Jürgen Stark: The global financial crisis and the role of monetary policy

Speech by Mr Jürgen Stark, Member of the Executive Board of the European Central Bank, at the 13th Annual Emerging Markets Conference 2011, Washington DC, 24 September 2011.

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Ladies and gentlemen, I am very pleased to address this distinguished audience.

Looking back over time, we see that the role and conduct of monetary policy has often changed in response to economic and financial crises. In fact, the international central banking community has always been eager to learn from past developments and experiences, also with respect to different experiences across countries. Of course, this does not imply that monetary policy in the past has always been the same everywhere. Certainly, differences exist in the way monetary policy is conducted across countries. But it is precisely because of the open-mindedness in discussing and the willingness to learn from each others' experiences during the past century that monetary policy making went through an evolutionary process: an evolutionary process that improved the conduct of monetary policy over time and led to a great deal of convergence across countries.

Let me in my remarks briefly review this process. I will then discuss the specific lessons that we can learn from the recent episode of financial and economic turbulence, and conclude with the challenges ahead not only for monetary policy, but also for economic policies more generally.

It was in response to the major bank panics of the first half of the nineteenth century that the Bank of England adopted the "responsibility doctrine" proposed by Walter Bagehot.[1] This required the Bank to lend freely on the basis of any sound collateral, but at a penalty rate to prevent moral hazard. Half a century later, the Federal Reserve System was established in the United States in response to frequent banking crises, in particular the crisis of 1907, to serve as a lender of last resort similar to the Bank of England.

Under the gold standard gold convertibility served as the economy's nominal anchor and was used as a way to ensure trust in a currency. Before the establishment of central banks, private banks and governments issuing banknotes had often overextended their gold reserves. In a sense, early central banks were strongly committed to price stability. However, from the 1920s onwards many central banks fell under public control. The Great Depression led to a major reaction against central banks, which were accused of exacerbating the crisis. In virtually every country, monetary policy was placed under the control of the Treasury and fiscal policy became dominant. In many countries, central banks followed a low interest rate policy to both stimulate the economy and to help the Treasury in marketing its debt.

In the 1950s independent monetary policy making by central banks was restored, and this was accompanied by a brief period of price stability until the mid 1960s. The belief that unemployment could be permanently reduced at the expense of higher inflation resulted in very accommodative monetary policy in the 1970s, which led to an increase in inflation as inflation expectations started to rise. Only a few countries, such as Germany, were an exception to this rule, as the Bundesbank's emphasis on monetary aggregates resulted in a much tighter monetary policy. By the end of the 1970s, central banks put renewed emphasis on credibility and started to tighten monetary policy so that inflation decreased significantly.

[1] See Bordo M. (2007), "A Brief History of Central Banks," Economic Commentary, Federal Reserve Bank of Cleveland.

In many countries central banks were granted independence and were given a mandate to keep inflation low. As a result, stable prices have become a fact of life for billions of people.

Today we are experiencing the worst economic and financial crisis of the post-war period. I am convinced that the knowledge gained as a result will again change and further sharpen the way we conduct monetary policy. So let me now share with you some thoughts on the direction in which I expect – and hope – monetary policy thinking to change in response to the current crisis.

The role of monetary policy and lessons from the financial crisis

I think it is fair to say that there was a widespread consensus over some key elements of the pre-crisis monetary policy paradigm.[2] In particular, against the background of the high inflation experience of the 1970s in many industrialised countries, the central bank consensus comprised three key elements:

1. Central bank independence as a corner stone for an effective monetary policy;
2. Price stability as the primary objective of central banks; and
3. Solidly anchored inflation expectations on the basis of transparent communication.

In addition, not least against the background of the "Great Moderation", that is, the period of low inflation and macroeconomic stability in most industrialised countries which was observed during the 20 years before the crisis, the central bank consensus also emphasised three elements, to which the ECB has never subscribed. These are:

1. Monetary policy has a primary role in the management of aggregate demand in the short-run;
2. Money and credit indicators can be disregarded;
3. Monetary policy should react to asset price busts; not to asset price booms.

