View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Research Papers in Economics

Credit risk management and financial stability

LAURENT CLERC
Economic Analysis and Research Directorate
Monetary and Financial Policy Research Division

The International Banking and Finance Institute (IBFI) of the Banque de France organised its sixth International Monetary Seminar on the subject of "Credit risk management and financial stability" from 7 to 11 June 2004. This seminar, opened by Governor Christian Noyer, brought together forty five representatives from central banks in developed and emerging countries and from international organisations (such as the Bank for International Settlements and the European Central Bank), as well as twenty speakers from central banks, international institutions and the private sector.

The first two days of the seminar were devoted to conferences on:

• risks and sources of macro-financial vulnerability, the latest developments on credit risk transfer markets and the presentation of the findings of the cross-sectoral survey on credit derivatives in France;

• the technical, financial and legal aspects of securitisation and credit risk management;

• the presentation of the French and European experiences with respect to the role of central banks in rating companies and their contribution to financial stability;

• bad debts and their impact on financial stability (case of Japan);

• Basel II, a prudential framework which better reflects credit risk, and the effect of ratings on market dynamics;

• lastly, the macro-financial consequences of risk transfers from the perspective of financial interdependence.

Over the next two days, participants attended two workshops on the subjects of "Basel II, credit risk provisioning and accounting standards" and "Credit risk management and its macro-financial consequences". These gave rise to intensive and fruitful discussions on the following four points:

1. identification of the sources of risk or financial vulnerability

2. credit risk assessment

3. credit risk management

4. implications for economic policy

This article summarises the debates held in the workshops and the round table discussions on the last day.

1| What are the main sources of risk or financial vulnerability?

A consensus rapidly emerged on the five principal sources of risk and vulnerability. The first category comprises macroeconomic risks and the four others are more related to credit risk:

• macroeconomic risk, which reflects a country's degree of exposure to external shocks, such as rising oil or commodity prices, the persistence of macro-financial imbalances, in particular in the United States, or the risk of a sudden interest rate increase;

• rapid, if not excessive, credit growth — in particular mortgages — in some countries where economic agents also appear to be heavily indebted;

• the pricing of risk; according to several participants, markets appear to underestimate credit risk, especially if one looks at the current very low level of credit spreads;

• the possible concentration of risk in a limited number of institutions or sectors — such as insurance — to which a large share of credit risk could have been transferred *via* credit derivatives;

• the growing interdependence between the different financial sectors.

2| How to assess credit risk?

The issue of credit risk, as tackled in workshop No. 1, is an area in which accounting standard-setters and prudential supervisors have taken a great interest. Indeed, the new IAS/IFRS[1] standards aim to improve the quality of information provided to investors by promoting the instant valuation of firms at market prices. This approach tends, however, to relativise the principle of prudence which underpins the approach adopted by regulators: the new Basel II framework is more far-reaching and forward-looking insofar as all of the risks to which banks are exposed must be taken into account when their risk profile is being drawn up.

[1] *IAS: International Accounting Standards*
IFRS: International Financial Reporting Standards

Assessing credit risk first involves collecting statistical data and compiling a number of indicators of financial soundness, in accordance with the IMF approach. In workshop No.2, it was shown that there were clear synergies and similarities between the international community's willingness to assess risks at a global level and the implementation of the IASB's international accounting standards on the one hand, and the principles underlying the work of the Basel Committee on Banking Supervision (BCBS) on the other.

Participants looked at how these approaches could be applied to their specific environment, especially in cases where data are relatively scarce or unreliable. However sophisticated the instruments and models may be, assessing credit risk can come up against a problem of economic data availability. As regards prudential and accounting issues, the issue to be addressed is that of the scope and timetable for the application of IAS/IFRS and Basel II standards to emerging countries and small credit institutions.

Lastly, the results of the stress tests presented in both workshops highlighted the key role played by credit growth as a leading indicator of financial vulnerability.

3| How to manage credit risk?

Participants analysed the different risk management techniques by taking a look at the following two aspects: the emergence of a risk culture and the prevention of risk by building up regulatory capital in proportion to the level of risk exposure of each credit institution.

Pillar 1 of the new Basel II framework provides banks with several options for calculating their capital requirements relative to their credit risk and their operational risk. The most innovative one is the possibility that banks have been given of using — under the control of the supervisory authorities — their internal assessment systems. Because calibrating these models tends to come up against the problem of the reliability and availability of data in some emerging economies, the Basel Committee has proposed a simplified standardised approach designed specifically for these economies.

The development of credit derivatives markets is taken into account when drawing up standards that better capture risk and recognising the most advanced techniques at the prudential level. The following conclusions were drawn from the presentation of the results of the survey conducted under the aegis of the ESCB Banking Supervision Committee: the liquidity of credit derivatives markets has increased sharply, and, contrary to expectations, the transfer of credit risk to insurance companies has marked time. In Europe, activity thus appears to be principally concentrated in the banking sector. The most standardised instruments, such as credit default swaps (CDSs) account for the lion's share of transactions. As yet, credit risk transfer activities do not appear to have substantially impacted European banks' provisioning needs over the last business cycle. However, a few aspects remain unclear. They relate to the amounts actually transferred and the complexity of some of the instruments used, such as the CDOs of CDOs (Collateralised Debt Obligations), which seem particularly obscure.

