area is fortunate that it is rather closed to trade in goods and services (with import and export shares of GDP comparable to those of the US and Japan). Euro instability and misalignment will therefore have less severe macroeconomic consequences for the real economy than it would for more open economies.

I believe that it is time for a radical re-thinking of the theory of optimal currency areas – a theory which concludes that, from the point of view of macroeconomic stability, exchange rate flexibility is superior to an irrevocably fixed exchange rate.[2] Only the magnitude of the losses associated with a credible fixed exchange rate regime remains to be determined. I believe this approach to be profoundly misleading. A brief outline of a new approach follows.

(6) A financial integration approach to optimal currency areas.

[2] Keeping the exchange rate fixed for one or more periods is always an option under an actively managed exchange rate regime. This can be achieved either by pegging the exchange rate period-by-period or by setting the short rate of interest or the money stock at appropriate levels in an endogenous exchange rate regime. Thus, fixing the exchange rate forever can be viewed as an arbitrary restriction on an actively managed exchange rate regime. The latter is therefore always potentially superior. Various passively floating exchange rate regimes are not necessarily dominated a permanent credible peg.

The optimal currency area literature asks when a set of national (or regional) economies would benefit from having irrevocably fixed exchange rates. Benefits are defined in terms of increased macroeconomic stability. In practice this would be measured by the magnitude and volatility of the output gap or the deviation of the actual from the natural unemployment rate, and in terms of the stability of the price level or the inflation rate (the literature is rather vague). The following characteristics of either the individual national economies or the multi-country system as a whole, have been argued to favour retention of the national currency, and the associated scope for nominal exchange rate flexibility (see e.g. Masson and Taylor [1992]).

(1) A high degree of nominal rigidity in domestic prices and/or costs.[3]

(2) A relatively low degree of openness to trade in real goods and services.

(3) A high incidence of asymmetric (nation-specific) shocks rather than symmetric or common shocks and/or dissimilarities in national economic structures or transmission mechanisms that causes even symmetric shocks to have asymmetric consequences.

(4) A less diversified structure of production and demand.

(5) A low degree of real factor mobility (especially labour mobility) across national boundaries.

(6) Absence of significant international (and supra-national) fiscal tax-transfer mechanisms.

The optimal currency area (OCA) debate has been marred by two weaknesses in the original contributions to this literature (Mundell [1961], McKinnon [1963], Ingram [1969], Kenen [1969]). The first was a failure to distinguish in a consistent way between short-term nominal rigidities and long-term real rigidities. Thus a nominal depreciation becomes a real

[3] The original old-Keynesian optimal currency area (OCA) literature failed to distinguish in a consistent manner between nominal price and cost rigidities, which ought to be the sine qua

depreciation, not only in the short run, while nominal rigidities persist, but even in the long run. This has led to a serious overestimation of the power of monetary policy, including variations in the nominal exchange rate, to influence real economic behaviour.

I start from the conventional main-stream position, which maintains that nominal rigidities are transient: the long-run Phillips curve or long-run aggregate supply curve is vertical. Also, there is no hysteresis: temporary shocks do not have permanent real effects. The long-run Phillips curve is therefore vertical at a level of the unemployment rate or the output gap that cannot be influenced by monetary policy. Monetary policy, whether it works through nominal interest rates, through the credit channel or through the nominal exchange rate, only has real effects at cyclical frequencies.

A related confusion is the jump from the correct statement that monetary policy influences the real economy at cyclical frequencies, to the incorrect conclusion that monetary policy can therefore be used to dampen or even eliminate the business cycle. This conclusion follows only if the magnitude of the effect of monetary policy in the real economy is reasonably predictable and if the lags between a monetary policy change and its impact is predictable. In practice these lags are long and variable (which in and of itself would not undermine the cyclical stabilisation role of monetary policy) as well as highly uncertain, which does deprive monetary policy of most of its cyclical stabilisation potential. The magnitude and sometimes even the sign of the impact of monetary policy on the real economy are likewise highly uncertain. Monetary policy can certainly be used to prevent extreme swings in real economic activity. It can prevent and dampen financial crises and stop them from turning into economic crises. Monetary policy alone ought to be able to rule out a replay of the Great Depression of the Thirties.

