Norman T L Chan: Three questions on the nature and management of risk

Keynote speech by Mr Norman T L Chan, Chief Executive of the Hong Kong Monetary Authority, at the Hong Kong Monetary Authority-Global Association of Risk Professionals (GARP) Global Risk Forum Opening Dinner, Hong Kong, 28 May 2013.

*   *   *

Richard (Apostolik), Ladies and Gentlemen,

1. It is my great pleasure to welcome you all to this dinner gathering tonight. I would like to take this opportunity to thank GARP for co-hosting tomorrow's Global Risk Forum with the Hong Kong Monetary Authority.

2. This is the third in a series of joint fora which GARP have organised with regulators, and follows similar events in New York and London, focusing on risk and risk management from a global perspective in the wake of the Global Financial Crisis.

3. In contrast to the two previous host cities, Hong Kong (and indeed Asia more generally) has been fortunate not to have borne the full brunt of the recent Crisis. But, we have had our own fair share of crises in the past and, speaking as someone who was tasked with tackling aspects of the Asian Financial Crisis in somewhat unconventional ways, I can assure you that we are only "all too well aware" of the severe economic and social disruptions that financial crises can and do cause. Hence, we are likewise engaged in a degree of "soul-searching" on the nature of financial risk and how it might best be managed and how the management of that risk might best be regulated. And we certainly have "bought-in" to the global regulatory reform agenda spurred by the Global Financial Crisis. Clearly Asian banking systems and Asian markets do not operate in isolation from global markets and hence, we are all in this together!

4. With this in mind, I would like to take this opportunity to pose a couple of questions, the answers to which would have fundamental relevance to the nature and shape of the global financial system going forward –

a. To what extent is the mainstream thinking, that financial or systemic risks can be assessed and forecast through the use of the financial models that have been developed in the last two decades, still valid?

b. The financial markets have become very complex and, as we now know, have generated huge risks for the global financial system. Is the current international effort on regulatory reform adequate in addressing the risks arising from this complexity? and

c. The Basle Committee on Banking Supervision is undertaking major reform in upgrading global standards on the quality and quantity of the capital, and introducing global standards on the liquidity that banks have to hold in order to improve their resilience to risks and shocks. Some countries have already implemented these standards but some advanced economies have not yet done so. Does this create an unlevel playing field that might compromise fair competition as well as the soundness of the banking system?

Need to rethink the nature and management of financial risks?

5. Mainstream thinking in recent years has been to see risk in terms of probabilities of events that can be quantitatively expressed and forecast with statistical models. However, if we did not know before we certainly know now, that some of these models make strong assumptions, such as "normally distributed returns" or other not sufficiently fat-tailed

distribution assumptions, which are usually not supported by empirical evidence. These quantitative models underestimate the likelihood of the “tail events” and the amount of losses that would occur in such events. As we now know, the highly improbable event, or the “tail risk”, has occurred all too frequently and with highly disruptive, if not devastating, impact on financial as well as macroeconomic stability.

6. This has been on the cards for a while. According to the account by Roger Lowenstein in his book “When Genius Failed”, the ill-fated Long Term Capital Management, LTCM, in one of its investor newsletters back in 1994, suggested that its VaR analysis showed that, “only one year in fifty should it lose at least 20% of its portfolio.” LTCM also calculated that losing all of its capital within one year was a 10-standard-deviation event. This suggests that the probability of such an event occurring would be no more than once in 300 years under even the very conservative assumptions. But the event had occurred within five years of LTCM’s birth.

7. It is natural, and indeed probably inevitable, that, in seeking to predict the probability of an event occurring, we tend to look to past experience. However, as we all dutifully warn investors when selling investment products, “past performance is no guarantee of future performance” and so we must stand ready to admit that there are fundamental limitations in our existing risk management tools. That is, the predictive powers of models are inherently restricted by historical experience. Where we encounter something new, such as innovative products or business model changes resulting in different forms of connectedness and creating different and new transmission channels, the models face significant difficulty in accurately estimating risk. Furthermore, even if one could find better models, any models must inevitably assume market behaviour remains constant to some degree, yet we know too well that uncertainty and panic may and do engender irrational or herd-like behaviour which a model struggles to accommodate. So, if the model’s findings can be “misguided”, too great a reliance on them, or too limited an understanding of what the model actually tells us, may result in a significant misjudgement of risk.

8. All of this prompts the question of how far we should reflect on the efficacy of our methods for assessing, measuring and managing risks in the financial system. How can we avoid the temptation to see model output as the only crystal ball for the future? How can we equip management, board members and regulators and supervisors to overlay model output with informed expert judgement which can look to surrounding circumstances, be more forward-looking and take into account possible behavioural responses to events?

9. Tomorrow one of the panel sessions will be on stress-testing and the work in this area I think offers a significant opportunity, both at the bank and supervisory level, to examine risk and test the “what if” scenarios which the models cannot reach, and to “think the unthinkable”.

