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## **Monetary Policy and Basel II**

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## **Introduction, reflections on the topic and outline of the talk**

Let me first express my gratitude for the invitation to participate in this Economics Conference. I am honoured to address so many leading representatives of the political, academic, business and finance arenas, in one of the most renowned forums for economic discussion around the world.

Governor Klaus Liebscher suggested I should focus my address on the links between monetary policy and the revised capital framework, known as Basel II. This is a very relevant topic but also a risky one. Testifying to its relevance is the increasing attention which is recently being paid to the interaction between financial and macroeconomic stability. The risk stems from the very fact that we still lack a sufficiently solid conceptual framework to address all the key issues in the field and, particularly, to tackle the cross-implications between financial regulation and monetary policymaking. Yet there are few interesting topics that can be addressed without a significant measure of analytical uncertainty.

Why is it worth pondering on the links between monetary policy and Basel II? Let me illustrate my own reflections on this point by drawing a simple analogy. In a way, liquidity is for an advanced economy much like blood for a living being. Financial market participants pay considerable attention to the monetary policy decisions made by central banks, for these are, in a broad sense, the “guardians” of liquidity.

Excessively expensive liquidity is likely to result in a suboptimal volume of investment and, in turn, in an inefficient under-use of society’s productive resources. Likewise, when monetary conditions are excessively lax, some liquidity may be directed to financing projects with poor returns. If this situation prevails for some time, inflation arises, the average productivity of investment declines, asset prices deviate from their normal or fundamental values and the economy as a whole loses its ability to maintain a sustained growth path.

When deciding on monetary conditions, central banks must understand the mechanisms underlying the workings of the economy in order to react to potential dangers and opportunities in due manner and course. No diagnosis could ever be complete without a careful analysis of how the entire circulatory system is behaving.

From that standpoint, central banks can then be thought as of being the heart, initially controlling the price of the transactions conducted in the money market. Commercial banks would naturally fit into this analogy as the veins and arteries, for they have the last word on the destination of the funds they are being endowed with, a decision that pertains greatly to the sphere of banks’ credit management. Furthermore, as the final outcome of this task is necessarily uncertain, it is no exaggeration to say that much of the success of the entire

process hinges critically on how banks cope with the risks they face when deciding how to allocate resources.

I have tabled some of the main elements on which I will base my subsequent arguments, which may be summarised as follows. The overall effects of monetary policy decisions cannot be meaningfully understood without previously assessing how the banking system is performing the job of channelling the original impulse of the central bank in the money market into the rest of the financial system and, ultimately, into the whole economy. Thus, a continuous assessment of the *norms of behaviour* and *the overall conditions* of the banking industry is a key input for any central banker wishing to be in the best position to foresee and evaluate the potential outcome of policy choices.

In my address, I will focus on the general question of how Basel II may affect the way monetary policy influences some key financial and real variables. In doing so, I will follow a strategy that is very familiar to the economics profession, in the sense that I will regard the application of Basel II as an “exogenous shock” that will eventually unleash some spillover effects into an otherwise unchanged current monetary policy framework.

My task here will thus boil down to highlighting some of the special novel features of Basel II that will potentially exert some influence on the dimensions of monetary policy. Hopefully this analysis, while necessarily brief, will highlight not only those elements of Basel II which are contributing directly to a cleaner and, perhaps, safer scenario for conducting monetary policy, but will also pay due attention to the - in my view - often overly exaggerated debate on procyclicality. To this end, let me first introduce the most salient aspects of the revised capital framework.

### **Basic features of Basel II**

In 1988 the Basel Committee launched a pioneering Capital Accord that contained the first internationally accepted definition of regulatory bank capital and provided clear-cut and simple standards to measure it. The merits of that first step are well-known. However, a number of important changes have since taken place in the financial and banking industry landscape. In several important respects, we are now far removed from the environment of the late eighties.

For one thing, the complexity of risks now faced by credit institutions operating in an increasingly globalised environment has increased significantly and, as a result, both risk-management and supervision have become much more difficult tasks.

For another, some recent developments have also increased the opportunities to manage risks. The impressive advances in technology that have enhanced the industry’s ability to collect and process large amounts of information in real time could hardly have been

suspected 20 years ago. Collecting risk data across many business lines has catalysed further efforts to aggregate those measures of risk by quantifying them in a more rigorous and more consistent fashion.