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non of the OCA literature and real rigidities, which are irrelevant to the OCA debate. This confusion this hampers rational debate of the subject.

The monetary policy actions that prevent real outliers and financial crises fall under the heading of 'lender of last resort' (LOLR). The LOLR is as effective in the Euro Area as it is under national monetary autonomy. Operationally, the LOLR function remains decentralised. The national central bank and, where appropriate, the national supervisor and regulator, take the appropriate decisions as regards the financial institutions in their jurisdictions. Since information will continue to be decentralised, this is the appropriate arrangement. As Euro Area-wide financial institutions emerge, a Euro-Area regulator/supervisor will no doubt be created, and the ECB will be immediately involved. Under the decentralised arrangement, the ECB will be involved when the decisions taken by the national LOLR are on a sufficient scale to have Euro Area-wide monetary repercussions. These can then be sterilised at the level of the Euro Area as a whole.

National monetary policies have never succeeded in eliminating the cyclical fluctuations inherent in capitalism. Nor can they be relied upon to significantly dampen, let alone eliminate, national business cycles in the future. The experience of the 20th century has convinced me that a monetary policy that maintains price stability, prevents cataclysms such as systemic financial and economic crises, and does not enhance the amplitude of normal economic fluctuations, should be considered a successful monetary policy. If our monetary ambitions now extend much beyond that, we are at risk of fine-tuning ourselves into unnecessary instability. This view of what monetary policy can and cannot achieve is hardly original. It can be found in Friedman's celebrated Presidential Address (Friedman [1968]) and, more recently, in King [1997].

The second fatal flaw in the OCA literature is the failure to allow for the international mobility of financial capital. I elaborate on this point below. The result of these two failures is that the debate on the merits of monetary union and other exchange rate arrangements in

the first decade of the new millennium tends to be conducted with the intellectual apparatus from the 1960s. It is out of date, misleading and a dangerous guide to policy.

I have come to the conclusion that the conventional criteria (2) to (6) are either irrelevant or relevant in ways that are quite different from the conventional interpretations (see Buiter [1997, 1999b]). The first criterion, the presence of significant nominal price and/or cost rigidities, is of course a *sine qua non* for monetary policy (including nominal exchange rate flexibility), to matter for real economic performance at all.

I propose to turn the conventional argument about nominal rigidities creating a presumption in favour of nominal exchange rate flexibility on its head. I achieve this conclusion by putting financial integration and shocks originating in the financial markets, including the foreign exchange markets, at the centre of the discussion.

The conventional emphasis, when there are significant nominal price or cost rigidities, on the desirability of nominal exchange rate flexibility as a shock absorber, buffer or adjustment mechanism in the face of asymmetric, nation-specific shocks, only makes sense in a world where the exchange rate clears the trade balance. Such a world without (significant) international financial capital mobility did indeed exist at the time the original optimal currency area literature was promulgated. It is out of date and dangerously misleading today.

According to the financial integration approach to optimal currency areas, all regions linked by unrestricted financial capital mobility form an optimal currency area. In a proximate sense my key criterion for an optimal currency area is therefore a 'capital account criterion'. However, it is the interaction of technically highly efficient international financial markets and nominal price and cost rigidities in the markets for real goods and services that underpins this approach to optimal currency areas.

Most of the time, the foreign exchange markets are technically efficient, in the weakest possible sense that large transactions can be made almost instantaneously, at very

low transactions costs and with a minimal impact on the exchange rate.[4] Progressively stronger notions of technical, trading or informational efficiency require that it is impossible to make systematic above-normal risk-adjusted profits by transacting in these markets.

Depending on the information set that conditions expected profits and conditional risk assessments, the foreign exchange markets can be informationally efficient in the in the weak, semi-strong or even the strong sense (Fama [1970]). The foreign exchange markets have never been shown to be informationally efficient in the semi-strong or strong sense. There are doubts even about weak-sense informational efficiency.[5]

Departures from even the weakest notions of technical or informational efficiency are not uncommon. Herd behaviour, bandwagon effects, noise trading, carry trading, panic trading, trading by agents caught in liquidity squeezes in other financial market, and myriad other forms of irrational behaviour make for excessive volatility and sometimes quite persistent misalignments in the foreign exchange markets as in other financial markets (see Grossman [1989, 1995] for general theoretical considerations about financial market inefficiencies, and Shiller [1984, 1995, 1996] for some interesting empirical studies outside the domain of exchange rates).