Participants also commented on the decision taken by the Basel Committee in October 2003 to calibrate capital requirements against unexpected losses. This mechanism could have penalised banks that make greater provisions for their expected losses and resort more to dynamic provisioning. In order to prevent this undesirable effect from arising, excess provision amounts are to be integrated into banks' additional capital up to a certain limit, while any shortfall of provision amounts compared with expected losses is to be deducted from banks' own funds, up to 50% from their core capital (*Tier 1*) and 50% from their additional capital (*Tier 2*).

4| ECONOMIC POLICY IMPLICATIONS

The complexity of the credit risk transfer instruments and the possible existence of information asymmetries on credit markets highlight the importance of providing economic agents with sufficient information in order to ensure financial stability.

Providing information is precisely one of the principal levers used by central banks, in particular through the publication of financial stability reviews. This, however, raises several questions (regarding the target audience of these publications and their needs or the risk of generating self-fulfilling financial crises), in particular in the case of central banks that are not responsible for the control and supervision of credit institutions.

As regards the new credit risk transfer instruments, such as credit derivatives, the following issues were discussed: the need to test the robustness of financial systems in times of crisis, the necessity of strengthening market infrastructures and the resilience of financial systems following a shock. Participants also brought up the questions of transparency and the need to inform the market by providing it with information on the advantages and disadvantages of credit risk transfer instruments.

As regards accounting and prudential standards, the question of the link between the future accounting standards drawn up by the IASB and the new capital adequacy framework was brought up. Almost all of the standards drafted by the IASB were adopted by the European Commission in 2003 with the exception, for the time being, of Standards IAS 32 and 39, which are particularly important for the banking and financial sectors. It seems to be desirable to take advantage of this delay to strengthen the coherence between certain provisions in IAS 39 and the prudential objectives set by the Basel Committee. Participants were particularly concerned about the accounting treatment of macro-hedging transactions and the provisioning for expected losses in a credit portfolio.

By way of conclusion, the workshops provided a few answers to the questions raised by Governor Christian Noyer in his opening speech.

"Do credit risk transfers – irrespective of their technical details – result at the macro-financial level in the pooling of risks or in the concentration of these risks with certain market participants? In the latter case, are market participants able to control these risks and manage them with greater accuracy?"

The workshop conclusions are rather positive. Risk transfer activities seem to be concentrated in the banking sector. Concerns about the transfer of risk to the insurance sector appear to have eased. Risk transfer activities clearly appear to correspond to a diversification of risks and have resulted in increasing market liquidity. From this point of view, credit derivatives complete financial markets and promote a better allocation of risks. They thus contribute to financial stability.

"For a certain number of countries present in this audience, under what conditions would the generalisation of best practices with respect to credit risk management, as defined in Basel II, enhance financial stability? The same question arises with regard to the harmonisation of international standards."

It emerges from the discussions that the first precondition is the necessary harmonisation of accounting standards, as defined by the IASB, and prudential standards, as advocated by the Basel Committee. A second precondition concerns the implementation procedures and the scope of application of these standards. A pragmatic and flexible approach seems necessary to adapt these standards to local needs and to small credit institutions.

"Is the nature of bank intermediation undergoing change as a result of the boom in credit derivatives?"

It seems that we lack sufficient hindsight to establish whether or not the boom in credit derivatives has altered banks' lending behaviour. One commonly held fear is that banks may let up on their screening and monitoring activities given that they now have the opportunity of transferring credit risk. A rather reassuring reply was put forward. The ECB survey of credit risk transfers by EU banks and the French market survey on the same subject (published in the June 2004 issue of the *Financial Stability Review* of the Banque de France) show that protection buyers *i.e.* banks that transfer their risks place particular emphasis on the reputational risk to which they are exposed *i.e.* the risk stemming from the fact that the underlying assets that they have transferred to other credit institutions are not sufficiently performing. This suggests that banks have not relaxed their vigilance as regards credit risk control. However, regarding accounting standards, questions may be raised over their possible impact on banks' customer relations, given that banks could be prone to transfer their interest rate or liquidity risk to their clients in order to prevent even greater volatility in their financial statements.

5| ROUND TABLE

During the round table debate led by Marc-Olivier Strauss-Kahn, Director General, Economics and International Relations, six speakers discussed the issue of the implications for markets and supervisory authorities of the boom in credit risk management instruments in terms of financial stability:

- Danièle Nouy, Secretary General of the Commission bancaire;
- Philippe Trainar, Director of Economic and Financial Affairs of the French Federation of Insurance Companies;
- Jan Brockmeijer, Executive Director for Supervision at the Nederlandsche Bank;
- Hans-Helmut Kotz, member of the Executive Board of the Bundesbank;
- Claudio Borio, Head of Research and Policy Analysis at the Bank for International Settlements;
- Peter Praet, Director of the National Bank of Belgium, who summarised the debates.

