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Ten years after the Great Financial Crisis: what has changed?

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Foreword

The 17th BIS Annual Conference took place in Zurich, Switzerland, on 22 June 2018. The event brought together a distinguished group of central bank Governors, leading academics and former public officials to exchange views on the topic "Ten years after the Great Financial Crisis: what has changed?". The papers presented at the conference and the discussants' comments are released as *BIS Working Papers No 790, 791, 792 and 793*.

BIS Papers No 103 contains Panel remarks by Mervyn King (former Governor, Bank of England) and Anne Le Lorier (former First Deputy Governor, Bank of France) and a resulting Panel discussion between Agustín Carstens and them.

Programme

Thursday 21 June 2018

18:00	Welcome cocktail and informal barbecue	

Friday 22 June 2018

09:00–09:10	**Welcome**	Hyun Song Shin, Bank for International Settlements
09:10–10:30	**Session 1:**	**What are the characteristics of the new financial system?**
	Chair:	**Erkki Liikanen**, Bank of Finland
	Author:	**Asli Demirgüç-Kunt**, World Bank
	Discussants:	**Tobias Adrian**, International Monetary Fund
		Bengt Holmström, Massachusetts Institute of Technology
10:30–11:00	**Coffee break**	
11:00–12:20	**Session 2:**	**Has the inflation process changed?**
	Chair:	**Philip Lowe**, Reserve Bank of Australia
	Author:	**Kristin Forbes**, MIT Sloan School of Management
	Discussants:	**Carlos Viana de Carvalho**, Central Bank of Brazil
		Simon Gilchrist, New York University
12:20–14:00	**Buffet lunch**	
14:00–15:20	**Session 3:**	**Is the financial system more resilient?**
	Chair:	**Stefan Ingves**, Sveriges Riksbank
	Author:	**Paul Tucker**, Harvard Kennedy School
	Discussants:	**Gary Gorton**, Yale School of Management
		Nellie Liang, The Brookings Institution
15:20–15:50	**Coffee break**	

15:50–17:10	**Session 4:**	**What are main challenges for international policy coordination?**
	Chair:	**Karnit Flug**, Bank of Israel
	Author:	**Pierre-Olivier Gourinchas**, University of California, Berkeley
	Discussants:	**Şebnem Kalemli-Özcan**, University of Maryland, College Park
		Gianluca Benigno, London School of Economics and Political Science
17:10–18:20	**Wrap-up panel:**	**Lessons from the Great Financial Crisis**
	Chair:	**Agustín Carstens**, Bank for International Settlements
	Panellists:	**Mervyn King**, former Governor, Bank of England
		Anne Le Lorier, former First Deputy Governor, Bank of France
19:00–21:30	**Conference dinner**	

Saturday 23 June 2018

7:30–10:00	Buses depart for Basel

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Panel remarks – Mervyn King

Mervyn King[1]

So much of interest has been said today, that it would be invidious to claim that one could wrap up the entire discussion in ten minutes. So I want to focus on the **vulnerabilities** that remain in our financial system. As Gary Gorton said earlier today, this is perhaps the most important question to ask ten years on from the financial crisis.

The major vulnerability of the banking system is, of course, its exposure to the rest of the economy. Most bank losses in the industrialised world over the past half-century reflected unexpected macro-economic shocks. And financial crises do not necessarily originate in the financial sector. In the drama and excitement of 2007–09 this key point has been forgotten. To adapt the words of President John F. Kennedy, banks might be forgiven for thinking "ask not what we are doing to the economy, but what is the economy doing to us".

Even if, however, the fundamental shocks originate outside the financial sector – whether at home or abroad – the costs of banking and other financial failures are extremely high, as we saw a decade ago. There have been two main responses to this challenge. One is *ex ante*: to regulate more in order to prevent crises. The second is *ex post*: to bailout institutions that are deemed too important to fail and to resolve failing banks where possible by bailing in creditors. My main point today is the need to integrate the *ex ante* and *ex post* approaches because neither on their own will solve the problem.

