José Manuel González-Páramo: Beyond the financial crisis – some issues on the future of central banking

Speech by Mr José Manuel González-Páramo, Member of the Executive Board of the European Central Bank, at the Inaugural Conference of “Cátedra Fundación Ramón Areces de Distribución Comercial” at the University of Oviedo, Oviedo, 19 June 2009.

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1. Introduction

Ladies and gentlemen,

It is a great pleasure for me to participate in the Inaugural Conference of the “Cátedra Fundación Ramón Areces de Distribución Comercial” here in Oviedo. I am very grateful to the organiser – Alfonso Novales – for giving me the opportunity to address this audience today and to share with you some reflections on the current financial crisis and the role of central banks in responding to it.

We are currently experiencing one of the deepest and most complex crises witnessed by the world for many decades. The turmoil stemming from a relatively small segment of the US mortgage market (the sub-prime segment) has developed over time into a global crisis affecting a number of economies and markets all over the world. The global dimension of the crisis as well as its complexity have posed a number of challenges for policy makers, forcing them to introduce exceptional measures and use innovative modalities of intervention.

In particular, increasing awareness that the current crisis has the potential to jeopardise systemic financial stability and undermine macroeconomic stability worldwide has led to public authorities developing a common understanding of the causes of the crisis and of the concerted actions needed to address them. Thus, a high degree of cooperation among public authorities both at national and international level has become a hallmark of public interventions throughout the current crisis.

A highly symbolic episode of international policy cooperation during the crisis was the announcement of a coordinated interest rate cut by the ECB and five other major central banks (the Bank of Canada, the Bank of England, the Federal Reserve, Sveriges Riksbank and the Swiss National Bank) in October 2008. This coordinated interest rate cut was unprecedented by historical standards and was interpreted as a sign of the strong commitment of the international central banking community to addressing the macroeconomic implications of the financial market turmoil.

International cooperation among central banks has also been remarkable in the area of liquidity management. First, through enhanced information sharing and collective monitoring of market developments and, later on, by means of coordinated steps to provide liquidity, central banks have cooperated from the start of the crisis to guarantee the smooth functioning of global money markets and provide support to the international banking system. The first initiative in this direction was the agreement in December 2007 between the Eurosystem and the US Federal Reserve to grant loans in US dollars to euro area counterparties in connection with the Fed’s Term Auction Facility.

The need to strengthen liquidity provision in order to address the global liquidity squeeze and ease pressures in international money markets has also led to central banks adjusting their operational frameworks in order to increase their effectiveness and expanding their ability to reach markets under stress. This has resulted in a certain degree of international convergence of the operational frameworks. As part of the adjustments to their operational frameworks, some central banks have extended lending to institutions other than depository banks, including non-bank financial institutions and even directly to the real sector.

Direct lending to the real sector represents a significant deviation from the traditional central banking practice of using banks as the main channel of transmission of central bank liquidity. But this is not the only area in which the crisis has prompted central bankers to reconsider their existing practices. The issue of the optimal response of monetary policy to asset price bubbles is also being re-examined, with the prevailing view – postulating that a central bank's policy interest rate is too blunt an instrument to address bubbles – coming under much stricter scrutiny that it has being subjected to in the past decade.

Finally, the need to strengthen the role of central banks in preserving financial stability has also become the focus of the policy debate as efforts are made to address the causes of the crisis. The recognition that market failures as well as regulatory and supervisory deficiencies are at the root of the crisis has prompted the relevant public and private fora to make significant efforts to identify weaknesses in the international financial sector and develop measures to restore its smooth functioning. In the case of Europe, there is increasing concern that the current prudential framework based on national regulatory and supervisory regimes cannot address the many challenges arising from the activities of large, complex and highly interdependent financial institutions operating across borders.

To sum up, the current crisis is likely to bring important changes for the future of the economic and financial systems in which we live. These include changes in the nature of the relationship and degree of coordination among the different policies and public authorities, revisions to the regulatory and supervisory domains as well as reforms of the international financial architecture. Therefore, we are likely to witness a number of institutional changes that will bring about a new environment for policy-making in a number of areas related to central banking.

