BANK OF ENGLAND

Speech

Recollections on financial stability

Speech given by

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Almost exactly 25 years ago, on the day after a general election, I was handed the incoming government's surprise, detailed plan for giving the Bank of England operational independence in monetary policy making.

I was a Treasury official at the time. I was allowed to tell only a couple of colleagues and together we worked through that night and over the subsequent Bank Holiday weekend so that, three days after taking office, the new Chancellor could announce not just that he was giving the Bank monetary policy independence from that day but the key details of how the new system would work.

Over subsequent months, we prepared the necessary legislation, redrawing the functions of the Bank of England, and managed its passage through Parliament until the Bank of England Act 1998 was on the statute book.[1]

The Act did not mention financial stability, even though the legislation transferred the Bank's responsibility for the supervision and surveillance of banks to a new authority, the Financial Services Authority. The reforms to the Bank were focussed on the pressing issue of the time – the UK's high and volatile record on inflation.

There was, it is true, some consideration at the time of how the Bank, the Financial Services Authority and the Treasury should work together on financial stability issues. This was codified in a memorandum of understanding between the three authorities later that year, clarifying the roles of each and setting up the so called 'Tripartite Committee' to pursue "the common objective of financial stability in the UK". But there was no statutory backing for this objective – nor was the Bank or the Financial Services Authority given any specific powers to secure it.[2] The Bank did not get a financial stability objective until 2009.

I should emphasise at this point that this was not some idiosyncratic UK blind-spot.[3] As the Global Financial Crisis was to reveal brutally, some 10 years later, the increasing integration and liberalisation of the global financial system that had been in train since the last decades of the 20th century had not been accompanied by anything like a commensurate attention to financial stability. Warning signs were not recognised. And when the crisis struck, institutional arrangements were found sorely lacking in all of the key jurisdictions.

The depth and duration of the economic damage done by the near death of the global financial system over 10 years ago, led to a general realisation of the cost of losing financial stability[4] and the need for greatly reinforced mechanisms to prevent it happening again.

[1] The Bank of England Act received Royal Assent on 23 April 1998 and came into force on 1 June 1998.
[2] The Financial Services and Markets Act in 2000 did not mention financial stability.
[3] Note that the Maastricht revisions to the EU treaty that created the ECB did not include a reference to financial stability.
[4] The Global Financial Crisis led to a loss of economic activity equivalent to around £20,000 per person in the UK, based on the net present value of the shortfall in income since 2007 compared to its pre-2007 trend (Brazier 2019). The level of real GDP in the UK did not return to its 2007 level until 2012 and it has remained below its pre-2007 trend ever since.

In the UK, following the model of the monetary policy reforms ten years before, an independent committee of the Bank of England – the Financial Policy Committee (the FPC) – was established, armed with serious powers and charged with the responsibility of ensuring financial stability.

And, shortly after its formal establishment, in 2013, I was appointed Deputy Governor for Financial Stability. I have often, by the way, wondered whether this twist of fate was poetic justice for the failure of my younger self to understand the fundamental importance of financial stability back in 1997. I have, in any event, spent the last 8 years, trying to embed and develop the domestic and international machinery to ensure we can have a vibrant and innovative financial system – but without periodic financial stability crises.

I want this evening to set out some of the key lessons over that period I have learned about financial stability – about the FPC's objectives and its scope and also to talk a little about some of the challenges it currently faces.

The objective: what are we trying to achieve?

I'll start with a question that I have been asked many times over the last 8 years: "what exactly are you trying to achieve?" It is a very reasonable and a rather awkward question. While there are many indicators of financial activity, there is no single metric, no quantified objective for financial stability.

My answer is rooted in the human characteristic that makes financial activity – and indeed, economic growth – possible: our ability to envisage the future.

Human beings are probably unique in being able to imagine the future. I say 'probably' because there may be evidence that suggests that some animals may share, to a limited degree, our ability to engage in what has been termed 'mental time travel' – the ability we have in our minds not only to recall the past but to use past experience to form expectations of the future.

Mental time travel no doubt evolved because it gave us advantages as a species. It is fundamental to the development of economic life which is inextricably bound up with our ability to form expectations about the future and to make claims upon it.[5]

However, though we can envisage the future, we cannot know it. Whether we form our expectations by extrapolating our memory of the past or whether they are rationally formed on the basis of all available evidence, they are expectations, no more. And when, for whatever reason, the future does not match those expectations there has to be a correction.

