

Finance and Regulation

It is indeed a pleasure to participate in this panel at the beginning of a Conference that introduces an historical perspective on the important subject of the relationship between the State and Financial Services. History helps us to put into perspective the successive waves of regulation and deregulation that have marked that delicate relationship. Financial activity, and banking activity in particular, has been subject to different types of regulation since the banking crises of previous centuries convinced authorities of that need. In general, finance is a process that produces and exchanges stores of value in order to facilitate intertemporal decisions on saving and investment. Normally, finance implies giving up liquidity in the present for the promise of future returns. It is therefore an activity that is intrinsically burdened with uncertainty as it implies trust and expectations about the future. It is also an activity essential for economic life as it opens new opportunities for society to invest and increase productivity. As it grew in complexity, the systemic risk involved introduced an element of public good considerations. It is therefore understandable that it became an activity subject to public regulation, monitoring and supervision. The rationale for regulation rests on two types of justification: first, the important externalities associated with the systemic role of the financial sector and second, the nature of an activity where asymmetries of information create the possibility of some market failures (see Llewellyn (1999) for a good analysis of the issues) ¹.

History shows that regulation and supervision of the financial sector evolved in response to crises or major episodes of turbulence. Robert Gordon (2005) has shown for instance in a recent paper ² that one of the differences between the 20's and the 90's that help to explain why financial crises had

milder consequences in the latest decade is the existence of tighter regulation and supervision (capital requirements, deposit insurance etc.) . In fact, one of the features of the more recent decades has been a remarkable decrease in volatility of the real economy in spite of episodes like the 97/98 Far East and Russian crisis and the demise in 2000 of the previous exuberant boom. These shocks seem to contradict the theory that it was the reduction of shocks that explain the noted reduced volatility of recent decades. More likely explanations are to be found in the flurry of financial innovations that generalized risk-based pricing and the supply of many new credit instruments that helped to finance economic activity even in unfavourable times. A second set of reasons includes better public policies, from improved supervision to monetary policy. Monetary policy in particular has been successful in providing an environment of stability and its enhanced focus on transparency and in anchoring expectations has helped to reduce risk premiums. This more flattering view of the contribution of monetary authorities does not preclude the controversies surrounding the relationship between monetary and financial stability, a subject I will address later.

In spite of the positive effects of modern finance in contributing to the development and stability of economic activity, there is an increasing concern with financial stability as an objective of policy. Practically all major Central Banks now publish special Reports on Financial Stability, making clear that they see it as something that falls within their sphere of competence. There is some ambiguity about the definition of financial stability but two main meanings stand out. One, more fundamental, follows Mishkin (1991) ³ and defines financial stability as a situation where the financial system is able to ensure in a lasting way, and without major disruptions, an efficient allocation of savings to investment opportunities. In another sense, financial stability refers to the absence of a major misalignment of asset prices that can threaten future disruption of markets and the real economy. Both meanings are of course connected as they point to the same notion of smooth functioning of financial institutions and markets.

To justify the recent concerns with financial stability, we can list both short-term reasons and some more structural factors. The first ones are the so-called global imbalances and the risks associated with a possible reversal of asset price developments in various markets that may create turbulence detrimental to the real economy. The first issue has been much discussed but despite the possibility of a disrupted correction there are still reasons to hope that the winding down of both situations can happen in a gradual and orderly manner.

There are nevertheless more structural reasons for the concern of supervisors and monetary authorities with financial stability. These are related with the new developments and structural changes in the financial sector that generate new causes of concern and possibly justify new regulation or increased monitoring.

Four aspects are particularly relevant from this perspective:

1. There has been a significant expansion of the financial sector in the past decades, well above the growth rate of the real economy. The financial sector became more important and more complex and ensuring its stability has consequently become more essential.

2. The sector has changed in the direction of being more market-based with a reduced role for traditional relationship banking. Technological developments in ITC, the greater availability of information, the standardization of financial contracts, all contributed to a sort a «commodification» of financial transactions. This has implied that monetary institutions and monetary aggregates have lost weight in the total of financial assets, meaning that leverage over the monetary base has increased continuously. Also, it is important to underline that this expansion was accompanied by a greater share of a non-regulated segment including hedge funds, private equity institutions etc...

3. Financial innovation produced new products and tailored new securities to particular needs in terms of maturity, risk and liquidity. The

complexity of derivatives and structured products grows all the time as well as the size of derivatives markets. The most recent example is of course the phenomenal growth of the market for credit derivatives. Credit Default Swaps (CDS), Collateralized Debt Obligations (CDO), Credit-linked notes, credit spread options and other products have developed into a market that represents now more than 16 trillion euros and is bigger than the total stock of existing corporate bonds and loans. These instruments fulfil useful functions by allowing the transfer of risk, isolating and pricing pure credit risk, providing liquidity to individual credits in times of stress and improving the management of risk for various institutions etc... They create at the same time new sources of risk due to their complexity, the uncertainty of mark-to-model valuations not tested in times of trouble especially when secondary markets are not very liquid in general.

