Paul Tucker: Macroprudential policy – building financial stability institutions

Remarks by Mr Paul Tucker, Deputy Governor for Financial Stability at the Bank of England, at the 20th Annual Hyman P Minsky Conference, New York, 14 April 2011.

* * *

These remarks do not necessarily represent the views of the Bank of England or the interim Financial Policy Committee. I am grateful for comments from Charles Bean, Alastair Clark, Roger Clews, Spencer Dale, Paul Fisher, Andy Haldane, Don Kohn and Hector Sants.

Thank you very much for inviting me to join you this evening. Having spent much of my career thinking about or living through the issues studied by Hyman Minsky, it is a very great honour to be here.

I am going to begin with the birth of the Federal Reserve. And then I am going to discuss the birth, a century later, of a new institutional framework for financial stability in the UK.

It is almost a hundred years since the Federal Reserve was established, after successive waves of bank runs. Against the instincts and interests of the followers of President Andrew Jackson, America finally found itself with a central bank. Its purpose, cast in 1913, was "to furnish an elastic currency, to afford a means of rediscounting commercial paper, [and] to establish a more effective supervision of banking in the United States". In other words, the Federal Reserve was to be the lender of last resort and it was to ensure stability of the banking system: a financial stability mandate. Experience showed that instability often followed a speculative bubble and that such bubbles were often fuelled by credit. The framers of the 1913 Act were, accordingly, anxious to avoid the new Federal Reserve making it easier for the private sector to lend into such bubbles. The Act gave the Fed permission to "discount notes and bills of exchange arising out of actual commercial transactions for agricultural, industrial or commercial purposes". But it barred the Fed from rediscounting paper "drawn for the purpose of carrying or trading in stocks, bonds or other [private] investment securities". The *Real Bills Doctrine* was, therefore, a driving principle of the Federal Reserve's original charter. And in 1935 Senator Carter Glass, who had sponsored the 1913 Act, resisted attempts by Fed Chairman Marriner Eccles to change that part of the Fed's mandate, because he blamed the Great Depression on the preceding speculative excess.

The mandate did not really have anything to say about preserving nominal stability – that is, low and stable inflation of consumer prices. So long as the Gold Standard delivered, that lacuna was probably masked. But as the Fed became the anchor for a flat currency, the Real Bills Doctrine proved woefully inadequate as a founding precept. Lending only against self-liquidating commercial paper does nothing to prevent an acceleration in prices, as the central bank's balance sheet simply accommodates any increase in credit driven by a rising general price level. As central banks around the world came to concentrate on preserving stability in the value of their money in terms of goods and services, they put the Real Bills Doctrine in the dustbin of ideas.

Wind forward a hundred years. The buzzword is "macroprudential". And the talk is of how to lean against speculative bubbles or tame the credit cycle; of how to contain contagion and systemic crises; of the role of central bank liquidity facilities; and of how to give banking supervision a more systemic perspective.[1] It is striking that those concerns are not so distant from those of the framers of the 1913 Federal Reserve Act. Much is said about "missing

[1] See, for example, "Enhancing Financial Stability and Resilience: Macroprudential Policy, Tools and Systems for the Future, Group of 30, 2010.

instruments". It has been a mistake for central bankers, and the legislators to whom they are accountable, to focus at different points of their history on only one of either the stability-threatening excesses of (real) credit cycles or, alternatively, inflation. In the language of the Bank of England's 1991 statement of Core Purposes, central banks need a mandate for both monetary stability and financial stability.

In the UK that will now be enshrined by putting a Financial Policy Committee alongside the Bank of England's existing Monetary Policy Committee. The Committee has recently been established, on a non-statutory basis for the interim. But that poses a host of questions. How do we define financial stability? What is the FPC and what is its objective? Why should it be separate from the microprudential supervisor, which is also being moved to the Bank? What will be the FPC's instruments? Are they all directed at banks? Will they conflict with monetary policy? And, more prosaically, how will the FPC operate and be accountable?

I shall set the scene with some general reflections on financial stability, including how it might be defined, and how its scope extends to the resilience of capital markets as well as that of banks (and shadow banks). After those more general observations, I shall try to answer some of the key questions about the FPC.

What is financial stability?

Why financial stability matters

Under legislation introduced in the UK in 2009, the governing body of the Bank of England, Court, is required to set out a strategy for the Bank's financial stability work. We publish it in our Annual Report. We have tried to clarify why society should care about financial instability. It is for the obvious reason that we need to preserve the key services that the financial system provides to the real economy: payments and transactions deposits; the intermediation of savings and investment via credit and equity; and insurance and risk transfer. In the latest crisis, the payment system *was* preserved but only at a massive cost to the taxpayer, and even then official support operations could not prevent the severe credit crunch that led to a horrible global recession. That is *why* we care. And it underlines the importance of ensuring that the system of credit intermediation (and risk transfer), not only the payment system, is robust.