[5] Expectations is an important topic in economics. The workhorse macroeconomic model that the MPC uses to produce its forecast assumes that consumers and firms have rational expectations – so they can correctly analyse the available information and work out its implications for the future. But there is also evidence that in practice people extrapolate the recent past to form their expectations of the future (Shiller 2000).

Such corrections happen every day, of course. The future, when it arrives can exceed or disappoint expectations and investors make or lose money as a result. However, if the correction is very large and widespread, the shock can endanger the financial system as a whole, particularly if the dynamics in the system amplify rather than dampen the impact.

The correction can come because expectations of the future have become highly unrealistic and cannot be sustained, as happened in the years leading up to the Global Financial Crisis.[6]

But it can also happen because an unanticipated event causes a sharp adjustment of expectations, as happened at the onset of the Covid pandemic two years ago – and indeed may be happening now as expectations adjust to the reality of the invasion of a peaceful European country by its neighbour.

Such corrections cannot be avoided. They are a feature of the financial system, generated by the fact that we can envisage the future but we cannot predict it.

The task of financial stability authorities is to ensure that when shocks occur, the financial system is resilient so that it does not amplify the impact on the real economy but rather, to the extent possible, is able to absorb them.[7]

It's the tail that matters

It follows from this that financial stability authorities must focus on what *could* happen rather than just what is most *likely* to happen.

This is very different to monetary policy. For the MPC the key question is: "what is our central forecast – the most likely outcome[8] – for inflation and GDP, and in the light of that how should policy respond?"

The FPC's primary concern is not the central probability – what is most likely to happen – but rather the severe but plausible possibilities that lie in the 'tail' of the probability distribution, so called 'tail events'. The key question for FPC is "what could plausibly happen and, if it happened, would the financial system amplify or dampen the shock?"

This is the basis on which we stress test the core banking system every year. To be clear, we do not try to anticipate specific types of shock – such as pandemics or wars. Rather, using historical data, we anticipate the impacts a major shock could have on the economy – on growth, inflation, unemployment, house prices

[6] See Shleifer and Gennaioli (2018).
[7] See Brunnermeier (2021) for a broader discussion of resilience.
[8] The MPC also routinely considers the risks around its central forecast and publishes 'fan charts' to reflect that.

and financial markets, for example interest rates, asset prices and currencies. We then test the major banks to ensure they can withstand a stress scenario comprising those economic and market impacts.

The benefits of focussing on the tail were demonstrated vividly at the outset of the Covid crisis two years ago. The realisation of the impact of the pandemic and of the restrictions on economic activity that would be required to contain it led to an abrupt and very large correction in expectations of economic prospects. Unlike the Global Financial Crisis, however, that correction did not lead to a loss of confidence in the banking system, to fears that it did not have the resilience to absorb the hit.

Governments, as we now know, subsequently stepped in with fiscal support to cushion the impacts on the real economy and which minimised the impact on the banking system. But in those early weeks, before the extent of fiscal support was known, the banking system remained robust and indeed was able to meet a dramatic increase in precautionary borrowing by the corporate sector.[9]

One cannot of course assume that Governments will always be able or willing to provide fiscal support to cushion a shock. That is why it was important, throughout the Covid crisis to continue to test the banking system to see if it could withstand a further major shock of similar severity – but without government support to the economy. The results confirmed that it could.

Focussing on the tail has been a key to ensuring the banking system, which was the epicentre of the 2008 financial crisis, supports financial stability. But, this leads me to the second lesson I have learned over the past 8 years: financial stability is about more than the banking system.

It's not just banks…

Non-bank finance – the vast ecosystem of investment funds, pension funds, insurance companies, sovereign and private wealth funds – now accounts for around half of global financial assets.[10] Most of the growth in finance since the Global Financial Crisis has come on the non-bank rather than the bank side.[11] This growth in non-bank finance helped to support the real economy as it recovered from the downturn.

Non-bank finance carries different and perhaps lesser risks than banks.[12] Unlike banks it is less an issue of large systemic institutions but more of correlated actions by a large number of diverse players. But the sector presents its own financial stability risks. It can be subject to 'run risk' where investors seek to redeem their investments and this leads to demand for liquidity to meet these redemptions, often in illiquid markets.

[9] In March 2020 net bank lending to UK corporates was almost 30 times its average over the prior three years.
[10] The share in the UK is in line with the global average, at around 50%.
[11] Global bank balance sheets have grown by 60% over the period whereas non-bank finance has grown by 120%.
[12] For example, it generally uses far less leverage. Investors are often also only entitled to the market value of their investment whereas bank depositors are entitled to their money back.