2. A new environment for central banking?

I should like to share with you some thoughts on this potential new environment. In order to do so, I will organise my intervention around six specific issues among those that in my view deserve particular attention:

1. Should we increase policy coordination at the domestic level?
2. Should there be more international monetary policy coordination?
3. Should we see more international convergence in liquidity frameworks?
4. Should central banks increase direct lending to the real economy?
5. Should asset prices being given more weight in monetary policy considerations?
6. Should central banks be more involved in supervision?

2.1 More domestic policy coordination?

As we have seen, policy responses both at the global and the European level have been characterised by an increasing degree of coordination. A natural question, therefore, seems to be whether in the future greater policy coordination at the level of the euro area or the EU should be warranted. Given the existence of the single currency in the euro area, I will first focus on the coordination among national fiscal policies.

On the fiscal side, a key challenge for the future is to prevent the financial crisis from eventually undermining the sustainability and credibility of public finances. What can we do to prevent this from happening? At this point, let me reiterate that the Stability and Growth Pact already provides a coordination device for fiscal policies and, in particular, provides peer pressure mechanisms for sound and sustainable public finances. It provides the appropriate framework for the conduct and coordination of fiscal policies in good times and also in bad times.

The challenge at times of crisis is, thus, to use this existing mechanism to the best effect. To put it rather bluntly, we should not tinker with the keel just because the wind is strong; the Pact is already flexible enough to allow room for the policy to adjust without undermining the foundations for a sustainable path. Indeed, EU countries are already facing considerable long-term challenges from the costs associated with population ageing that should be borne in mind when considering short-term demand policies. If the starting position is less strong, an inappropriate short-term response may make us literally “age faster” by exposing even more strongly the need for adjustments to cope with the long-term challenges. Countries with large deficit and/or debt levels may be particularly vulnerable in this regard.

Unfortunately, many euro area countries entered the financial crisis and the economic downturn with unnecessarily weak fiscal balances, having missed the opportunity presented by past years’ revenue windfalls to consolidate their budgets. While this is never a popular message even in normal times, it still deserves mention so that the mistakes can be avoided once the crisis has passed. Indeed one of the fiscal policy errors prior to and including 2000-01 was to mistakenly interpret budgetary improvements in good times as evidence of structural improvements, which were often used to motivate spending increases or tax cuts.

On a positive note, we can say that while compliance with the Stability and Growth Pact during its first ten years has been somewhat uneven, the EU’s overall fiscal performance in terms of avoiding high budget deficits and the build-up of government debt was much better than in the decades preceding the Pact.[1] Indeed, some of the EU countries that comply with the Stability and Growth Pact can now take advantage of their relatively large automatic stabilisers to do much of the work. These accomplishments should be a guiding beacon. Sound fiscal policies with a strong keel provide the basis for stability and the necessary conditions for good long-term growth in the challenging seas ahead.

One additional dimension of policy coordination in the euro area is that between the single monetary policy and the national fiscal policies of the Member States. In this respect, the institutional set-up of European Monetary Union consists of a clear and efficient assignment of objectives and instruments to the different authorities, together with a strict division of responsibilities. The ECB must focus on its primary mandate of delivering medium-term price stability under conditions of full independence. Fiscal policy must focus on its traditional objectives related to allocation, redistribution and stabilisation (to varying extents), while contributing to maintaining an environment of macroeconomic stability.

Of course, in setting monetary policy the ECB takes into account the fiscal policy stance, as one of the factors which contribute to the outlook for price stability over the medium term. It goes without saying that an open exchange of views and information among the different authorities is welcome if it enhances a common understanding of desirable objectives and strategies to pursue them.

However, there cannot be any scope for active ex-ante coordination of fiscal and monetary policies. Indeed, a commitment to ex ante coordination between fiscal and monetary policies may blur the responsibilities of the various authorities at the expense of accountability and may ultimately reduce their incentives to pursue their objectives. Thus, the current macroeconomic policy framework in the euro area based on a separation of responsibilities is the most appropriate to ensure sustained and non-inflationary economic growth.

