ECIPE OCCASIONAL PAPER • No. 1/2013

MONEY MISCHIEF IN THE EUROZONE: Reforming the European Monetary Union

By Fredrik Erixon
Fredrik Erixon (fredrik.erixon@ecipe.org) is Director and co-founder of ECIPE

www.ecipe.org
info@ecipe.org Rue Belliard 4-6, 1040 Brussels, Belgium Phone +32 (0)2 289 1350

ABSTRACT

The European Central Bank has been a source of monetary disorder in the Eurozone. It was complicit in creating a huge asset bubble and growing current account imbalances in the Eurozone in the pre-crisis years. And it has been complicit in creating the drawn-out recession in the Eurozone in the past years. Its failure stems from a misguided monetary policy based on pure inflation targeting and a progressive downgrade of the role of money in monetary policy. For the ECB to become a source of macroeconomic stability, its policy, targets an operation of instruments should be changed. It does not mean that price stability should be ditched, or that a new mandate needs to be created. Yet it means that it should explore alternatives to the current monetary policy regime.

1. INTRODUCTION

"But I don't want to go among mad people", said Alice. "Oh, you can't help that", said the Cat. "We're all mad here".

THE HISTORY OF central banking is a story of many failures. Many central banks, like the Federal Reserve in the United States, were born in the ashes of financial crises. In modern times, their tasks have been to ensure stable money and to support macroeconomic stability. Yet few central banks have managed to avoid becoming sources of macroeconomic and financial instability. The fingerprints of central banks can be found on most financial crises the world has experienced in the past century.

In that context: how should the actions of the European Central Bank (ECB) – before and during the Eurozone crisis – be judged? And now that central banks across the developed world are undergoing profound changes, what does its past tell us about the future of European monetary policy? How should it change to increase macroeconomic stability?

It is important that central banks are held accountable for their performance. Money is the central nervous system in a modern economy. Lenin was not far away from the truth when he famously said that the surest way to destroy a society is to destroy its money. And central banks today are not far away from being the most important branches of government in many regions. But the ECB has largely escaped hard-nosed examinations of its monetary policy. While central banks in other parts of the world have been vilified for their monetary failures in the past decade, especially in fuelling the West's housing boom, the reverence of the ECB has remained unscathed, at least outside Germany.[1] It is an institution whose authority has not been tarnished by its performance. There is a big and emerging debate in most parts of the developed world about changing the mandates for central banks and/or changing the rules used by central banks, but monetary policy in the Eurozone is conspicuously absent in that discussion.

Yet the ECB, too, has a lot to answer for. Failures in its monetary policy take us a long way in explaining why Europe ended up in an epic crisis. It is true that Europe's central bankers were tasked to manage a monetary union that was institutionally incomplete. They can also defend themselves against accusations of profound errors by passing blame on political leaders who were not capable of delivering the fiscal and economic reforms necessary to make the monetary union viable, neither before nor during the crises.

Undoubtedly, it is primarily European political leaders who should be taken to task for regulating the financial sector in a way that spawned an excessive risk exposure. Furthermore, it was their fault that rules on fiscal discipline never were taken really seriously. Many countries have violated the debt or the deficit rules. Despite good economic weather conditions in some years in the noughties, the fiscal balance of the entire Eurozone has constantly been negative. And political leaders were willing to look the other way when Greece was knowingly cooking the books to qualify for membership in the euro club.

Yet the ECB cannot escape shared responsibility for some of these profound errors. After all, the ECB signed off on Greece's entry to the euro after having examined its finances. Like its colleagues in the world of central banking, the ECB was enthusiastic about the Basel II accord, whose elevation of sovereign bonds as risk-free assets to be liberally leveraged has

1. The ECB's role in the Eurozone's crisis operations is a source of discontent in many crisis economies. This paper, however, does not address this issue but the monetary-policy stance of the ECB.

been at the heart of the Eurozone's dance of death between financially fragile banks and sovereigns. Obviously, it is the ECB alone that should be held accountable for its monetary policy decisions, taken independently of political desires.

Two grand mistakes in the ECB's short history deserve particular attention. They both concern money and an age-old wisdom, too often neglected, about the role of money growth for asset values and economic activity. In short, the ECB fuelled a housing boom by far too expansionary monetary policy – and, once the bubble popped, the ECB reinforced the contraction by too tight monetary policy. Both episodes raise questions about macroeconomic stability in the Eurozone, especially in light of the overall direction of ECB monetary policy. This paper argues that the EMU needs an architectural redesign and that the ECB's policy of inflation targeting should be replaced by a new rules-based policy, including new rules for instruments, that ensures macroeconomic stability.

