“CENTRAL BANKING AFTER THE FINANCIAL CRISIS”

IMFS Distinguished Lecture

by
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Ladies and gentlemen,

The global financial crisis has been the most severe financial and economic debacle since the Great Depression of the 1930s. Central banks, and governments played a key role in containing the impact of the crisis by preventing a global economic and financial meltdown. At the same time, the crisis – which, by the way, is not over yet – may have important implications for central banking. This is what I will reflect upon in today's lecture.

1. The crisis and central banks' tasks and mandates

Central banks' main task is the management of monetary conditions in the economy in the pursuit of a given policy objective, such as convertibility during the gold standard era or price stability over the more recent period.[1]

The measures taken by central banks in response to the financial crisis reflect this traditional function. As a reaction to receding inflationary pressures in a context where the intensification of the financial crisis had weakened the economic outlook, central banks' policy rates were globally cut to historically low levels. In our case the main refinancing rate was lowered in a number of steps to 1%, a level not seen in recent history in any of the euro area countries. In fact, since May 2009 we have kept the ECB key interest rates unchanged.

Many central banks, including the ECB, also resorted to a number of non-standard measures to support the functioning of financial

[1] See Goodhart (1988).

markets with a view to maintaining the monetary transmission channel and to supporting the flow of credit to the economy in critical times. The ECB's non-standard measures comprised

- the provision of unlimited funding support to banks, at maturities of up to one year;
- the provision of liquidity in foreign currencies;
- an extension of the list of eligible collateral;
- outright purchases of covered bonds;
- and recently also interventions in the euro area debt securities markets through the Securities Markets Programme.

Major financial and economic crises like the present one often had an important impact on the evolution of the tasks and mandates of central banks.[2] Let me give you just a few examples. It was a sequence of major bank panics in the 19th century that established, based on Walter Bagehot's "responsibility doctrine" [3], the foundation of central banks' task of ensuring the smooth functioning of financial markets, in particular in times of crisis. After the Great Depression of the 1930s, central bank inaction was widely held responsible for the economic catastrophe. As a consequence, monetary policy in many countries came under the control of the fiscal authority, before it was increasingly restored to an independent function in the 1950s.[4] A third

[2] For an overview of the historical evolution of central banks see Goodhart (1988) and Bordo (2007a, 2007b).
[3] Bagehot (1873).
[4] See Bordo (2007a, 2007b).

important example is the "Great Inflation" of the 1970s, which, in a wide portion of the industrialised world where monetary policy governance was still characterised by fiscal dominance, paved the way for the adoption of modern monetary policy frameworks: the primacy of price stability as the objective of monetary policy and central bank independence as the institutional prerequisite for a credible pursuit of this objective.

Against this background, it is not a far fetched thought that the current crisis might as well have an impact on central banks' tasks and mandates. Indeed, in many countries the crisis has brought about a strengthening of central banks' role in financial supervision and regulation. In particular, many central banks have been assigned new tasks in the context of the establishment of macro-prudential supervisory functions mandated with identifying risks to financial stability from a system-wide perspective.

In the EU, the recent creation of the European Systemic Risk Board (ESRB) as the new macro-prudential supervisory body is an important advance in the economic governance framework.

The ECB provides the secretariat and analytical, statistical, administrative and logistical support to the ESRB. The assignment to the ECB of specific tasks concerning the functioning of the ESRB is welcome, but does not constitute a change in the mandate or an additional objective for monetary policy. Rather, these tasks should contribute to financial stability, while being fully in line with the ECB's primary objective of price stability. There are clear institutional separation lines between the ECB and the ESRB. In particular, both institutions are independent and have clearly defined separate mandates: price stability for the ECB and mitigating systemic risk for the ESRB.

Central banks' ability to maintain price stability and keep inflation expectations firmly anchored over the last three years testifies to their high credibility grounded on clear mandates to safeguard price stability and institutional and political independence.

At the same time, the crisis has revealed short-comings in the predominant pre-crisis monetary policy strategy paradigm, which was centered on two specific features:

- First, the definition or interpretation of price stability objectives as point inflation targets over short horizons.

- Second, a systematic disregard of financial and monetary developments in the assessment of risks to price stability, which was instead primarily based on short-term inflation and output forecasts.

