BANK FOR INTERNATIONAL SETTLEMENTS

Post-crisis financial safety net framework: lessons, responses and remaining challenges

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Good morning, ladies and gentlemen. Welcome to the BIS.

Let me first thank Thomas Hoenig, President of the International Association of Deposit Insurers (IADI), for inviting me to address this distinguished group.

I would also like to thank the organisers – IADI and our Financial Stability Institute – for bringing together supervisors, deposit insurers, central bankers, representatives of international organisations and market participants from 75 jurisdictions.

This is a forum for exchanging views on issues that are critical for maintaining financial stability. I believe that our interaction and our sharing of experiences and perspectives are crucial for ensuring that we "get it right" in the design of the financial architecture.

In the presence of so many deposit insurance practitioners here, I thought it might be appropriate to start with the question: what makes an effective deposit insurance scheme for promoting financial stability? I believe an effective scheme is one that would be called upon only rarely – but if and when called upon, would be available and ready to work well.

For this to happen, it is necessary to have not only a well designed scheme, but also the support of other elements in the architecture: (i) resilient financial institutions that can weather shocks and remain going concerns in periods of stress; and (ii) loss-absorbing capacity that underpins the resolution of banks that have reached the point of non-viability. Most importantly, the system as a whole – not just the individual components – must be sound and resilient.

In my remarks this morning, I would like to look at three main areas in which a lot of effort has been made since the global financial crisis:

– regulation and supervision that enhance banks' resilience;

– resolution arrangements that limit fallouts in case a bank does fail; and

– deposit insurance, which completes the picture by further enhancing confidence in the banking system.

For each of these three areas – or, one can say, three lines of defence – I will reiterate the key lessons learned from the global financial crisis and outline what has been done so far in response. I will then conclude with some reflections on the evolving nature of systemic risk and a word of caution on the challenges we still face.

Prudential regulation and supervision: enhancing resilience

First, on prudential regulation and supervision. A strong prudential regime is, in my view, the first line of defence – and it should support the private sector's own defences: earning capacity, risk management/culture, and capital cushions.

The global financial crisis demonstrated that this line of defence was not as strong as we had thought. Both the quantity and quality of capital were found wanting in some banks. Not enough attention was paid to liquidity risk. Systemic risk was vastly underestimated. Shortcomings in corporate governance, risk culture and disclosure remained unquestioned until it was rather too late.

The introduction of Basel III seeks to address the identified weaknesses in the banking sector through better regulation to increase the resilience of banks, and also stronger supervision to help identify and manage risks more proactively.

In terms of regulation, the minimum requirements for the level and quality of capital have been raised, and the treatment of specific risk categories strengthened. Attention is now conscientiously paid to capital loss absorption at the point of non-viability, better control of leverage as a backstop, and better management of liquidity risks. In addition to microprudential regulation, Basel III also includes a macroprudential overlay that calls for the use of capital buffers to address system-wide risks that can build up across institutions as well as over time. Most elements of Basel III are already being phased in. In fact, even though full implementation will not be required until 2019, most of the banks monitored by the Basel Committee on Banking Supervision have already met and exceeded the Basel III minimum requirements.[1]

In terms of supervision, supervisors are called upon to be more demanding with banks' corporate governance, internal culture – including at the board level – and risk management, among other things. Supervisors are also asked to pay more attention to forward-looking analysis and expand their supervisory tools. For example, stress tests are now being used more extensively to evaluate the ability of an institution to deal with a variety of risks, both internal and external. Being subject to supervisory stress tests – where the stress scenarios can vary each time – has encouraged banks to hold prudential cushions above the regulatory minima.

In addition to supervisory pressure, market discipline has also incentivised banks to hold cushions above the regulatory minima. Since the global financial crisis, shareholders and creditors alike seem to have become much more ready to sanction banks that are deemed not well capitalised, even when regulation is not the binding constraint.

While there is no easy answer to the question of what the optimal level of capital is, one thing is sure: capital is the foundation for bank lending. Recent BIS work finds that a 1 percentage point increase in the equity-to-total-assets ratio of a bank reduces its cost of debt by approximately 4 basis points.[2] And a 1 percentage point increase in a bank's equity-to-total-assets ratio is associated with a faster pace of lending growth of around 0.6 percentage points per year. In other words, a stronger prudential position is not only good for building greater resilience, it also supports banks in their role as intermediaries in the real economy.

