

Agenda

Advancing economics in business

Restoring fluidity: a disorderly risk reappraisal

After several years in which the most keenly debated question in the financial world was whether credit risk was under-priced in a context of abundant global liquidity, a new debate abruptly emerged in July–August 2007: how concerned should we be by the reappraisal of credit risk, aggravated by liquidity shortages? Pierre Cailleteau, Chief International Economic and Financial Policy Analyst, Moody's, considers the issues

The speed with which the financial markets 'paradigm' has changed, and the confidence crisis that has suddenly engulfed some financial asset classes—such as the asset-backed commercial paper market—raise important questions about the workings of the new market-based global financial intermediary system (in plain English, the financial market substitute for a predominantly bank-based system).

Although it is too early to draw any definite conclusions—liquidity tensions are still discernible in September and the credit loss-revelation process will be long and painful—a few tentative and general observations can be made.

Several years of credit risk transfer and exceptional profitability has put the core global financial institutions in a good position to absorb severe shocks, and fears of a systemic risk with attendant financial and economic dislocations are exaggerated. However, the 'system' needs some temporary liquidity assistance by central banks, certainly more than would have been thought. Ultimately, the current episode of financial market turbulence will probably lead to greater transparency and larger liquidity buffers in the years ahead.

Core financial institutions are strong—perhaps stronger than ever—and fears of a systemic crisis are exaggerated

First, what we mean here by 'systemic risk' is a financial shock of a sufficient intensity to affect the core of the global banking system in a way that paralyses credit intermediation, with severe attending real economic consequences. The perspective here is global banking. The reason why we focus on this is that, given the size and interdependence of these institutions, distress in one of these 'core' firms (basically the protagonists of the

1998 LTCM crisis) would have devastating implications in terms of financial market dislocations and economic repercussions.

At Moody's, we held the view that, notwithstanding possible severe depression of earnings due to asset impairment, higher funding costs and lower business volumes, the 'core' of the system was comfortably shock-resistant. Of course, no rating is set in stone, and a prolonged period of interruption in the irrigation of the system would clearly be detrimental.

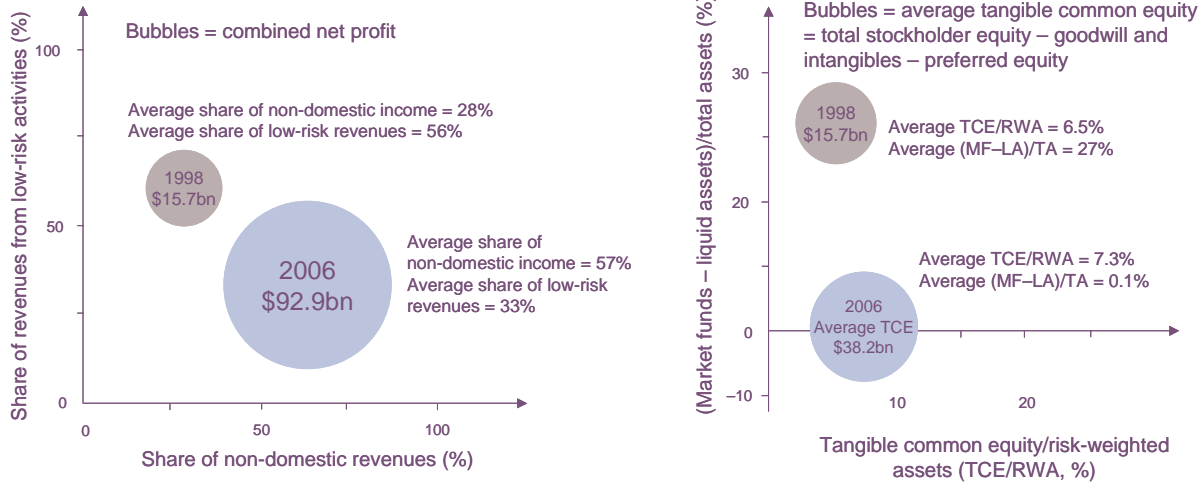
To illustrate our central line, we compare the situation of the LTCM protagonists (plus Bear Stearns) in 1998 and today. We use our two most central analytical parameters: (1) the earning-generation capacity, the first line of defence to absorb losses; and (2) the capital and liquidity buffers.