These shortcomings made monetary policy frameworks unfit to meet the challenges of the marked financial cycles that posed a very serious threat to economic and price stability. Indeed, the aim to stabilise the inflation rate around a short-term point target and disregard of the risks implied by unsustainable financial and monetary trends has in my view led to too lax a monetary policy stance in many parts of the world from the second half of the 1990s until the beginning of the financial turmoil in August 2007. This accommodative stance has probably contributed to inflating the stock market and, subsequently, the housing markets.[5]

Monetary policy in advanced economies needs to be more effectively geared to maintaining price stability with a medium-term orientation, also taking into account longer-term risks to price stability emanating from destabilising financial and monetary trends.

The ECB's monetary policy strategy is in line with this requirement. First, our quantitative definition of price stability explicitly refers to the medium term. Second, our monetary pillar, which introduces money and credit considerations in our monetary policy strategy, factors financial and monetary developments into our assessment of the risks to medium-term price stability. This reinforces the medium-term orientation of our monetary policy. The monetary pillar ensures that the well-documented link between trends in monetary growth and inflation is duly taken into account in the monetary policy conduct. As the dynamics of money and credit aggregates can also reflect emerging financial imbalances, our monetary analysis encourages a leaning-against-the-wind attitude. This approach suggests a symmetric conduct of monetary policy over the financial cycle to contain the potential build-up of asset price bubbles and the associated risks to medium-term price stability. At the same time, it does not imply – as sometimes has been incorrectly understood – a mechanical reaction to asset prices.

[5] See e.g. BIS (2009), Taylor (2007) and Eickmeier and Hofmann (2010).

The alternative to an attitude of leaning-against-the-wind, namely an asymmetric policy approach that only stands ready to lower interest rates when the imbalances unwind creates moral hazard and ultimately leads to even larger imbalances. Moreover, central banks may end up creating an environment of systematically downward-biased interest rates, as policy rates are successively lowered in crisis times, while it becomes difficult to raise them in a fragile financial system. Such a “low interest rate trap”[6] would create serious distortions. Central banks should avoid getting in such a situation.

2. Where do we stand in the phasing out?

Based on these more fundamental considerations let me say a few words on the current assessment of the monetary policy stance. The euro area is currently in a process of recovering economic activity, which has gained momentum and recently surprised to the upside. Economic recovery in the euro area is increasingly self-sustaining and increasingly less dependent on state support measures. Its strong momentum is in part driven by robust growth abroad. But it also reflects improved domestic growth dynamics. This notwithstanding uncertainty remains high.

As regards price developments in the euro area, annual HICP inflation has increased to 2.4% in January 2011, largely driven by energy and non-energy commodity prices. Inflation rates could temporarily increase further in the next few months and are likely to stay above 2% in 2011, before moderating again. There is continued

[6] Giavazzi and Giovannini (2010).

evidence of upward pressure on overall inflation mainly owing to energy and commodity prices. Notably, industrial producer prices which have some early indicator properties with respect to consumer prices have strongly accelerated in the course of 2010 and are currently growing at rates above 5%. Available survey data also point to increasing price pressure in the earlier stages of the production process.

However, our monetary analysis signals that inflationary pressures stemming from euro area monetary trends should remain contained over the medium to long-term. In making this assessment, we need to carefully consider the substantial monetary liquidity that had been accumulated prior to the crisis and that has been reabsorbed only partially. Of course, if the liquidity is gradually reabsorbed through a deleveraging process of a partly over-indebted private sector, it will dampen money growth as part of a healthy adjustment process. But in the current environment of improved confidence and economic activity, the liquidity may also be used for transaction purposes and thus contribute to upward price pressures.

This relationship between economic activity, liquidity and price pressures also holds at the global level with possible repercussions for the euro area. The commodity price pressures that I just mentioned reflect to a large extent strong demand from emerging economies and may not revert as quickly as if they were due to short-lived tensions in supply. Moreover, with a continued strong expansion of money and credit in emerging economies, it is not clear to what extent such commodity price pressures will be absorbed within the economies and to what extent they may instead be passed on in what from the euro area perspective are import prices. We have seen this complex impact of commodity prices before, namely in the period from end 2005 to mid 2008. At the time, the warning signals for a more persistent upward pressure on euro area inflation were dwarfed by those coming from other asset markets, but we should take them serious now. Monetary policy for the euro area can of course not control strong global liquidity trends, but it needs to take them into account and possibly apply a more restrictive view on domestic liquidity expansion than would otherwise be the case.