The prices determined in a strong-sense technically or informationally efficient market or set of markets need not convey the right social scarcity valuations. Rational speculative bubbles can cause an asset price like the exchange rate to differ from its fundamental valuation . Even without speculative bubbles, rational or otherwise, the interaction of technically and informationally efficient foreign exchange markets and

[4] Like other financial markets, the foreign exchange markets denote at times beset by "disorderly market conditions", in which spreads widen to the point that transactions dry up and the market ceases to be efficient, even in the narrow technical sense.

[5] The literature on foreign exchange market efficiency is endless. I will just refer to a small selection, covering a range of views and approaches : Fama [1984], Hakkio and Rush [1989],

inefficient markets for real goods and services may result in inefficient equilibria that could be Pareto-improved by the elimination of some of the technically and informationally efficient financial markets.

Exchange rate misalignments interact with nominal price and cost rigidities to produce large and at times persistent swings in relative goods prices, relative costs or other dimensions of relative competitive positions. Production, employment, investment and consumption decisions can be distorted (see e.g. Krugman [1989, 1990, 1996]).

Under conditions of unrestricted mobility of financial capital, exchange rates are prone to behave like 'rogue elephants': very powerful in short bursts, but almost impossible to harness in the pursuit of the policy maker's objectives. They are sometimes responsive to comprehensible, 'fundamental' incentives but more often appear driven by mysterious impulses to move in arbitrary and destructive ways.

Summing up, the foreign exchange market and the exchange rate can therefore be a source of extraneous shocks as well as a mechanism for adjusting to fundamental shocks. One cannot have the one without the other. The potential advantages of nominal exchange rate flexibility as an effective adjustment mechanism or shock absorber are bundled with, and in my view dominated by, the undoubted disadvantages of excessive noise and persistent unwarranted movements in the exchange rate, inflicting unnecessary real adjustments on the rest of the economy.

Thus, from an economic point of view, the EU, the U.S., Japan, Canada and the rest of the OECD have jointly become an optimal currency area. Politically, however, a common currency presupposes a certain minimal degree of political integration. That minimal degree

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MacDonald and Taylor [1992], Dutt [1994], Crowder [1994], Taylor [1995], Dutt and Ghosh [1995], Zietz [1995], Lajaunie, McManis and Naka [1996].

of political integration is (just) present in the EU. It is completely absent between the EU and the other OECD countries. EMU is therefore the best available halfway house.[6]

The cost-benefit analysis of the surrender of national monetary autonomy therefore yields a net positive balance from the point of view of macroeconomic stability for any small open economy open to unrestricted international financial capital mobility. There is more good news for those who saw their national monetary sovereignty move to the Eurotower.

There are adjustment mechanisms other than differentiated national monetary policies – mechanisms that work better or no worse in a large common currency area than in a small national economy with an autonomous monetary policy. The national automatic fiscal stabilisers work best in a large economic area with credible fixed exchange rates. A common currency is the only credible fixed exchange rate regime. Temporary differences among national or regional price or cost inflation rates are a key (and effective) adjustment mechanism in a monetary union hit by asymmetric shocks. We can see this at work right now in the Euro Area, with inflation rates in booming Spain and Ireland well above those in slumping Germany and Italy.

(7) Accountability, openness and transparency.

A continuing weakness of the ECB is its lack of openness and transparency. Because of this, it is insufficiently accountable to those whom its serves (the citizens of Euro Area) and their elected representatives (the European Parliament).

The obligation of an operationally independent central bank to explain and justify its actions is an essential political public good, as well as a key instrument of quality control. I have dealt with both aspects of accountability at length elsewhere (see Buiter [1999a]) and will restrict my comments here to the role of the two prerequisites or accountability, openness and transparency, as means of improving the quality of monetary management.

[6] See Buiter [1999a, b].

Transparency has two dimensions. The first I shall call target-structure-performance transparency; the second I call procedural transparency.