The “ultimate expression” of risk aggregation is the summation of many types of risk into a single measure based on the concept of economic capital, which estimates the amount of capital a firm requires to protect itself against these risks with a certain degree of confidence. Using the concept of economic capital, banks can develop sound policies for monitoring exposure limits, risk-adjusted pricing policies and sound provisioning practices based on the inherent risks of the portfolios. They can also measure returns and assign capital on a risk-adjusted basis. Likewise, the progressive widening and deepening of financial markets and the continuous creation of new assets has enlarged the menu of choices available for banks to manage, share and transfer risks.

The Basel II process started, more than 6 years ago, against this background of increasingly sophisticated risk management practices, heightened complexity in the financial markets and stronger interaction between the real and the financial economy. Rather than simply resetting the quantitative standards, we sought to develop a new forward-looking approach that would be more sensitive to the actual risks that banks take on.

The new framework is a significant step towards achieving a more comprehensive and risk-sensitive supervisory approach. It seeks to provide banks with stronger incentives to employ the most advanced techniques to calculate risk exposures and, hence, to push risk-management towards the best available practices.

Specifically, Basel II makes these general principles operative by building on three complementary pillars.

The first pillar is intended to achieve a more precise and sensitive mapping between banks’ actual risks and the minimum regulatory capital requirements. Under the new framework, banks are allowed and, indeed, encouraged to rely on their own measures of certain risk parameters, thus fostering a wider usage of the best available techniques and tools for that purpose. The Committee firmly believes that a better alignment between regulatory and economic capital is conducive to a more efficient allocation of credit and a less distortionary regulatory system. The framework is also extended to operational risks, which have proved to be more relevant in an increasingly complex world that demands highly sophisticated processes.

The second pillar, supervisory review, requires banks to assess their own capital needs for their overall risk profiles, including whether any activities or exposures may incorporate more risk – and hence may require more capital – than is assumed in Pillar 1. Supervisors, in turn,

must evaluate the banks' assessments and processes, and respond if these are not appropriate. In the case of those banks that use the advanced approaches offered by Pillar 1, Pillar 2 can be a useful tool for ensuring a constant enhanced dialogue between the supervisors and banks throughout the whole sequence of procedures and estimates, reflecting the ideas that wider freedom for banks to evaluate their own risks requires closer involvement by the supervisor.

The third pillar, market discipline, imposes higher levels of transparency in banks' financial reporting. It complements and reinforces the two previous pillars in the following sense. First, it stimulates a more efficient management of banks, since more transparency entails closer scrutiny by market participants. Second, it provides the supervisor with a most valuable ally, namely stronger external incentives for prudent risk-management.

In sum, Basel II constitutes a forward-looking approach to capital regulation that blends some of the ideas and practices that have shown a more solid record of success in finances with the best regulatory principles we have learned over time. At the same time, I think that Basel II incorporates two of the key basic principles that are built into modern approaches to monetary policy and which have successfully resolved the debate between rules and discretion: a flexible and forward-looking approach, anticipatory rather than reactive behaviour to risk, and the need to take into account market views.

Let me underline additionally two features that are important for our monetary policy discussion.

The first is that Basel II has tried to incorporate in the framework not only micro risks but also the macro perspective to risks. If you like, we have tried to incorporate how micro risks change through the cycle and in stressed economic conditions. We have therefore been very conscious about how micro prudential regulation can influence macro behaviour and also how different macro scenarios can change the risks that bank face.

As Jean-Claude Trichet said in June last year, when presenting the new framework: "It will enhance banks' safety and soundness, strengthen the stability of the financial system as a whole, and improve the financial sector's ability to serve as a source for sustainable growth for the broader economy"

This enhanced financial stability is a significant contribution of Basel II to monetary policy. In general terms, a better functioning of the banking system will tend to improve the efficiency of the monetary policy transmission mechanisms. In addition, one could think of a positive effect on the expectations about better financial stability.

