José Manuel González-Páramo: The role of information and communication in central bank policy – the experience of the recent financial turmoil

Keynote address by Mr José Manuel González-Páramo, Member of the Executive Board of the European Central Bank, at the SUERF Conference on "Tracking Financial Behavior: Where do Macro and Micro Meet?", Milan, 3 December 2007.

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Ladies and Gentlemen,[1]

I am very pleased to be able to speak at this prestigious SUERF conference today. As a policy-maker at an institution with responsibilities in both the areas of statistics and market operations, I am particularly pleased to see that much high-quality work is being done to improve and deepen our understanding of financial activity. The recent turmoil in financial markets has reminded us of the importance of timely access to accurate and comprehensive information on financial events as well as of the need to ensure that financial development and innovation are accompanied by advances in financial statistics.

Let me take the liberty to narrow my intervention from the rather general issues suggested by the programme to the more specific subject of the role of information and communication in the recent financial turmoil, particularly for the implementation of monetary policy.

Information asymmetries

When talking about information in the context of the financial turmoil, a key dimension of interest regards the role of informational asymmetries in the money markets (though I will often refer to the euro money market, it goes without saying that the issue of information asymmetries and adverse selection equally applies to money markets in other currency areas). Indeed, during the current turmoil widespread uncertainty about the distribution of exposures to sub-prime losses across financial institutions has led to the inability of distinguishing sound from unsound financial institutions, almost bringing inter-bank trading to a halt in August.

The disruptions to inter-bank trading were compounded by banks' uncertainty about their own liquidity needs reflecting various factors: (1) difficulties in tapping market funding sources (particularly the US dollar-denominated asset-backed commercial paper market), (2) larger than anticipated recourse by investment funds to committed credit lines, and (3) at least for some banks, uncertainty about the possible need to take over struggling off-balance sheet conduits and structured investment funds.

Although the interventions by the ECB have since had a stabilising effect on the euro money market rate at the very short maturities and, more generally, this market has recovered some of the lost ground, lack of confidence among commercial banks continues to restrict trading activity and inflate counterparty risk premia (particularly in the unsecured term money market).

The persistence of difficulties in the term money market, despite the existence of sufficient aggregate euro liquidity, points to an important limitation for public policies (and expectations about such policies) in the current environment, namely that central banks cannot and should

[1] I am very grateful to Ulrich Bindseil, Cornelia Holthausen, Isabel von Koppen-Mertes, Flemming Würtz and Alessandro Calza for their valuable input and contributions, and to Giacomo Caviglia and Pedro Teixeira for useful comments.

not be expected to solve the more fundamental problems of commercial banks and credit markets.

Through their liquidity management policies, the ECB and other central banks can certainly ease some of the liquidity difficulties faced by banks, but they cannot certainly restore the efficient functioning of the term money market. The current difficulties in this market will subside only when banks regain confidence in each other and the uncertainty about their own liquidity needs diminishes. This is likely to occur only when enhanced transparency and more extensive disclosures are made available to market participants, investors and regulators by both banks and non-regulated entities, thereby dispelling the current state of perceived opaqueness and uncertainty.

The market turmoil and available information

Let me now address another key aspect of information during the recent turmoil. Policy-makers normally work under conditions of partial and incomplete information. However, policy-making becomes significantly more challenging at times of market stress, when historical regularities cannot be entirely relied upon, while increased volatility blurs the information content of market variables and other indicators.

In periods of stress, analytical tools that under normal conditions provide valuable inputs into the information set available for policy decisions may at least to some extent lose their utility. And although comparisons with previous episodes of turmoil may add historical perspective and provide benchmarks for policy actions, spells of financial tensions often resemble each other only to a limited extent. Indeed, when thinking about the dynamics of financial turmoils and crises, one is tempted to recall the Ana Karenina’s opening that “All happy families resemble one another, but each unhappy family is unhappy in its own way.”

Indeed, the current turmoil has been “unhappy” in its own way. From its origin in the relatively small sub-prime segment of the US market for mortgage loans to its somewhat unusual dynamics of transmission (for instance, the fact that the current turmoil initially manifested itself in the difficulty for banks, mainly European, to obtain short-term liquidity in the US dollar market), a number of factors have set this episode of turmoil apart from previous experiences.

Thus, during the current turmoil we have been less able to rely on standard analytical tools and conventional information sets, particularly in the area of liquidity management.