In order for the citizens of the Euro Area and the Members of the European Parliament (MEPs), henceforth jointly referred to as the constituency of the ECB, to be able to determine how successful the ECB has been in the pursuit of its objectives, the following conditions must be satisfied. First it has to be clear what the objectives are. Second, the objectives must be 'operational', that is, it must be possible to compare the targets to observable and verifiable performance indicators. Third, the constituency must have a way to relate performance to the actions undertaken by the ECB. They must understand the structure of the transmission mechanism of economic policy, and the way in which performance is affected by factors not under the control of the ECB. They must know 'the model'.

The ECB has been less than wholly successful in explaining to the world what its objectives are. At the most general level, its objectives are given by the Treaty. "The primary objective of the ESCB shall be to maintain price stability". Without prejudice to this primary price stability target, the ESCB shall support the general economic policies of the Community with a view to contributing to the objectives of the Community...". These subordinate targets are "...to promote ... a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment ..." etc.

These general objectives are clearly non-operational. Unlike the Bank of England, the ECB itself was given the task of providing an operational definition of price stability. Its "stability-oriented monetary policy strategy of the Eurosystem" states that price stability is to be defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%. When it was pointed out that –20% was below 2%, a

clarification followed that inflation meant *positive* inflation only. Price stability according to this definition is to be maintained over the medium term.

The ECB goes to great lengths to emphasise that it does not have an inflation target. We should therefore not interpret the 0% to 2% range for HICP inflation as an inflation target, let alone a symmetric inflation target centred, say, at 1%. No, 0% to 2% (over the medium term) is merely deemed consistent with price stability. There is also some ambiguity about where the floor of the range is. Some statements emanating from the Eurotower suggest that the 0% refers not necessarily to 0% on the HICP measure, but to 0% on some unobservable, true cost of living index. With the biases inherent in any operational inflation index, 0% on the true but unobservable index might correspond to, say, 0.5% on the observable but biased HICP index.

Thus, what we appear to have is a range of inflation rates deemed consistent with price stability. The floor could be 0% HICP inflation or something a bit higher. The range is not symmetric or otherwise centred. There is no value of the inflation rate inside the range such that, if inflation were to threaten to go below (above) it (over a horizon for which policy could be expected to influence it) there would be a presumption that policy would be relaxed (tightened). So we know what it is not (an inflation target), but we still don't know exactly what it is.

The argument is often made that neither the Bundesbank, nor the US Federal Reserve System ever had quantitative targets for monetary policy, and that their performance must be judged satisfactory despite (or even because of) this. It is true that of the three objectives of the Fed (maximal employment, price stability and interest rate stability), the first is ill-defined (maximal subject to what?) and the third is mysterious. The middle one has never been quantified. It took decades, including the loss of monetary control under Chairman Burns, the painful re-conquest of monetary control under Chairman Volcker and the golden

years under Chairman Greenspan, for the de-facto operational objectives of the Fed to be revealed (low inflation and, subject to that, cautious support for real economic activity). I would hope the Euro Area will not have to wait that long. The unique historical circumstances preceding the creation of the Bundesbank (post-World War II economic dislocation and the vivid collective memory of hyperinflation) never left any room for doubt about the primary objective of the Bundesbank. The ECB, fortunately, does not start from the same initial conditions.

The ECB's monetary strategy has two pillars.[7] A reference value is announced for the growth of a broad monetary aggregate (currently 4.5% per annum for M3), and there is a broadly based assessment of the outlook for future price developments and the risks to price stability in the Euro Area as a whole.

There is no stable relationship between any monetary aggregate, including M3, and the price level over any time horizon relevant to economic policy in any advanced industrial country. Of course things could turn out to be different for the Euro Area , but we won't know this for a long time, since reliable Euro Area macroeconomic aggregate data are not yet available for a long enough period to test for M3 velocity stability. To use as a leading indicator a variable whose predictive properties are unknown and whose causal connection to price level- and other macroeconomic developments is a mystery is hardly likely to provide firm guidance to market participants and other economic agents trying to anticipate the future behaviour of the central bank. The continuing genuflexions in the direction of this monetary aggregate are only explicable as a legacy from the ancien régime, the former practices of the Bundesbank. Since it is hard to conceive of it actually playing any significant role in the monetary policy deliberations of the ECB, its continued *pro forma* prominence just adds noise to the monetary policy signals.