2. FROM LOOSE TO TIGHT MONETARY POLICY

At the heart of the Eurozone's monetary failure is inflation: the ECB's preferred measure of inflation as well as its interpretation of inflationary and deflationary forces in the past decade or so. The ECB failed to understand the profound shift in price developments in Europe's economies in the noughties – especially the forces of disinflation in the 1990s and 2000s – and what it implied for monetary policy as well as market pricing mechanisms. The ECB is in good company: many other central banks, witnessing similar trends in prices and the price mechanism, failed on this account, too. But the misreading of price developments created bigger problems of imbalances and misallocation of resources in the Eurozone, partly because of the ECB's particular choice of inflation target.

The Maastricht Treaty, the founding document of the EMU, tasked the ECB to have price stability as the "primary objective". This task is often considered inflexible, as if the treaty itself had laid down exactly how the ECB would operationalize its mandate in rules, targets, and instruments. But the ECB is the progeny of a political order that espoused the de-politicisation or de-nationalisation of money. The ECB is a non-state entity, which singles it out from most other central banks. Its independence from fiscal or political bodies is stronger than for other central banks. Naturally, as a new central bank under pressure to acquire credibility, preferably at the same elevated levels as the Bundesbank, the ECB designed what Otmar Issing, the legendary first Chief Economist of the ECB, has called a "stability-oriented monetary policy". Yet it was never preordained, and still is not, that the ECB should target year-on-year inflation below 2 percent – or, as became the target a few years later, a medium-term inflation at around (not below) 2 percent.[2] Nor is it written in stone that the treaty mandate is best embodied in an inflation-target policy. In fact, many different varieties of targets and rules could be accepted under the treaty mandate.

Inflation in the period after the EMU was constructed behaved differently from inflation in the period prior to its birth, especially the period of high inflation up to the early 1990s. Global competition intensified remarkably. Charged by the entry into the world economy by "globalizing Asia", especially China, and transition economies on Europe's eastern rim, Europe's exposure to world trade increased rapidly, much faster than in previous decades. Local price developments in Europe became more integrated with international price trends. Consequently, inflation was naturally kept at low levels. Initially, there were no international

2. Issing (2008); Marsh (2011) and James (2012).

price spikes to be imported. As long as there were no attempts to breathe inflation into the economy by the central bank, prices would remain low and stabile. Germany's unification, and stalled wage growth in the country for a number of years in the mid-2000s, added further downward pressures on the Eurozone's aggregate inflation. Germany represents almost one third of the entire Eurozone economy and any weighted economic aggregate for the Eurozone will significantly reflect German conditions.

Consequently, Eurozone disinflation, driven by deflation in product markets and other tradable sectors, did not originate in monetary disequilibrium. It was the consequence of natural market processes – and, no doubt, very good ones. Yet a fear of deflation got hold of central bankers around the Millennium, and the ECB thought the appropriate response was to breathe inflation into the Eurozone economy. This monetary expansion weakened the firepower in the ECB's subsequent reaction to the 9/11 economic recession, when forceful expansion was called for. More importantly, the failure to fully understand how profound changes in the real economy changed the nature of prices and inflation in Europe led to a monetary policy that was far too loose or expansionary for far too long. Like their colleagues in the United Kingdom and the United States, they continued to run an extremely expansionary monetary policy in 2004-2007. It prompted the ECB to effectively discharge one of the guiding norms of its monetary policy – the reference rate for money growth (M3). The ECB policy became a source of monetary disorder.

The ECB failed to act when mounting evidence suggested that loose monetary policy had reached its zenith. It had fuelled unsustainable current account imbalances in the Eurozone. One of its consequences was an untenable build up of debt. A housing bubble grew under the ECB's watch. Europe's central bankers were almost asleep at the wheel.

How could monetary be extremely expansionary? After all, inflation was kept in the region of 2 percent and the ECB was progressively raising its interest rates between 2005 and 2007. Yet the ECB, like many other central banks, neglected a simple, but not simplistic, insight: monetary policy essentially is about money. This may sound too banal to merit attention, but inflation and nominal interest rates have been the dominant, if not only, aggregates in several economic models (theoretical and applied) of monetary policy. Many central banks pay little attention to money. But the range of relevant monetary aggregates and policy tools is much broader, and the critical one is found elsewhere. Arguably, the vortex of monetary policy is the money supply, or the quantity of money.