To illustrate this point, let me briefly recall how our liquidity policy normally works. In normal times, the ECB calculates each week the expected liquidity needs of the banking sector and publishes an estimate of the “benchmark” amount of liquidity needed. This benchmark is calculated under the assumption that banks prefer to fulfil their reserve requirements smoothly by holding, in aggregate terms, the same level of current account holdings with the central bank on each day of the reserve maintenance period. The ECB then provides an amount of liquidity close to the “benchmark” in its weekly liquidity operations (the so-called “main refinancing operations”).

This pattern of liquidity provision has functioned well in the past, when it has succeeded in delivering short-term money market rates close to the target rate corresponding to the announced monetary policy stance. However, since 9 August when the tensions in financial markets first spilled over to the short-term euro money market, an increase in precautionary demand for liquidity and a change in the temporal pattern of liquidity demand within the reserve maintenance periods have altered the behaviour of banks, temporarily rendering the assumptions underlying the “benchmark” computations less realistic.

As a result, while maintaining entirely unchanged the structure of its operational framework (a testimony to the flexibility and resilience of this framework), the ECB has somewhat departed from the regular patterns of liquidity provision that it normally follows in order to steer the very short-term money market rates. Thus, in order to satisfy the banking sector's demand for liquidity buffers on particular days and for fulfilling reserve requirements earlier in the maintenance period, the ECB has (1) occasionally provided liquidity to the market through exceptional operations,[2] and (2) it has changed the time patterns of liquidity provision within the reserve maintenance period.

In addition, from the start of the market turmoil the ECB has intensified its communications with market participants so as to indicate its alertness and readiness to act in order to reduce the volatility of the very short term interest rates around the target rate and to contribute to the smooth functioning of the money market. For instance, last Friday we published a press release pointing out that the ECB's Governing Council has noted that market participants are concerned about conditions in the euro money market in connection with the upcoming end of the year; and announcing the decision to lengthen the maturity of the main refinancing operation settling on 19 December 2007 to two weeks so that it matures on 4 January 2008. In this refinancing operation, we will aim to satisfy the banking sector's liquidity needs for the entire two week period, covering both the Christmas holidays and the end of the year.

This example provides a good illustration of the importance that the ECB has attached in recent months to intervene in money markets through a combination of flexible liquidity management operations and regular communications.

And, of course, the need to communicate more frequently has also reflected the deviation from standard liquidity management practices. By extensively communicating about future refinancing operations and the general orientation of our liquidity policy, we have aimed to facilitate and accelerate the process of learning by banks about how we intend to implement monetary policy under the current conditions of market stress.

Challenges for monetary policy implementation under stress

As I will explain below, the current turmoil has also confronted us also with more general communication challenges, but let me first elaborate on some of the challenges that our liquidity management policy has faced during the recent turmoil.

In normal times, the soundness of a central bank's operational framework and the experience of both the central bank and market participants ensure that the implementation of monetary policy works smoothly. However, as I mentioned earlier, under stress conditions some of the principles usually guiding the implementation process may function differently. In this respect, particularly important for a central bank is the case of changes in the determinants of short-term interest rates.

In normal times, the behaviour of the overnight rate is fairly well understood. In a system with reserve requirements, the possibility to average reserve holdings over a maintenance period supports a stabilization of short-term interest rates, because day-to-day fluctuations of liquidity conditions can be smoothed out over the remainder of the period. Expected liquidity conditions on the last day of the maintenance period, when averaging is no longer possible, anchor interest rates of that day, and – via the so called "martingale hypothesis" – also of the preceding days.

The present turmoil shows, however, that at times of stress, the strength of the martingale hypothesis may weaken. Interest rates may no longer be necessarily linked to liquidity

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2 In particular, the ECB has helped to overcome market disruptions by temporarily supplying liquidity, first via a sequence of four overnight fine-tuning operations; then via increased allotment amounts in the weekly main refinancing operations and, subsequently, also via two supplementary longer term refinancing operations, the renewal of which has been subsequently announced.

conditions on the last day of the maintenance period as banks do no longer regard reserve holdings across different days of the maintenance period as substitutes.

Implementing monetary policy in these conditions can be challenging for a central bank, especially since it can not use its regular procedures for estimating the demand for liquidity – not least in the absence of any relevant empirical references. This is the main reason why the ECB conducted the very first of its fine-tuning operations during the turmoil (on 9 August) through a fixed rate tender with pre-announced full allotment. At that point in time, it was assessed that the market was in a better position than the ECB to judge which amount would bring interest rates back to the desired level. To some extent, the resulting amount was taken as guidance for successive allotments carried out in the format of variable-rate tenders, which were reduced in size, in parallel with a temporary easing of tensions at the shortest end of the money market term structure.