Non-banks are highly interconnected with the rest of the financial system, which means that shocks transmit quickly, including to systemic institutions, such as banks.

The FPC has been concerned for a number of years about how market-based finance might behave under a systemic stress.[13] But the breadth of the sector, the number and diversity of participants, the lack of data and the cross border nature of non-bank finance have made it far harder to apply a stress test approach like we do for banks.

We do, however, now have the result of a real life stress event, the Covid shock of two years ago. This exposed some important vulnerabilities in non-bank finance.

In February 2020, as the implications of the Covid pandemic became clearer, there was a ‘flight to safety’. Investors shifted from riskier assets to safer and more liquid assets. The prices of safe assets like government bonds and gold rose. Such a shift is the correction one would expect given the adjustment in expectations of global economic prospects.

But the non-bank financial system proved unable to manage the correction. Around the first week of March 2020, what had been a move to safe assets turned into an accelerating ‘dash for cash’. In order to obtain cash – and with markets for less liquid assets effectively closed – investors sold their safest assets because they needed to meet margin and redemption requirements. As the price of safe assets dropped, the ‘dash for cash’ was amplified: money market funds, investment funds, hedge funds, pension funds and others were forced to sell more assets in order to meet redemption requests, pay margin calls and reduce leverage. Core government bond markets began to seize up.[14]

At a time of great stress when the global economy needed the support of easier financing conditions, the opposite was happening. Market interest rates rose. In a nutshell, the ‘dash for cash’ was amplifying the economic stress of the pandemic.

These dynamics were halted only by massive central bank intervention to support the market and restore order. Around the world central banks announced plans to purchase more than $1.5 trillion of additional assets in total in March 2020. In the UK, the MPC quickly increased the stock of asset purchases by £200 billion.[15]

[13] The FPC did its first in-depth assessment of non-banks – focusing on investment funds – in 2015.
[14] 10-year US treasury yields spiked by 75 basis points in a week, and the average price fell by 6%, even though there was essentially no change in CDS and therefore the market-implied credit risk of the US government. Similar falls were seen in other government bonds including the UK, Germany and France.
[15] The Fed announced up to $700 billion in asset purchases and the ECB announced €750 billion.

The real life stress test of March 2020 demonstrated how non-bank finance can amplify shocks. In November 2020 the Financial Stability Board published its initial analysis of how the various elements of the system may have contributed to the stress. Further, more detailed work is underway.[16]

But with one or two exceptions, we are still a long way from agreement about whether and how policy action should be taken to make the non-bank financial system more resilient to the stress of a large correction. And until we take coordinated international action in the areas identified by the Financial Stability Board, we remain, in my view, vulnerable to the risk that non-bank financial system amplifies a future major correction to expectations.

I will return to this concern later when I address the financial stability challenges we face today. But first I want briefly to touch on two other lessons I have learned about financial stability.

It's not just the financial sector…

The first is that financial stability is about more than the financial sector.

As I noted at the outset, the economic damage to the UK from the Global Financial Crisis was exceptionally deep and the recovery was slower than the recovery from the great depression of the last century. One material reason for that, was that in the crisis highly indebted households cut back more sharply on their consumption. This in turn deepened and prolonged the recession, adding further to the damage to the financial sector.[17]

Household debt relative to household income is an important metric for financial stability. There is a sizeable body of research on the link between rapid increases in household debt and financial crises.[18] High levels of household debt relative to income are also associated with longer and deeper recessions.[19] In the UK, household debt is driven primarily by mortgage borrowing, which in turn is driven by demand for housing and house prices.[20]

In 2014, the FPC decided to introduce policy measures to constrain the growth of household mortgage debt to income, particularly in the event of a housing boom. Last year it published its latest review of those measures.[21]

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[16] See the Financial Stability Board's Progress report in November 2021 and Box B of the Bank of England's Financial Stability Report in December 2021.

[17] See Kovacs, Bunn and Rostom (2018).
[18] See Jordà, Schularick and Taylor (2016) .
[19] See, for example, Mian, Sufi and Verner (2017) and Bridges et al. (2017).
[20] See Cloyne et al. (2019).
[21] See Section 3 of the December 2021 Financial Stability Report and a recent consultation paper on the FPC's proposal to withdraw its affordability test Recommendation.