Let me discuss how I see these elements from today's perspective, particularly in the context of the recent experience of the global financial and economic crisis, and draw conclusions with regard to the usefulness of these elements for the future conduct of monetary policy.

Let me start with my general conclusion: In my view, the first three elements have proven to be very valuable assets during the crisis and I view them as absolutely essential to the success of monetary policy. The latter three elements of this consensus should be seriously reconsidered. I think the crisis has made a convincing case for a more medium term orientation of monetary policy, which takes into account information in money and credit indicators, and which tries to lean against the wind as financial imbalances start to develop and pose risks to price stability in the medium term.

Let me now elaborate on the above elements and draw some conclusions:

Firstly, the crisis has – in my view – crucially underlined the importance of central bank independence as a corner stone of credible and effective monetary policy making. Of course, central bank independence is a precondition of effective monetary policy at all times. It is an important lesson which is not only evidenced by events in the history of central banking, but also by the academic literature, that any blurring of responsibilities can potentially lead to a

[2] See Goodfriend (2007), "How the World Achieved Consensus on Monetary Policy," The Journal of Economic Perspectives, 21, 47–68; Mishkin F. (2007), "Will Monetary Policy Become More of a Science?," Finance and Economics Discussion Series, Federal Reserve Board, 2007–44; Woodford M. (2009), Convergence in Macroeconomics: Elements of the New Synthesis," American Economic Journal: Macroeconomics, 1, 267–279.

loss of credibility for the central bank. Such a situation would ultimately undermine the effectiveness of monetary policy.[3] The effectiveness of monetary policy on the basis of institutional and operational independence was, however, fundamental during the crisis. During the turbulent market conditions that we experienced central banks had to implement extraordinary measures, both in terms of reducing policy rates to levels that are unprecedented, and in terms of unconventional liquidity measures. If these measures – untested as they are – are to be expected to exert any impact on economic decisions, they have to be seen by market participants as the result of an autonomous decision by the central bank. They have to be seen as consistent with its overall policy framework, rather than as the result of pressures from fiscal authorities. The reason is simple. If a central bank comes under pressure in times of crisis, and succumbs to that pressure, it is very unlikely to exit from such extraordinary measures in a timely manner. This may unanchor inflation expectations and thus undermine the effectiveness of the measures implemented during the crisis.

Secondly, regarding the objective of price stability and the anchoring of inflation expectations, the crisis taught us that well-anchored inflation expectations can act as an automatic stabiliser when uncertainty becomes destabilising. This is always true, in good times as well. In fact, well-anchored inflation expectations in the euro area were instrumental in avoiding large interest rate hikes before the crisis, when commodity prices rose sharply. At the height of the crisis, they became a policy instrument in their own right. Thanks to well-anchored inflation expectations we could avoid deflationary spirals and real interest rates could be reduced in tandem with nominal rates. It is noteworthy that if inflation expectations are well anchored, and are not affected by transient shocks to actual inflation, there is no need to manipulate monetary policy frameworks: there is no need to increase the inflation target as a means of resisting deflationary risks in times of macroeconomic distress.[4] Opportunistic manipulations of the monetary policy framework of course damage the foundations on which that framework rests. So, being able to rely on the stabilising effect of inflation expectations is clearly a preferable option.

Let me now turn to the elements of the consensus that are, from the perspective of the ECB, somewhat more controversial.

Firstly, the crisis has demonstrated that a monetary policy aimed at fine-tuning short-term objectives carries serious risks. Before the crisis, there was a widely-held conviction that monetary policy could focus more on short term demand management because inflation was firmly under control. Proponents of this view found support in the phenomenon of the "Great Moderation" observed in the twenty years before the crisis, a time of widespread macroeconomic stability and low inflation in most industrialised countries. Nonetheless, there were clear signs – and also warnings – that this short-term orientation could have negative side effects in the medium to long term.[5] As you know, these side effects manifested themselves in a spectacular build-up of monetary and financial imbalances. Although monetary policy frameworks oriented towards the medium term could probably not have completely prevented the current crisis, I am convinced that they would have helped to make it less disruptive.