More generally, at times of market stress, a central bank has to operate in an environment characterized by an extreme level of unrest, in which interest rates are much more volatile than usual, and the martingale property loses its power to tie interest rates to the desired level. In such conditions, central banks can act quickly only if they have access to timely and accurate information. Indeed, differences in the speed, frequency and magnitude of interventions by central banks during financial turbulences can be due not only to structural distinctions in the banking sectors or in the operational frameworks and policy principles of the central banks, but might more simply reflect differences in information sets.

Let me at this point briefly recall some of the main sources of information of interest for the Eurosystem in the current turmoil.

Market intelligence. Over the last few months we have extensively used market information and activated our regular communication channels with the banking and financial industry. Particularly useful in this context has been the work of the Money Market Contact Group, a discussion forum on issues related to euro money market gathering representatives of the central banks of the Eurosystem and of the commercial banks from all over Europe. Since the outbreak of the financial tensions, this Group has solidly worked to gather and share information on developments in the euro area money market and has also provided us with useful feedback on the effect of the ECB’s money market operations.

Statistical information. The ECB has also benefited from the wealth of harmonised area-wide financial, banking and monetary statistics that the Eurosystem has developed over the last decade as well as from the recently released quarterly integrated accounts. In addition, very useful information has been collected through surveys (notably, the Bank Lending Survey).

Information exchanges with other central banks. During the current turmoil information has been extensively shared and discussed within the central banking community on a wide range of issues, from very technical and operational to more policy-relevant considerations. Especially at the onset of the tensions, the consultations among the relevant central banks were very intense and particularly useful to assess the extent of the turmoil accurately and rapidly.

Information exchanges among European authorities. During a market turbulence like the one we have recently witnessed, it is crucial to assess in a timely and comprehensive fashion the implications of the turmoil for the banking and financial industry and, ultimately, for the economy as a whole. In this context, it is important to ensure that the responsible public authorities, notably central banks and supervisors, have the adequate procedures and infrastructure in place to share the relevant information among them. This is necessary for assessing, determining and calibrating the appropriate policy measures, as those taken by the Eurosystem to address the market turbulence.

All in all, the turmoil has confirmed a number of strengths in our information-exchange and statistical arrangements. At the same time, it has revealed some information gaps and weaknesses that will need to be addressed once we draw the main lessons of the current turmoil. Indeed, it has been suggested that insufficient information has been the main reason why problems originating from the relatively small sub-prime segment of the US mortgage market have had such widespread consequences.[3]

For instance, the turmoil has revealed information gaps related to the valuation of illiquid complex structured products or the assessment of the concentrations among various types of collateral – including sub-prime – within structured finance securities. Besides, the turmoil has shown that there is a need for credit rating agencies to provide also information on the liquidity risks associated with structured investment products. In addition, the turmoil has confirmed that the significant lags in the release of some statistics, for instance those on integrated accounts, reduce our ability to use them in real time.

Challenges for communication under stress

As I mentioned earlier, implementing monetary policy under stress poses special challenges for communication. Indeed, following deviations from the standard practices and the setting in motion of a learning process, central banks must re-establish a "reputational equilibrium" with their counterparts. In fact, the reason why in normal times the martingale property delivers interest rates close to the policy rate is to a large extent because market participants have learned to form, over a long period of time, correct expectations about the central bank's liquidity policy. And, at the same time, market reactions to its open market operations are somewhat predictable for the central bank.

However, once the usual pattern of liquidity provision is broken, it is difficult for the market to converge quickly to a new behavioural equilibrium since an adequate level of confidence and knowledge needs to be first restored on both sides. Through communication and renewed predictability in its liquidity policy, a central bank can though succeed in restoring such equilibrium.

Let me now move to two – less operational – challenges that we have faced in the communication of our interventions during the present turmoil: (1) the "moral hazard" critique; and (2) the need to underscore the distinction between liquidity management and monetary policy.

The moral hazard critique

Some observers have recently criticised recent measures by central banks, including those taken by the ECB, on the grounds of moral hazard considerations. According to these critics, by reacting to the financial market tensions, central banks may contribute to "bailing-out" those who have triggered the tensions through excessive risk taking.