This is a fundamental point of difference between competing schools of macroeconomic thought. Arguably, many alternative approaches place too much faith in the interest rate as a guiding instrument for the economy – and as an indicator of whether monetary policy is tight or expansionary. Even if the historical record is not conclusive on this point, a strong argument can be made for why the rate of interest may be a very bad indicator of the current mode of monetary policy. Nobel laureate Milton Friedman captured the essence of this view in his Presidential Address to the American Economic Association in 1968:

"As an empirical matter, low interest rates are a sign that monetary policy has been tight – in the sense that the quantity of money has grown slowly; high interest rates are a sign that monetary policy has been easy – in the sense that the quantity of money has grown rapidly. The broadest fact of experience run in precisely the opposite direction from that which the financial community and academic economists have all generally taken for granted."[3]

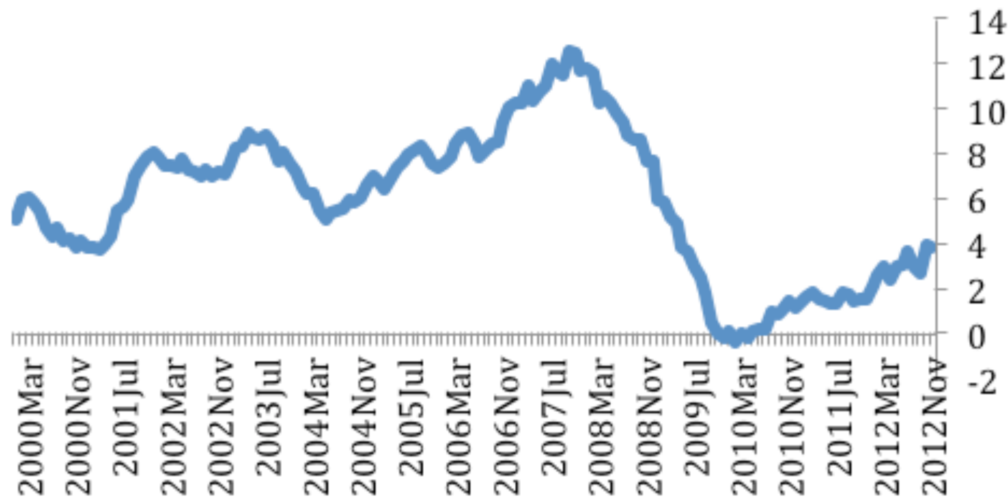
3. Milton Friedman (1968), The Role of Monetary Policy. *American Economic Review*, vol. LVIII, No. 1

At its creation, the ECB created a two-pillar system, with one pillar targeting inflation and another pillar targeting growth in broad money (so called M3, for the monetary aficionado). The second leg in this policy was inherited from the Bundesbank, the conservative German central bank that had been running a monetarism-inspired policy, with close attention to money supply growth, since it jettisoned Keynesian fine-tuning in the early 1970s. Controlling money supply is imperative for price and macroeconomic stability, and given the Bundesbank's dominant role in plumbing the EMU in the late 1990s, it is not surprising that a rule or quasi-rule for money growth became part of ECB policy, despite pure inflation targeting being the dominant trend in the central bank cosmos back then.

Milton Friedman once said that "inflation is always and everywhere a monetary phenomenon". True. He could have added that huge imbalances, profound misallocation of resources, and financial bubbles often share the same origin. Banks and financial intermediaries that borrow (and create) money are hardly innocent bystanders, but unsustainably rapid credit growth, mirroring a giant misallocation of resources, requires complicit central banks.

While the ECB successfully managed its inflation target in its first ten years, it never managed to control growth in broad money, let alone to the target of 4.5 percent. From 2004 till 2007 annual money growth deviated sharply from that rate, hitting almost 12 percent for a short period in 2007 (see Chart 1). For almost 30 months, the rate of broad money growth was above 8 percent, resembling money-supply growth in the early 1980s, a period when inflation run high.

Chart 1: Eurozone growth in M3, annual % growth



Source: European Central Bank

It was not money printing in Frankfurt that determined this exceptional growth in broad money. The money supply directly controlled by the ECB (or what can be called narrow money: currency in circulation and overnight deposits) declined from the second half of 2005 onwards. But a central bank wields significant power over broad money and can largely manage its growth (although not with the same precision as in the supply of narrow money). Yet prevailing beliefs at the time suggested the ECB to stay away from actively limiting money creation in the credit system, despite very high credit growth in the Eurozone in the second half of 2005 and in 2006, and despite evidence of substantial macroeconomic imbalances in countries with super-charged rates of credit growth. The guiding view (admittedly stronger

at the Greenspan Fed but also visible in Europe) was rather that central banks should not actively manage the money and credit cycle through its traditional money instruments – but stand ready to act if offshoots from it, especially assets bubbles, wither away.