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[3] See Kydland F. and E. Prescott (1977), "Rules Rather than Discretion: The Inconsistency of Optimal Plans", Journal of Political Economy, 85, pp. 473–492; and Barro R. and D. Gordon (1983), "Rules, Discretion and Reputation in a Model of Monetary Policy". Journal of Monetary Economics, 12, pp. 101–121.

[4] See for instance Blanchard O., Dell'Ariccia G. and P. Mauro (2010), "Rethinking Macroeconomic Policy", IMF Staff Position Note, No 10/03.

[5] See Rajan R. (2005), "The Greenspan Era: Lessons for the Future," speech delivered at the Federal Reserve Bank of Kansas City Symposium on "Rethinking Stabilisation Policy," Jackson Hole, Wyoming.

Typically, policies of short-term demand management rely heavily on inflation forecasts and output gap measures. Experience, especially prior to the crisis, has revealed the risks of constructing policy on indicators and variables which are not sufficiently robust. Let me take the output gap as an example. As the literature has clearly shown, the empirical proxies used to capture the output gap are subject to constant revisions.[6] Policy-makers who base their decisions mainly on such assessments of the cyclical position can be led very much astray. For instance, The Great Inflation of the 1970s occurred, to a large extent, due to measurement errors in the real-time estimates of the output gap combined with an overreaction to output gap measures when assessing the state of the economy.[7] Arguably, the same can be said of the low interest rates implemented for a prolonged period in the middle of the previous decade.[8]

Monetary policies aimed at fine-tuning short-term objectives also run a serious risk of inducing too much policy forbearance for too long. Exiting an extraordinary accommodative mode too late can sow the seeds of future imbalances. As the economy recovers from an exceptionally deep recession, real time output gap estimates and estimates of structural unemployment or the non-accelerating inflation rate of unemployment (NAIRU) are particularly uncertain. Potential output is likely to have fallen for a variety of reasons. This could be due to a mismatch between the skills of workers that lose their jobs and the skills required in new vacancies. Another phenomenon is that economic growth after a financial crisis tends to be much slower due to the debt overhang.[9] While emphasis on measures of the output gap can give the impression that output could be increased by monetary means, it becomes an illusion if the problem is due to a mismatch of skills or a debt overhang. Only structural policies can address these problems.

Second, with respect to the claim that money and credit do not matter for successful monetary policy making, the experiences of the past three years have proven that this conventional wisdom is simply wrong. By including an analysis of money and credit developments in their monetary policy strategy, central banks can ensure that important information stemming from money and credit, typically neglected in conventional cyclical forecasting models of the economy, is considered in the formulation of monetary policy decisions. There is compelling empirical evidence showing that, at low frequencies – that is over medium to longer-term horizons – inflation shows a robust positive association with money growth.[10]

Monitoring credit growth can also be useful in identifying other sources of unsustainable credit developments, even if some of them cannot necessarily be eliminated by monetary policy tools, and would instead require action of a macro-prudential nature. After years of oblivion, macroeconomic theory seems to have caught up with reality and shifted its attention

6 See Orphanides A. and S. van Norden (2002), "The Unreliability of Output-Gap Estimates in Real Time," Review of Economics and Statistics 84, pp. 569–583; and Orphanides A. and S. van Norden (2005), "The Reliability of Inflation Forecasts Based on Output Gap Estimates in Real Time," Journal of Money, Credit, and Banking, 37, pp. 583–601.

7 See ECB (2010), "The "Great Inflation": Lessons for monetary policy", Monthly Bulletin, May 2010; and Orphanides A., (2002), "Monetary Policy Rules and the Great Inflation," American Economic Review, 92, pp. 115–120.

8 See Taylor J. (2007), "Housing and Monetary Policy," in Housing, Housing Finance, and Monetary Policy, Proceedings of Federal Reserve Bank of Kansas City Symposium, Jackson Hole, Wyoming.