We have published extensive evidence and research on the impact these measures have had and the role they play.[22] I will not go into this in detail. However, it is, I think, reasonable to conclude that they have had an impact in keeping household debt, in aggregate, growing in line with household income. And, though this is less well-established, keeping house price growth more in line with income growth.

The FPC's action on mortgages can be viewed through same the lenses of expectations, corrections that I used earlier. When household expectations of future prospects and income have to adjust sharply, the correction is more damaging – to the economy and to the financial sector – if household debt to income is high.

It isn't just financial risk

The final lesson that I will touch on briefly is that financial stability is about more than the financial risks when expectations have to adjust. The financial system is also vulnerable to operational risks which, were they to crystallise could bring key elements of the system down and cause a financial crisis.

Quite early in its existence, the FPC recognised the importance of the risks of cyber attacks on the financial system and instituted a programme of cyber penetration testing of key financial firms and of cyber stress tests of key parts of the system. I have to say that these risks look less and less like tail risks by the day.

This focus has also broadened to cover system resilience to operational risk more generally. This area of the FPC's work is very different to the work of ensuring the banking system can absorb losses or that the non-bank financial system is not prone to severe liquidity stress. But it is, as recent events perhaps demonstrate, an essential part of ensuring financial stability.

Future challenges

Having looked back at some of the lessons of the last 8 years, I want to conclude by looking forward at some of the challenges to financial stability going forward.

I will begin by briefly highlighting two challenges that are likely to be with the FPC for many years and long after I have left the committee – climate and crypto. I will then spend a little more time on the immediate challenges to financial stability of the current conjuncture of high inflation, tightening monetary policy and a war in Europe.

[22] The FPC's most recent analysis was published in the Technical annex to the December 2021 Financial Stability Report.

Climate change is in many senses the most systemic risk we face, as the IPCC's latest report on Monday reminds us. The physical effects of climate change, such as more frequent severe weather events, and the policies necessary to reach net zero have financial sector risks.

While many in government, industry, and finance are working to support the transition to a net-zero economy, the future temperature pathway and policy outlook remains uncertain. To help the financial system navigate through this uncertainty we can use climate scenario analysis and stress testing to explore a range of possible futures.

We are currently considering the responses of the UK's first stress exercise to assess the resilience of the core financial system to different climate scenarios. Over time these types of exercises and improvements in the underlying scenarios should give us a good understanding of the climate-related vulnerabilities that exist across the financial system and better inform our policy response. This will be an increasing focus of the FPC's work in coming years.

The advent of crypto technology in finance poses a very different set of questions. Recording and transferring ownership of assets is the bedrock of the financial system's role in storing value and in making transactions. Crypto technology enables recording and transfer to take place without the banks or custodians that have historically carried out this function.

At present, these technologies have been used in finance mainly to create speculative investment assets like Bitcoin. These are highly volatile because they have no intrinsic value – in other words as there is nothing behind them there is nothing to prevent their value going to zero.

The value of such assets has grown very rapidly over the past few years and they are beginning to become connected to the conventional financial system. We have also seen strong growth, though from a lower base, in so called 'stablecoins' – crypto assets used for crypto payments like Tether.

And, more recently, we have seen early examples of the combination of crypto technology and the public blockchain with so called 'smart contracts' to offer financial services like lending or derivatives, algorithmically and wholly outside the conventional financial system – and outside regulation.

A great deal has been said recently about the financial stability risks from crypto.[23] In a nutshell, crypto is not at present large enough or connected enough to represent a financial stability risk. But it is growing and developing fast. I am not a technologist but it I think is a fair bet that the use of these technologies in finance will offer benefits in finance and will grow. And as it does so the distinction between the crypto world and the world of conventional finance will become less and less clear.

[23] See Cunliffe (2021) and the recent report by the Financial Stability Board.

Regulatory authorities are now engaging to ensure that as this technology is used to a greater extent and in different ways the same risks are protected to the same extent, whether a financial activity is carried out using crypto technology or conventional finance. This will be a major focus of financial stability and other authorities in coming years.

The current conjuncture

I want to return now to non-bank finance and the nearer term challenges of the current conjuncture.

As I noted earlier, non-bank finance now makes up about half of the global financial system. The growth of this channel of finance has benefits. One of the lessons learned in the financial crisis was that economies that were over dependent on the banking channel for providing credit to the economy suffered more when that channel broke down. In contrast, economies like the US that also had a strong non-bank finance channel suffered less economic damage.