It is true in my view that moral hazard issues need to be taken into account very seriously when central banks decide on measures to support the financial system in a situation of market turmoil. Of course, any such support policy, if anticipated, will be taken into account when banks establish their risk management frameworks for "tail" events.

Still, one cannot generally conclude from this that central banks should not re-act and support the system in the case of severe tensions. To rigorously analyse moral hazard issues relating to financial crisis management by central banks, one first needs to distinguish between different but interrelated types of policy interventions. The reason for this is that the possible effects on incentives of different measures can be very diverse. However, this differentiation has often been missed when criticising central bank actions on the grounds of moral hazard considerations.

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[3] A. Giovannini and L. Spaventa (2007), "Subprime lessons: fix the information gap", 5 November 2007, http://www.voxeu.org/index.php?q=node/690.

Let me distinguish briefly between four possible types of central bank measures:

First, moral hazard issues have been raised in relation to the case in which the central bank lowers its key policy rate in response to financial turmoil. It has been argued that, if central banks lower interest rates at a time of market corrections and declining asset prices, economic agents may believe that the policy-makers are prepared to use monetary policy to support asset price valuations in order to prevent market downturns. If such belief becomes widespread, investors are likely to engage in excessive risk-taking behaviour, thereby sowing the seeds of future financial crises. In addition, if central banks are perceived to assign higher priority to supporting asset prices than to safeguarding price stability, inflation expectations may be adversely affected and even become disanchored.

Let me say clearly that I consider a situation in which the central bank would reduce its interest rate with a view to strengthening asset prices and banks' balance sheets as purely hypothetical and, in the case of the Eurosystem, simply unthinkable. This is a situation that would obviously open up issues of moral hazard and that no central bank committed to price stability would ever contemplate.

This discussion reminds me of a famous article by Alan Blinder, the former Fed Vice-Chairman.[4] He notes that academic economists are always concerned about the inflationary bias problem, that is the fear that central bankers may be constantly tempted to engineer inflation surprises in order to achieve sustained short-term employment gains, without realising that in the long run they would simply create higher inflation. Blinder reassures these concerns by observing that "during my brief career as a central banker, I never once witnessed nor experienced this temptation". Let me then borrow Blinder's words and use them to reassure the concerns of those who believe that we might be tempted to temporarily forgo our commitment to price stability out of worries about financial market developments: this is a temptation that neither I nor my colleagues at the ECB's Governing Council have ever experienced.

At the same time, a different issue is when financial turbulences develop into a fully-fledged crisis and eventually affect growth prospects, therefore lowering the level of the short term interest rate considered to lead to price stability in the medium term. I find it difficult to see any moral hazard issue arising from this type of central bank action. Losses of individual banks stemming from imprudent risk management will not be suppressed by such a lowering of central bank key policy rates. Adjusting the monetary stance as a reaction to macroeconomic developments, so as to achieve the ultimate goals of monetary policy, can never be rejected on the basis of moral hazard considerations.

Second, moral hazard issues have been seen in the context of aggregate liquidity injections through open market operations. I am not entirely sure that I see the moral hazard dimension in these measures.

In times of money market tensions, inter-bank interest rates may move to levels above the target rate set by the central banks, if the profile of the liquidity supply by the central bank is unchanged. Therefore, it is natural for a central bank to re-adjust the profile of liquidity supply to demand in order to stabilise short term inter-bank rates around their target.

In this regard, let me already hint at a point that I will discuss later, namely the need to distinguish between monetary policy stance and monetary policy implementation. In other words, we need to distinguish clearly between: (1) on the one hand, the task of defining and communicating the target level for short term interest rates, and (2) on the other hand, the task of achieving this level in the inter-bank market.

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4 Alan S. Blinder (1997) "What central bankers could learn from academics – and vice versa", Journal of Economic Perspectives, 11(2), pp. 3-19.

Moreover, taking into account the fact that the Eurosystem has not increased the supply of liquidity, but has only adapted the profile in terms of maturity and timing in the course of a reserve maintenance period, it becomes clear that the re-alignment of market rates with central bank target through open market operations cannot contain losses of individual banks stemming from imprudent risk management. Rather these liquidity policy measures should be seen as a continuation of the practice in normal times to align liquidity supply with liquidity demand, the only exception being that, under the current circumstances, it has not been possible to estimate the latter by means of the regular liquidity analysis.