2.2 More international monetary policy coordination?

While cooperation in the field of liquidity management on an unprecedented scale has been certainly one of the hallmarks of public responses to the current turmoil, another example without precedents of central bank coordination was the decision by the ECB and five other

[1] See the article entitled “Ten years of the Stability and Growth Pact”, ECB Monthly Bulletin, October 2008.

major central banks to ease global monetary conditions on 8 October 2008. Commentators and observers have wondered whether this concerted policy decision may be the beginning of a new era of increased international monetary policy coordination in response to economic and financial globalisation.

It is important to stress that this coordinated interest rate cut was taken in a specific context and with a specific objective. There was extraordinary uncertainty at the time about the economic outlook and strong evidence that upside risks to price stability had diminished at the global level. The coordinated cut addressed the need to respond to a common shock that was being transmitted around the globe almost simultaneously. Through the joint communication, the international central banking community provided a signal of its strong commitment to responding to the macroeconomic implications of the financial market turmoil.

There is no doubt that over the past three decades the trade, economic and financial linkages among the different regions of the work have grown tighter, and of course policy-makers take this into account in the design of their policies. However, when talking about international policy coordination, it is important to define clearly what we mean. Policy coordination does not mean, of course, that all central banks need to adopt the same policy stance for the entire world and certainly it cannot be a surrogate for domestic macroeconomic prudence nor weaken the commitment of each central bank to its institutional objective.

Indeed, differences in cyclical positions, structures of the economies (e.g. in terms of market rigidities and frictions, sectoral leverage, financial systems, etc.), monetary policy institutional frameworks as well as shocks hitting the economy almost necessarily lead to differences in deciding the appropriate monetary policy stance. Thus, systematic monetary policy coordination may eventually come at the cost of weakening a central bank's commitment to its institutional objective.

For central banks, international policy coordination is better understood as the continuous cooperation and exchange of information at both staff and decision-making levels, shared experienced and mutual understanding and trust, which very much lies on the consensus among central banks that monetary policies geared towards domestic price stability, sound public finances and flexible economic structures do create the conditions for long-term economic growth and financial stability.

2.3 More international convergence in liquidity frameworks?

Since August 2007 central banks have responded in a variety of ways to the financial market disruptions, reflecting differences in the extent to which markets have been hit by the turbulences, and differences in the design of their operational frameworks. However, in general all major central banks stepped up their intermediation role with a view to addressing the liquidity squeeze and, in doing so, they showed a certain degree of convergence in operating procedures. In particular, central banks:

- Pursued more active reserve management, reassuring banks of their orderly access to overnight funds and increasing the frequency of their operations.
- Increased the supply of funds (notably long-term); expanded to varying degrees the definition of collateral accepted in collateralised lending operations; provided access to collateralised lending to a large number of counterparties.
- Adapted tender procedures for open market operations in the direction of price rather than quantity-based schemes, akin to those used for standing facilities.
- As the turbulence developed, central banks strengthened their cooperation through enhanced communication and collective market monitoring and coordinated actions to provide liquidity. In this respect, a significant number of swap lines between central

banks have been set up to facilitate the distribution of foreign currency liquidity to domestic counterparties.

Overall, one lesson we can draw from the turmoil is that there are certain key operational features that facilitate the implementation of monetary policy under stress. In particular, central banks are better positioned to distribute reserves effectively — when the interbank lending is impaired — if they are capable of providing access to collateralised lending operations on a large scale to a wide set of counterparties and against a broad range of collateral.

Yet, a very important issue, on which I myself have no clear answer, is how – not so much whether but rather how – this convergence in the understanding of the "optimal" features of the operational framework under stress, should be reflected by the design of the operational framework in the steady state. For this, we need, in particular, to develop a better understanding of the optimal mix between private market and central bank intermediation and we need to carefully liaise with supervisory bodies.