Taken all available information together, latest economic developments suggest that the monetary policy of the ECB that has already been accommodative has become even more accommodative. In my view, risks to the medium-term outlook for price developments in the euro area as a whole could move to the upside. We therefore need to very closely monitor further developments.

In this respect, we need to keep a close eye on any signs of emerging second-round effects in the behavior of wages and price setters. Should economic agents start to react to temporarily higher inflation outcomes this could give rise to a so-called wage-price spiral and higher inflation could become entrenched in inflation expectations. I can assure you that we will act quickly and decisively on any indications of emerging second-round effects and of a dis-anchoring of inflation expectations from levels consistent with price stability. The firm anchoring of inflation expectations remains of the essence.

To the extent that financial market conditions continue to improve and the current economic recovery turns out to remain strong and self-sustained, the stance would need to be normalised over time. In line with its mandate, the ECB will act taking into account economic developments both at the global level and within the euro area economy, as well as the further evolution of conditions in financial markets, including those that are most relevant for the transmission of monetary policy impulses. In this sense, we will act whenever we anticipate that higher costs and price increases pose upward risks to price stability over the medium term.

The non-standard measures by the Eurosystem have been necessary to enhance its support of credit flows to the economy and to ensure a proper functioning of the transmission of monetary policy impulses to households and firms. Indeed, this approach has served the euro area economy well. Money market spreads have come down significantly [**slide 2: Euribor/OIS spread**], banks' funding risks have been reduced, and the lowering of our policy interest rates has led to lower bank lending rates, largely as intended [**slide 3: bank lending rates**].

Yet, keeping policy rates at very low levels for a protracted period and at the same time generously providing liquidity to banks entails significant risks. As outlined in the 2010 Annual Report of the Bank for International Settlements (BIS), asset price developments and risk spreads indicate that once again a “search for yield” may have started to play a role in an environment of near-zero rate policies. In particular, such a situation has the potential to increasingly over time distort market participants’ perception of risks, such as liquidity and interest rate risk. A renewed under-pricing of such risks could again lead to misallocation of resources and to asset price bubbles. The period immediately preceding the start of the financial turmoil in August 2007 is a case in point. New financial fragilities may emerge which, in turn, may hamper the normalisation of rates. Finally, maintaining interest rates very low for too long may reduce activity in money markets, delay necessary balance sheet adjustments by firms and households, set disincentives to governments for their efforts to consolidate public finances.[7]

The ECB (like other central banks) faces a difficult balancing act between doing what is necessary to maintain a properly functioning monetary policy transmission mechanism and doing too much for too long, thus reducing incentives for market participants to make markets work as they should. In Japan, the combination of zero interest rates and quantitative easing, while successfully containing liquidity problems of financial institutions, have had some detrimental effect on the intermediary function of the money market and on corporate bond issuance.[8] In our case, we saw that transaction volumes in the short term (EONIA) money market increased and EONIA rates were only moderately affected [**slide 4: EONIA**

[7] See BIS (2010).
[8] Naohiko Baba, Shinichi Nishioka, Nobuyuki Oda, Masaaki Shirakawa, Kazuo Ueda and Hiroshi Ugai, Japan’s deflation, problems in the financial system and monetary policy. BIS Working Papers No188.

rate/trading volume] when the amount of excess liquidity decreased after the expiration of the first (very large, €442 bn) 12 month LTRO, indicating that the very generous liquidity provision through the central bank might have had a dampening effect on market activity when confidence between banks re-emerged. Some of the very same measures that contributed to stabilizing the economy might unfold negative effects and become destabilizing if policy accommodation is not withdrawn in time.

This is particularly true against the background of a recovery gaining momentum, increasing inflation pressures coming from commodity prices and improvement in financial market conditions, given the protracted and global character of the current monetary policy accommodation.

The risks of creating distortions and of hampering market activity are the reasons why we designed all the non-standard measures taken by the Eurosystem in response to the crisis with exit considerations in mind. From the very beginning, we have made clear that the measures are temporary in nature and that those which are no longer needed to cope with unusual circumstances will be phased out.