Ideally, the ECB constituency, MEPs and Euro Area citizens would know the structure or 'model' linking the monetary policy instruments and all other relevant determinants of future prices and economic activity, to observable indicators of performance in relation to clearly specified targets. Economics –monetary economics perhaps most of all - is, unfortunately, a difficult and highly technical subject. The fact that it is an imprecise and still immature science, empirical but (except for some minor academic exercises) non-experimental, reinforces its complexity. Most Euro Area citizens and MEPs, like most of the journalists, commentators, advisers and analysts that inform them, have not mastered this unwieldy subject to anything like the degree necessary to come up with a well-informed personal view of how the monetary transmission mechanism works in the Euro Area.

This makes it extremely important that the ECB's own view of the transmission mechanism, and its own analysis of the prospects for price level and other economic developments in the Euro Area be in the public domain. They are key elements in the minimal irreducible information package needed by MEP and by interested and informed citizens in order to assess the ECB's performance. It allows the constituency to verify whether the actions of the ECB make sense given the ECB's own view of the transmission mechanism and of the prospects for price stability and economic activity.

The broadly based assessment of the outlook for price developments is therefore extremely important, as it contains essential information necessary to make accountability more than a pointless periodic exchange of patter between the President of the ECB and the relevant Parliamentary Subcommittee. The current practice, unfortunately, keeps this assessment 'in-house', unlike the practice of the Bank of England, whose quarterly inflation forecast is in the public domain. It is key for the proper functioning of target-structure-performance transparency, that the constituency at least know the ECB's own view of the

[7] See European Central Bank [1999], "The stability-oriented monetary policy strategy of the

transmission mechanism and the ECB's own assessment of the prospects for inflation. While a minority of well-informed constituents may be able to articulate and develop their own views of the transmission mechanism and of the forces driving inflation, the ECB's own view on these issues must be in the public domain if the bulk of the constituents are to be able to have any means of judging whether good (bad) performance in relation to the target is due to good (bad) luck or to good (bad) judgement.

Even if the objectives of the ECB were crystal clear, and even if its view of the monetary transmission mechanism and of the prospects for price stability were in the public domain, target-structure-performance transparency and accountability could not be effective for a long time. This is quite beyond the control of the ECB or of anyone else. It is the inevitable consequence of the fact that the quality of the conduct of monetary policy can only be judged over a long run of years, even decades. With six months of existence at the time of writing, the ECB is many years away from any reasonable attempt to judge its performance by its results. The same applies of course to other new institutions like the Monetary Policy Committee of the Bank of England, which has been in operation for just over two years.

Procedural openness and transparency are both a political public good and an essential instrument for quality control. As I have recently made the argument at length and in detail (Buiter [1999a]), I will only state the main conclusions here.

Members of the Governing Council of the ECB should be individually as well as collectively responsible for the policies they recommend individually and for the policies adopted collectively by the ECB. This requires publication of the individual voting records. A necessary condition for this is that votes are routinely taken. The ECB apparently has, up to now, only once engaged in a formal vote. On other occasions a consensus apparently emerged that could be represented as unanimous.

Eurosystem", pp. 39-50.

Non-attributed minutes should be published as soon as possible following a rate setting meeting. These minutes should represent a fair summary of the range of views and considerations that were put forward at the meetings. This is the current practice of the MPC. Lord Burns has recently proposed that, at the end of these non-attributed minutes, each individual MPC member should give a brief (attributed) explanation of his or her vote. In Japan, all members of the Bank of Japan's policy making committee who find themselves in a minority position, give a brief statement of the reasons for their dissent. Clearly, the practice of openness is endlessly perfectible. If there is no unanimous agreement, the pretense of unanimity and consensus will unsettle markets and increase volatility and uncertainty, as the truth filters out, in dribs and drabs and most probably distorted.

The regular publication of a document akin to the Bank of England's Inflation Report, which outlines the ECB's view of where the economy has been, is now , and is likely to be going in the future, is essential both for target-structure-performance accountability and for procedural openness generally.

