Lessons from the Global Financial Crisis

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It is an honour to speak to this Annual Conference, and especially to receive the Paul Volcker Award. The wisdom and longevity of Paul's contribution to central banking, and economic policy-making more generally, are truly extraordinary.

I first met Paul in 1991 just after I joined the Bank of England. He came to London and asked Marjorie Deane of the *Economist* magazine to arrange a dinner with the new central banker. The story of that dinner has never been told in public before. We dined in what was then Princess Diana's favourite restaurant, and at the end of the evening Paul attempted to pay the bill. Paul carried neither cash nor credit cards, but only a cheque book, and dollar cheques at that. Unfortunately, the restaurant would not accept it. So I paid with a sterling credit card and

Paul gave me a US dollar cheque. This suited us both because I had just applied for an account at the Bank of England and been asked, rather sniffily, how I intended to open my account. What better response than to say that I would do so by depositing a cheque from the former Chairman of the Federal Reserve.

I basked in this reflected glory for two weeks. Then I received a letter from the Chief Cashier's office saying that most unfortunately the cheque had bounced. Consternation! It turned out that Paul had forgotten to date the cheque. What to do? Do you really write to a former Chairman pointing out that his cheque has bounced? Do you simply accept the financial loss? After some thought, I hit upon the perfect solution. I dated the cheque myself and returned it to the Bank of England. They accepted it without question. I am hopeful that the statute of limitations is well past. But the episode taught me a lifelong lesson: to be effective, regulation should focus on substance not form. And I shall return to this point later.

Ten years ago, the biggest financial crisis of modern times was raging across the industrialised world, and we were exactly two weeks away from the failure of Bear Stearns. As Winston Churchill might have said about Bear Stearns in relation to the crisis as a whole: it was not the end, not even the beginning of the end, but it was perhaps the end of the beginning.

The economic and political consequences of the financial crisis are still to be seen today – both in reduced levels of output and employment across the world, and in the anger and frustration of many ordinary people who feel that they suffered and those responsible for the crisis did not. We owe it to those people, and to future generations, to create a financial system that serves all of society.

During the crisis we were vividly reminded of **three** old lessons. First, our system of banking is fragile, and reflects what I call financial alchemy. Banks that appear to be well-capitalised one day are not the next. Solvency is in the eye of the lender. Second, banks that borrow short and lend long are, as we saw in 2008, subject to runs that threaten the payments system and hence the wider economy. Third, regulatory reform, however well-intentioned, has now fallen into the trap of excessive detail. The complexity of the current regulation of financial services is damaging and unsustainable.

In all three areas, mistakes were made. They compounded an intellectual error in the analysis of risk and uncertainty. Much of modern macroeconomics imagines an economy that is stationary, and subject to random shocks or shifts generated by known probability distributions. Uncertainty is not like that. We can neither imagine all possible future outcomes, nor can we attach probability distributions to those outcomes. We confront radical uncertainty. In technical terms, stuff happens.

(1) Bank capital

Let me start with bank capital. How much equity capital do banks need to issue to convince the market that it's safe to lend to them? Before the crisis the answer was hardly any. Leverage was very 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 lending unsecured to the banking sector. The constraint on banks came not from regulators but from the market.

As time has passed, we are back to a more normal state in which regulators must decide on the appropriate amount of equity capital to cope with an unknowable future crisis. There is no simple, or for that matter complicated, answer to that question. It is a pragmatic judgement that regulators around the world have been trying to make by reference to stress tests and other tools. But expectations about potential losses can change very quickly. Stuff happens. So it is almost impossible to define an “optimal” capital ratio.

Obviously, the amount of loss-absorbing capital today is much 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’s impossible to know. Before, during and after the crisis, banks consistently denied that they were undercapitalised. We learnt that they were wrong. But the same lobbying is at work today. There is plenty of room for reasonable people to disagree about the appropriate level of capital requirements. But we should be worried that for some banks, especially in Europe, the market value of equity is less than book value.

As the crisis recedes from our memory, it's important that we do not forget the failures of the pre-crisis regulation of bank capital. Too much emphasis is still being placed on (a) regulatory risk weights to define capital requirements and (b) a resolution mechanism with bail-in-able debt to generate an adequate level of total loss absorbing capital.

Estimates of risk weights based on previous experience proved a poor guide to bank failures last time round, and the same is likely to be true in the next crisis. Once a crisis is upon us, all assets appear to be risky and much more highly correlated than in normal times. It is superficially attractive to argue that capital requirements should reflect risk. But the only risks that matter are those that come into play when there is a crisis. And they are hard to quantify in advance.

A resolution mechanism for banks, although a necessary part of a legal framework to prevent the "too big to fail" problem, is unlikely to be a solution to a system-wide loss of confidence in which placing many banks into resolution will be neither feasible nor desirable.