I should clarify that when I say "optimal" in this context, I do not mean "uniform". To the extent that monetary policy strategies, central banks' status vis-à-vis governments, and certain specific features of domestic financial systems persist, the optimal liquidity frameworks of each country or monetary union should reflect such country or area-specific factors.

2.4 More scope for direct lending to the real economy?

An additional issue that has come to the fore during the present crisis, especially in the last few months, concerns the extent to which central banks may engage in direct lending to the real economy. This is not a purely theoretical subject, as the recent establishment by the Federal Reserve System of several liquidity facilities directed to non-banks shows (for instance, those directed to money market funds and issuers of commercial paper).

In principle, the scope for direct lending by the central bank to the real economy should depend on the extent to which the malfunctioning of the money and credit markets distorts bank lending and prevents aggregate households and businesses from obtaining credit. In that sense, some central banks have decided to bypass the banking system and start lending to households and firms directly for the sake of preserving the orderly functioning of the economy.

In practice, even abstracting from possible legal constraints (e.g. prohibition of monetary financing to the state in the European Monetary Union), there are several issues that central banks must consider before deciding on the appropriateness for their "own" economies of providing direct financing to the real sector. I stress the term "own" because this is one of those cases in which there is no unique answer. Whether or not a central bank engages in direct lending will very much depend on a number of considerations referring to structural features of the economy, the gravity of the crisis, the state of the financial system and a number of institutional factors, notably those governing the relationship between the central bank and the government.

For instance, one apparently straightforward observation is that the need to provide direct credit to the economy at times of dysfunctions in banking activity is likely to depend on the relative importance of the banking sector for financial intermediation. Following this argument, one may argue that in a bank-based economy there may be relatively less need to provide credit to agents other than banks than in a market-based economy. Indeed, by focusing on providing support to the banking sector, the central bank may increase its chances of sustaining the economy as a whole. However, under extreme circumstances (notably, when the banking sector is no longer able to fulfil its institutional role as the main engine of financial intermediation), a central bank may reach the opposite conclusion: exactly because of the banking sector's predominance in financial intermediation, its dysfunctional state might prompt a central bank to intervene before the entire economy comes to a halt.

If so, the central bank will need to decide which sectors to target. Once again, this is not an easy choice. It may imply the need for the central bank to take decisions on the optimal allocation of resources in the economy which, historical experience shows, are better left to the private sector.

Other concerns may relate to the risk of political pressure and government interference, especially if the scale of the financing programme requires support from the Treasury. If financing is ensured through the expansion of the central bank's liabilities, this may give rise to more general concerns about the fiscal costs of actions taken by the monetary authority.[2] Finally, but related to the previous arguments, direct lending to the real economy may imply an increase in the financial risks taken by the central bank, potentially exposing the latter to risks to its financial independence and, ultimately, to its institutional independence.

The purpose of these remarks is certainly not to suggest that central banks should abstain from direct lending to the real sector, but rather to point out that the number of aspects to consider before doing so are so many and of such complexity that no central bank would ever take such a decision with a light heart. This is why, before embarking on such a policy, some central banks may prefer to provide indirect support (i.e. through banks) to the real economy.

Based on the considerations, the Eurosystem has chosen to make full use of the possibilities provided by its operational framework to support the economy, using the banking sector as an intermediary agent. Indeed, the euro area's financial system is still predominantly bank-based, despite despite significant changes in the area's financial landscape in recent decades (as a result of a number of structural developments, including the introduction of the euro). Just to illustrate this point, in 2007 aggregate bank lending to the private sector amounted to 145% of GDP in the euro area, compared with 63% in the US. By contrast, the ratio of outstanding debt securities issued by the euro area private sector relative to GDP (81%) was less than half than in the US.

Thus, banks play such a dominant role in the euro area economy that, guaranteeing steady access to credit for households and companies in the euro area to a large extent means preserving the viability of the banking system. The Eurosystem does so by providing banks with unlimited access at fixed rates to its refinancing operations (of course, against adequate collateral).

More recently, the Eurosystem has announced plans to purchase euro-denominated covered bonds issued in the euro area to provide further support to credit provision by the banking sector. These purchases will target an important segment of the private securities market, which has been particularly affected by the financial market turbulence and will contribute to achieve the objective of maintaining the availability of credit for households and companies at accessible rates.