4. The fourth aspect warranting a mention refers to the growing interdependence of markets across types of products, across institutions and across borders. The more market-based financial system continues to depend on monetary institutions for the provision of liquidity and credit lines. Markets for different types of assets tend to depend on common factors and show co-movement of returns. This greater interconnectedness is an element that creates the so-called «endogenous» component of risk, i.e. system-wide risk that is created by the financial sector itself as the result of market participants' collective behaviour and its effects on the main sources of risk. The increased concentration of institutions in various markets also adds to the effects of this «endogenous» risk

The main drivers of these structural changes were of course technological progress and the movements of liberalization and globalization. The regulation system has responded to these changes and evolved as turbulent episodes were occurring. Following the crisis of 97/98 there was a general enhancement of financial sector regulation and supervision. New international Codes and Standards were developed by the BIS, the IMF, IOSCO and IAIS. The preparation of a new Capital Accord was initiated and its recent approval will change the standard for capital requirements in a

direction more sensitive to risk than the previous Basel I framework. In Europe, the mandatory implementation of new International Accounting Standards introduced changes, not always welcomed, in the reporting of financial institutions with consequences for prudential aspects of their business. Another important development has been the improved sophistication of a macro-prudential function developed by Central Banks, Supervisors and International Financial Institutions to analyse and monitor all the major risks at the level of the system as a whole. The use of financial sector models allows the simulation of various shocks so that stress tests can be conducted at that level.

Despite all these improvements, the question remains whether some further changes are required in regulation and supervision of the system in view of the new problems and risks created by the recent structural changes. Before venturing an opinion, let me stress again the positive aspects, including stability-related, that stem from these changes.

One general consideration was well described by Alan Greenspan (1999): «Multiple alternatives to transform an economy's savings into capital investment act as backup facilities should the primary form of intermediation fail.»⁴ This substitution between different segments of the financial system help to smooth overall financial flows and contribute to lower volatility in the real economy. Some empirical and theoretical evidence has been accumulated documenting that feature of financial architecture [see Peres Jorge (2005)].⁵

In the same direction of contributing to the efficiency and stability of the system goes the diversification of instruments that open new opportunities to finance different types of activity subject to diverse contingencies in different phases of the cycle. This adds to the effectiveness of the system to foster growth.

Finally, it is worth stressing that the new features of the financial system imply a significant progress in the management of risk. The instruments of risk transfer allowed the entry of new players in the market and enhanced the absorption of credit risk, although it remains difficult to assess where the risk will end up in a general situation of stress.

This last point is just a first element of a series of new problems that we face as a result of those structural changes experienced by the system. That particular one is specially related to the credit derivatives market. This new market has been the source of uneasiness, given the possibility of operational risk and liquidity problems. Even the positive aspect of risk diversification that is fostered by markets for Asset Based Securities (ABS) and Collateralized Debt Obligations (CDO) should not be misinterpreted as, for instance, the existence of «first loss» tranches that stay as responsibilities of the originator banks and cannot be ignored. These practices imply that banks keep the riskier part of the securitised portfolio and it should also be remembered that the transfer of risk allows the banks to take other risks that they feel they have some advantage in managing. It is then not clear if the end result means a reduction of risk for the banking system as a whole.

Another cause of concern is related with the increased «endogenous risk» already mentioned. This is very difficult to measure and to monitor, as Malcom Knight (2004) ⁶ has stressed. An additional point refers to the fact that improvements in the managing of risk have made possible the assumption of new risks sometimes difficult to evaluate. Another source of some unease has been the appearance and expansion of a segment of non-regulated institutions, hedge funds in particular, that have been responsible for a significant increase of financial.