That being said, challenges remain. Some details and calibrations in the Basel III framework are still to be finalised, leaving room for regulatory uncertainty. The process of finalising Basel III has also generated debate over the role of internal models and standardised approaches in the Basel capital framework. The Basel Committee is working hard to finalise these details as soon as possible.

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[1] Basel Committee on Banking Supervision, *Basel III Monitoring Report*, September 2016.

[2] L Gambacorta and H S Shin, "Why bank capital matters for monetary policy", *BIS Working Papers*, no 558, April 2016.

Resolution arrangements: limiting the fallout from failures

Greater resilience can help banks withstand shocks, but one cannot rule out the possibility of failure. The question is: how well prepared are we for that?

Experience from the global financial crisis suggests that our preparedness on that front was also not as great as we would have liked. Many jurisdictions lacked the necessary powers and tools for resolving banks. They were left with the limited choice of either a disorderly liquidation or a bailout with public resources. The presence of systemically important banks, especially G-SIBs, posed special challenges for home and host authorities in terms of information and coordination. For their part, banks were also underprepared, with not enough loss-absorbing capacity to allow an orderly workout in case of failure and little advance planning on how to cope with such emergencies.

A key post-crisis response to these lessons was the development of the Financial Stability Board's Key Attributes of Effective Resolution Regimes for Financial Institutions.[3] The Key Attributes set out the responsibilities, instruments and powers that national resolution regimes should have to enable orderly resolutions of failing financial firms, without exposing the taxpayer. For global systemically important institutions, there are specific requirements for Crisis Management Groups (CMGs), institution-specific cross-border cooperation agreements between the home and host authorities, recovery and resolution planning, and resolvability assessments.

Complementing the Key Attributes is the new standard for G-SIBs on the adequacy of Total Loss-Absorbing Capacity – or TLAC, for short.[4] It is designed to ensure that a failing G-SIB would have sufficient loss-absorbing and recapitalisation capacity available to implement a resolution that is orderly and avoids exposing public funds to loss.

How much of these have been put in place? The FSB's second annual report on the implementation of the agreed reforms notes that, as of end-August 2016, only a subset of the FSB membership – primarily the home jurisdictions of G-SIBs – has implemented bank resolution regimes with powers that are broadly in line with the Key Attributes. Elsewhere, there are considerable gaps in resolution regimes.

While there has been progress in reforming the resolution framework, there is scope for further refinements to ensure the legal certainty of resolution actions. Moreover, the new framework has not yet been tested.

CMGs have been established for all G-SIBs. But CMGs by themselves have no legal authority. Cross-border cooperation agreements still need to be put in place before the resolution plans can become operational.[5]

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3 The 12 features relate to: scope; resolution authority; resolution powers; setoff, netting, collateralisation, and segregation of client assets; safeguards; funding of firms in resolution; legal framework conditions for cross-border cooperation; Crisis Management Groups; institution-specific cross-border cooperation agreements; resolvability assessments; recovery and resolution planning; and access to information and information-sharing.

4 www.fsb.org/wp-content/uploads/TLAC-Principles-and-Term-Sheet-for-publication-final.pdf.

5 The Basel Committee's *Principles for effective supervisory colleges* have been updated to reflect the introduction of CMGs for G-SIBs. For banks with CMGs, Principle 7 provides guidance on possible communication and coordination between the supervisory college and the CMG to assist with crisis preparedness (www.bis.org/publ/bcbs287.htm).

Recovery and resolution planning processes are in place in many jurisdictions, but actually producing credible plans that are acceptable to supervisors is proving rather more challenging.[6]

Since the TLAC standard was released in November 2015, a majority of G-SIB home authorities have published policy proposals or consultation documents on TLAC implementation. Banks have issued substantial amounts of TLAC-eligible liabilities. The key question is: will TLAC instruments work as intended?

Observations from the market for contingent convertibles (CoCos) suggest some challenges on this front. CoCo instruments are meant to enhance loss absorption. Market tensions in early 2016 revealed that investors liked the fixed income component of these instruments but were not willing to sit still and take on losses. As soon as losses became a possibility, CoCo investors started hedging, undermining the value of banks' equity and increasing banks' costs of debt finance. Under market stress, such behaviour could generate a vicious spiral.[7] Thus, with the improvements in loss-absorbing capacity, there are also new dynamics that we need to understand better.