The present status is that we have discontinued provision of liquidity at maturities longer than 3 months. Neither this decision nor the termination, as planned, of the purchases under the Covered Bonds Purchase Programme in June 2010 has caused any new market tensions. On the contrary, we continue to see a gradual normalisation in the markets [**slide 5: covered bond spreads**].

However, we still provide unlimited liquidity at a fixed rate in the remaining operations. We have announced that we will do so at least until the end of this year's third maintenance period (on 13 April 2011). Furthermore, the Securities Markets Programme is still in place, although purchases have been relatively small lately. Thus, the operational modalities and the SMP are the only crisis-related instruments left for phasing out and exit.

As regards timing of the further exit, there are risks to both sides. I have already mentioned some of the risks of exiting too late. On the other hand, accelerating the exit could create new market tensions, with adverse effects on the ongoing economic recovery and the medium-term outlook for price developments, possibly posing downside risks to price stability. Our two-pillar analytical framework, taking into account both macroeconomic and monetary developments, makes us well equipped to properly define the pace of exit. The approach has been, and will be, gradual.

Will the exit per se be difficult? In this respect, I think the ECB is in a relatively comfortable position. With the exception of the Covered Bonds Purchase Programme and the Securities Markets Programme, which are both relatively limited in size, our non-standard measures are directed at the euro area banks and do not have very long maturities. This is different from the situations in the US and the UK. You see how repurchasing operations (red parts of bars) dominate in our case while the Federal Reserve and the Bank of England hold large portfolios of securities (blue parts of bars), as their non-standard measures to a large extent have aimed at improving liquidity in specific market segments by outright purchases.

The differences reflect that in the euro area, the vital link between our policy rates and the real economy largely goes through the banks, while financial markets have a more prominent role in transmitting monetary policy impulses to the real economy in the US and the UK. Banks provide 77 % of non-financial firms' external funding in the euro area, while in the US and the UK the figure is 40% and 44% respectively [**slide 6: euro area financing**].

In our case, the majority of the measures unwind automatically as the operations concerned mature unless we decide to continue them.

Let me also mention that the non-standard measures can co-exist with any interest rate level. Hence, should market conditions still warrant some of the non-standard measures once upside risks to price stability over the medium term require our action, the monetary policy stance can be changed.

Some have asked how heavy reliance by some banks on Eurosystem funding will influence the next step of the exit from the non-standard measures. It is true that some banks under the current market circumstances have relied a lot on our operations. This is not a normal situation. Should some banks still need to resort to our funding extensively once markets are closer to normal, we would have to judge whether their funding constraints are a result of remaining market problems or whether they are primarily attributable to weaknesses in their balance sheets. In the latter case, it is obvious that any funding support from the Eurosystem would have to be carefully re-assessed, as our operational framework serves the implementation of monetary policy, and is not meant to cater for all individual banks' liquidity needs, irrespective of what causes them. In the euro area, it is the responsibility of the national central banks at their risk and cost, possibly guaranteed by the government, to act as the lender of last resort. Banks should take all appropriate measures to reinforce their balance sheets as well as their capital base, thus creating conditions under which they can fund themselves in the market once market conditions return closer to normal.

We do not know today what normality will look like after the crisis. We may have to perform our monetary policy in an environment that is somewhat different from the one prevailing before the turmoil. For instance, one might expect to observe higher liquidity and risk premia on the markets than during the period that preceded the crisis, and possibly also reduced activity in some longer-term unsecured market segments. If such changes imply that for any given policy interest rate, the monetary conditions are somewhat tighter than they would have been in the pre-turmoil period, that will of course have to be taken into account when setting the policy rate. But such "new facts of life" do not necessarily require any major change in the operational framework. We shall of course consider thoroughly what lessons are to be learnt from the crisis, but so far, the framework that prevailed prior to the turmoil, featuring a broad universe of counterparties, a long list of eligible collateral and large refinancing operations, seems to provide a good benchmark. It served us well before the crisis, and could be adapted quickly as circumstances worsened.

3. The interplay between fiscal and monetary policy

While the current challenges for monetary policy are immense, those for fiscal policy are even greater. Fiscal policy in most advanced economies does not just have to exit from the fiscal stimulus and support measures taken in response to the crisis. Even with these measures reversed, fiscal policy still faces at least three important challenges.