(2) Crisis liquidity provision

The second lesson concerns the provision of liquidity to the banking system when, as in 2008, doubts about solvency lead to runs on banks and shadow banks.

In a crisis, asset markets may be liquid one day and not the next. Reliance on liquidity regulation based on identifying in advance which markets will be liquid and which not does not work. Only central banks can provide catastrophe insurance in the form of backstop liquidity.

The problem in the last crisis was not the provision of liquidity – which all central banks did in copious amounts – but the failure to put in place before the crisis a clear *ex ante* framework for the provision of such liquidity. It is not enough, in the event of a crisis, to throw unlimited amounts of money at the system. If that is all you do, you will end up throwing more and more money at succeeding crises. And that in fact is a pretty good description of what has happened over the years. But to provide insurance without charging for it is to create serious moral hazard. By 2007, the US banking system had run down its holdings of liquid assets to below 1% of total assets.

To protect taxpayers and create the political support for central bank liquidity provision, we need to design a credible *ex ante* framework for that provision describing the liquidity that would be available against different types of collateral. I have proposed such a scheme in which the Federal Reserve would state in advance the amount of liquidity it would provide against pre-positioned collateral - a guaranteed cash credit line. It would require sufficient collateral to be pre-positioned so that the cash credit line was sufficient to cover all runnable liabilities. All existing liquidity regulation and deposit insurance would be abolished. Bank runs would be a thing of the past.

The inspiration behind the proposal comes from our experience at the Bank of England in October 2008. When the Royal Bank of Scotland came in to announce that they could not get to the end of the day, it was easy to decide that liquidity support had to be provided. The idea that their ATMs and deposit accounts would be closed would probably have led to a run on the entire banking system. At the end of the afternoon, I asked my staff what security we had taken in return for the provision of the loan of around $50 billion that we had promised. The answer was – mortgages. Whose mortgages? Impossible to say – there had been no time to assess the collateral. Like other central banks, the Bank of England had become an unwilling pawnbroker, lending against bad not just good collateral.

My proposal replaces the traditional lender of last resort function, and the provision of deposit insurance, by making the central bank a

Pawnbroker for all Seasons.[1]

In normal times, each bank would decide how much of its assets it would pre-position at the central bank allowing plenty of time for the collateral to be assessed. For each type of asset, the central bank would calculate the "haircut" it would apply when deciding how much cash it would lend against that asset. The key difference between the use of haircuts in commercial transactions today and under my proposal is that in the latter the central bank would make a promise for a lengthy fixed period of several years to provide a contingent credit line against that fixed haircut. Haircuts would not be revised within that period.

Adding up over all assets that had been pre-positioned, it would then be clear how much central bank money the bank would be entitled to borrow – with no questions asked – at any instant. The pawnbroker rule would be that the credit line of the bank would have to be sufficient to cover all liabilities that could run within a pre-determined period of, say, one month or possibly longer.

The rule would be a form of mandatory insurance so that in the event of a crisis central banks would lend on terms already agreed and without the necessity of a penalty rate on its loans. The price of the insurance would be implicit in the haircuts required by the central bank on different forms of collateral. Just as motorists are compelled to take out third-party car insurance to protect other road-users, so banks should be made to take out a certain amount of liquidity insurance in normal times so that they can access central bank provision of their liquidity needs in times of crisis. The pawnbroker rule would place some constraint on the degree of maturity and risk transformation undertaken by banks. But the explicit insurance provided by the rule means that there would be no reason for any depositor or short-term creditor to run. It would permit traditional banking without the risk of bank runs.

The scheme is not a pipedream. US banks have already pre-positioned collateral with the Federal Reserve sufficient to produce a total lendable value of just under one trillion dollars. Together with deposits at the Federal Reserve, the cash credit line of banks is around one-quarter of total bank deposits. And I cannot resist pointing out that Paul Volcker, in a Volcker Alliance report a year ago, endorsed the principles of the scheme.

The political acceptability of "bailing out" banks would be much improved if in normal times banks had to subscribe to a proper insurance scheme and were therefore entitled in a crisis to borrow from the Fed. A clear *ex ante* framework, agreed in advance by Congress, is a prerequisite for the Fed to be able to deal with a future crisis. Unfortunately, at present the only *ex ante* framework envisaged by Congress and the Administration is one in which the Fed is severely restricted in its ability to lend. That will not survive the next crisis. Over the next five years the Fed should engage Congress in a discussion of how to agree a framework within which the Fed can quickly take the discretionary decisions to provide liquidity that will be necessary to prevent an economic collapse.

No one was more critical of unconditional bank bailouts than myself. And there is no political support for them. But pretending that there will be no bailouts and then being forced to provide them to stave off another great depression is no answer. There is a better way – an agreed insurance framework approved in advance by Congress and implemented ex post by the Fed.