2.5 More weight given to asset prices in monetary policy?

Another interesting debate that has gained – for obvious reasons – renewed interest and strength over the past year is the role that asset prices should take in the monetary policy design. Indeed, as we are experiencing at present, large volatility in asset prices can jeopardise the stability of the financial system and potentially undermine macroeconomic stability. The repetition of boom-bust cycles and the potentially very high costs for

[2] See Cukierman, A. (2006), "Central bank finances and independence – How much capital should a central bank have?", in M. Blejer and S. Milton (eds.), *The Capital Needs of Central Banks*, Bank of England Press.

macroeconomic stability associated with the typically abrupt reversal of asset price bubbles beg the question: should monetary policy give more weight to asset prices?

There are various arguments that must be carefully weighed in order to answer this question. First, we know that bubbles are extremely difficult to identify in real time. Assessing whether or not asset prices are being driven by fundamentals is surrounded with so much uncertainty — perhaps sometimes uncertainty in the "Knightian" sense — that central banks should refrain from targeting asset prices. Moreover, some hold the view that, while monetary policy actions can influence asset price developments, the magnitude of the swings in policy rates that would be needed to curb boom and bust cycles in asset prices at times of "irrational exuberance" could be so large as to have adverse implications for macroeconomic stability in the short term.[3]

Based on these arguments, which are broadly shared in the central banking and academic community, one policy view (perhaps, the predominant view in the past years) postulates that it is better to wait for the bubble to burst on its own and then ease monetary policy aggressively to provide support to the banking system and to the economy. This is the so-called "mop up after" approach. In this case, sharp monetary policy easing after the bursting of the bubble is supportive of both price stability and financial stability, though at the possible expense of creating moral hazard and excessive risk-taking in future boom times.

An alternative approach consists of "leaning against the wind". According to this approach, monetary policy should be conducted in a "symmetric" manner over the financial cycle. In other words, it should be accommodative at a time of falling asset prices, but restrictive during a financial market boom. For instance, the central bank should conduct a slightly tighter monetary policy than warranted by its price stability objective, when the build-up of a potentially detrimental asset price boom is identified. By doing so, the central bank would buy insurance against the risk of a harmful asset boom-bust cycle, with its potential costs in terms of macroeconomic and financial stability.

The main argument against this approach is that the insurance premium associated with such policy may be excessively high. In fact, a contractionary policy response to asset price increases may end up destabilising the economy if the asset price revaluation is driven by fundamentals. This risk is related to the difficulty that I have just mentioned concerning the identification of asset price misalignments in real time. This risk, however, should not act as a perfect alibi for policy inaction. As the recent literature on early indicators[4] started by researchers at the BIS shows, there are indicators based on money and credit developments that can provide guidance on the nature and the consequences of extraordinary asset price developments, and thereby help to define the need for policy action.

As the current financial crisis illustrates, the macroeconomic costs of financial instability and the challenges that it poses for the maintenance of price stability provide support to the case for a flexible "leaning against the wind" strategy. More generally, a lesson from the current crisis seems to be that central banks should assign a greater role to asset prices in monetary policy considerations and should aim to pre-empt the emergence of asset price bubbles.

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3 See Papademos (2009) for a review of recent arguments challenging the view that monetary policy is too blunt a tool to lean "against the wind" ("Monetary policy and the "Great Crisis": Lessons and challenges", Speech at the 37th Economics Conference "Beyond the Crisis: Economic Policy in a New Macroeconomic Environment", Vienna).

4 See for instance Detken, C. and F. Smets (2004), "Asset Price Booms and Monetary Policy", ECB Working Paper, No. 364; and Alessi, L. and C. Detken (2009), ""Real time" early warning indicators for costly asset price boom/bust cycles: A role for global liquidity", presented at the EABCN and CREI Conference on Business Cycle Developments, Financial Fragility, Housing and Commodity Prices, Barcelona, 21-23 November 2008.