Finally, there should be an independent body (in the UK it is the non-executive Directors of the Court of the Bank of England) to vet the procedures of the ECB. In the case of the ECB the members could be drawn from the European Parliament, the European Court and the Ombudsman.

I am optimistic about the adoption of true procedural openness by the ECB. The current practice of procedural opaqueness is not rooted in the Treaty. It is a decision of the Governing Council. It will take no more than another decision of the Governing Council to change it. When, as I hope and expect, the UK, Sweden and Denmark will join EMU in the near future, the pressure for a more open and less defensive posture will become very hard to resist.

(8) Central bankers: Priests or Dentists?

Keynes once expressed the hope that economists might someday be thought of like dentists - that they would be regarded as apolitical professionals brought in to resolve technical problems (Keynes [1931, p.332]).[8] I strongly agree with Keynes on this, and would like to see his paradigm of the economist as dentist applied to central bankers in particular.

In a lecture given to celebrate the five-year jubilee of the UK inflation target, Mervyn King (King [1997]) gave the canonical description of what one might call the modern, technocratic view of central banking, that is, central banking as dentistry. His view that "... a successful central bank should be boring ..." (King [1997, p. 14]) is very much in the spirit of Keynes's statement. Of course, being boring is only a necessary, not a sufficient condition for being a successful central bank (or central banker).

I believe that the ECB's approach to a whole range of issues - accountability, openness, transparency, unanimity and collective responsibility - can be explained as expressions of a different, and much more traditional view of central bankers as priests and of central banks as their temple. In the priestly tradition, monetary policy is a cult whose high priests perform the sacred rites far from the prying eyes of the non-initiates. The priestly approach to central banking often meshes with a view of inflation as a sin. The dentists view excessive inflation as an error (a source of inefficient and inequitable economic outcomes).

Dentists can have public professional disagreements: drill or extract? Priests cannot. If they do it means schism, heresy, religious wars. Dentists acquire their skills and knowledge through training and research and by trial and error involving live patients. The true faith is revealed to God's chosen. Dentists can make mistakes. The victims choose a

[8] The complete quote is as follows: *"But, chiefly, do not let us overestimate the importance of the economic problem, or sacrifice to its supposed necessities other matters of greater and more permanent significance. It should be a matter for specialists – like dentistry. If economists could manage to get themselves though of as humble, competent people, on a level with dentists, that would be splendid"*.

different dentist. Priests cannot be seen to make mistakes. Dentists are accountable to their professional association, to their patients and, ultimately, to the courts. Priests are accountable to God alone. Dentists are not interested in creating or preserving an aura of mystery. Priests expect voices to be hushed and eyes to be averted in the presence of the sacred.

The priestly view of central banking used to be the prevailing view throughout the central banking world, but it is now on the retreat almost everywhere. Its most potent recent exponent was the Bundesbank.[9] The ECB, in its initial phase, has adopted many of the procedures and practices of the old Bundesbank. In the case of the Bundesbank, the common traditional priestly tradition of central banking was reinforced by the uncommon, indeed unique, prestige and status bestowed on the Bundesbank by two tragic and unique historical episodes, the Weimar hyperinflation and the Second World War and its immediate aftermath.

Even if EMU had never happened, I believe that the *modus operandi* of the Bundesbank would not have survived for another generation. The circumstances that created it and sustained it for so long are no longer present and are fading from the collective consciousness. The Bundesbank version of the priestly central bank model cannot serve as a viable model for an operationally independent European Central Bank, functioning in an open democratic society with a sophisticated and confident citizenry, and without the unique burden and blessing of the Bundesbank's historical origins. Before long, I trust, the Governing Council of the ECB, and the policy making bodies of central banks everywhere, will consists entirely of dentists.

(9) Conclusion

The analogy between monetary policy and dentistry could be further extended. Prevention, after all *is* better than a cure. Also, this may hurt a little in the short run, but it will prevent serious harm in the long run, etc.

[9] See e.g. Stark [1998], and especially Remsperger [1998].

The task faced by the ECB is uniquely difficult. It is a new institution, bringing together a diversity of nations, cultures, traditions and languages.[10] It has to make monetary policy for the Euro Area as a whole without the benefit of decent data for the Euro Area as a whole. Even if all national accounts, monetary, financial, wage, price and survey data that we take for granted at the Bank of England were to be collected for the whole of the Euro Area starting today, the absence of a long historical data base for these data will complicate the conduct of policy for decades.