9 See Reinhart C. and V. Reinhart (2010), "After the Fall," NBER working Paper Series, No 16334.

10 See Benati L. (2009), "Long-run evidence on money growth and inflation", ECB Working Paper Series, No 1027.

to credit and leverage as critical parameters that a central bank should consult regularly to measure the pulse of the economy.[11]

The ECB had consistently used these indicators even when they were derided as relics of a defunct monetary doctrine. They proved useful. They gave information about financing conditions and the financial structure, as well as about the condition and behaviour of banks, when these sources of information were critical to the assessment of the health of the transmission mechanism and, more broadly, the state of the business cycle. This dimension of monetary analysis has proven particularly valuable in shaping the ECB's response to the financial crisis. There is indeed evidence in support of the fact that, without duly taking monetary analysis into account, inflation in the euro area would have been distinctly higher at times of financial exuberance and would have fallen deep into negative territory in the wake of the financial markets' collapse, starting in the autumn of 2008. The economy as a whole would have been more volatile.[12]

And thirdly, with regard to the pre-crisis consensus on monetary policy not to act on asset price bubbles, the crisis has vividly demonstrated that bursting asset price bubbles can be extremely costly. The public policy response to the crisis has – even when being successful in attenuating the immediate impact of a financial crisis on the real economy – carried substantial fiscal costs and has led to significant output losses. To confine ourselves to "ex-post" policies is, therefore, not enough and calls for effective "ex-ante" policies. The main policy tools in this regard are, of course, appropriate regulatory and supervisory policies. Before the crisis, these preventive tools were insufficient to deal with the build up of asset price imbalances in the pre-crisis period. Lessons have been learned, and with the re-design of the supervisory architecture in many countries around the world, and the Basel III regulatory reforms, enhanced preventive tools are underway.

But also from a monetary policy perspective, greater emphasis on "ex-ante" prevention is warranted. To the extent that financial imbalances are accompanied by excessive monetary and credit growth with possible implications for the medium term outlook on inflation, central banks do indeed have an obligation to take appropriate action. With respect to the ECB, our focus on medium term definitions of price stability, as well as the use of money and credit in our monetary pillar, already provides some "leaning" against the build up of asset price imbalances. Therefore, in my view, a cautious leaning against excessive money and credit growth and building up of financial imbalances as part of our general monetary policy framework cannot only contribute to financial stability, but most importantly to achieve our primary objective of maintaining price stability.

Let me now turn to the economic challenges lying ahead of us, and the role monetary policy should play in overcoming these challenges.

The challenges ahead and the role for monetary policy

The global financial crisis is far from over. By now the global financial crisis has gone through a number of different phases. Initially the crisis started in the sub-prime mortgage market during the summer of 2007, and became very intense in September 2008 with the default of

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[11] See Adrian T. and H. S. Shin, (2010), "Financial Intermediaries and Monetary Economics", Federal Reserve Bank of New York Staff Reports, No 398; and Brunnermeier M. and L. Pedersen (2010), "Market Liquidity and Funding Liquidity," The Review of Financial Studies, 22, pp. 2201–2238; and Geanakoplos J. (2010), "Solving the Present Crisis and Managing the Leverage Cycle," Federal Reserve Bank of New York Economic Policy Review, pp. 101–131.

[12] See Fahr S., Motto R., Rostagno M., Smets F. and O. Tristani (2010), "Lessons for monetary policy strategy from the recent past," paper presented at the 6th ECB Central Banking Conference, Frankfurt am Main, 18–19 November 2010.

Lehman Brothers. Subsequently, financial woes spilled over into the real economy, resulting in recessions in almost all industrialised countries. Monetary and fiscal policy countered this with unprecedented vigour. Monetary policy responded with very low interest rates and a wide range of non-standard measures. Fiscal policy allowed public deficits to widen and set up rescue packages for troubled financial institutions. To a large extent thanks to these measures, economic activity rebounded in 2010. But at the same time, countries that had entered the financial crisis with large public and private debt burdens started to have serious problems accessing sovereign debt markets. In 2011 the tensions in sovereign debt markets intensified further due to increasing concerns about long-term debt sustainability in various parts of the world. These developments have further threatened financial stability as financial institutions hold a significant share of troubled countries' government bonds.