Looking first at the banks, the charts below show the following.

- The size of profits generated by these banks is considerable, and significantly larger than in 1998. This is partly due to some consolidation, but bigger and more diversified banks are more shock-resistant. While the share of revenues stemming from more risky business such as trading and corporate banking has increased, the sources of revenues are more diversified geographically.
- The cushions are also considerable. Tangible common equity as a percentage of risk-weighted assets, largely estimated for 1998, has increased. Our preferred measure of liquidity risk for banks (market funds minus liquid assets in proportion to total assets) has moved from being in positive territory in 1998 to negative. This signals an improvement from a liquidity

Figure 1 The LTCM protagonists then and now

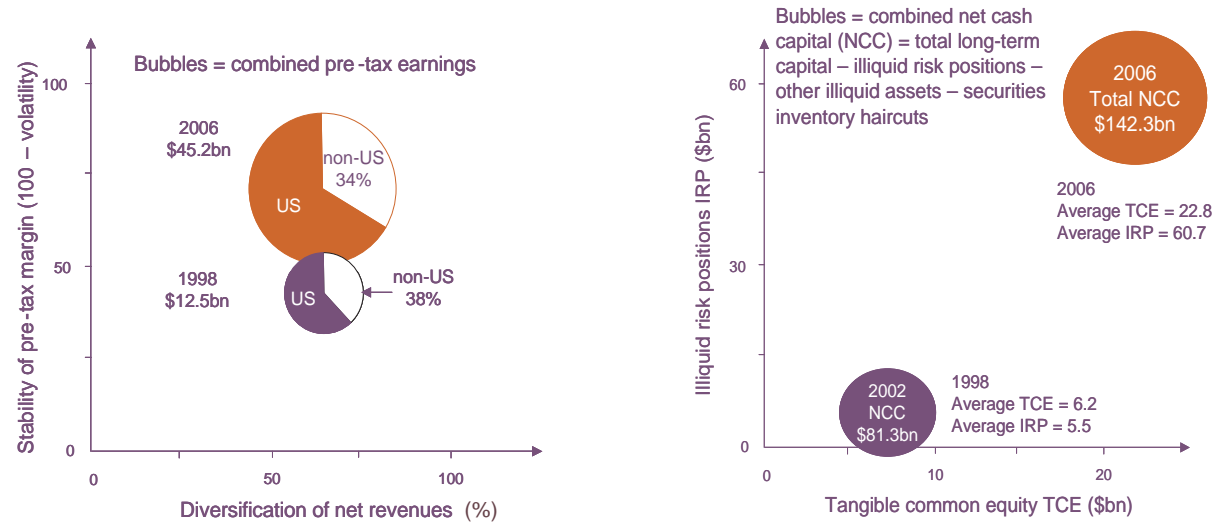
Main banks, 1998–2006: Barclays Bank Plc, BNP Paribas, Citigroup, Crédit Suisse, Deutsche Bank, JP Morgan Chase, Société Générale, UBS



Note: Activities with low risks include retail banking/consumer lending, asset management, and fiduciary/transaction services. Source: Moody's.

Source: Moody's.

Main US securities firms, 1998–2006: Bear Stearns, Goldman Sachs, Lehman Brothers, Merrill Lynch, Morgan Stanley



Note: Diversification indicator derived from the Hirschmann–Herfindahl index (100-HHI) using the business line shares of net revenues, including prime brokerage, asset management, investment banking, trading and market making, and retail. Pre-tax profit margin = pre-tax profit/net revenue. Stability indicator = 1 - volatility, which is calculated by taking the standard deviation of trailing 8-month quarterly revenues as a percentage of the average revenue during the same time period. Source: Moody's.