Second, Basel II is about much more than just setting better quantitative minimum capital requirements. It is about establishing an incentive-based approach to risk management and capital adequacy, within a framework of the three mutually-supporting pillars

The new comprehensive framework provides at least four transmission channels for influencing financial stability and the overall economy: first, by setting more risk-sensitive minimum regulatory capital requirements, so that regulatory capital is both adequate and closer to economic capital; second, by providing incentives to encourage improvements in banks' internal risk management processes; third, the enhanced mechanisms to encourage the marketplace to exert external discipline on banks and the banking sector; and fourth, the necessary greater co-operation among supervisors across jurisdictions. The effects of each of these channels will be different in terms of time and in terms of final influence, some of them having the capacity to bring significant long-term positive changes to the financial markets. In my view, perhaps too much attention is placed on the minimum capital rules of Pillar 1 and not enough on the effects of the other three channels.

### **Implications of Basel II for monetary policy**

Let me therefore turn to the issue of how the main elements of Basel II may affect the ability of the monetary authority to fulfil its objectives.

I believe that the achievement of price stability as a desirable medium to long-term target is, by now, a non-controversial objective of primary importance whose foundations are well known. On one hand, the proposition that labels inflation largely as a pure monetary phenomenon within long time-horizons can hardly be contested either conceptually or empirically. Furthermore, a wide consensus among academics and policymakers has emerged over recent decades on the damaging effects of high inflation levels and variability on economic growth and, hence, on social welfare.

Indeed, the history of monetary policy in the last 20 years or so is a very successful one. Price stability, as it is usually defined, is currently a tangible reality in most developed countries. Also, many less-developed countries previously prone to endemic high inflation have managed to reduce and stabilise it at reasonable levels, with noticeable effects on economic prosperity.

I believe that the achievements of the last few years in terms of price stability are largely permanent. In the main, they respond to non-conjunctural factors such as a more refined conceptual understanding of issues like the temporal and uncertain nature of the trade-off between output and inflation, to institutional reforms -such as central bank independence- and, probably, to greater social awareness of the benefits to be had from sustained low inflation.

Although low and stable inflation is a clear prerequisite for macroeconomic stability, this does not per se eliminate the potential risks of disturbances that can adversely affect economic performance. This is the case of negative demand shocks which can generate deflationary processes.

Past episodes of persistent negative price growth, such as those seen in Japan over the last decade, have shown us that in those conditions monetary policy loses much of its potential to exert a decisive influence on the price path and on the level of output. In that regard, most central banks, such as the ECB, recognise that their price stability objective should be made compatible with a low probability of deflation.

Moreover, in the current setting of low inflation and interest rates, we have witnessed episodes of rapid increases in some asset prices that have led analysts to suspect important deviations between fundamental and observed values. Some notorious recent examples include the overvaluation in the real-estate sector in several East Asian countries in the 90s, and the surge and subsequent correction of the wave of excessive optimism in some equity markets around the turn of the millennium. Currently, the extreme increases in housing prices and households' level of indebtedness witnessed in some western countries is attracting some attention and concern in view of the potentially adverse consequences on the stability of the whole economy. Looking back, one can indeed find in unbalanced developments in asset and debt markets the seeds of some of the major financial crises that ultimately led to persistent negative output and price growth.

Therefore, conditions such as low inflation and interest rates may sometimes conceal risks capable of bringing a phase of price and economic stability to its end. Those dangers are often linked to excessive risk-taking in the credit or asset markets leading to episodes of financial instability. In that situation, it may be difficult for monetary policy to meet its objectives since the relationship between certain key variables and interest rates becomes unstable. Moreover, as market volatility increases, the ability of central banks to affect the relevant interest rates becomes more uncertain. The conduct of monetary policy then becomes much like steering a boat in the middle of a dark stormy night.

Even if the likelihood of such episodes of macroeconomic distress is low, the considerable implications in the economy and in terms of welfare have led to increasing concern among central banks and much discussion and research on what the monetary policy response to this kind of underlying risk could and should be.

There is now a broad consensus among central bankers that they should not directly target asset prices, and I must include myself among those who share this view. Detecting unsustainable patterns of asset prices or indebtedness ratios in real time is a complex task in

practice. But even if central banks were able to do so, there would still be a lot of uncertainty as to how those financial imbalances would react to a specific change in monetary policy. Under the most realistic case, in which the monetary authority only possesses noisy information on the presence of unsustainable patterns, the remedy could be worse than the illness, since one can never be certain that a true illness is the case.