Regulators have tended to pursue the *ex ante* approach and put in place regulations that would have prevented some of the problems that occurred in the last crisis. They do not want to risk being blamed for a repetition of an earlier problem. As a result, our regulatory system has become overly complex, with rules and regulations amounting to tens of thousands of pages. This is quite literally mad. When a system becomes that complex, the driving force within private sector financial institutions becomes the compliance and legal department which naturally will want to take absolutely no risks of being accused of failing to comply with the system that most others in their firms cannot really understand, and so they double up on the complexity and cost of compliance. In a world of radical uncertainty, we cannot easily anticipate the nature of future financial crises and the focus should be not on pretending that we can anticipate and prevent such crises but that we devise a system that is robust and resilient to such shocks. As Paul Tucker stressed earlier today, regulators and central banks believe that they can credibly say "job done" they are seriously misleading themselves and others. It would be sensible to admit that we still know rather too little about both the theory and practice of banking.

The main lesson of the crisis was that banks that appear to be well-capitalised one day are not the next. Expectations about potential losses can change very quickly. Stuff happens. So it is almost impossible to define an "optimal" capital ratio. How much equity capital must a bank issue to convince the market that unsecured loans to that bank are safe? Before the crisis the answer was hardly any. Leverage was very

[1] Former Governor of the Bank of England

high; yet spreads on unsecured loans to banks were negligible. After the crisis, however, almost no amount of capital was sufficient to persuade lenders to risk unsecured lending to the banking sector. The constraint on banks came not from regulators but from the market. As time has passed, we have returned to a more normal state. Regulators have to decide on the appropriate amount of equity capital to cope with a future crisis. There is no simple, or for that matter complicated, answer to that question. The timing and scale of future crises are impossible to predict. It is a pragmatic judgement that regulators around the world have been trying to make by reference to stress tests and other tools to come up with a sensible level of capital requirements.

The amount of loss-absorbing capital today is greater than before the crisis – the simple leverage ratio of UK banks, for example, has improved by a factor of around two. Is this enough? It is impossible to know. Before, during and after the crisis, banks consistently denied that they were undercapitalised. We learnt that they were wrong. Where we should be worried is that for too many banks, especially in Europe, the market value of equity is less than book value. European banks are one area of continuing vulnerability.

Of even greater importance to my mind, is the issue of access to central bank liquidity and its relationship to liquidity regulation. Any institution that borrows short and lends long is fragile. Indeed, the concept that it is possible to finance long-term risky lending by short-term safe borrowing is the alchemy in our present financial system. Solvency concerns led to a liquidity problem for banks in the crisis, but it was the resulting runs on the banking and shadow banking systems that led to the sudden collapse of the system. Two important lessons emerged from that experience.

First, in a crisis, the central bank is the only ultimate source of liquidity. Second, liquidity regulation cannot be designed without its being integrated into the framework for central bank liquidity provision.

But to protect taxpayers and create the political support for central bank liquidity insurance, it is not enough to provide liquidity support *ex post*; we need also to design a credible *ex ante* framework for central bank liquidity provision. I set out the principles of one such scheme in my proposal for the central bank to be a Pawnbroker for all Seasons[2]. Under that proposal, banks would pre-position collateral adequate to provide sufficient comfort for the central bank to lend against all runnable liabilities. In effect banks would pay a compulsory insurance premium every year when there is not a crisis in order to be eligible for access to central bank funds in a crisis. The premium takes the form of the size of the haircuts imposed by the central bank on collateral. This information would normally be private between the central and commercial bank, and so the scheme ensures the information-insensitive nature of bank deposits so that they can play the role of money.

I am sure my proposal is not the only way to achieve the objective of ending bank runs while maintaining fractional reserve banking. But I put it forward for consideration because we must move further in this direction. Markets and assets that are liquid one day may not be the next. Central banks are the ultimate providers of catastrophe insurance, and for that to be acceptable we need a carefully designed *ex ante* framework not just *ex post* injection of cheap liquidity.

[2] King, M (2016), "The End of Alchemy", *Little Brown,* London.