Instability and resilience

But not every severe interruption in the provision of financial services is the result of instability. *In*stability is characterised by a problem in one of part of the financial system – a bank, a market, part of the infrastructure-spreading to other parts and threatening to spiral out of control.

Financial systems are prone to bouts of instability, due to the inherent fragility of the balance sheets of many participants, together with the complex networks through which they are connected. First, many firms are highly *leveraged*, meaning that a given fall in the value of their assets has a magnified effect on their net worth; and run significant *liquidity* risks, so that they can face distress if their liabilities crystallise before their assets. Given opacity about their financial strength, this can leave such firms exposed to runs when the weather turns nasty. Second, as recently laid out by Governor Tarullo,[2] a problem in one firm can spread via the domino effect created by chains of counterparty credit exposures; forced asset sales; or contagion due to the reality or perception of common problems.

[2] Daniel K Tarullo, "Regulating Systemic Risk", March 2011.

And, to be clear, this is not just a vulnerability of firms. *Markets* too can suffer a self-fulfilling evaporation of liquidity. A central element of the recent crisis was, indeed, the drying up of liquidity in the ABS markets and the money markets. As liquidity premia soared, many asset values collapsed, and the net worth of many traders and banks was eroded. This was a vicious circle, because the liquidity of many financial markets depends on short-term traders being ready and able to trade, since end-buyers and sellers will not always want to transact at the same time. Those traders often depend, in turn, on maintaining access to financing from banks. Everyone has been reminded, therefore, that the liquidity of markets and the well-being of leveraged, maturity-mismatched firms are inextricably intertwined.

Our capital markets and much of the "plumbing" of the financial system – notably the payments system – rely on confidence in the integrity of the assets being traded, in the robustness of counterparties, in the reliability of infrastructure. Crises nearly always involve that confidence sliding away. So, although financial systems look solid most of the time, they can in fact prove brittle. Their degree of vulnerability or resilience depends, amongst other things, on the leverage and the liquidity mismatch *in the system as a whole*. That entails thinking of the system in aggregate (effectively netting out intra-system exposures), in terms of its position vis a vis borrowers and savers in the rest of the economy. And it means thinking of the system *distributionally* (ie gross), meaning the network of exposures amongst firms and taking into account the weakest links in the chain.

Pulling those various strands together, a definition of financial stability that has informed my own contributions to the reform debate is the following:

> "financial stability prevails where the financial system is sufficiently resilient that worries about bad states of the world do not affect confidence in the ability of the system to deliver its core services to the rest of the economy."

The key words are "confidence" and "resilience".

"Bad states of the world" obviously include recessions; and other jolts from the real economy, due to the accumulation of too much debt within or between countries. Macro imbalances do not invariably lead to instability in the financial system, but they do often extend the chain of intermediation between savers and investors, can unravel in ways that reduce asset values and increase volatility, and are often sustained by accumulating indebtedness. In the face of ultimately unsustainable macroeconomic imbalances, whether domestically or internationally, the financial system therefore needs to be *more* resilient than otherwise. That was badly neglected around the western world in the years running up to the current crisis. (And it remains a risk going forward.)

Resilience sounds, and *is*, highly desirable. But it is not a free good. There are trade-offs. And here lies an important contrast with monetary policy. No one seriously believes that there is a trade off *in the long run* between, on the one hand, inflation and, on the other hand, growth and employment. While a monetary authority can pump up nominal demand to enhance output and employment in the short run, in the long term the impulse is dissipated in a higher price level, with the economy's real equilibrium determined by real factors alone. But in the financial stability arena, there *is* a long-run trade off. An economy with a repressed financial system is unlikely to experience financial instability, but it would have plenty of other problems.

In consequence, the authorities have to set standards of resilience suited to tail events without impairing the wider functioning of the economy. But we also need to be equipped to raise the required standard of resilience in the light of changing circumstances, notably if we judge the world to have become more threatening than previously foreseen. That is the basis for macroprudential policymakers, such as the UK's FPC, being able to deploy "cyclical" instruments, as I shall describe later.

Firms, markets and infrastructure

The resilience of the system depends on that of its component parts and on how they are connected. In the real world, that means firms, markets and infrastructure. It means looking for and addressing vulnerabilities or faultlines in all three. And it entails choices, trade offs, about how far to make individual firms robust and how far to strengthen the system by reducing spillovers from a distressed firm to other firms and markets.

