Commentary: Financial innovation and a *new economics* of banking: Lessons from the financial crisis

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It is indeed an honour to comment on the paper delivered by Llewellyn, a prolific researcher, academic and specialist in banking and regulation. The South African Reserve Bank (the Bank) and, specifically, the Bank Supervision and Financial Stability (FinStab) Departments have had interactions with Prof. Llewellyn over many years, starting with the single regulator debate in the late 1990s and early 2000s. We look forward to continuing our relationship with Prof. Llewellyn. The FinStab and other invited departments and guests will be fortunate to spend a week with him in a specialised seminar on topics related to the financial crisis and its financial stability and regulatory implications.

Llewellyn's paper adds to the ever-increasing literature on what the Bank of England Deputy Governor Charles Bean on one occasion called "possibly the largest financial crisis of its kind in human history". The paper, however, goes beyond reporting on the events of the past 18 months and provides a very interesting perspective, namely that of financial innovation and its role in the crisis. Authors such as Barrell, Hurst and Kirby (2008), and Roubini (2008) state in recent papers that the main cause of the global financial crisis is that the United States (US) has sacrificed financial stability for financial innovation. In his paper, Llewellyn considers the nature of financial innovation with special reference to the emergence of instruments and business models that transfer credit risk, such as the "originate and distribute" model. He argues that this changed the traditional economics of banking as banks stopped behaving like banks and the financial system became more crisis-prone.

The paper, firstly, considers the impact of financial innovation on the efficiency and stability of financial systems, and states that the main efficiency and stability benefits of financial innovation are derived from the risk-shifting characteristics of financial instruments. Financial innovation, however, has the potential to undermine financial stability because it facilitates substantial leveraging of risk. The paper then draws a very interesting conclusion, namely that although financial innovation makes the financial system less vulnerable to minor shocks, it may make it more prone to large, highly correlated and systemic shocks (exactly what has materialised recently).

Secondly, the paper analyses the key features and causes of the global financial crisis. Apart from identifying financial innovation as the

ultimate cause of the crisis, it also mentions and analyses other possible causes, namely

- the historical environment where the seeds of the crisis were sown in a prior period of excessive optimism (created by high and stable economic growth rates; low and stable inflation; and low and stable interest rates and bond yields). In this regard, Llewellyn makes a very important observation when he states as follows: "No financial crisis emerges in a vacuum, but surfaces in the context of the market environment that preceded it."
- incentive structures based on short-term profits with a bias towards excessive risk-taking (several banks identified systemic deficiencies in their compensation policies as a contributory factor in the writedowns they suffered).
- failures of supervision, and in this regard the paper argues that it is not more regulation or new rules that are needed, but more effective supervision of banks.
- the paper also mentions common themes of most financial crises such as asset-price bubbles, sharp growth in lending volumes and under-pricing of risk as possible causes of the crisis.

At this point a number of other possible causes or contributory factors mentioned by Goodhart (2008), Roubini (2008) and others could be added:

- Basel II and the alleged flaws in the framework, namely procyclical capital-adequacy ratios; and excessive reliance on internal risk management models and on credit rating agencies.
- Conflicts of interest and informational problems leading to misratings of securities by credit rating agencies.
- Asset valuation and fair value accounting where mark-to-market accounting may, during times of market turmoil, force excessive writedowns and margin calls that may lead to further fire sales of illiquid assets that, in turn, could cause a cascading fall in asset prices well below long-term fundamentals. Also, mark-to-market accounting may create serious distortions during bubbles when it may lead to excessive leverage, as high valuation allows investors to borrow more and leverage more, thus feeding the asset bubble. Fair value accounting therefore leads to procyclical bank capital requirements under Basel II.
- A lack of international co-ordination: in a world of financial globalisation, mobile capital and a lack of capital controls, capital normally moves to more lightly regulated shores. A much stronger degree of co-ordination

of financial regulation and supervision is necessary to prevent excessive regulatory arbitrage.

It is also important to mention that the South African financial system has been largely protected against the direct effects of the global financial crisis (South Africa has up to now only experienced indirect effects through its liquid financial markets and the exchange rate of the rand). This may be explained as follows:

- The South African regulatory and credit environment is very conservative and the "originate and distribute" model has not really taken off.
- There is no separate "investment bank" regulatory format in South Africa as in the US, with its particular incentives and risk appetite.
- South Africa has the National Credit Act in place, which also protects borrowers against reckless lending.
- The South African banking system is well capitalised and profitable (currently South African banks can gear their capital about 8 times, while in US banks it could be as high as 30 times). Llewellyn also mentions the substantial rise in leveraging of banks in recent years.
- South Africa implemented Basel II successfully, while the US largely resisted it.
- In the US many banks rely on foreign funding only, while foreign funding comprises only about 5 per cent of total funding in the South African banking sector.
- South African banks were prevented by regulation from participating in the toxic assets that caused the US sub-prime crisis.

In conclusion, financial stability is an important factor in assessing the degree of development (innovation) of a financial system. Excessive stability may result in excessive regulation and restrictions on financial innovation and risk-taking, and thus may reduce the opportunities for long-run growth. Aggressive innovation, however, may lead to a lack of stability and trigger financial crises that are costly and inefficient, as it leads to severe economic downturns, and the large economic and fiscal costs of cleaning up a financial system in distress and crisis. A balance therefore needs to be found between innovation and stability, which stresses the point that, like central banking, maintaining financial stability is probably more of an art than a science.

References

Barrel, R, Hurst, I and Kirby, S. 2008. *Financial crises, regulation and growth*. London: National Institute of Economic and Social Research.

Bernanke, B S. 2008. "Financial regulation and financial stability". Speech delivered at the Federal Deposit Insurance Corporation (FDIC) Forum on mortgage lending for low and moderate income households, Virginia.

Goodhart, C A E. 2008. "The regulatory response to the financial crisis", *LSE Financial Markets Group Paper Series* No. 177. London: London School of Economics.

Roubini, N. 2008. Financial crises, financial stability, and reform: supervision and regulation of financial systems in a world of financial globalization. Geneva: World Economic Forum.