Yet this is not to say that there is nothing left to be done by monetary policy to deal with low-probability high-impact events, such as an asset market collapse and/or a deflationary spiral. As we have moved towards a scenario of price stability and lax credit conditions, some leading central bankers have been inclined to consider more prevention-oriented policies. To the extent that monetary decisions may be a useful tool for reducing the likelihood of a major financial disruption, or for mitigating the effects of a really adverse shock on the entire system (full deflation, for instance), it might be desirable to pursue a monetary strategy that pays due attention to these unlikely crisis scenarios if the associated impact is disproportionately high. This idea is at the root of what Chairman Greenspan refers to as the *risk-management approach to monetary policy*.

Martin Feldstein has described the essence of this approach in a very insightful and simple way: “A prudent man carries an umbrella even when the forecast says there is only a small chance of rain. If there is no rain, he suffers the small inconvenience of carrying the umbrella. But if he does not bring the umbrella and it does rain, he may suffer the much larger inconvenience of being caught by a downpour”.

While this argument for a wider pre-emptive role for monetary policy would bring self-evident benefits, we should bear in mind that it also entails some costs and can be difficult to communicate to the public. These costs can be understood as an insurance premium that must be paid for using monetary policy in a decidedly preventive fashion.

These considerations help to highlight some dimensions of the current monetary policy context that may benefit from a sound banking capital regulatory framework. In this regard, I tend to think that certain important elements in Basel II will contribute, firstly, to restricting the build-up of financial imbalances, thus diminishing the probability of extreme adverse shocks; and secondly, to mitigating their negative consequences for the overall system.

As the disorderly granting of credit is often a defining characteristic of an extreme and unstable phase of financial euphoria, a regulatory framework that provides banks with strong incentives for sound risk assessment must clearly be conducive to a more watchful and efficient allocation of credit. In this sense, one would naturally expect a more risk-sensitive capital framework to make banks more likely to account for the true risks of lending policies aimed at achieving short-run-focused targets, such as market share or portfolio size, at the expense of

putting their medium-term financial health more at risk. Since speculative activities naturally fit into this risk-return temporal pattern, given that they usually yield substantial immediate profits at the outset at the expense of a possible once-for-all large loss at an uncertain future date, a more cautious credit strategy will tend to penalise the funding of self-fulfilling asset-revaluation processes.

Forward-looking risk management that is aware of how risk-drivers change through the cycle and in stress conditions will tend to build shock absorbers to be used when difficult times arrive. I will return later to this idea and how Basel II encourages the appropriate use of capital buffers. Let me add now that the idea of building robustness in good times is not only a prudent policy, it is also theoretically consistent because we all have a tendency to think that risks increase in bad times. From my perspective, this is only true in part. A better description is to say that exposures and therefore risks increase in good times and that in bad times these risks materialise.

On top of that, to the extent that risk assessment and control methods become more formalised and rigorous, this will lessen the likelihood of making bad decisions and will improve risk-adjusted pricing policies. It will also contribute to the prompt detection of errors and deviations from targets, allowing banks to implement corrective measures at an early stage. Increased awareness of the risks and early reaction to problems is likely to lead to a smoother adjustment to new conditions or to the correction of mistakes, making decisions less abrupt and time-lags perhaps shorter.

This early reaction will be supported by the supervisory second pillar and again by the transparency of the third, which will also reduce the temptation of supervisory forbearance. Let me add a few words on transparency.

History has also taught us that some of the worst financial crises were ultimately unleashed by sudden bank crises, during which an upsurge of collective panic led individuals to withdraw their funding to banks. A vast amount of analysis and research on these issues has underlined the role of information asymmetries in financial intermediation. Indeed, it is no overstatement to say that the presence of asymmetric information between lenders and borrowers in financial markets can explain much of their inherent instability. Higher transparency in the information provided by banks on their balance-sheet and risk position, along the lines of that set out in Pillar 3, must undoubtedly alleviate such asymmetries, thus reducing the likelihood of an episode of profound disintermediation and, by fostering the public's confidence in the banking system, easing the recovery of the financial pulse in the event of a downturn.

