Financial innovations behind the global financial crisis

Heavy losses incurred by the two hedge funds managed by Bear Stearns, made known in June 2007, heralded the beginning of what has turned out to be the global financial crisis.

That was followed, in July, by the downgrading of a large number of collateralised debt obligations (CDOs) with a heavy dependence on mortgages as collateral. Interbank markets around the world began to experience liquidity shortages in August.

Northern Rock, a British mortgage lender, was hit in September by a run on the bank. In October, large bond insurers reported losses arising from credit enhancements they had provided to structured securities. In December, there were waves of margin calls in the repo markets.

In February 2008, there was another wave of deleveraging hitting the fixed income markets, amid reports of worsening economic outlook in the United States. In March 2008, the US investment bank Bear Stearns caved in and was rescued by JP MorganChase, a US commercial bank, with a US$30 billion lifeline thrown in by the US Federal Reserve.

Financial analysts have attributed the financial turmoil primarily to a wide range of financial innovations: structured credit, securitisation of mortgages, and the tri-party repo. In the structured credit category, CDOs have helped transform instruments with high risk into instruments with high credit ratings, while credit default swaps (CDS) have allowed CDOs to be created more easily, dubbed “synthetic CDOs”.

Financial innovations have led to the creation of CDOs based on asset-backed securities (ABS) and asset-backed commercial paper (ABCP).

CDOs could proliferate because of the originate-to-distribute business model of the world’s largest commercial and investment banks, which allows loans to be packaged into mortgage-backed securities. In this process, the incentives of mortgage originators to rigorously screen loans were considerably weakened.

Tri-party repo transactions, in which the third party, that is, a clearing bank, takes custody of the collateral, have led to a wide range of collateral being accepted in the repo market. This had enabled investors in securities to secure financing in the repo market more easily until February 2008 when lenders in the repo market became increasingly wary of some assets as collateral.

Credit expansion in the run up to the crisis was aided by a long period of easy monetary conditions, with savings glut in East Asia and the Middle East and low or negative real interest rates in major economies.

The upshot of all this had led to asset price hikes, increased leverage and excessive risk taking. As financial institutions in major economies became more tolerant of risk, investor demand for disclosure slackened.

Apparently, the going was so good for so long that many did not bother to subject their financial instruments to sound risk analysis, overlooking maturity and liquidity mismatches, which culminated in credit crunch.

The weakening of the real sector of the US economy may have precipitated the financial woes of the US, with rising loan defaults, tumbling property prices and mounting balance-sheet losses.

The speed, at which the sub-prime crisis spread from the US to other parts of the world, in part due to financial market connectivity and interdependence, is amazing. Liquidity dried up even in markets where there were no signs of defaults or credit rating downgrades.

Central banks have understandably swung into action to stabilise the situation. The liquidity support by the Bank of England for Northern Rock is a case in point, although the stigma of borrowing from the central bank was preventing other banks from accessing this facility. Likewise, the US Federal Reserve rescued Bear Stearns.

Some central banks have resorted to liquidity operations through changes in the composition of their balance sheets. The US Fed, for instance, did this by providing preferred assets to, and removing toxic ones from, the repo market.

These short-term measures were necessary but not sufficient to stabilise the financial system. There is clearly a need for long-term measures to plug the holes created by financial innovations and to subject financial institutions and instruments to tougher regulations. Existing regulations need to be enforced more forcefully.

Regulators have not been doing a good job. One wonders how the failed or besieged entities could have been in the good books of the regulators till they suddenly fell apart. Believe it or not, Bear Stearns was Basel-compliant, while AIG (American International Group) was given a "Triple A" rating, despite the financial mess it was in.

All this smacks of negligence or incompetence on the part of the regulators. This begs the question: isn't there a need to regulate the regulators? All is not well with the existing regulatory framework, especially with respect to perverse incentives.

Mechanisms are needed that will ensure that risks are quickly identified, accurately assessed and prudently managed, with no perverse incentives or conflict of interest. In particular, liquidity risk management needs to be sharpened.

The Basel Committee's proposal, in the interest of prudential oversight, to increase the capital charges for complex structured credit products, merits serious consideration.

The importance of transparency can hardly be exaggerated. The US sub-prime problem could grow and blow up in the face, mainly because of the lack of transparency. Financial products are arguably the prime candidates for special attention.

In the final analysis, the burden falls on the investors themselves, which underscores the need to exercise due diligence on the risks they take against the returns they get. But investors do not act in isolation and are influenced by the environment in which they operate.

At the centre of the systemic risks lies the tendency for investors to take too much risk in good times and shed it in bad times.

Recent experience has shown that excessive risk taking is associated with innovative financial instruments. Market intelligence to keep tabs on how these instruments are used and to track the channels through which they proliferate.

While financial innovation is a welcome, as it widens the array of instruments to meet needs of the investors and adds sophistication of the financial sector, there are pitfalls to be wary of.

In this regard, conventional finance may have lessons to offer to Islamic finance, which has also jumped on the innovation bandwagon with more Shariah-based instruments. While Islamic ethics may rein in excesses, no one can safely assume that Islamic finance is inherently stable.

To be sure, Islamic finance is less vulnerable to crisis than its conventional counterpart. Itis much less leveraged, as Islam disallows debts to be packaged and traded.

Adapted from "Too much of a good thing led to bad times", New Straits Times, 18 June 2009