Deposit insurance: protecting depositors and confidence

What about deposit insurance?

The global financial crisis illustrated the importance of maintaining depositor confidence and limiting contagion – and the key role that deposit protection plays in this regard. Indeed, one of the earliest and most widely adopted crisis responses in 2008 was the increase in deposit insurance coverage. In some jurisdictions, blanket guarantees were issued.

This experience also exposed some weaknesses in deposit insurance systems. These included depositors' limited understanding of the compensation schemes, delays in payment to depositors in some jurisdictions, and the lack of clear funding arrangements for the schemes.

To reflect the lessons from the crisis, the IADI Core Principles were revised in 2014.[8] The revision strengthened several key areas, including speed of reimbursement, deposit insurance coverage, funding and governance.

Measures have also been taken to strengthen depositor protection in practice. Within the G20, almost all members have deposit insurance schemes in place. Two of the three FSB jurisdictions identified in the 2012 FSB peer review as not having such systems (China and Saudi Arabia) introduced them in 2015, while the third (South Africa) intends to follow suit in the near future. Outside the G20, new systems are being established, particularly in Africa. These new systems are more aligned with the revised Core Principles, with explicit but limited coverage levels and financed by the industry through an ex ante premium.

Notwithstanding the progress, important challenges remain. In particular, the speed of payout needs to be accelerated in most jurisdictions. Currently, few systems can reimburse depositors within the seven-working-day objective recommended by the Core Principles. Emergency backup liquidity facilities, needed to ensure depositor confidence, can be enhanced and made more explicit. Finally, there is still

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6 Common areas of weakness include the assessment of funding needs in resolution, the operationalisation of bail-in, the strengthening of management information systems, and the continuity of access to financial market infrastructures while in resolution.

7 See Bank for International Settlements, "Uneasy calm gives way to turbulence", *BIS Quarterly Review*, March 2016.

8 www.iadi.org/en/assets/File/Core%20Principles/cprevised2014nov.pdf.

room to strengthen the role of the deposit insurer in the safety net, especially as regards the communication and coordination with other authorities (prudential supervisors and resolution agencies) in the context of system-wide crisis preparedness and management.

Indeed, tackling these challenges in a focused manner is very much at the heart of the three current strategic priorities of IADI, namely: to promote compliance with the IADI Core Principles, to advance related research and policy development, and to support members with training and capacity building.

Closing thoughts on systemic risk: reasons to be cautious

To summarise, the global financial crisis exposed the gaps in our lines of defence. It is heartening to see the tremendous efforts made by both national and international authorities to apply the lessons learned. It is also encouraging to see the private sector on board to a great extent, even though tougher rules are understandably not what they like.

Much progress has indeed been made. But the task is big, and there is still a lot of pending work. Usually, we would finish here by emphasising that it is therefore crucial to complete the reform agenda and focus attention on implementation and monitoring.

But we should ask ourselves a deeper question: is the system as a whole safer now?

To address this question, we need a broader perspective. We need to look at stocks, in addition to flows. We need to look at balance sheets and incentives. Systemic risk is an elusive and dynamic concept. Since the crisis, financial intermediation has changed, balance sheets have changed, incentives have also changed. So where do we stand in terms of the whole system?

I will cite three reasons why we should be cautious and avoid being too sanguine.

Stocks of debt

One is that although banks have deleveraged since the crisis, the world as a whole is more leveraged today than when the crisis started in 2007.

We can think of the world as many interconnected balance sheets. This is how I think of the system. It goes well beyond the banking or even the financial system.

At a global level, credit extended to households, non-financial corporates and governments combined has been growing rapidly, though unevenly, since the crisis. As a consequence, the system of interconnected balance sheets I have just described has also grown rapidly.

The speed of credit growth has been shown to be a good indicator of risk, as it relates to the capacity of repayment of the whole economy and to the quality of the assets on the other side of the balance sheet.

As of mid-2016, the debt of households, non-financial corporates and governments as a percentage of GDP had reached 250%.

The reason to feel perturbed – or at least not be sanguine – is the combination of growing debt with the declining trend in productivity growth. This combination would indicate that there are some difficulties in generating sustainable income with which to repay the debt.

Persistent low rate environment

A second reason to be cautious is the persistent low interest rate environment. I would emphasise that my concern is about the *persistence* of low rates, rather than just low rates per se.