A last point worth mentioning has been an increase of the usual procyclicality of the financial system. This is a consequence of some of the structural changes already mentioned, but some regulatory changes may have also contributed to exacerbate that tendency. Basel II, in spite of some adjustments attempting to mitigate this effect, has been mentioned in this connection this is because the closer association of regulatory capital to risk assessment will tend *ceateris paribus* to reduce capital requirements in boom periods as ratings improve, the opposite being the case in periods of economic slowdown. Another contributor to this pro-cyclicality may have been the introduction of the International Accounting Standards generalising the use of fair value accounting. The generalized use of mark-to-market or mark-to-model of assets and liabilities increases the volatility of the

accounts of financial institutions. The important point though is the effect that this may have on market prices themselves. As Plantin, Sabra and Shin stressed in a recent paper (2005): ⁷ « ...marking to market tends to amplify the movements in asset prices relative to their fundamental values in bad states of the world... Under the historical cost regime, actions of the firms are strategic substitutes. Sales by the other firms drive the market price down, which makes holding the asset booked at the acquisition cost more desirable. Conversely, in the mark-to-market regime, firms actions are strategic complements. The expectation of sales by the other firms makes holding the asset less desirable because of an expected low market value at the reporting date. Strategic substitutability has a stabilizing effect, so that the market price is artificially smooth as compared to the true value of the asset under the historical cost measurement regime. Strategic complementarity adds endogenous volatility, so that the market prices are artificially volatile as compared to the fundamental values in a marked-to-market economy».

All the aspects I have been enumerating contribute, among other things, to increase volatility in asset prices and possible episodes of significant misalignment. This prospect is certainly a cause of uneasiness for monetary and financial authorities.

From this standpoint it is interesting to examine two views that seek to identify general factors behind the tendency for asset price volatility. The first approach has been developed in BIS research, in particular by Claudio Borio and Philip Lowe (2002) ⁸. The main idea is that under present circumstances monetary stability is not enough by itself to ensure financial stability and may even contribute to unstable prices of financial assets. This contradiction would seem to stem from the very success of monetary authorities in guaranteeing price stability in a credible way. The coexistence of an environment of low interest rates with future inflation expectations well anchored in the low levels defined by Central Banks' objectives, would allow credit expansion that would fuel asset prices increases. If valid, this view would be very disquieting to central bankers because the traditional view has been exactly the opposite, i.e., that stability of price of goods and

services would stimulate market participants to concentrate on the real factors that affect the fundamentals of valuation of financial assets, thus contributing to low volatility in their respective markets. This view, which is certainly basically valid from a long - term perspective, is nevertheless not incompatible with the possibility that a short-term trade-off may exist between monetary and financial stability. That may be the case in particular in periods of transition after a long period of disinflation or when monetary policy starts to change the interest rate cycle after a long period of low rates. Central Banks do not ignore this possibility and take into consideration financial stability issues for which they feel responsible and this explains why they usually embark on interest rate smoothing and manage turning points of policy at a measured pace.

It should be stressed that the existence of that short-term trade-off may create considerable problems for the inflation targeting monetary policy regime that is widely used nowadays. Being by definition very much attached to targets and forecasts for inflation as an almost exclusive basis for decisions, that framework has difficulty in incorporating other considerations into the decision-making process without losing some credibility. The notion that this could be overcome by extending the horizon of the inflation forecast by a number of years does not look realistic and has not been attempted.

Turning to empirical considerations, it is difficult reach a conclusion on the relevance of this view about the short-term trade-off between monetary and financial stability for the behaviour of asset prices in the recent past. On the other hand, the theoretical debate about the whether or not asset price objectives need to be integrated in monetary policy strategies is also still going on and I will not try to address it here ⁹. Let me just state that «it is possible that monetary policy suffers from an endemic asymmetry, being efficient to deal with the aftermath of a financial crisis, but unsafe or ineffective to fight asset inflation. Nevertheless, the more traditional asymmetry attributed to monetary policy, the one that considers it to be more successful to control inflation than recessions, was never an obstacle to its use for both purposes. In the same vein, one could argue that even

without defining precise targets, interest rate policy, in certain circumstances, should “lean against the wind” when it blows too strongly in asset markets. In any case, the elusive search for anchors that could help to achieve both monetary and financial stability will continue, and monetary policy cannot ignore the problem.» (Constancio, 2002) ¹⁰.

The second broad view that attempts to provide a general explanation for recent instability of asset prices has been put forward by Raghuram Rajan (2005), ¹¹ the IMF chief economist, in a recent noteworthy paper. What came to be known as the “Rajan risk” is linked with the structure for incentives of managers and institutions in the new financial environment. The gain in importance of market-based non-regulated institutions and the reduced weight of traditional banking give prominence to compensation schemes more linked to returns and this induces managers to become involved in riskier transactions. Second, performances in the growing sector of “investment institutions” tend to be measured essentially against peers and this fosters the herd behaviour already present in financial markets.

Both types of behaviour increase the probability of episodes of asset price misalignments. The system tends to assume more risks, including the so-called tail risk where probabilities are low but losses can be high. Who would have thought some years ago that pensions funds and insurance companies would become participants in the market for risk of default of other firms? Moreover, hedge funds manage nowadays five times more assets than in 1998 and are involved in less liquid markets. Their returns have also become more correlated across supposedly different types of funds and this seems to indicate that they could be subject to the same type of risks in a period of tighter credit and stressful equity markets.