In conclusion, the most important point to remember is that we should focus not on where the next crisis may come from but on how to make the system as resilient as possible without imposing undue costs on the ability of the financial system to achieve its objectives of organising the payment system, mediating saving and investment, and risk-sharing. In the years running up to the last crisis, there were well understood concerns about the sustainability of the Great Moderation or Great Stability. At international meetings, gatherings of experts debated how these macroeconomic imbalances might unwind – would they lead, for example, to a sharp fall in the US dollar? But what no one at that point foresaw was a collapse of the US and Western banking system. By 2007, there was growing concern about the rising leverage and increasing complexity of financial instruments. But again, no one could easily foresee the drama that played out in 2008. We must not rely on the wisdom of hindsight. We are no more likely in future to be wiser than we were in the past.

In the years ahead, rising interest rates will reveal the true state of balance sheets that have been concealed by accounting rules that allowed loans to be valued at their full value provided those loans were currently being serviced. Total debt relative to GDP in the world is higher now than it was immediately before the crisis. As financial intermediaries discover that their assets have been overstated, their true leverage will be revealed. Defaults cannot be ruled out, and this, it seems to me, is the major vulnerability from the macroeconomic state of the world today.

Precisely because banks are subject to runs, we should not judge the current stability of the system by the state of bank balance sheets and ease of funding. These can change quickly. We need to focus much more on developments in the economy that might eventually impact on the quality of bank assets. In the end, the macro-economic state of the world economy will be the driver of future crises, and not the **apparent** state of the banking system.

Building in resilience to the banking system, finding better ways to eliminate bank runs, and recognising that we cannot predict the future are the right responses to the humility that we should all feel now after the turmoil of the past decade.

Panel remarks – Anne Le Lorier

Anne Le Lorier[1]

First of all, I want to thank the BIS for having invited me to be a member of this wrap up panel. It is a great honour.

I would like to offer a few thoughts and questions on what has not changed and what has changed since the 2008 crisis, without being exhaustive of course.

What has not changed?

The debate is ongoing – and rightly so, I believe – on the actual contribution of the financial sector to the real economy.

It is a long standing one, which dates back to the Middle Ages at least. The focus used to be on the issue of the fair remuneration of financial intermediaries. Usury versus lucre at the time or usury versus gain as we would name it nowadays. It appears to be much less of an issue today though the views on whether and how to protect people from usury or abuse vary a lot among countries. Maybe nominalism and the low level of interest rates have contributed to put it on the back burner. More lively issues have to do with the complexity and the interconnectedness of the financial sector but also with the adequacy of its size. The former pertains to systemic risk, the latter with social cost. A recent BIS research paper[2] shows, first, that the level of financial development is good only up to a point after which it becomes a drag on growth. And, second, that a fast growing financial sector is detrimental to aggregate productivity growth. Another research worth mentioning is the one done earlier by Thomas Philippon on the inefficiency of the financial sector compared to the one of other sectors[3]. It comes to similar conclusions i.e. that, at a macro level, modern economies are allocating resources to the finance sector well beyond the point at which those resources can be productively employed. At a micro level, it suggests that a lot of financial activity is generated for the sake of the finance industry.

Assuming these findings are true, what can be done about it? The regulation of the financial sector, not only of banks but of all players, and macro-prudential policies are relevant levers. Yet, we have not been so successful in fostering a proper level of debt and deleveraging is still very much a challenge. Are we leaning enough against the wind as Claudio Borio would say and what should be the respective role of Central Banks and governments on this issue? Macro-prudential policies are still young and experience is limited. I guess improving the toolbox or the institutional setting should stay high on the agenda. Nellie Lliang has offered useful ideas in her presentation.

[1] Former First Deputy Governor of the Bank of France.

[2] BIS working paper n°381 Reassessing the impact of finance on growth by Stephen G Cecchetti and Enisse Kharroubi.

[3] Brookings, Finance, productivity and distribution, October 2016; Has the US financial industry become less efficient? AER 105 (4).