Before moving to my next point, let me sum up some of the ideas expressed by quoting Alan Greenspan, who recently said: "Perhaps more critically, better risk management and the

associated quantification have the real potential for reducing the wide attitudinal swings that are associated with the historical cyclical pattern in bank credit...”

In a more general conclusion, I think that while the objectives of regulatory policies are different from those of monetary policy, the former should always be aware of the macro implications of their micro policies and the latter can clearly benefit from effective regulations that help ensure a safe and efficient financial system.

### **Procyclicality and the link between Basel II and monetary policy**

So far, I have highlighted key features of Basel II which, in my opinion, will unambiguously tend to make the current terrain in which monetary policy operates a safer place. Yet in the course of the work conducted by the Committee and, especially, after the release of several consultative documents, there has also been lively and enriching discussion about several potentially negative side-effects of the revised capital framework.

The issue of procyclicality, in particular, has attracted much attention. Although I think that most arguments have been overstated and I have a more positive view of the macroeconomic implications of Basel II, I also think that this is a legitimate concern and I take this opportunity to gratefully acknowledge the interest and effort made by researchers and commentators to shed light on this and other issues relating to the macroeconomic implications of Basel II. To be sure, all this is also relevant for my topic here today, as monetary policy works precisely through its influence on economic activity at business cycle frequencies.

Some commentators have warned that the new framework, by tying minimum capital holdings more closely to debtors' creditworthiness, may exacerbate the cyclical pattern in credit aggregates, thus altering the bank-based monetary transmission mechanism, perhaps in an unwanted direction. In this respect, a potentially worrisome picture would be one in which the economy falls into a recession, credit ratings deteriorate, capital requirements become more demanding under Pillar 1, and monetary policy loses some of its stabilising effectiveness, as banks find it difficult or too expensive to secure funds to expand credit.

My impression, however, is that this simple story must be qualified on several grounds, as there are a number of effects working in opposite directions as well as some mitigating factors. But before going into more technical details, let me mention the important steps towards mitigating excessive swings in regulatory capital included in the framework. Banks that use the internal rating systems are required to consider longer-term horizons in assigning ratings, and to estimate risk parameters as long-run averages or to reflect downturns. Finally, they are also required to carry out stress tests under conditions of simulated recessions.

Following on from this last point, as banks are required to perform a meaningfully conservative credit risk stress test, they will hold capital buffers that make regulatory capital requirements less of a constraint. Pillar 2 will also enhance this precautionary behaviour. At present, actual capital held by most banks is, in general, well above minimum regulatory requirements and there is some empirical evidence of a negative relationship between the capital buffers and the cycle, although the magnitude of this effect is more disputed.

By promoting sounder practices for risk assessment, Basel II creates incentives for more forward-looking capital management through which banks will fully recognise the benefits of a prudent strategy of capital accumulation from an intertemporal perspective. The new framework places capital and risk management at the centre of the bank's responsibility and strategy, requiring managers to be very mindful of and serious about understanding the drivers of risk through the cycle within a medium-term time horizon.

A second idea to bear in mind when considering procyclicality in bank credit is that bank behaviour is inherently procyclical. Regulatory considerations aside, a general fall in returns on investment together with a perception of increased risk are natural ingredients during a recession, thus leading *per se* to a contraction of credit. Moreover, such a contraction and even the closure of some firms in the industry can be understood, in some cases, as efficient outcomes on purely economic grounds.

While concepts like full efficiency or maximum social welfare are "too grand" to be operative, I think we can still make some progress on this issue by posing the question in relative terms: will Basel II unduly exacerbate the tendency towards procyclicality inherent in banks' business? In response, I find it helpful to focus on certain key determinants of bank capital supply and demand, for their interaction will ultimately determine the conditions under which banks may gain access to capital markets and withstand a general downturn.

On the demand side, under Basel II higher overall uncertainty about debtors' solvency during a recession will admittedly tend to put upward pressure on the regulatory capital. But we shouldn't view this effect as economically artificial, since we know from basic contract theory that lenders, i.e. depositors, will optimally require a larger amount of own resources from investors, i.e. banks, whenever the former perceive higher risk in the projects to be funded. In plain terms, while regulatory capital is rising in such a situation, economic capital goes up as well. I firmly believe that the latter is the most relevant variable for understanding banks' decisions about the amount of credit to be extended and its price. Nowadays, well-managed banks already allocate economic capital and take decisions on the basis of incurred risks. Their economic capital is procyclical today and Basel II does not alter the calculation of economic capital; if anything it can help to promote cycle awareness. In this regard I tend to

think that the role of regulatory capital is overstated and the degree of risk sensitivity of banks' behaviour today is underestimated.