First, even excluding crisis-related stimulus measures, most advanced economies are still left with historically high deficit-to-GDP ratios, which, viewed from today's perspective, are largely structural in nature. To put it another way, given the lower actual and potential post-crisis output and correspondingly lower post-crisis tax revenues, pre-crisis spending levels are no longer affordable.

Secondly, government debt-to-GDP ratios are now much higher than before the crisis and the guarantees provided to the financial sector have added to the potential liabilities **[slide 7: government debt – advanced economies]**.

Thirdly, over the next two to three decades, governments face rising costs related to ageing populations. Due to the combination of these factors, questions are not surprisingly being asked about the ability of some governments to bring their public finances onto a sustainable path over the medium term.[9] Reflecting this problem, the latest round of the financial crisis since early May 2010 was triggered by concerns about the current and future state of the public finances in some euro area countries **[slide 8: government debt – EA countries]**.

What are the implications of these developments for central banking?

The state of the public finances clearly matters for central banks. At least from a theoretical point of view, one of the reasons is that monetary policy could in principle be used – or abused – to alleviate the government's budgetary woes. This can be done via two channels:

First, the real value of nominal government debt – in particular of long-term maturity – could be at least partly inflated away via unexpected higher inflation.

Secondly, expansionary monetary policies could aim at generating substantial seigniorage income in order to boost government revenues.

The exploitation of these channels would of course directly conflict with the central banks' mandate to ensure price stability. Whether they can be exploited ultimately depends on the regime that governs the relationship between monetary and fiscal authorities. The economics literature distinguishes between two regimes, monetary dominance and fiscal dominance.[10]

[9] See Cecchetti, Mohanty and Zampolli (2010).
[10] Sargent and Wallace (1981).

Under a regime of monetary dominance, the aforementioned channels are excluded by construction as central banks can pursue price stability-oriented policies without having to take into account the government's budgetary constraint. Under a regime of fiscal dominance, by contrast, the central bank is subordinated to the fiscal authority and monetary policy is tailored to the government's budgetary needs rather than to price stability.

The regime that has prevailed in advanced economies over the last three decades has been a regime of monetary dominance. Central banks have been given an explicit mandate to maintain price stability and have been protected by legal provisions guaranteeing their independence. In the euro area, the ECB's mandate to safeguard price stability, its independence and a prohibition of monetary financing of government deficits are enshrined in the Treaty on the Functioning of the EU.

Credible, stability-oriented monetary policy frameworks are assets that are costly to acquire and must not be put at risk. Yet, growing doubts about government's ability to deliver sustainable public finances could at some point also cast doubt on the sustainability of the prevailing regime of monetary dominance. This would lead to an increase in inflation expectations or at least heightened uncertainty about the inflation outlook in the medium term.[11]

What can central banks do to mitigate such a scenario?

[11] See Leeper (2010).

Central banks need to avoid the spreading of any doubt about their commitment to maintain price stability and their independence from political influence. This reinforces the need to pursue a symmetric approach to monetary policy making. Central banks should avoid overemphasising potential downside risks to the economy and committing to an extended accommodative monetary policy stance.

The current concerns about the public finances also need to be taken into account in the consideration of non-standard monetary policy measures. Central banks need to be wary of the credit risk incurred in their monetary policy operations as this might put their financial independence and reputation at risk. By the same token, outright purchases of government debt as a non-standard monetary policy measure are obviously a sensitive issue because they might be perceived as a first step towards a monetisation of government debt. To dispel any such impression, central banks must be clear about the temporary nature of their government bond purchases.

The built-in temporary nature of the ECB's liquidity support measures and the clearly limited scope and scale of our outright purchases in securities markets so far prevented excessive accumulation of credit risk on the ECB's balance sheet. This has also mitigated any blurring of monetary and fiscal responsibilities.

I would acknowledge, however, that the ECB's Securities Markets Programme (SMP) has proven to be controversial in some quarters. Some commentators have characterised the programme as an implicit breach of the Maastricht Treaty.