Note: Tangible common equity = total stockholder equity - goodwill and intangibles - preferred equity. Illiquid risk positions include loans, illiquid bonds, uncollateralised speculative-grade derivatives, private equity and merchant banking investments and retained interests. Source: Moody's.

standpoint, masking a significant intensification of market funding. However, this intensification is dwarfed by the increase in banks' asset liquidity.

Turning to the securities firms (Bear Stearns, Goldman Sachs, Lehman Brothers, Merrill Lynch and Morgan Stanley), two measures show the comparative strength nine years later.¹

- Profitability is very high, with \$45 billion accumulated in 2006 compared with \$12 billion in 1998. The pre-tax margin, which reflects both revenue-generation capacity and the ability to keep expenses in check, is more stable than it was nine years ago. Revenue diversification is similar, but the size of earnings has expanded considerably. As a result, the combined non-US revenues of the five firms are larger than the total combined revenues of 1998, and the non-trading and market-making revenues of 2006 are equal to the entire combined revenues of 1998.
- In terms of capital and liquidity cushions, the situation is more nuanced. Aggregated illiquid assets have expanded considerably since 1998, more than aggregated tangible common equity. At the same time, the calculation of illiquid assets admittedly exaggerates liquidity and market risk in the sense, for instance, that it ignores hedges—and credit derivatives, in particular. In addition, net cash capital, which is the surplus relating to firms' unused sources of long-term capital, is sizeable: \$142 billion against \$82 billion in 2002, the earliest date for which we have available and comparable inputs.

Therefore, the core financial institutions, the largest and most sophisticated US and international financial firms, have a pretty high pain threshold—higher than in 1998.

Any problems that do materialise appear rather likely to coalesce at the periphery—ie, among smaller institutions that may or may not be assisted depending on their countries' aversion to bank defaults. In addition, the world economy is still extraordinarily dynamic—and yet stable—with the US economy, while perhaps weaker than in recent years, remaining robust and companies' profitability at very high levels.

Episodic 'peace-keeping operations' from central banks will occur more often

The systemic resilience appears to depend somewhat on sporadic liquidity assistance from central banks. The nature of today's global financial system is that risks are dispersed. While this is good news for the solidity of the

pillars of the system, it has recently become apparent that this dispersion of risk also fuels anxiety at times of stress.

Since there is no means of obtaining a macro view of where the risk will eventually lie, almost any player is at risk of a confidence shock before it makes its full exposure clear and transparent. In these conditions, the system as a whole is vulnerable to confidence shocks and, by extension, liquidity shocks. This is what we have seen on the inter-bank market, even if the mid-August intervention of the ECB was so prompt and large-scale that the extent of the re-pricing of counterparty risk remains unclear. The ECB decided to take no risk and flooded the market at subsidised rates. This was also the message of the Fed when it lowered its discount rate, making emergency access to liquidity less penalising.

Therefore, systemic risk is likely to be avoided because core financial institutions are able to face credit losses directly or indirectly. However, the system may remain dependent on sporadic market 'peace-keeping operations' by central banks.

This prompts the following question: assuming our call is right—that the core of the system is more vulnerable to liquidity than solvency threats—what is the risk that central banks will lose control of the situation and be unable to inject the necessary liquidity?

Here, a subtle nuance must be made between 'liquidity' and 'fluidity'. In terms of providing liquidity, central banks can inject as much money—against collateral—as is necessary to quell pure bank liquidity stress. Another no less critical question is to ensure that liquidity flows throughout the financial system, namely to non-bank financial institutions (hedge funds, investment vehicles, etc). The end of August saw a sort of 'thrombosis' affecting the money market: while there is presumably enough liquidity for banks, this liquidity does not irrigate the financial system sufficiently. There is liquidity but not fluidity. Here, the challenge is greater for central banks, even though they can probably convince banks to act in the interest of the system to maintain liquidity lines with systemically important non-bank agents.