Third, concerns about moral hazard issues have been raised in the case of a reduction of the penalty rate associated with the recourse to a central bank borrowing facility, such as the discount rate or the marginal lending rate. The case there for moral hazard is not entirely obvious to me at least as long as (1) such a reduction is a measure used to steer short-term inter-bank rates close to the target level and (2) as long as the rate of the borrowing facility is in any case close to the target rate – e.g. one percentage point or less – so that a reduction has no substantial impact on the profit and loss accounts of banks. In this regard, the recent money market tensions have confirmed the importance for the effective liquidity management of banks of enjoying unimpeded access to borrowing facilities.

The fourth potential moral hazard issue is a widening of the set of eligible collateral in a central bank's monetary policy operations. Admittedly, this type of measure could have moral hazard implications, particularly (1) if the general widening of the collateral set in fact targets a small number or, say, even a single bank under liquidity stress, which is rich in the specific type of additional collateral; and (2) if the central bank offers facilities, for instance a standing borrowing facility, to effectively refinance such collateral. This type of action invites moral hazard as it may indeed be decisive to establish whether the single bank fails or not, while at the same time sparing to the banks' management and shareholders the substantial costs associated with resorting to real emergency liquidity assistance.

Therefore, a widening of the collateral set accepted for monetary policy purposes should probably only be considered if this measure would substantially help a significant number of banks and if the set of assets were very narrow. In this case the lack of collateral obviously seems to be more of a systemic issue, and the central bank should consider taking action.

In this respect, let me underscore two features of our collateral framework that have served us well in the recent period. First, access to funding is available to a broad set of counterparties. And second, the Eurosystem – whilst requiring high-quality standards – accepts a broad range of public and private fixed-income securities, as well as non-marketable assets. Hence, sufficiency of collateral has not been an issue for the Eurosystem, even at the peak of the refinancing needs during the turmoil.

Finally, moral hazard is a potential issue in individual banks' emergency liquidity assistance. But here, it is up to the central banks and supervisors to ensure that in particular senior management and equity holders, and possibly debt holders, pay a sufficient price for the rescue. This issue has been discussed at length in the literature, the bulk of which convincingly argues that moral hazard issues can be taken into account in a satisfactory way in the design of the rescue mechanism.

So, to conclude on the moral hazard topic, I would say that, in order to draw meaningful conclusions, it is important to distinguish between the very different possible types of financial crisis management measures available to central banks. When assessing and choosing among these different measures, it is necessary to take into account the implications for both the central bank and for its counterparties, including the future incentives of the latter, in order to achieve, overall, the most efficient allocation of resources.

Separation of liquidity management and the monetary policy stance

Finally, a frequent focus of our communication during the turmoil has been the importance of distinguishing between interventions related to liquidity management and changes in monetary policy stance.

It is very important for the public to understand that the implementation of technical measures related to liquidity management during the current turmoil has been completely separated from any considerations on the monetary policy stance. Contrary to the occasional public perception, these operations have had no effect on the overall liquidity supply to the banking sector. Overall, the amount of liquidity provided within the various maintenance periods since the start of the turmoil has remained unchanged. Instead, the liquidity provision has been to some extent simply brought forward in time within each period, thereby simply representing a shift in the time path of liquidity supply within the reserve maintenance period.

Also, it is important to understand that the interest rates at which the fine-tuning operations and the supplementary longer term refinancing operations were settled contain no information on the future monetary policy stance, since the ECB acted as a rate taker in these operations.

The need to understand the difference between technical liquidity provision measures and changes to the monetary policy stance is particularly important in the current environment, since the turmoil in money markets has occurred at a time of increasing concerns about rising inflationary pressures and deteriorating outlook for inflation. In this context, misunderstandings about the purpose of our liquidity interventions might adversely affect inflationary expectations.

Conclusion

Let me conclude by emphasising that the recent market developments have stressed the importance for policy-makers to have access to timely and accurate information on financial developments, and to set up mechanisms that facilitate the smooth and rapid exchange of information among market participants, central banks and other authorities. The recent turmoil has also highlighted the importance of effective communication for central banks, in order to provide guidance about the principles informing their liquidity management interventions under market stress conditions, and to dispel undesirable misunderstandings about the reasons why these interventions are taken.

We are only starting to draw lessons from the recent financial turmoil, but we can pretty sure that the need to fill information gaps and enhance market transparency will figure prominently among them. Events like this conference can prove of great help for the purpose of defining more precisely those gaps and to show the way forward.

Thanks very much for your attention.