(3) Regulation

My third lesson is that well-intentioned regulation has gone off the rails by creating an extraordinarily complicated and detailed rulebook. Radical uncertainty means that principles are not easy to capture in detailed rules which can never be sufficiently detailed to cope with all future outcomes.

The aim of providing retail investors with straightforward and helpful information about investment products is a laudable objective. But let me give you two examples where European regulation designed to enhance investor protection has gone badly wrong. From 1 January this year, the Packaged Retail and Insurance-based Investment Products (PRIIPs) Regulation has required fund managers to distribute to investors a "key information document" – a KID – for each of their products. The purpose of the KID is to help retail investors understand the risk and return prospects for potential investments.

The KID is required to be accurate, clear, and not misleading. How information in the KID should be calculated is set out in the PRIIPs Regulatory Technical Standards using complex formulae prescribed by the European Securities and Markets Authority. Both the PRIIPs Regulation and related standards are directly applicable European legislation. But as John Kay has pointed out in a devastating critique, the information which funds are obliged to provide on prospective returns is little more than an average of past returns, and the measure of risk is a function of past weekly volatility.[2] Neither convey any useful information about **future** returns or risks relevant to retail investors. The legal rules ignore the fact that past returns are not a good guide to expected future returns, and weekly volatility may be relevant to professional traders but not to retail investors. For them, risk is altogether something different – the risk of not achieving their objective of saving for retirement or for a down payment on a home.

As a result, on 24 January 2018, the UK Financial Conduct Authority (FCA), published a statement saying that:

"Where a PRIIP manufacturer is concerned that performance scenarios in their KID are too optimistic, such that they may mislead investors, we are comfortable with them providing explanatory materials to put the calculation in context and to set out their concerns for investors to consider".

In other words, UK fund managers can advise their clients to ignore, or preferably destroy, the KID which they are by law obliged to distribute. But what is the incentive to do so if the figures prescribed in the KID paint the fund in too optimistic a light? And what is the point of forcing firms to distribute a misleading document? It is a bureaucratic nightmare, and the obsession with detailed pan-European rules has put the FCA in a most difficult position. Helping investors to understand the basic concepts of risk and return – something which both the industry and regulators seem incapable of themselves – would be more valuable.

Similar problems have hit the new Markets in Financial Instruments Directive, or MiFID II, which came into force in January. So complex are the rules that three of the largest European exchanges have been granted an extra 2 ½ years to comply with the new regulations, and estimates of the total cost of compliance to the industry run into the billions rather than millions of dollars.

And the otherwise worthy goal of making firms reveal transaction costs to investors has backfired. The rules permit the inclusion of asset price movements between the time when an order is placed and when it is executed in the calculation of transactions costs. They have resulted in some asset managers providing estimates of transaction costs which are actually negative. This defies common sense and has led representatives of the industry to describe the methodology underlying the rules as "fundamentally wrong".[3] The more regulators attempt to define precise detailed rules, which confuse more than clarify, the more likely is the outcome to be counter-productive.

Let me stress that the motivation for the regulation in both examples was well-intentioned and had the laudable objective of ensuring that investors were better informed. But detailed prescriptive rules which cannot take into account all circumstances in a world of radical uncertainty are, to use central bank language, unhelpful and inappropriate.

All three of these lessons – on bank capital, crisis liquidity provision and investor protection regulation, illustrate the importance of recognising radical uncertainty and avoiding the pretence of knowledge. We do not know when the next crisis will come, nor what it will look like. We need simple robust principles to guide us, not tens of thousands of pages of detailed rules which elevate the spirit of compliance over the spirit of proper stewardship of other people's money.

Over the years, I have come to respect more and more the abiding regulatory achievements of Paul Volcker. He was not blinded by pseudo-science. He looked bank executives straight in the face and asked them simple questions. We need more of that.

How do we get there? There is a potential deal on the table – to simplify complex capital and conduct regulation in return for an agreed *ex ante* framework, such as the pawnbroker for all seasons, for crisis liquidity provision to eliminate bank runs. The big lesson of the crisis is that it is time for a new deal – and a deal should appeal to the current Administration.

To those who prefer the current bureaucratic and legalistic morass where maturity transformation can still wreak havoc on our economy, I say just one thing: stuff happens. Are we prepared for it?

[1] For a more detailed explanation of the scheme see King, Mervyn (2016), *The End of Alchemy*, W.W.Norton, New York.

[2] Kay, John "Risk, the retail investor and disastrous new rules", *Financial Times*, 19 January 2018.

[3] http://www.efama.org/Publications/Public/PRIPS/EFAMA%20Statement%20on%20PRIIPs%20-%20December%202017.pdf.