How can one implement such a policy approach in practice? The answer very much depends on the monetary policy framework specifically adopted by a central bank. Central banks following inflation targeting, the most commonly adopted strategy among developing and emerging countries, may find it relatively difficult to make this approach fit in their policy framework. Indeed, inflation targeters tend to concentrate on the pursuit of price stability at specific horizons and generally assign low weight to the need to monitor asset prices or other indicators (notably, monetary and credit variables) that may signal the building up of financial imbalances.[5]

In response to these concerns, some inflation targeters have specified further information, not included in macroeconomic forecasts, which should be taken into account in order to formulate monetary policy decisions. Such information includes, inter alia, the monitoring of credit and property price conditions. In addition, some inflation targeting central banks have relaxed the strict focus on a specific forecast horizon for monetary policy, by explicitly referring to a "medium term" horizon or by enlarging the horizon of their macroeconomic projections, also to take into account challenges stemming from asset price developments.

I should like to stress that the ECB's two-pillar monetary policy strategy is well suited to cope with the challenges brought about by asset price developments.[6] More precisely, there are two features of the ECB's monetary policy strategy that may provide a suitable framework to implement a "leaning against the wind" approach:

- First, the ECB's definition of price stability objective – an inflation rate below, but close to, 2% in the medium term – allows the conduct of a more restrictive monetary policy during a period of booming asset prices, even in an environment of relatively subdued inflationary pressures. In this case, "leaning against the wind" would likely result in lower inflation over the short term, but would be expected to be more effective in maintaining price stability over the longer term, by helping to prevent the materialisation of deflation risks when the asset bubble bursts.
- Second, the ECB's analysis of monetary and credit developments[7] aimed at identifying longer-term inflation risks can also provide signals of growing financial imbalances, which could in principle be used to implement a policy of "leaning against the wind". This is because there is a close link between monetary and credit developments and evolving imbalances in asset and credit markets.[8] By exploiting this link, our monetary analysis (consisting of a comprehensive assessment of liquidity and credit conditions) may provide early information on developing asset price imbalances and, therefore, allow for a timely response to the implied risks to price and financial stability.

Thus, the ECB's two-pillar strategy may represent a practical way of mimicking the "leaning against the wind" approach.

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5 Christiano et al. (2008) show in a recent paper that in a closed economy, the application of inflation targeting in a context of a rising bubble might lead to the policy stance actually encouraging the growth of asset price bubbles (see Christiano, L., C. Ilut, R. Motto and M. Rostagno (2008), "Monetary policy and stock market boom-bust cycles", ECB Working Papers No. 955. October).

6 See also the April 2005 ECB Monthly Bulletin article entitled, "Asset Price Bubbles and Monetary Policy and Trichet, J.C. (2005), "Asset Price Bubbles and Monetary Policy", Speech at the Mas Lecture, Singapore.

7 For a description of the role of the monetary pillar in ECB's policy-making see Issing et al. (2001), *Monetary Policy in the Euro Area- Strategy and Decision Making at the European Central Bank*, Cambridge: CUP; Issing et al. (eds.), *Background Studies for the ECB's Evaluation of its Monetary Policy Strategy*, Frankfurt: ECB; and ECB (2004), "Monetary Analysis in Real Time", Monthly Bulletin October, pp. 43-63.

8 See for instance Adalid, R. and C. Detken (2007), "Liquidity Shocks and Asset Price Boom/Bust Cycles", ECB Working Paper, No. 732; Christiano, L., R. Motto and M. Rostagno (2008), "Monetary Policy and Stock Market Boom-Bust Cycles", ECB Working Paper, No. 955; Detken and Smets, cit.; and Goodhart, C. and B. Hofmann (2008), "House Prices, Money, Credit and the Macro-economy", ECB Working Paper Series, No. 888.

2.6 More central bank involvement in supervision?

The recent financial market crisis has also highlighted the important role that central banks play in safeguarding financial stability and the need to increase interaction between central banks and banking supervisors. This need for increased interaction, also identified by the Financial Stability Board (FSB) in one of its recommendations, would further support and enhance the central banks' role in financial stability assessments, crisis management and resolution, and liquidity provision.