In the ECB's view the Securities Markets Programme does not breach the provisions of the Treaty. The Treaty prohibits Eurosystem purchases of government bonds on the primary market. The interventions under the Securities Markets Programme are conducted on the secondary market. The purpose of these interventions is not to finance government borrowing. Rather, it is to restore depth and liquidity in dysfunctional segments of debt securities markets and thus ensure the proper functioning of the monetary policy transmission mechanism. The Securities Markets Programme is a temporary measure to stabilise market conditions, it is not a vehicle to provide monetary financing to insolvent governments, which would breach Treaty provisions.

Our bond purchases have so far been very small. Outright holdings of government bonds in the context of the Securities Markets Programme currently amount to just 3.8% of the Eurosystem's total assets. In addition, the interventions are fully sterilised by conducting liquidity-absorbing operations so that overall liquidity conditions and the stance of monetary policy remain unaffected.

It is certainly true that with this non-standard measure, the ECB has entered a terrain in which it should not stay longer than absolutely necessary. It is up to euro area governments to address the root causes of the current problems, to develop and implement credible plans to put their public finances on a sustainable footing and thereby restore orderly conditions in sovereign debt markets.

In this regard, let me point out that the state of the public finances in the euro area differs across countries. Moreover, today's fiscal imbalances have different causes in different countries. Before the crisis, some euro area Member States, such as Greece and Portugal, never managed to balance their books, even in good times. Others, such as Ireland and Spain, did achieve seemingly healthy budget surpluses in good times. But they failed to perceive the extent to which tax revenues were vulnerable to an unwinding of economic imbalances and allowed spending to grow at an unsustainable pace.

Looking back, it is obvious that the existing EU fiscal framework has not been fully implemented. Many countries have violated the rules. Peer pressure has not worked. In addition, the reform of the Stability and Growth Pact (SGP) in 2005 has weakened the fiscal framework substantially. There has been a lack of enforcement of fiscal discipline at the EU level and insufficient national incentives to comply with the EU rules.

Against this background, the European Council has mandated a task force led by the President of the European Council, Herman van Rompuy, to consider ways to strengthen the surveillance of budgetary policies and make corrective measures more effective. The task force was also asked to consider an improved surveillance of competitiveness developments and the correction of imbalances as well as the design of an appropriate framework for crisis management. In October 2010, the Van Rompuy Task Force presented its final report to the European Council, which endorsed its recommendations in December 2010. These recommendations are now in the process of being translated in changes to the legal framework, for which the European Commission already made proposals in September 2010. The importance of a strong commitment from euro area governments to the new framework and to an ambitious translation in the legal texts cannot be overstated.

But let me emphasise that restoring sound public finances is not only a challenge for the euro area. As mentioned before, government deficit and debt levels in many advanced economies outside the euro area have also risen to historically high levels. Therefore, the commitment by the leaders' of the G20 countries at the Summit in Toronto to pursue fiscal plans that will at least halve deficits by 2013 and stabilise or reduce government debt-to-GDP ratios by 2016 is also an important step. This commitment now has to be followed by bold policy actions.

4. Concluding remarks

Let me sum up. Monetary policy should be focused on the goal of maintaining price stability over the medium term and central banks should be independent of governments in order to ensure an effective and credible pursuit of this goal. These principles are firmly enshrined in monetary policy frameworks of essentially all advanced economies and I see them strongly confirmed by the experiences of the crisis.

At the same time, however, the crisis has revealed short-comings of the pre-crisis global monetary order. Insufficient medium-term orientation in the monetary policy frameworks led to too loose a monetary policy stance in many advanced economies and contributed in my view importantly to exacerbating pre-crisis financial excesses. Strengthening the medium-term orientation of monetary policy frameworks also requires a commensurate leaning-against-the-wind attitude in face of financial cycles, which can be achieved by giving money and credit aggregates a due place in the monetary policy strategy.

These insights need to be taken into account in the current considerations on the phasing out of non-standard measures. The risk of creating renewed financial imbalances and serious financial distortions by maintaining too loose a monetary stance for too long is considerable.

Finally, the fundamental achievement to establish credible price stability oriented monetary policy frameworks must not be put at risk. Central banks need to avoid the spreading of any doubt of their commitment to maintain price stability and their independence from political influence. In this respect, it is important to refrain from any kind of monetary financing. It is ultimately up to fiscal authorities to address the root causes of the current problems and take measures to credibly ensure fiscal sustainability.

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