From all this the question that emerges is to determine whether some new regulations are necessary or could be helpful at this stage. We should always be cautious about introducing new regulations and an evaluation of their costs must always be considered against their possible merits. Also, a thorough dialogue with the sector has to be conducted to determine what can really work in practice and is compatible with the incentive for

institutions to comply with the rules. Also, the alternative route of relying on more disclosure of information by the institutions themselves and of creating conditions for better market discipline should always be considered. This could be, for instance, the approach to adopt in the case of hedge funds as there seems to exist internationally great reluctance in introducing regulation and supervision in that segment. The arguments for this are based on the idea that public policies are not justified to protect sophisticated investors, but this tends to forget the system-wide role that these institutions now play, with possible systemic consequences.

More generally, Rajan proposes that market institutions should be encouraged to impose the practice of requiring managers to have some of their own wealth invested for several years in the funds they manage. Nevertheless, he mentions immediately that: « This is clearly, again, no panacea – the managers of LTCM did have substantial stakes in their enterprise»...

The idea put forward by Charles Goodhart (2005) ¹² that capital requirements should be indexed to developments in asset prices (e.g. regulatory capital for housing credit would increase as property prices rises) is interesting but would also be of limited effect and would apply only to supervised banks.

If the idea of imposing mandatory disclosure of more information by the new non-regulated institutions is not followed, authorities will have to rely on enhanced market discipline through the indirect route of putting more pressure on the supervised entities that provide liquidity and credit lines to the new «investment institutions». So, as always, we will have to wait for the system to be tested in order to see if regulations will have to be adjusted again to the new financial structures.

Let me finalize with some remarks on the issue of the role that Central Banks should have in relation to financial stability, even when they do not have the responsibility for supervision. In the first place, they should improve what they already do in the field of macro-prudential analysis. Besides publishing Financial Stability Reports, the authorities normally

conduct top-down stress tests to assess the resilience of the system to various shocks. In this context, more progress has to be made to improve the methodologies for modelling the financial sector and its interaction with the economy. Also, more international cooperation in this area of macro-prudential activities would be most welcome.

Second, in conducting monetary policy Central Banks should not lose sight of financial stability issues, especially as regards turning points in managing the interest rate cycle and, in general, by considering from a long-term perspective what may be the effects of possible financial instability on price stability, which is of course their main mission.

Finally, Central Banks should participate actively with their research departments in the efforts to understand better the way modern finance operates and may create risks for the economy, with particular emphasis on modelling the feedback effects that occur between the real economy and financial sector behaviour. Understanding is certainly a necessary first step to avoid mistakes and overcome the difficulties that monetary and financial authorities encounter in fulfilling their mission. As a great scientist once said: «To be able to formulate the questions is to answer them». One could only wish that the same would also be true about solving them in real life....

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¹ Llewellyn, David (1999) "The Economic Rationale for Financial Regulation" FSA Occasional Paper Series n. 1

² Gordon, Robert (2005) "The 1920s and the 1990s in Mutual Reflection" NBER Working Paper n. 11778

³ Mishkin, Frederic S. (1991) "Anatomy of financial crisis" NBER Working Paper n. 3934

⁴ Greenspan, Alan (1999) "Do efficient financial markets mitigate financial crises?" Before the 1999 Financial Markets Conference of the Federal Reserve Bank of Atlanta, Sea Island, Georgia October 19, 1999

⁵ Jorge, José Peres (2005) Financial System Architecture: the role of systemic risk, added value and liquidity, CEMPRE, Faculdade de Economia, Universidade do Porto.

⁶ Knight, Malcolm (2004) "Markets and Institutions: Managing the evolving financial risk" BIS

⁷ Guillaume Plantin, Haresh Sapra and Hyun Song Shin (2005) "Marking-to-Market: Panacea or Pandora's Box?" mimeo

⁸ Claudio Borio and Philip Lowe (2002) "Asset prices, Financial and Monetary Stability, exploring the nexus" BIS working paper no 114

⁹ On this debate see the contributions of Andrew Crockett, Roger Ferguson and Otmar Issing in “Monetary stability, financial stability and the business cycle: five views” BIS Papers no 18, 2003

¹⁰ Constancio, Vitor (2002) “Policies and institutions for global financial stability” in 8th International Financial and Economic Forum, Vienna November 2002

¹¹ Rajan, Raghuram G. (2005) “Has Financial Development made the World Riskier?” NBER Working Paper no. 11728, November 2005.

¹² Goodhart, Charles (2005) “Financial Regulation, Credit Risk and Financial Stability” National Institute Economic Review, 192: 118-127.