Rapid money growth inflates asset values, and growing asset values allow countries to expand aggregate consumption and expand current account deficits. A good part of the past credit expansion ended up in the housing sector in Ireland, Spain, Portugal and other countries that have suffered from collapsed asset prices in the past five years – and that run substantial current account deficits when the bubble popped. In these economies, rising asset (housing) prices helped to transmit the effect of loose monetary policy to the wider economy. Growth was good. Domestic demand expanded rapidly – faster than output – and as long as money was flowing downhill from surplus countries in the Eurozone into deficit-country assets, the show could go on. In other words, the adjustment mechanism in the Eurozone worked in the opposite way to hat it was intended.

3. ECB DURING THE CRISIS

Monetary policy has been tight in the Eurozone in the past years and in some countries it has reinforced downward cyclical trends in the real economy. But with interest rates at the zero lower bound, you may ask, what more could the ECB have done?

To start with, it should have stopped tightening monetary policy when the economic temperature cooled. It was not preordained that the nascent economic slump in 2007 would turn into a systemic financial crisis in the West and push the Eurozone into its existential crisis. A good part of the pain could have been avoided if policy had been better designed. Again, banks were not innocent bystanders in this development. Yet, inarguably, a good dose of the blame should be put on the doorstep of the ECB headquarter in Frankfurt.

What did the ECB do wrong in 2007-2009 amid the financial crisis? Let us start with what it did right. Once the full force of the crisis hit in the autumn of 2008 – after the collapses of Lehman Brothers, Merrill Lynch and the American Insurance Group (AIG) in mid-September spread panic in credit markets – the ECB reacted quickly to supply the financial market with liquidity. Liquidity support to the financial system had already been deployed a year earlier after BNP Paribas had to cancel withdrawals from two of its funds. BNP Paribas and other euro-denominated money market funds got into troubles because they could not sell their subprime mortgage papers to cover their fund withdrawals. The collapse around the same time of Northern Rock, a small British savings bank, added further stress to the financial system and reinforced the scramble for liquidity.[4] ECB interest rates were also cut; the main policy rate moved from 4.25 percent in the summer of 2008 to 1 percent a year later. Monetary policy was rightly expansionary.

But monetary policy had been tightening rapidly since the second half of 2007. By then, previous growth in credit and lending for house purchases had sharply declined, the latter since its peak in December 2005. In the second half of 2007 it was clear that Western financial markets were in for a turbulent period and that the overall economic climate was souring. The fall in U.S. house prices had already gained speed and started to disable money and interbank markets.

4. Because of a leak in the Bank of England, British media got wind of Northern Rock's immediate problem and a bank run started once the information got public.

Yet the ECB kept monetary policy tight and made the dreadful mistake of raising the rate in the summer of 2008 when the recession was already upon Europe and its own credit bubble was bursting. One rate increase alone cannot manufacture a crisis, and a good substance argument can be made for why changes in interest rates have little influence on the general monetary policy stance. Yet this move had a disproportionate effect because of its symbolism. The ECB seemingly ignored the evidence of declining economic activity and was determined to fight climbing inflation that Europe then was importing, primarily through its oil bill, despite rapidly growing distress in financial markets. Headline inflation, the preferred inflation definition for the ECB, peaked at 4 percent in July 2008. It was predominantly higher costs for food and oil that pushed interest rates up from the summer of 2007 till a year later. Core inflation was still above the two-percent target, but there was a 1-1.5 percentage unit distance to headline inflation. Core inflation, however, would soon turn south as the economic temperature was falling.

The increase in interest rates in the summer of 2008, and the ECB's general hawkish rhetoric about exiting its unorthodox liquidity support that had started in late 2007, had a sharp effect on financial markets as they understood policy was tightening further at the same time as they were increasingly short on liquidity. One cannot blame the ECB for not crystal-balling the crisis that hit in mid-September, but it should have given far more attention to stress in the financial market and the overall contractionary mood that summer. Slowing economic activity was bound to put downward pressure on inflation and lead medium-term inflation towards the target rate. But the ECB was viewing the economy in the rear-view mirror rather than taking decisions on the basis of its own forecasts, which signalled rapidly souring conditions. ECB policy, and statements from its President, gave the impression that Frankfurt was out of sync with the European economy.

