Policy Implications of the Development of Credit Derivatives and Structured Finance

Remarks by
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Presentation on "Policy Implications of the Development of Credit Derivatives and Structured Finance"

(Introduction)

It is a great pleasure for me to speak at this distinguished conference. The development of credit derivatives and structured finance markets is probably the most important development in international financial markets over the last decade, and it has wide implications on policy including our thinking on systemic risk.

Hearing a lot of arguments today, I am impressed, stimulated and overwhelmed by the enthusiasm of the participants. Frankly speaking, I take great comfort from the questions from the floor, which clearly point to the need for our further efforts in filling the gap between model implications, the true state of the markets, and possible policy challenges.

Today, I will first illustrate our experiences so far in the Japanese credit derivatives and structured finance markets, comparing them with the global markets. I will then raise some policy issues, which we could discuss in this session. Before going any further, I should note that any views expressed are my own and do not necessarily represent those of the Bank of Japan.

1. Development of the Japanese credit derivatives and structured finance markets

In order to understand the significance of developments in the Japanese markets, it is useful to review quickly what is happening in the global market.

As you know, the global credit derivatives and structured finance markets have recently seen remarkable growth. According to a market survey by ISDA, which is often cited, outstanding amounts of credit default swaps in notional terms jumped from 0.6 trillion dollars in the first half of 2001 to 12.4 trillion dollars in the first half of 2005.

Furthermore, there has been a change in how risks are transferred between market participants. According to the Credit Derivatives Report published by the British Bankers' Association, the market share of hedge funds as sellers of credit protection has trebled from 5% in 2001 to 15%

in 2003. The same Report shows another interesting development. In 2001, credit derivatives were traded mainly because banks had to adjust their exposure to credit risk in the light of individual credit lines and capital adequacy regulations. Trades motivated as such overwhelmed trades for product structuring and hedging. In just two years, in 2003, the opposite occurred: product structuring became far more important than adjusting credit exposure at the margins.

We can identify three stages in this development process.

In the first stage, the markets emerged out of necessity. Banks had to control risk exposures associated with assets such as bank loans, and began to use these products. Accordingly, banks originated credit derivatives and structured finance products, and the growth of the markets was broadly constrained by the size of the credit exposure that banks had on their balance sheets.

In the second stage, the markets grew in both size and scope. Increasingly, products for trading and investment purposes became more important. No longer was it regarded necessary for an originator to have an underlying credit exposure. Market participants became increasingly diversified.

In the last few years, the markets seem to have entered a new stage. The dramatic acceleration in the pace of expansion is only part of the story. Today, market participants do not always have exposure to specific credits when they originate credit derivatives and structured products. In other words, trading is increasingly becoming concept-led rather than credit-led. Products such as single-tranche CDOs and tranched index CDS are developed in order to meet newly developed trading strategies of market participants. As a result, the global aggregate gross outstanding positions in credit derivatives and structured finance have outgrown by far the referenced credit exposures. Obviously, the progress in information technology and financial engineering has driven such transformation and expansion. Cyclical factors may also have contributed to accelerating the expansion. The worldwide monetary easing may have encouraged market participants to dip their toes into the newly developed credit markets, as they searched for extra returns to compensate for the decline in returns on traditional credit products.

In comparison to this development in the global credit markets, the Japanese markets for credit derivatives and structured products are still in their infancy. For instance, outstanding notional amounts of credit default swaps in the Japanese market total only 51 billion dollars, less than 0.5% of the global markets.

The Japanese markets were born out of necessity as with much of the global markets. The type of credit exposure, however, was a little different. As the financial crisis hit Japan in 1997 and 98, Japanese banks had to restructure their credit exposures in order to survive. They were forced to liquidate distressed loans quickly and on a massive scale. A secondary market for these assets quickly emerged. Necessity was indeed the mother of invention. In addition, the corporate bond markets also expanded as an alternative credit channel to bank loans. These developments provided the Japanese credit markets with an opportunity to deepen and expand.

The liquidation of distressed assets was a backward-looking exercise, but helped Japan to establish the basic infrastructure of credit markets, for example, the legal and tax basis for the assignment and transfer of credit exposures. It also encouraged banks and other financial intermediaries to break out of their traditional business models and encouraged them to test new markets, such as credit derivatives, structured finance, and syndicated loans.

On this foundation, the Japanese credit markets are now following a clear uptrend. For the last few years, we have seen positive signs suggesting that Japan's credit markets are growing out of their infant stage. Global players of credit markets, such as hedge funds, have started to trade Japanese credits in credit derivatives markets. As a result, Japan's credit markets, left local for a long time, have increasingly become interconnected with the global markets.

This raises an interesting question. Can the Japanese market run before it has even learned to walk? Theoretically, the markets for trading credit provide tools for transferring risks to those who can best bear those risks. As a result, it is politically correct to say that markets should be able to keep on functioning even in the face of a downward credit cycle. On the other hand, a credit down-cycle tends to reveal new weaknesses in the system. Let me return to our episode in the bubble era.

In a bubble, positive outlook forms a strong feedback loop. Speculation fuels more speculation. Even the most prudent person is afflicted by hubris. During the Japanese bubble of the late 80s, Japanese banks began to expand their loan assets. They thought that larger assets would bring them higher profits. The borrowers were speculators in real estate, mainly non-banks, real estate developers, construction companies and retailers. As more banks lent against real estate collateral, real estate prices climbed, and banks could lend even more against enhanced collateral value. We are all familiar with what happened next when this cycle reversed, and I will not repeat it here.