The tension between regulation/supervision and the industry

Undoubtedly, progress has been made in improving the resilience of the financial sector. Still a lot remains to be done. For instance, switching from an entity-based regulation to an activity-based regulation to cover non banks and new players, be they relatively small or gigantic, is still to be delivered. This switch is often mentioned and discussed but is not there. Regulation is lagging behind actual developments and is still produced in silos. Fintechs offer an opportunity for a breakthrough. The composition, co-dependence of institutions and degree of concentration and competition in the financial sector are evolving and it is difficult to ascertain whether the too big to fail syndrome is really behind us in all segments of the financial system. In addition, memory being short lived, the regulators and supervisors are facing quite a pushback from the industry. Hoping the authorities would succeed in standing firm, they have still an important challenge to address, which is the culture of the financiers. Spectacular breaches in the proper treatment of customers have been revealed. There have been a number of regulatory initiatives in an attempt to weigh on culture issues, such as the claw back on bonuses. Yet, the level and modalities of remuneration, the perceived or actual lack of personal responsibility for the executives of failed financial institutions – with perhaps the exception of the recent legal change in the UK – are fuelling a lot of resentment and mistrust from the public and are no strangers to the current political evolutions. The question here is whether the authorities are bold enough in being intrusive, filling the gaps and creating the right incentives and sanctions.

To end these remarks on the challenges that remain, I would emphasize that risk management is still facing high hurdles. One example is the vulnerability of the financial sector to a major cyber incident be it a failure or an attack. A lot of work is being done in this domain but it is endless.

What has changed?

I would concentrate here on the role of Central Banks. After having been celebrated as the saviours after the financial crisis they are now in danger of being criticized for not reaching their objectives or on the ways for reaching them. A lot of research is being done on inflation and the interaction with monetary policy. It may well be that the efficacy of monetary policy in reaching an inflation target has decreased. Yet, monetary policy still does affect inflation and there is little appetite to review the mandate of Central Banks on inflation even if a few of them are reviewing the level or the definition of their target. In the meantime, the mandate of several Central Banks has been extended to financial stability and those who were not in charge or less active in the realm of supervision have become more involved or responsible for it.

Paul Tucker has recently published an excellent book on the role of independent agencies, including Central Banks, in democratic societies. His remarks on whether the Central Banks have become too powerful and how to avoid a desperate choice between technocracy and populism are very well taken. I would like to emphasize a specific question. In their practice, are Central Banks too shy or too constrained in the actual use of their discretionary powers?

This query is motivated by the fact that the relationship between them and the markets has become more complex. In terms of size, their B/S have expanded a lot but the markets size have grown a lot as well. When considering market capitalization, debt securities, total credit to non-banks, forex turnover and shadow banking, it is unlikely that their relative size has increased. Central Banks have a medium term objective but are paying a lot of attention -perhaps too much- to short term developments in the market. Forward guidance has become an important part of the toolbox. But one may wonder how much the use of this instrument has contributed to a number of risks or made Central Banks more "hostage" to the markets. True, it would not be right for Central Banks not to be clear on their reaction function and in times of unconventional monetary policy, communication is an important lever. On the other hand, the very low volatility prevailing until recently or the too low price for liquidity were a cause for concern. How much detailed forward guidance has contributed to these phenomena is an open question.

Another consideration is that, even if markets prevail, they are not necessarily right on substance. They rarely take a step back from short-term developments or are backward looking and herd behavior prevails. A topical example of market failure has been the evolution of spreads in the euro zone, having been successively too tight or too wide. Another one is the poor pricing of corporate spreads or high yield instruments. How much did forward guidance incentivize this mispricing?

Keeping and using discretion[4], within the mandate of Central Banks, is of value. It suffices to recall the efficacy of Mario Draghi's statement on "whatever it takes" or the decision by the Swiss National Bank to drop its floor on the exchange rate.

It might well be that forward guidance need to be less precise and/or less perceived as a commitment. I understand the evolution considered by the Federal Reserve in its means of communication goes in the direction of more flexibility.

Obviously, it is a thin line between using discretion when warranted and not disrupting the transmission mechanism of monetary policy but it seems important not to confuse the legitimacy and predictability of Central Banks with them giving up on discretion and being wary of their decisions having a negative impact on the P&L of financial players.

A last point on Central Banks, despite the domestic dimension of their mandate, they have been able to coordinate successfully emergency measures when the financial crisis materialized. However, since then, the Federal Reserve has been deemed as having ventured beyond the boundaries and its discretion has been cut back. This is worrisome and even more so when considering the present inauspicious climate for international cooperation. Given the possibility of a new financial crisis and the unpredictability of a Black Swan event, I would argue that more thought should be given to the conditions that would allow for a concerted action in emergency situations when it would be key to have a collective initiative. The tacit consensus seems to be that cooperation would be vital but that it is counterproductive to discuss it formally given the domestic nature of CBs mandates. Is not it there another case for using discretion, under the informal auspices of the BIS?