Similarly, the ECB was too quick to raise interest rates in April and July 2011 despite clear signals of continued, and worsening, stress in financial markets and low economic temperature in the Eurozone. Again, a rise in headline inflation prompted ECB to act, but at the expense of the overall recovery. The ECB had to reverse course again in the autumn of 2011, but the rate hikes had already weighed down economic activity by slowing money creation through the financial system, the quantity of money. Two other factors pushed the Eurozone economy to the brink of catastrophy during that period. Political leaders battled over Greece's second bailout package, which included a controversial write-down of its sovereign debt, and the shape of the European Stability Mechanism (ESM), the new structure of external support to Eurozone countries close to default. More devastating, however, was the sharp increase in bank capital ratio target decided this autumn, a colossal prudential mistake by the European Banking Authority (EBA) that pushed banks into severe refinancing problems. Banks stopped lending and ditched assets from their balance sheets, reinforcing the contraction in money supply.

This near-death experience for many banks only abated once the ECB launched in December 2011 its Long-term Refinancing Operation (LTRO). In the subsequent six months, the ECB borrowed more than one trillion euro to banks through this operation.[5] While necessary to avoid a widespread financing panic in the financial system, the operation accelerated zombie-bank problems. The ECB balance sheet expanded sharply, but it did not push up the

5. Although a good part of the LTRO was based on rolling over past loans to banks. New lending to banks were consequently smaller than the headline uptake in the LTRO.

quantity of money. The ECB rather became a casualty of the inability of political leaders to act decisively over banks: which banks should either be winded down in a comprehensive bank resolution programme or relieved from their bad assets? The response in Europe was that no bank should be allowed to be substantially restructured or go into resolution.[6] In the U.S., a more determined approach to insolvent banks – through the TARP – has allowed the Fed in the past two years to use its firepower to stimulate demand rather than saving banks. The difference in recent (and forecasted) nominal growth between the U.S. and the Eurozone is no doubt associated with the extent to which central bank activity has stimulated the economy. One can debate the merits of central bank expansion, but it should not be an area of dispute that the rapid increase in high-powered money in both the Eurozone and the U.S. has had different effects on demand.

Consequently, even if interest rates have been very low for the most part of the crisis, monetary policy has still been tight in the Eurozone. That is the point made by Friedman in the quote in a previous chapter. This is not what some standard economic models of monetary policy teach, but consider that interest rates in Germany during the Weimar hyperinflation years were progressively increased and that interest rates in the United States during the Great Depression was progressively lowered. The interest rate could neither stop hyperinflation nor put a break on deflation in these two examples. The problems rather had their origins in money supply and the velocity of money. While the monetary base expanded somewhat in the U.S. during the great depression, money supply contracted sharply.

Similarly, one of the worries now has been the general slow growth, and regional collapse, in broad money. The general trend is that growth in broad money has undershot – by far – the reference value of 4.5 percent. In the past four years, growth in broad money has rather averaged at 2.5 percent. Money supply in Greece has collapsed to almost the same degree as money supply in the U.S. during the Great Depression. Both narrow and broad money has contracted sharply; broad money has dropped by around 25 percent. Obviously, the ECB is not committed to targets based on the quantity theory of money. In fact, the monetary pillar, part of the dual structure of ECB policy at the launch of the euro, has progressively been weakened. The movement of the interest rate has taken primacy.

However, the ECB has taken measures to expand the monetary base: it has almost doubled since the autumn of 2008. But the expansion has been highly volatile, exacerbating problems with the money multiplier. And tightened capital requirements on banks – and the new battery of financial regulations – have further undermined the multiplier. In fact, one of the big problems in the past years as far as money supply is concerned has been the demand on banks to hoard more capital in the middle of a recession. It has seriously impaired the money multiplier

Yet the ECB has not been innocent in the contraction of broad money. Simply, money expansion has not been big enough to support the economy and the contraction has happened under the ECB's watch. The ECB has been too shy. An excessive belief in sterilising its debt-market operations has drawn money out of the economy. It has maintained a narrow focus

6. For a couple of months, following a make-up meeting between Angela Merkel and the then French President, Nicolas Sarkozy, ahead of the G8 summit in Deauville, the view by European politicians was that failed banks should be allowed to default. The that policy was reversed at a EU summit in the autumn of 2011 where leaders said this had been a dreadful policy. Similarly, after the package to Cyprus had been crafted in March-April 2013, the Chairman of the Eurozone group said in an interview that restructung bank debt was now the way forward. One day later than policy had been retracted.

on financing banks rather than expanding broad money with its operations. Unlike the U.S. Fed and the Bank of England, it has not engaged in outright quantitative easing. The Long-term Refinancing Operation (LTRO) had qualities similar to QE, but the operations have effectively been sterilized as the banks taking up the offers of cheap loans deposited a big part of the new liquidity at the ECB. Asset values like equities increased as a consequence of the LTRO, but only temporary as the equity trading rose on perceptions rather than actual evidence of new liquidity. The LTRO did not create new money, it just redistributed liquidity.