We can obviously draw many lessons from these episodes. In the context of this conference, I would like to make two observations.

One is the importance of accurately measuring risks, in other words, setting prices consistent with fundamental economic value. Unless risks are priced correctly, they cannot be traded and assumed in a way that makes economic sense. The economic law of gravity will come back with a vengeance if risks are systematically mispriced. We should have paused for thought when we heard that we could buy the whole of the United States by selling all the land in metropolitan Tokyo.

The other point is the importance of good corporate governance. Even if you measure the risks correctly, you need a mechanism to ensure that traders are not entering into mispriced trades. I do not intend to elaborate on this, but during the bubble years, the behavior of Japanese banks was less than prudent.

The two lessons I have just mentioned – accurate measurement of risks and good corporate governance – are, in fact, elements of sound risk management. Are we confident that these elements are firmly established in the context of the markets for credits? Credits are extremely granular and fraught with event risks, therefore, we face a greater challenge in their pricing. After all, how can we objectively price the risk of the CFO or the CEO cooking the books, and the mitigating effects of Sarbanes-Oxley? At the same time, further development of credit markets, driven by credit derivatives, should enhance market discipline and enhance corporate governance. Nevertheless, we should also be aware that sound internal controls often lag behind the rapid expansion of markets.

As I said earlier, Japan's credit markets are likely to follow a growth pattern as shown in the global markets. This implies that Japan is going to share the common issues, both good and bad, with the global markets. Our job at the Bank of Japan is to ensure that Japanese market participants can begin running as soon as they have learned to walk.

2. Paradigm shifts in credit markets, and evolution of systemic risk

The current global credit markets can be characterized by three keywords: conceptualized, globally connected, and highly liquid. All three are interlinked. The expansion of the markets owes much to the increasing emphasis on conceptual, or standardized, products. The conceptual financial products make it easier for overseas institutions to enter local credit markets. One can trade credit exposure with certain standardized characteristics without learning the nuances of the local markets. As a result, local markets are more strongly connected to each other. A large market thus created with diverse participants should contribute to greater market liquidity.

Such an evolution in the credit markets poses a new challenge to today's global financial markets, particularly in view of systemic risk. The deeper and more liquid markets – with more diverse market participants – will contribute to enhancing market efficiency under normal conditions. Markets will also be more resilient.

Furthermore, the changes may have positive influences on the traditional source of systemic risk, i.e., a bank's insolvency or illiquidity. As credit is increasingly traded and thus priced in the market, it becomes practical and perhaps appropriate to mark a portfolio of bank loans to market. This will facilitate the earlier identification of insolvent banks. In addition, since it also becomes easier to raise cash against the traditionally illiquid portfolio, banks will be less prone to liquidity problems.

However, we must also be aware of the potential vulnerabilities once stress reaches a threshold.

There are issues arising from the conceptualized nature of the products. Since products are standardized, discrepancies or errors between the products and referenced credits are inevitable. In times of stress, such differences can create destructive dynamics, as market participants scramble to fill the gaps. Another issue is the diverse market participation that is facilitated by conceptualized products. No longer are banks the sole originator of credit exposures. This increasingly makes it difficult to locate any weak links in the financial system. The presence of non-regulated market participants will reduce visibility for authorities. For example, is the system more robust if a hedge fund writes default protection on a corporation about to go under?

Increased global linkages present us with more challenges. When risk materializes in one part of the global markets, it may quickly be transmitted to other parts of the global markets through the linkages. I heard many good arguments on this aspect today. Diverse participation may result in channels of transmission previously unknown to us. The ease with which conceptualized products are traded may result in extremely quick transmission.

Market liquidity may also be ephemeral and hide problems underneath. Theoretically, high liquidity strengthens an efficient price discovery function of the markets and it is desirable. However, if it is only a reflection of crowded trades, it can easily vanish at the first sign of stress.

In order to meet these challenges, central banks will have to review how they monitor the markets, and develop channels to exchange information across borders. We should do that, though we know that central banks may be systematically behind the market, as Dr. Issing alluded this morning. We will also have to develop our thinking on elements of market structure that will enhance resilience. Another issue is to understand pricing practices prevailing in the market, and developing the expertise to evaluate their soundness and robustness. To this end, we need more research. This conference provides us with valuable clues for our future research and opportunities to exchange issues among central banks and practitioners from all over the world.

For researchers, a set of enriched price information, which we can obtain today, can be an extremely valuable source of food for thought. I am encouraged to see so many insightful results presented in this conference. Among them, in Session VI, Dr. Nelson and Dr. Peril presented several indexes constructed from market data including CDS spreads. These indexes are monitored by the FRB, and this offers one example of a practical application of the price data to the monitoring of the markets. All three researches presented in Session III also use CDS spread data to examine information contained in the credit market data. The Bank of Japan is also interested in finding timely indicators of credit conditions. Likewise, in Section V, my colleague, Dr. Baba investigated whether the TIBOR-LIBOR spread can be a reliable credit index for Japanese banks.

In order to fulfill my duty of initiating the discussions in this session, let me conclude by outlining three broad sets of questions which we could explore today.

i) What are the key features of today’s credit markets? I have referred to three: conceptualized, globally connected, and highly liquid. Are there any other features we should consider?
ii) What are the implications of the key features on systemic risk? How should we adjust our understanding of systemic risk?

iii) If the nature of systemic risk is changing, what should be our responses?

Thank you very much for your attention.