[4] The ECJ has sanctioned the need for a broad discretion for the ECB when preparing and implementing an open market operations program (Gautweiler v.Deutscher Bundestag).

Panel discussion

Agustín Carstens

Our speakers have put forward some excellent but, at the same time, challenging suggestions. To start the discussion, and before opening the floor for additional questions, I have the following query for Mervyn. You have presented some very elegant thoughts on how to keep the regulatory framework simple yet agile.

Now I would like to challenge you in both these areas. If we were to adopt your regulatory model, how could we keep matters simple if, for example, Central Banks had to evaluate the quality of assets. Given the complexity of global financial institutions, it's hard to see how one could keep things simple. And then your remark that about not learning from the past – surely emerging market economies did indeed learn something from repeated crises, so that they did not fall victim to the Great Financial Crisis. But doesn't this mean we should try to learn more and prevent what might otherwise happen? Perhaps I could ask you to comment on these two issues.

Anne's remarks were very interesting. You spoke about the financial industry's culture, and whether we should aim to prevent pushback (against what? regulation?). Yes, regulation could certainly do that, but could you be more specific about how we might go about it?

Anne Le Lorier

We do indeed have an issue with consumer protection, as shown in the case of a major bank opening accounts for its customers without their consent. This suggests to me that the incentives are wrong and that we need regulation to influence the remuneration regime, in order to lessen the incentives for this kind of behavior. Another example is the manipulation of Libor. Sanctions were taken against institutions and individuals, but we have to ask whether we did enough. Another is how far bank executives should take responsibility. How should we debate this kind of issue in a democracy? One needs to ask if we have enough democratic control over the financial sector.

Mervyn King

If I could first make a comment about culture and Anne's remarks, one very important point is the political influence of large financial institutions. As mentioned earlier, a UK journalist managed to discover how many meetings our Chancellor of the Exchequer had with leading executives of the six big banks. The answer was dozens of times, several in a six-month period. But, before the crisis, I remember that the chief executive of the Financial Services Authority complained that it took him months to get an appointment with the Chancellor. This shows where the real political influence lay, and that is a problem.

The aim of the regime for senior management is to keep people accountable. But what has happened in practice is that it's turned into a giant bureaucratic exercise in which every decision is documented along with the person who made it. But what you really should be worried about are the sort of decisions for which you want to hold the chief executive responsible, but you can't because his signature is not on a piece of paper. I'm concerned that our regulatory system has turned into a bureaucratic regime – one that has tens of thousands of pages of rules, but which doesn't actually work in practice.

As to your question on simplicity versus complexity, I think that this is, in part, about discretion versus rules. The problems that we face are clearly not simple. We don't know how much capital banks should be asked to issue, but the idea that you can write it down in a set of rules that apply to every single institution is what leads one into error. The risk weights that we constructed in the past were clearly too simplistic, although we didn't know it then – and we have to recognize that this is also going to be true in the future.

The fact is that our models are not the world; they are stories about how the world might work, and far too much macroeconomic work has chosen to talk about the model instead of talking about the world. A good example is the natural rate of unemployment and the natural interest rate – these are not constants of nature; they are features of a particular theoretical model.

In the 1980s and 1990s, what we in Europe noticed was that the natural rate of unemployment seemed to follow the actual rate of unemployment, rather than what the Walresian equations would grind out in some assumed equilibrium. We are seeing exactly the same now with the natural real rate of interest: it is following the actual rate of interest down. I think we need to take on board that the world is not stationary. One of the charts we saw earlier, the ratio of debt to national income, showed that vividly. This measure certainly isn't stationary and, if it isn't stationary, this should make us a lot more cautious about making statements with a false degree of precision and quantification. What economics can do is help you frame a problem: it provides you with insights without which you will fail to understand some of the key issues. What it can't do, though, is to give you the sort of quantification which a scientist might aim for in a natural science. Economics is not physics.

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