Here, the onus is clearly on governments to engage in the necessary fiscal corrections. However, this does not only mean exiting 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, excluding crisis-related stimulus measures, most advanced economies are still left with historically high deficit-to-GDP ratios, which, in the context of today, 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. 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 – unsurprisingly – being asked about the ability of some governments to bring their public finances onto a sustainable path over the medium term.

In this regard, let me point out that the state of public finances in the euro area differs significantly across countries. According to the IMF the debt-to-GDP ratio ranges from 6 percent in Estonia to 152 percent in Greece in 2011, while the aggregate debt-to-GDP ratio for the euro area stands at 87 percent. But let me also emphasise that restoring sound public finances is not only a challenge for the euro area. As I mentioned before, government deficits and debt levels in many advanced economies outside the euro area have also risen to historically high levels, at least in a time of peace. For the largest industrialised countries such as the US, UK and Japan, according to the IMF the debt-to-GDP ratio in 2011 ranges from 83 percent in the UK, to 100 percent in the US and 229 percent in Japan.

The state of 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 a government's budgetary woes. The regime that has prevailed in advanced economies over the last three decades has been a regime of monetary dominance, under which central banks can pursue price stability-oriented policies without having to take into account the government's budget constraints. Central banks have been given an explicit mandate to maintain price stability and have been protected by legal provisions guaranteeing their independence.

Credible, stability-oriented monetary policy frameworks are assets that have been difficult to acquire and must not be put at risk. As I have pointed out, monetary policy thinking went through a remarkable evolutionary process during the last century which resulted in price stability for billions of people. As serious questions have arisen about the medium term sustainability of public finances in a significant number of industrialised countries, we cannot but conclude that the same evolutionary process did not happen to fiscal policy making. Fiscal policy making has not managed to converge to a framework with clear principles and medium term objectives.[13] Growing doubts about governments' ability to deliver sustainable

[13] See Leeper E. (2010), "Monetary Science, Fiscal Alchemy," NBER Working Paper Series, No 16510.

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.

It is a fallacy to think that loose monetary policy can solve the large structural problems we are facing. Central banks must not become the victims of their own success and should not become overburdened. Historically, whenever policy makers tried to broaden the role of monetary policy beyond its original role as a guardian of the value of a currency, it had to compromise on its objective of price stability. For monetary policy to remain effective, its responsibilities must remain within clear limits.

Instead, we need a growth model that is different from the one during the years before the financial crisis. We need economic growth that is based on a genuine increase in productivity, and not on low interest rates and the accumulation of debt. The unlimited accumulation of private and public debt before the financial crisis has now become a burden on economic growth and should be reduced progressively.[14] To achieve this we need far-reaching structural reforms that increase competition in labour and goods markets, more financial supervision, and a stronger fiscal policy framework.

We must reform financial supervision and strengthen economic governance so that economic policy becomes less pro-cyclical. Basel III is a very important step in the right direction, as it should provide for higher minimum capital requirements and better risk provisions by financial institutions. Still, regulation of the banking system and financial markets has not yet progressed sufficiently. Fiscal policy should be more grounded in a rules-based framework with clear medium term objectives, similar to monetary policy. The adoption of fiscal rules by some countries is clearly an improvement. In the euro area, a number of steps have been undertaken to strengthen economic governance so that concerns about competitiveness and fiscal policy can be addressed pre-emptively. But for the ECB these steps do not go far enough. For rules and sanctions to be fully credible they should be stricter and automatic – not subject to the political process – so that countries have the right incentives to address their problems.

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[14] See Cecchetti S., Mohanty M. and F. Zampolli (2011), “The real effects of debt,” paper presented at the 2011 Annual Jackson Hole Economic Policy Symposium, 25–27 August; Rother, P., L. Schuknecht and J. Stark, (2010) The Benefits of Fiscal Consolidation in Uncharted Waters, ECB Occasional Papers, No 121.