Amongst firms, plainly banks are a priority. As monetary institutions, they are special. Their deposit-liabilities are money. And that enables them to provide committed, on-demand lines of credit, ie *liquidity*, to households and firms in the real economy and to traders in financial markets. Firms of all kinds are able to economise on the stock of liquid assets they would otherwise need to hold.[3] But banks can provide those liquidity-insurance services only if depositors are confident that they can convert their deposits into cash (central bank money). That does not mean that every bank must be completely safe, but it does mean that the resolution regime must be equipped to preserve their core monetary services whether by resurrection or the transfer of transactions-deposits to a healthy competitor.

In talking about banks, I must stress that it is the economic substance that matters, not the legal form. We must also take care with the resilience of "shadow banking" firms and structures characterised by liquidity transformation and leverage.[4] And we must take account of the network of exposures and behavioural influences of funds, long-term institutions, brokers etc.

They are all connected by *markets*.

I find it is helpful to distinguish between those markets whose role is to provide essential support to banking and insurance, and those markets that *directly* deliver the financial system's core functions to the rest of the economy.

For example, the overnight wholesale money markets are vitally important, because banking could not operate without them. They are effectively part of the payments system infrastructure, and have long been of concern to central banks. The financing markets, notably repo, fall into the same broad category, although the authorities could have been closer to the securities lending markets over the past decade. There is a lesson in that.

Some other markets, typically in the past more distant from the attention of the financial stability authorities, may matter in their own right to end users. That is especially relevant where a significant proportion of the intermediation of savings/investment occurs via capital markets rather than via bank balance sheets. In the USA at least, some securitisation markets probably pass that test. In the UK, I would guess that the equity and corporate bond markets do so. The integrity of those core capital markets is vital. Such markets must be resilient to shocks. Otherwise disruptions could materially impair the supply of credit (and equity) to the economy, with macroeconomic and other welfare costs. When the securitisation markets closed in the USA, it was not realistic for that part of the credit system to be reintermediated by the banking system in short order.

The essential ingredients of a resilient market include a robust post-trade infrastructure for clearing and settlement. But trading platforms matter too, as do disclosure standards, and even the pattern of demand. In my book, a market is unlikely to be resiliently liquid if demand is almost entirely from leveraged investors and traders: not only do they vanish when prices stop rising, but prices are then subject to the sudden force of gravity. Much of the

---

[3] Anil Kashyap, Raghuram Rajan and Jeremy Stein, "Banks as liquidity providers: an explanation for the co-existence of lending and deposit-taking", Journal of Finance, February 2002.

[4] See "Shadow Banking, Financing Markets and Financial Stability", Tucker, January 2010. The Financial Stability Board released a first paper on Shadow Banking earlier this week.

securitisation markets would have failed those tests from around the middle of the past decade. That is a lesson we and our successors will need to recall when contemplating future innovations.

Over time the Financial Policy Committee will need to consider whether, as a matter of fact, core capital markets in the UK are sufficiently resilient for stability to be preserved in stressed conditions. We will not be able to do that without working constructively with the securities markets regulator and with infrastructure providers.

Resilience, risks, and financial firm behaviour

So far, I have spoken as if the external threats to the financial system from the business cycle and its capacity to withstand the crystallisation of those risks are essentially separate. That is not remotely true, of course. The behaviour of the financial system affects the weather.

This is due to the particular features of the credit system. A credit boom leads both to borrowers becoming overindebted and, unless they have shed the risk, to lenders finding themselves overextended as well. As the probability of default rises, the capacity of lenders to absorb default typically becomes impaired. A double whammy. And a credit boom can fuel asset price rises, giving a boost to banks' net worth and back into lending conditions, in an apparently virtuous circle, until it proves vicious.[5]

It matters enormously, therefore, that the system is prone to periods of exuberance in which credit conditions become loose, borrowers overextended and asset prices inflated. That owes a lot to myopia about tail risks.[6] But incentives matter too. Whether the diluted incentives of bondholders to price risk in banks prudently, given a belief that they would be bailed out. Or the incentives, here in the USA, for Government Sponsored Enterprises such as Fannie and Freddie – massive players in global capital markets and so with a significance stretching beyond your borders – to take on more risk in lending to poorer households. Or for banks to badge illiquid ABS tranches as trading positions in order to benefit from much lower Trading Book capital requirements. Or for banks to move credit portfolios to off-balance sheet vehicles supported by liquidity lines against which no regulatory capital had to be held. I could go on and on. The microeconomics of finance matters hugely to stability. The faultlines of the system are sometimes obscure.