Consequently, despite the talk of a profoundly unorthodox monetary policy, the ECB's operations have had little effect on expanding aggregate demand and not slowed the process of passive money contraction, similar to the monetary contraction in the United States in the 1930s (turning a recession into a Great Depression), that many Eurozone countries have been going through. Money supply in crisis countries like Greece, Portugal and Spain has been stagnant at best since late 2009, leading to big money supply gaps. Only one country in the Eurozone – Germany – has experienced an increase in broad money in accordance with trend. The economic contraction in crisis countries would still have been profound even if money supply had been maintained, but the sharp drop in money supply has made the situation radically worse.

Money contraction has weighed down nominal economic activity and created a financial atmosphere unfavourable to process of debt deleveraging. Some countries have been caught in what borders to the noxious debt-deflation spiral once described by Irving Fischer. In its extreme form, Fischer's spiral completely invalidates efforts to rebalance financial positions. The more households or governments save, the bigger their debts grow as velocity, prices, and economic activity fall. In such circumstances, central banks need to stimulate nominal economic growth and forcefully push growth in money supply with the view of reflating the economy.

The ECB has continued to take extraordinary liquidity actions to help banks to finance themselves. Combined with a "flexible" view on asset quality, these actions have helped to avert a widespread banking crisis. But its attention to the collapse in money supply growth has not been impressive. While the ECB has put a lot of emphasis on the transmission mechanism of monetary policy, it has paid far less attention to the transmission from money to the economy. Its focus on the role of the financial system as the transmission mechanism of monetary policy is understandable: that is where the vast part of money growth is created in normal times. And the financial system in many crisis countries has been dysfunctional and pushed into a death dance with fragile sovereigns. Clearly, this transmission mechanism has been broken and required attendant surgery. But the transmission mechanism has become dysfunctional partly because of rapidly shrinking asset values. This has been the vicious cycle: when asset values shrink, households and banks get into balance-sheet problems. Banks contract credit stock to recalibrate with asset values. The interest rate can move into negative territory, but it will have little effect on asset values, other than in the long term. So the real issue for the transmission mechanism of monetary policy becomes in a crisis like this one of the transmission of money into the economy. And that transmission the ECB has neglected.

4. THE SCYLLA OF DISCIPLINE AND CHARYBDIS OF FLEXIBILITY

Central banking is about finding the right balance between monetary discipline and flexibility. While the ECB has prided itself for having maintained price stability, it seems safe to say that it has failed in finding the balance between discipline and flexibility. The ECB's

inflation-target policy has rather been a source of monetary disorder, causing unnecessary damage in the real economy. Ultimately, the ECB was complicit in creating huge internal current account imbalances, a giant misallocation of resources, and a housing bubble in the years up to 2007. It failed to discipline the economy. But then it switched into running an overly tight policy and failed to take necessary action. When it did take action, it was often too late. Monetary policy in the Eurozone has been pro-cyclical: it first fuelled a boom and subsequently reinforced a bust.

Despite appearances, central banking is more of an art than a science. It is critical that policy is systematic – that it is based on a rule that is communicated to and understood by markets. Forward guidance through rules is necessary for the efficacy of monetary policy. As recent history has shown, rules also reduce volatility: the 1980s and 1990s – two periods of rules-based monetary policy in most part of the West – experienced stable real economic performances when compared to the period of stop-go discretionary monetary policy in the previous decades.

But central bankers must also be prepared to act when the rules have become inoperable or clearly fail to give answers to the pressing monetary or macroeconomic questions. Likewise, monetary policy makers must be prepared to change their rules if their usefulness has been disproven. The alternative – maintaining oral allegiance to a defunct rule and combining it with sundry discretionary activities disproving the validity of the rule – is not a viable strategy. It does not give any forward guidance. Economic agents cannot make plans for the asset balances on the basis of discretionary policy.