Interest rate is the cost of leverage; long periods of low rates could incentivise increased borrowing. The resulting accumulation of debt would render the whole system more sensitive to the future interest rate scenario, which affects the ability to repay or refinance the stock of debt. The longer that interest rates have stayed unusually low, the greater the risk of a sharp snapback of interest rates.

Low rates for long could also incentivise additional risk-taking through the search for yield. The valuation of financial assets would be boosted, flattering the assessment of their riskiness. This is often referred to as the risk-taking channel of monetary policy.[9]

Persistently low or even negative interest rates also make for a difficult environment for financial institutions, putting pressure on their earning capacity. Weaker profits would slow the build-up of equity over time, which would in turn affect banks' capacity to lend to the real economy. Indeed, pressure from the low rate environment is one of several challenges facing the banking sector in advanced economies. The relatively subdued performance of banks in capital markets reflects investor scepticism. For example, even with general stock market indices hitting all-time highs in recent years, the price-to-book ratios of European and Japanese banks are only at or below 0.5. This suggests that banks are still to varying extents burdened by unresolved issues in terms of asset quality, excess capacity, business model and profitability, making the return to normality more arduous than one would like.

Asset managers and search for yield

A third reason to be cautious is the changing nature of risks. With all the post-crisis efforts to improve the resilience of banks, it would not be a big stretch to conjecture that the next major crisis will originate not in the banking sector but somewhere else in the system.

Since the global financial crisis, bond market finance has surged, shifting international finance to non-bank intermediaries. This growth in market-based finance has partly filled the void left by declining international bank credit.

My colleague Hyun Song Shin refers to this as "the second phase of global liquidity", in which bond market finance dominates.[10] In the first phase (roughly 2003 to 2008), the protagonists were global banks and the mechanism was leverage. In the second phase (starting from around 2010), the protagonists are asset managers and the search for yield is the driving force. And with the main action being in bond markets, movements in the term premium, ie the portion of bond yields not explained by the expected path of future short rates, play a key role in influencing the demand for bond financing.

There is much in this new phase that we do not yet understand well. There may be leverage-like behaviours that can create stress similar to that resulting from classic bank leverage. Specifically, even though asset managers are not themselves leveraged like banks, their lack of willingness or capacity to

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[9] See eg C Borio and H Zhu, "Capital regulation, risk-taking and monetary policy: a missing link in the transmission mechanism?", in *Journal of Financial Stability*, vol 8, no 4, December 2012, pp 236–51 (first published as *BIS Working Papers*, no 268, December 2008); and T Adrian and H S Shin, "Money, liquidity, and monetary policy", *American Economic Review*, vol 99, no 2, May 2009, pp 600–5.

[10] H S Shin, "The second phase of global liquidity and its impact on emerging economies", keynote address at Federal Reserve Bank of San Francisco Asia Economic Policy Conference, November 2013.

absorb temporary losses could still results in runs on capital markets. Recent policy initiatives – notably those coordinated by the FSB – are seeking an international response to these new sources of risk.[11]

Of course, shocks from capital markets could also affect banks at some point. In a complex financial system, how shocks are transmitted or amplified is hard to predict. Therefore, being prepared ex ante, strengthening all three lines of defence, is still recommended and necessary.

Conclusion

In sum, despite the improvements in many areas since the crisis, the system as a whole is facing new and evolving risks. I would like to think of these new challenges in systemic risks as encouragement for all of us here to persevere with finalising and implementing the post-crisis regulatory reforms in a timely fashion.

These challenges are also a reminder to be humble and to recognise that, in this complex world, mitigating systemic risk requires a wider perspective and action in a variety of policies. The key areas in the regulatory reform agenda – regulation and supervision, resolution and deposit insurance – are no doubt very important, but they may not be enough.

Reforms are also needed to raise productivity growth, generate earning and repayment capacity, and improve the outlook for the longer term. Monetary policy and fiscal policy, for their part, would do well to take financial stability considerations and their longer-term impact on the real economy into account.

Indeed, financial stability is a joint responsibility. For our community of supervisors, deposit insurers, central bankers and representatives of international organisations, interaction and cooperation are more crucial than ever.

I hope this conference represents another valued opportunity for all of us to work towards this common goal. I wish you all a very productive time here.

11 Financial Stability Board, "Proposed policy recommendations to address structural vulnerabilities from asset management activities", 22 June 2016.