First*,* with regard to financial stability assessment*:* central banks can benefit from extended access to supervisory information especially in relation to systemically relevant institutions, in order to identify risks and vulnerabilities for the financial system as a whole in a more efficient way. In this context, the FSB and the International Monetary Fund are already intensifying their cooperation with a view to enhancing the assessment of financial stability risks on a global scale, while in the EU the same is valid for the Banking Supervision Committee and the Committee of European Banking Supervisors. These efforts should also be mirrored at the national and regional levels, through the intensification of the cooperation and exchange of information between central banks and supervisory authorities for an overall better monitoring and assessment of risks to the financial system. The other side of this coin relates to the issue of incorporating the outcome of the financial stability risk analysis into policy action in the field of supervision, which also needs to be reinforced.

Second, in the area of crisis management and resolution *:* the global nature of financial markets and the increased interlinkages between markets and institutions requires competent financial authorities, central banks, supervisors and ministries of finance to strengthen their coordination mechanisms for the management of crisis involving cross-border financial institutions. In the EU, an important milestone has been reached with the Memorandum of Understanding (MoU) signed by the competent authorities of all Member States in June 2008. This MoU establishes common principles, procedures and terminology to be used by all parties involved in a cross-border crisis.

Third, in relation to liquidity provision: in order to maintain stable money markets, central banks would benefit from enhanced access to supervisory information, including liquidity stress-testing and contingency funding plans of banks. At the same time, supervisors would benefit from information available at central banks, such as banks' bidding behaviour.

Overall, while the need for enhanced interaction between central banks and supervisory authorities is widely acknowledged, recent events have called into question whether improved interaction in cooperation suffices. In this context, the debate has recently turned towards the future supervisory architecture. In particular, the financial crisis has underscored the urgency of reviewing the EU supervisory framework, which is still based on national responsibilities against the background of increased financial market integration and the growing role of large cross-border financial institutions.

In response to these concerns, a High Level Group was set up under the chairmanship of Mr Jacques de Larosiére with the mandate to examine the allocation of tasks between the national and the European level. The final report of the group, published last February, includes a number of proposals to strengthen both macro- and micro-supervisory arrangements in Europe.

As regards the arrangements for macro-prudential supervision, the De Larosière report proposes to establish a European Systemic Risk Board under the auspices of the ECB, which should substantially improve the assessment of systemic risks to financial stability at the EU level. By assigning a strong role to central banks, and particularly to the ECB, the report recognises that these institutions should play a leading role in macro-prudential supervision.

However, in order for the new Board to perform its tasks in an optimal manner, it is important that three key requirements are fulfilled:

- First, the ECB must have timely access to all relevant information, including that concerning individual institutions;
- Second, risk warnings from the new Council should be translated into effective policy action;
- And third, the new Council must have a solid institutional and legal basis in order to ensure independence and effectiveness of its decision-making processes.

3. Concluding remarks

The financial turmoil, which began in the summer of 2007, has developed over time into one of the most disruptive crises that the world has experienced in many decades. This is why from the start of the turmoil public authorities have undertaken interventions in key policy fields, including liquidity management, monetary policy and fiscal policy, which are unprecedented by number and scale. In addition, many initiatives have been undertaken to address weaknesses in the regulatory and supervisory framework in order to provide sounder foundations to our financial systems.

Despite our best efforts, we cannot yet see the light at the end of the tunnel and key financial markets and economic sectors remain under stress. It would be very difficult to predict when exactly our economies will return to normality, but I would be prepared to bet that, when this finally happens, the world will look different in many respects.

In this speech I have focused on six specific areas of relevance for central banks that are, to a varying extent, in a state of flux. They may all lead to changes in the environment in which central banks operate. By increasing our efforts to draw the right lessons from the crisis and implementing the necessary reforms, especially in the regulatory and supervisory frameworks, we can make sure that in the future the environment surrounding central banks will not be just different, but also more conducive to price and financial stability.