In conclusion, in a situation where market participants are disoriented, what central banks can do is to anchor expectations about the creditworthiness of assets or asset classes that have been indiscriminately abandoned, not only around a reasonable central macroeconomic scenario (ie, different from the worst-case scenario that seems to have taken precedence in markets' opinions), but also through the choice of securities they take in repurchase agreements.

What lessons can be learnt from recent market turbulence?

The current crisis has been accentuated by the combination of opacity about where risk resides, untested financial innovations, market-sensitive accounting practices and (de)leverage. Any crisis brings new lessons, and no doubt some corrective reforms will be introduced. Coupled with a heightened degree of risk aversion, this will make the system more robust for some time.

The good news is that, beyond the panic, the re-pricing has a salutary effect: it instils a more realistic perception of risk. It will restore a steadier balance between lenders and borrowers, and, within lending firms, between risk managers and front offices. Indeed, the current balance of power in favour of borrowers to the detriment of lenders, reflecting an under-pricing of credit risk, has started to shift again in favour of the lenders. In addition, default rates should become 'normalised' after years at very low levels.

The less good news is that most of the deficiencies brought to light had already been identified in the aftermath of LTCM. As financial stability authorities have not been inert since 1998, this indicates that there are some enduring features of the global financial system that breed sporadic financial convulsions.

Looking ahead, there will be increased regulatory and market pressure on transparency. However, it would be illusory to believe that we will ever revert to a situation in which a precise and instantaneous view on the risk distribution in the system can be easily obtained. This will probably be compensated by a higher demand in terms of capital and liquidity buffers throughout the financial system, which will marginally increase the cost of capital. This will come, for instance, through more realistic market valuations, taking into account recent developments in their stress-tests.

As for financial innovation, there is no reverse gear, even if products ostensibly aimed at arbitraging regulatory constraints are targeted. The premium that the market will attach to liquidity will lead to standardisation, perhaps to some degree of risk mutualisation through organised markets, and to the unbundling of the most complex and customised securities—even if the process of 'deconstruction', as the modern French literature shows, seldom brings more clarity.

Marking-to-model rather than to market is a serious but unavoidable teething problem for financial innovations. During the early stages of financial innovations, the absence of market prices for highly customised products makes it necessary to have a 'virtual' price. Marking-to-model is part of a transitory stage before the product matures and becomes actively traded. Naturally, the unrealistic nature of some valuations may be exposed by a few real transactions, at lower or higher prices. It is difficult to see what, beyond stress-testing and enhanced disclosure, could be substituted for this approach, noting in addition that there is a flourishing market for those players that have smarter and more accurate pricing models. A related point is the fact that finance is becoming increasingly model-dependent. This trend is also unlikely to disappear or even recede.

Leverage will, for some time, be constrained. Depending on whether leverage is high and mark-to-market players are predominant, shocks can be amplified. However, leverage will not disappear—that would be economically catastrophic—and will probably increase again as fear fades away.

Dispelling the confusion between credit risk quality and presumption of liquidity in an increasingly marked-to-market environment will be critical. The illusion of liquidity stems from two areas of confusion. The first is the confusion between 'macro' liquidity (accumulation of foreign reserves by thrifty countries) and micro/market liquidity (the ease with which large quantities can be sold without moving market prices). The second is the confusion between credit quality (what ratings mean) and market value, partly depending on market liquidity at the time.

Finally, banks and central banks have, in an interesting twist, staged a comeback in the disintermediated financial market. Central banks will, through market 'peace-keeping operations', be able to restore some order to the money markets. However, the intensity of the impact of a financial shock on the economy will depend on their ability to restore 'fluidity' throughout the system—that is to non-bank institutions—and this is an arduous task. Therefore, central banks will be able to keep the banking system liquid, and may be able to ensure fluidity throughout the system.

Pierre Cailleteau

¹ For more details, see Moody's 2007 US Securities Industry Outlook.

If you have any questions regarding the issues raised in this article, please contact the editor, Derek Holt: tel +44 (0) 1865 253 000 or email d_holt@oxera.com

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