But the growth of non-bank finance since the Global Financial Crisis has also been characterised by the so called ‘search for yield’. These markets have expanded in the world of very low interest rates and abundant liquidity that has been necessary to return chronically low inflation to target and support growth.

Over the period, as investors have searched for higher returns they have had to take on more risk. There has been marked growth in riskier types of debt and in equity markets. The leveraged loan market – riskier lending to corporates that already have high levels of debt – has grown rapidly.[24] Lending standards have also weakened, increasing the risk.

The level of risk taking reached particular highs in 2021 as the world economy started to emerge from the pandemic.[25] At the same time, the compensation for risk bearing is, for many assets, close to historic lows.[26]

Economic and financial conditions are now changing. The restarting of the world economy following the pandemic has led to major supply side disruptions and strong inflationary pressures. In many advanced economies, central banks have entered a tightening phase. As interest rates rise to combat inflation, and QE comes to an end or goes into reverse financial asset prices will change and investors will rebalance their portfolios.

The adjustment to the new environment has already started. The price of riskier assets has fallen as expectations of higher interest rates have increased since the beginning of the year.[27]

[24] Leveraged loan issuance has grown by a quarter since the Global Financial Crisis and there is now a stock of $4 trillion.
[25] The issuance of riskier high-yield debt in major advanced economies in 2021 was more than 50% higher than the average of the past decade.
[26] Although risk premia – the compensation that investors demand for bearing risk embedded in the prices of financial assets – have increased somewhat in recent months, the premia for many assets remain near the bottom of their historical distributions. This includes corporate bonds, leveraged loans and equities, particularly in the US.

To be clear, a period of adjustment to bring the price of risky assets in line with the new economic and financial environment is not necessarily a financial stability event.

But the necessary adjustment is not without risks. Market expectations of interest rates should, of course, already be factored into financial asset prices. But if those expectations were to change suddenly and markets began to expect much higher rates, we could see sharp moves out of risky assets.

Moreover, if expectations of economic prospects deteriorated – if weaker growth and higher inflation were expected – concerns about creditworthiness could reinforce movement out of risky corporate debt and equities.

To these challenges, we must now add the impact of the Russian invasion of Ukraine – the first such event in Europe for over 70 years. As with the Covid pandemic, the events of the last few days have led to an abrupt shift in our expectations of the future and an increase in uncertainty.

It is not yet clear how these events will play out or what their longer term impact will be – including in economic and financial terms. Russia is a relatively small part of the world economy, accounting for around 2% of world GDP. It accounts however for a much larger share of the world supply of energy and other commodities.

The sanctions that have been announced will do severe damage to the Russian economy but should not in and of themselves pose material risks to financial stability more broadly. But the heightened perception of geopolitical risks, and the potential impacts on growth and inflation, can only increase risks around the adjustment away from riskier assets that is already underway.[28] And this comes during a period of relatively low market liquidity.[29]

All this comes in the context of the vulnerabilities in non-bank finance, exposed in the 'dash for cash' two years ago, that can lead to powerful and adverse liquidity dynamics under stress. While, as I have set out, there has been considerable and valuable work to analyse and understand these, we have not actually taken any steps to mitigate them.

Financial stability authorities like the FPC are of course closely watching how these adjustments unfold. And we will act as necessary to protect financial stability.

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[27] The prices of US tech stocks in the NASDAQ index, which are more vulnerable to rising rates than other stocks because of their longer-dated cash flows, have fallen by more than 10% this year. Corporate bond spreads have also widened, although they remain well below historical averages.
[28] Equity prices have fallen slightly and corporate bond spreads have risen slightly in the UK and Europe over the last week. At the same time, 10-year government bond yields have fallen and the dollar has appreciated.
[29] Some measures of market liquidity such as market depth and bid-ask spreads were already showing signs of illiquidity ahead of the Russian invasion of Ukraine, and have worsened since.

I am not saying that markets will be unable to manage the necessary adjustments. Nor that we will experience another ‘dash for cash’. But all of this, in my view, underlines my first lesson: that securing financial stability means ensuring the financial system has the resilience to withstand severe and unanticipated shocks, however generated. And that it is able to dampen rather than amplify their impact. We have made great progress towards this over the last 8 years. But there is still, I think, much to do.

It is important that we maintain our commitment and take the necessary action to ensure our financial system is resilient. I started this talk by recalling how we did not pay sufficient attention to financial stability 25 years ago. The subsequent lessons we learned about its importance were painful and hard won. I very much hope that, as those events become more distant, we do not forget them.