This is where many central banks find themselves now. The ECB is no exception, even if the description may better fit the Fed. Three rounds of quantitative easing has arguably had a positive effect on the U.S. economy, but the effect has by all accounts been far smaller than envisaged because the absence of forward guidance from the Fed. A first bout of QE was followed by tightened money supply in late 2009. Then came a second round of money stimulus, with the Fed subsequently stepping on the breaks in late 2011. And now we are in the period of the third QE, or in the new period of a quasi-rule that may or may not target the unemployment for monetary expansion. It is clear that the Fed no longer follows the Taylor rule – but it gives very little forward guidance about its own actions.

The same is true for Bank of Japan. Under the new regime, a new policy of expanding money supply has been communicated and set in motion. Asset values have risen – and very fast. But BoJ chief Kuroda has not given any target for his policy, the market does not know when the BoJ intends to slow down money creation and why. Consequently, indistinct communication form a central bank forces the market to make its own interpretation. And they are not very good at interpreting non-policies. So the markets tank when the BoJ indicates that the new ambition of raising money supply may slow down or end.

Maintaining price stability is critical for a sound economy. The alternative to the current rule should not be a return to the stop-go and discretionary policy many European economies had before, or a significant step-up in inflation. Nor should a central bank target real economic variables, like unemployment or real growth, because that will raise inflation to unacceptable levels. Arguable, central banks should not target real variables at all, because they cannot control them. But the inflation-targeting policy of the ECB has created macroeconomic instability and should be changed. It is right at the heart of the failures of discipline and flexibility in the ECB's short history. A pure inflation-targeting policy does not work well in an age of supply shocks imported from abroad. When it is based on headline inflation –

incorporating inflation that is not created within the ECB's jurisdiction – it runs the risk of fighting imaginary problems. It becomes the Don Quixote of monetary policy. There is not much that monetary policy can do to counter a supply chock. But when central banks do just that, the effects on the real economy tend to become very strong.

Worse still, pure inflation targeting has proven to be a source of instability between countries in the Eurozone. If ECB policy instruments respond to aggregate performances in Europe, it will be a policy that will fit the German economy well but necessarily not the other and smaller economies. While the economic temperature is low in some countries it may be hot in others.

The ECB itself has recently demonstrated the "emergence and persistence" of inflation differentials between Eurozone members in the period up to 2008. This is a technical way of saying that the "one-size-fits-all" approach did not work well because the differences between countries grew too big. According to an analysis by the Dallas Fed, taking stock of interest rates on the basis of the so-called Taylor rule (a quasi-inflation rule for setting interest rates), the difference between the prescribed interest rates for Eurozone countries was significant between 1999 and 2011. In fact, the range of prescribed interest rates averaged at 10.6 percentage points.

Furthermore, price stickiness also differs between countries: prices do not adjust at the same pace and some countries require more attention than others in order for price to move with changes in the interest rate. The difference is sometimes stark. A one percent increase in the interest rate, for example, can have a significant impact on prices in France but hardly any impact in Spain. Simply, the responsiveness of economies to orthodox monetary policy instruments differs.

These differences have been amplified by the Eurozone crisis. Monetary policy in the past years has had fragmented effects – or, to use the words of ECB President Mario Draghi: "the singleness of our monetary policy" has been contested. The fractured financial system, and an instinct against unorthodox policies by the ECB, has undermined the expansionary effects of low interest rates. There are evidence suggesting that the ECB programme of Outright Monetary Transactions (OMT) – a commitment, launched in September 2012 but still not used, to purchase government bonds in order to drive down bond yields for crisis countries – has recovered the financial system and the transmission mechanism, but only up to a point.

Highly controversial, especially in Germany, the key argument for the OMT programme is arguably that it takes away an existential threat that has been hanging around the euro's neck in the past two years. Once default risks in the Eurozone became apparent financial markets have asked themselves: if the entire euro project is about to break apart, will someone step in to stop that from happening? After two years, the ECB has now given two thirds of the answer to that existential question. The remaining part will come once the programme is activated. Yet the programme may never have to be used. So far, only the "open mouth operation" of the ECB, clearly committing itself to the survival of the euro, has helped to lower the borrowing costs of Spain, Italy and other countries.