Adding complexity to the financial markets and regulation?

10. Apart from the widespread use of models in risk management, the financial innovation of the past two decades and the globalisation of our markets have greatly increased the complexity of financial markets and their inter-linkages. The Global Financial Crisis demonstrated all too clearly that certain types of financial innovation, resulting in the emergence of a vast variety of highly complex and opaque financial derivative instruments (even if originally designed to repackage and diversify risk), in fact led to greater, rather than less, financial instability that neither the firms nor their regulators fully foresaw or understood.

11. To address the risk arising from this increasing complexity in the financial system, the regulatory framework has also become more complex. For example, the Basel I Capital Accord has about 80 pages in total. For Basel II, it runs to 333 pages plus another 76 pages for Basel 2.5. As for Basel III, insofar as it covers capital (and not liquidity), it is 562 pages (including as it does Basel II and 2.5 on the capital side). In the USA, the Dodd-Frank Act runs to over 800 pages with probably in excess of 10,000 pages of subsidiary rules expected

eventually. Haven't we hit the limit here of what might be considered optimal or indeed sensible? Should we rethink whether adding complexity to the regulatory system is the only effective way of reducing the risks of complexity in the financial system? Is there any room to inject an element of a more principle based, common sense, approach in bank regulation and supervision? I know that the main proponents of "Less is More", such as Andy Haldane, are not here today, but I hope there will be some discussion of this important issue of complexity at the Forum tomorrow.

Need to avoid a race to the bottom?

12. Apart from reflecting on risk management and the increasing complexity of regulation, I would also like to invite you to join me in rethinking what the banking industry is really about. To me, banking is all about trust and confidence. Our citizens entrust their hard-earned savings to banks and, as a society, we allow banks to use depositors' money to fund productive enterprises and other investments. In theory, the safety and soundness of a bank should be a key factor for customers in choosing the bank with which they want to entrust their money. Again, in theory a bank with a large capital cushion should (all things being equal) have a competitive edge in gaining customer confidence as compared to other banks with a weaker capital position. This being the case, banks should have an incentive to maintain higher capital levels. However, incentives have become somewhat distorted in more modern times, thanks to formal safety nets extended by deposit protection schemes and informal safety nets characterised by implicit government guarantee arising from the "too big to fail" consideration.

13. In the run up to the Global Financial Crisis, it was common for the big banks to maximise their Return on Equity (RoE) by optimising the level of their capital base and by leveraging up their balance sheets. This resulted in a steady reduction in the levels of capital, and as a result in the loss absorbancy capability, of banks in relation to the size of the risks taken by them on and off balance sheet. Even now, there is still a view amongst some banks that the Basel Accord serves more to indicate "optimal" levels of capital or liquidity rather than the absolute bare minimum standard. Some banks, including a few here in Hong Kong, have argued that the late adoption of Basel III by some advanced economies creates or constitutes an uneven playing field, placing them in a competitively disadvantaged position. It will be even worse, according to the banks advocating this level playing argument, if their national supervisor imposes capital or liquidity requirements that exceed the international standards.

14. Pillar 2 of the Basel Accord was of course introduced, at least in part, to do just this by enabling supervisors to make adjustments in minimum required levels of capital to reflect individual bank risk profiles, but even here we are met with "level playing field" arguments – complaints that other jurisdictions don't use Pillar 2 to the same extent – or at all – and so we should not use Pillar 2 aggressively or else we will "damage" or "ham-string" our banks. But if this is the case, then if all banks seek to maximise their profits, by pushing down or "optimising" their capital and liquidity levels and taking on more risk – focused on the Basel standard as the ultimate benchmark – then do we not risk the standard actually encouraging a "race to the bottom"? Is it a race that may lead to higher profits or RoE for banks and their shareholders only in the short term? Is it a race that could create, in the longer term, serious problems for the safety and soundness of the banks concerned and financial vulnerabilities for society as a whole?

15. I don't profess to know all the answers to the questions I have just raised. No matter what, there is a clear and indisputable need to enhance the resilience and robustness of the global financial system. The Basel Committee has done a great deal in upgrading capital and liquidity rules. Under the direction of G20, there is long list of other regulatory reforms, including those dealing with the moral hazard problem arising from "too big to fail" and the risks observed in the OTC derivative markets. Some national authorities have introduced, or plan to introduce, measures that would separate core retail and commercial banking from

investment banking. Although, as I have said, very few people would dispute the need for urgent reforms, there are differences in views on whether the reforms that are underway are indeed adequate or entirely appropriate.

16. I hope that, at tomorrow's Forum, you will have the opportunity to discuss these and other pertinent issues as we continue seeking to re-evaluate both the nature of risk management and the role of regulation and supervision in the wake of the Global Financial Crisis. Once again let me welcome you all and wish you Bon Appétit!