Econometric modelling for forecasting and counterfactual policy analysis at the level of the Euro Area 11 is an emerging science at best.

Political sensitivities sometimes threaten to get in the way of good economic analysis. There can obviously be no doubt about the fact that the primary objective of the ECB is price stability *for the Euro Area as a whole*, and that any further objectives it is free to pursue without prejudice to this Euro Area-wide price stability objective, should also not favour any Euro Area member state over another. However, just because there is a single Euro Area -wide objective and a single Euro Area -wide instrument, does not mean that disaggregated information would not be helpful in the pursuit of that single objective with that single instrument. Unless we live in a world of identical linear countries, the behaviour of the aggregate cannot be properly understood without reference to the behaviour of the components. The overall inflationary pressure in a Euro Area where countries representing half of Euro Area GDP grow at 0% while countries representing the other half of GDP grow at 4% need not be the same as that generated by a common 2% growth rate throughout the Euro Area. Yet nationally (or regionally) disaggregated information is completely absent

[10] The ECB struck a major blow for common sense when it insisted that only a single working language would be used at the ECB. It should of course have been Latin, but English will have to do.

from the ECB's Monthly Bulletin, with one exception: the general government fiscal positions of the 11 Euro Area countries.

The ECB seems so anxious to take a Euro Area -wide approach, that it appears to deny or at least ignore the relevance of divergent national or regional developments for its Euro Area -wide price stability mandate. One hopes that as the ECB gains confidence, and as the nature of its mandate is more widely understood, this unnecessary and potentially harmful coyness will vanish.

The ECB has continued a long-standing continental tradition featuring leading central bankers, speaking not in a personal capacity but in their official capacity as central bankers, publicly chiding the ministry of finance and the ministry of economic affairs for their failings as regards fiscal probity and structural reform. Matching this are ministers of finance and economic affairs who publicly chide the central bank for its failure to produce lower interest rates and a more competitive exchange rate.

At best, this is a waste of energy and time. At worst, it may sour relations and impair communications between the policy makers, thus threatening the achievement of better combinations of monetary, fiscal and structural reform policies. The monetary authorities cannot hope to subordinate the ministries of finance and economic affairs. The central bank has its price stability mandate. Fiscal policy and the progress of structural reform obviously condition the environment within which monetary policy is made, and the central bank will have to allow for this.

The central bank, however, or individual central bankers acting in their official capacities, do not have a mandate to express views on what governments ought to do by way of fiscal policy or structural reform. Nor do central banks or central bankers as a rule have the expertise to make their views on these subjects particularly compelling. Speaking bluntly, what governments should do or should not do in the areas of fiscal policy and

structural reform, is none of the central bank's business. It is the business of citizens and of their elected representatives.

Conversely, in an open, democratic society, an independent central bank should not and cannot be pushed around by the government of the day. It is both wrong and pointless for ministers and government officials to attempt to pressure the central bank to do anything other than what the central bank deems appropriate in the light of its mandate. If the central bank, the ministries of finance and the ministries of economic affairs were to stop lecturing each other, and instead were to concentrate on cultivating their own gardens, an atmosphere conducive to communication and, where appropriate, to co-operation among independent agents might be created. This could only help the economic performance of the Euro Area.

Since the middle of 1998, the unique complexity of the tasks faced by the ECB has been mitigated to some extent by the fact that the direction and even the magnitude of the interest rate changes demanded by economic developments in the Euro Area as a whole were reasonably obvious. This state of affairs, a happy one from the point of view of monetary policy management, cannot be expected to persist indefinitely. Procedures and operating practices that support best practice will become more important when policy choices become more complicated.

The performance of the ECB thus far has been successful, except as regards accountability, openness and transparency. Reform in these areas along the lines outlined here and in Buiter [1999a] will enhance the monetary policy decision making process of the ECB and improve the quality of future monetary policy. When the monetary outlook becomes more opaque and the monetary policy choices less clear-cut, this will be especially valuable.

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Figure 1

Euro-$ (January 1980 - June 1999)