Danièle Nouy put forward eight reasons why Basel II and the development of the internal ratings-based approach could contribute to financial stability: a finer and more accurate measurement of credit risk using the internal ratings-based approach, which corresponds to the best practices of the best managed banks; less regulatory arbitrage because this approach brings regulatory capital closer to economic capital; better credit risk management, given that the new capital adequacy framework will result in a more adequate pricing of risks; the good coverage of expected losses by provisions (Madrid compromise – October 2003); an individualised monitoring of risk profiles for each bank; better financial communication, as Pillar 3 strengthens market discipline and underpins the efforts made by supervisory authorities; the generalised use of stress tests to reduce the possible pro-cyclicality of the new accord and, lastly, an improved dialogue between supervisors and banks.

Philippe Trainar went on to give an overview of credit risk management in the insurance and reinsurance sectors, whose market share accounts for roughly one third of the sale of protection. This usually takes the form of structured finance products such as CDOs. While considering the possible sources of systemic risk specific to this sector, he first referred to the strong concentration of activities

on a small number of insurers and reinsurers. There is also a risk of contagion linked to the traditional mechanisms of cessions and retrocessions. Engaging in regulatory arbitrage and bypassing regulations constitutes a third source of risk. Indeed, a large proportion of insurers and reinsurers on the market are not subject to any regulation. This holds true in the case of the "Bermudians". At this stage, however, nothing seems to suggest that these risks are likely to become systemic. Furthermore, the credit risk underwritten by insurers is usually of a very high quality.

Jan Brockmeijer brought up the issue of the close relationship between credit risk and financial stability. According to a recent study by the Joint Forum, the insurance sector suffers from a lack of information on the distribution of credit exposures as well as on the different risk profiles. As in the banking industry, regulatory developments play an important role. In 2007, insurance companies in the European Union will be subject to a new solvency regime (Solvency II) based on a risk sensitive capital criterion. Like Basel II, it is underpinned by a three pillar approach: standardised capital requirements, supervisory requirements and financial disclosure.

Hans-Helmut Kotz broached the issue of external ratings as a public good by asking five questions: Why ratings? What instruments are used? What is the performance and real (or latent) function of these ratings? Is there a case for government intervention? There is a need for rating agencies because the market is imperfect (portfolio indivisibilities, transaction costs, information asymmetries, etc.); rating agencies themselves evolve in an oligopolistic market (economies of scale). They do not disclose enough information on the assessment models they use, although they claim to be exhaustive in their analysis.These assessments may therefore sometimes be deemed opaque and based on experts' opinions. Their relative performance in terms of credit risk assessment compared with that of other approaches (banks, markets, interest rate spreads, fundamentals) is not flawless. Of course, it is worth pointing out that no instrument or institution is infallible, which implies (*a*) the need to question any pretence of knowledge and consequently (*b*) the need to have a diversity of assessments. However, rating agencies tend to guide the perception of markets by means of a number of common factors by focusing not only on financial conditions but also on business plans and the appropriateness of macroeconomic policies. The structure of the credit assessment market (a narrow oligopoly) and the intrinsic nature of assessments therefore seem to suggest that there is a case for government intervention in the form of regulations or the public provision of ratings as in the case of company observatories, or a combination of both solutions.

Claudio Borio covered the relationship between credit risk, financial cycles and financial stability. Financial instability stems from the self-reinforcing mechanism whereby asset prices increase, financing constraints are relaxed and credit rises excessively. This phenomenon arises partly as a result of an inadequate perception or an inadequate assessment of risk incurred, in particular credit risk. Based on his work at the BIS, Claudio Borio recalled that it was possible to predict episodes of financial turbulence using a limited number of macroeconomic variables. As regards regulations, looking at an appropriate time horizon should help to reduce some intrinsically pro-cyclical characteristics of economic agents' behaviour, such as risk assessment for example. In addition, risk assessment systems are affected by the pro-cyclicality of appetite for risk, which is in fact a key determinant of financial asset prices. As regards provisioning, it would be necessary to take account of the residual maturity of the instrument, and as regards capital adequacy, the necessary time horizon to adjust the amount of regulatory capital. Lastly, greater harmonisation between the accounting and regulatory approaches would be desirable.

Peter Praet stressed that striving for financial stability should go hand in hand with developing efficient markets through appropriate financial policies and regulations. Although the current boom in market financing compels us to rethink certain mechanisms, such as the coordination between bondholders, it is not more volatile and unstable than intermediated financing. Peter Praet also pointed out that credit risk management is not only the realm of experts, but it is also a question of incentives to take and manage risks. He concluded by stressing that risk management should not be purely a question of financial engineering, but it should also integrate, in addition to the human factor, issues which are crucial for the smooth running of companies and capital markets, such as the design of organisations, incentives and governance-related issues.