The negative side of the OMT is that it pushes the ECB further into fiscal policy. This move is difficult to defend. If the policy intends to repair a broken transmission mechanism, actions by the ECB are legitimate regardless of fiscal policy in the country that is assisted. It is easy to understand that the ECB fears giving countries a blank check by driving down their bond yields and taking away market pressures for reform. Yet that concern is secondary to

the broken system for monetary policy and it cannot be addressed by a central bank that bargains with countries about hat they need to do in order to be saved. Nor would it have been necessary if the ECB had acted much earlier and used policies to support money supply and nominal growth rather than sterilised operations for banks.

The OMT is neither a vote for higher inflation nor a rejection of inflation targeting. Yet it illustrates the weakness of the past monetary policy rule: the ECB has stepped into a new universe because its past rule did not give answers to the pressing monetary questions. The OMT, like the Fed's quantitative easing, has not filled that gap; it does not build on an alternative rule or new rules for policy instruments. The new policy is purely discretionary and markets have to second-guess how it will operate. While the Fed is close to getting new rules for its policy instruments, markets are left with no alternative than having to read between the lines of Mario Draghi's statements to get an idea how policy instruments will operate. The inflation target remains unchanged, but it is obvious to any watcher of European monetary policy – for markets as well as discerning citizens – that the ECB now is far away from its home. Its authority, and the effectiveness of monetary policy, will gradually erode unless it offers a rules-based alternative to its current discretionary monetary policy and, critically important, how policy instruments behave in different circumstances.

The question now is: will the ECB change? And, if so: how should it change?

5. WHERE DO WE GO FROM HERE?

Central banking today is no source of envy. Even critics of the ECB, the Fed or other central banks have to acknowledge the profound difficulties facing central bankers, especially those that were dealt a bad hand from the start (like an institutionally incomplete monetary union and irresponsible political leaders). The Eurozone is in such a difficult situation that no monetary policy will do wonders. All monetary alternatives are also associated with significant risks. Central banks could certainly do more to stimulate demand, but such actions are difficult to engineer without increasing the risks for higher inflation.

Nor is the problem today only one of insufficient demand. Other problems are weighing down economic growth across the world. Banks are in such a difficult shape that some of them have to be restructured; they are beyond the salvation of monetary policy. Malinvestments, to use a term by Gottfried Haberler, during the boom years cannot be reemployed just because demand increases. New investments have to be generated and demand uncertainties are far from the only reason why business is holding back on investments. Furthermore, a simplistic view of demand expansion is also associated with risks of creating new misallocations or resources – perhaps even financial bubbles.[7]

So how do we go forward from here? This should be one of the main topics for monetary policy in Europe in the next few years. It is clear that overall policy, targets, and the operation of instruments need to change. It is less clear how they should change. A couple of principles could, however, point us in the right direction.

7. A good survey of the risks can be found in William White (2012) *Ultra Easy Monetary Policy and the Law of Unintended Consequences.* Federal Reserve Bank of Dallas Globalization and Monetary Policy Institute, Working Paper No. 126.

First, there should be a new rules-based monetary policy. The alternative to discharging current inflation targeting is not a discretionary policy, let alone a stop-go policy of previous decades. But a rule is necessary for the economy to get correct expectation of how the ECB will operate and how it ill react to new economic information.

Second, a new monetary policy needs to elevate the role of money and money growth. There has to be a policy (and perhaps a target) for money growth. This is even more important in a currency union that has to allow for differences between participating states.

Third, a new policy should elevate the role of assets in monetary policy and the attention that central bankers should give to development of assets and their wider role for macroeconomic performance. Traditionally, pure inflation targeting gives attention to consumer prices and sets its main policies accordingly. Yet assets play a far greater role than purists believe for how countries macroeconomic performances evolve. Needless to say, it is asset price development is also central to overall financial stability.

Fourth, a new policy needs to be adaptive to changes in the world economy. Globalisation in effect means that local price systems get associated with world market prices. That generates efficiencies, but it also make a country vulnerable for changes in the real world economy or in the monetary policy of other countries. A monetary policy in the Eurozone should have the capacity to respond to such developments, if needed. And it should certainly not have a policy that forces changes in monetary instruments simply because we are importing inflation or deflation when they don't give effects on inflation or deflation in Eurozone factor markets.

Fifth, a new monetary policy should allow for greater local variations in the conduct of the monetary policy – in how instruments operate. With a focus on the main policy rate, ECB decisions will be good for Germany but not for many other countries. Macroeconomic conditions in the Eurozone will not fully converge for many decades. Right now we are witnessing a process of divergence. This is not viable. Other instruments, however, can be more adaptable to local variations in macroeconomic conditions.

Sixth, a new monetary policy should be simple (but not simplistic), transparent, communicable, and give forward guidance.