Furthermore, the most abrupt and procyclical behaviour will probably occur in a poorly provisioned and poorly capitalised bank with inadequate risk management. In a downturn this bank will most likely encounter unpleasant surprises stemming from mismanaged risks and, lacking appropriate shock absorbers (provisions and capital), it will have little room for manoeuvre. The most likely outcome is an abrupt cut-back on lending, therefore contributing to exacerbating the cycle. I mentioned before the importance of risk awareness and early detection and reaction by banks. I will just emphasise here that these are also important elements for restraining procyclicality.

On the supply side, I have already commented on the beneficial effects of higher transparency in the information released by banks, especially after accounting for the fact that lender-investor informational asymmetries could result in a lower-than-optimal level of funds available for bank lending. Pillar 3 will thus grease the wheels of the market for bank capital, building up capital providers' and depositors' confidence about the efficient use of their resources and easing the conditions under which banks may gain additional funding if required. This observation is of special relevance precisely in times of crisis, when some bank managers may be more tempted to pursue "gambling for resurrection" strategies. Likewise, as market participants understand that banks will have stronger motivation to employ better technologies for risk management, one would naturally expect the industry to move to a safer plateau, with its capital, therefore, enjoying a lower risk premium, all other things being equal.

To summarise, while I think that a reasonable degree of procyclicality of the supply of loans is a logical feature of the credit market, I sympathise with the idea that all kinds of regulations affecting banks, from accounting to prudential ones, should try to minimise or compensate for the risk of excessive sensitivity of bank lending policy to cyclical conditions. Indeed, the latter would normally appear when banks are poorly capitalised and lending decisions are based on inadequate risk assessments and driven only by current market conditions, a natural terrain for unplanned drastic swings in credit policies.

I believe that all investment in technology and human capital, enhanced transparency, and better and pre-emptive risk management based on improved control structures and corporate governance will entail significant improvements not only to the stability and soundness of the financial system, but also to its efficiency in the allocation of resources. This, in my view, should benefit the cyclical behaviour of the banking system and also, it is very likely that it will be around a superior trend.

**Concluding remarks**

Let me conclude with a few reflections on the general issue of this talk, namely monetary policy and Basel II. I have tried to highlight those distinctive features of the revised capital framework which, in my opinion, are more likely to exert some influence on the terrain in which central bankers design and implement their monetary policies. Only the passage of time will reveal the consequences of the most ambitious bank-capital regulatory framework ever envisaged at a multinational level for the conduct of monetary policy. Still, I feel we can lay hands on some basic, but valuable, equipment for performing this jump into the future by looking at the past.

So far, I have drawn on some important lessons imparted by past monetary and financial episodes and experiences. Let me now draw on one further lesson. The enormous success of monetary policy in bringing us the benefits of low and stable inflation could have hardly been possible without a preliminary diagnosis of the causes of high inflation and its effects on welfare, including an assessment of what the objectives of monetary policy should be, their relative importance over different horizons, and a comprehensive analysis of the best institutional framework and the instruments required. With hindsight, the right answers to these points seem clear: in general terms, a stable value for money should be the most precious output yielded by monetary policy; and, to achieve this, a wise mixture of simplicity, transparency, commitment and sound judgment, and, overall, a good measure of forward-looking behaviour should all be included in the monetary authority's toolbox.

You will recognise in this list of tasty ingredients some of the basic elements used in building up Basel II, for it pursues a goal, namely financial stability, which at least in some of its most fundamental aspects may not be much different from that pursued by monetary policy. Just as the economics profession concluded that over the relevant horizon price stability was essentially all about monetary conditions, we on the Committee believe that the stability of the banking industry is all about risk awareness and management and adequate shock absorbers.

Consequently, Basel II seeks to give due regard to the greater importance of managing bank risk and capital for the purpose of achieving higher levels of financial stability, but I am personally in little doubt that its benefits will also be felt in monetary policy spheres.

Thank you very much.