And a macroprudential authority needs, therefore, to be attentive to the complex ways in which the different parts of the financial system interact, generating leverage and liquidity risk. Threats may often be buried in the complex details of the system – subprime CDO^2, conduits and SIVs etc in the latest crisis; investment trust cross holdings in the 1920s – but the task is to make the connections without getting lost in the trees.

Which brings me from scene setting to the real world of the new UK framework.

The UK's new Financial Policy Committee

Who we are

The FPC exists. We will hold our first formal policy meeting in June.

We are a Committee of eleven. Five of us are drawn from the executive of the Bank, increasing to six when microprudential supervision of banks and insurers moves across in

---

5 Hyun Shin has set this out with great clarity.

6 See Tucker, Comments at Clare College, discussion of Lord Turner's Lecture, "Reforming finance: are we being radical enough?", Cambridge, February 2011.

2012/13. The two senior officials of the UK's existing regulator, the Financial Services Authority, are members during the interim period. And once the legislation has passed, the chief executive of the planned new securities/consumer regulator, the Financial Conduct Authority, will be a member, reflecting, as I have outlined, the vital role of market regulation in preserving stability. There are four external members, including from the USA Don Kohn, the former Vice Chairman of the Federal Reserve Board.

The Government expects the legislative process to be complete towards the end of 2012. In the meantime, during the interim, non-statutory phase of our existence, the Financial Policy Committee has two broad functions: "paving" and "shadowing". We will *pave* the way for the statutory incarnation of the Committee by advising the government on the instruments and powers we could be given by Parliament. And, secondly, we will as far as possible *shadow* the role of the statutory FPC, which essentially means advising the FSA on where and how it should use its regulatory tools for system-wide ends.

So what are those ends? They are consistent with my earlier overview of financial stability.

The Objective of the FPC

The UK government has proposed that the FPC's main responsibility should be taking action to remove or reduce systemic risks with a view to protecting and enhancing *the resilience* of the UK financial system (my emphasis). "Systemic risk" is defined to embrace both *faultlines* in the structure of the financial system, ie the way its components are joined up; and *cyclical* threats from unsustainable levels of leverage, debt or credit growth.

Two glosses on that are warranted.

First, the government's plan does not entail the FPC being held accountable for *fine tuning* the credit cycle, but rather for ensuring stability by maintaining the resilience of the financial system. An example might help. Say that in the face of a credit boom, the FPC raised banks' capital requirements. That might help to slow the boom, and it would be helpful if it did so. But even if the boom continued, by virtue of having higher capital ratios the banking system should be more resilient when the bubble burst. If those FPC actions prevented the banks going bust, the downswing in the credit cycle, and so in the business cycle, would be less severe because the flow of credit services could be sustained. That would be a success. Perhaps not always a glorious success, but a whole lot better than where we are right now.

Secondly, due to the trade offs I described earlier, the government has proposed that the FPC be subject to a constraint that it should not act to preserve stability at the cost of significantly impairing the capacity of the financial sector to contribute to medium-to-long term economic growth. What this means in practice is that when faced with an immediate or incipient threat to stability, we must try to find a solution that avoids damage to long-term growth. That discipline is welcomed by the Bank.

This is obviously all novel stuff. It is therefore helpful that the government plans to ask Parliament for a power periodically to flesh out the statutory objective, via a Remit from the Chancellor of the Exchequer – an arrangement that has worked well in the monetary field in the UK. It will enable practical lessons to be incorporated into the regime over time.

Why is the UK's macroprudential body separate from microsupervision?

Most central banks have traditionally regarded their contribution to financial stability as deriving from their markets and banking supervision functions. That is explicit in the Federal Reserve's 1913 statute, with which I began these remarks. And given the UK's heavily concentrated banking system, effective banking supervision is obviously an essential precondition for preserving stability. But in terms of how organisations work in the real world, the flaw in relying entirely on this is that it assumes that those operational areas of the central bank will invariably make time and space to address the financial system as a system.

Incentives work in the opposite direction. Nearly all the bank supervisors I have known over the past three decades have invariably been drawn towards the parts of their InBox about individual firms, for the simple reason that that is where their individual accountability is starkest. At its heart, the FPC is a device to overcome this problem. It charges a group of policymakers to step aside from the fray, resisting myopia and synthesising the perspectives of supervision, securities regulation, market operations and macroeconomics, with the goal of identifying and addressing the big developments that could jeopardise stability.

Lest it be doubted, that task will, of course, be unachievable without a suitable flow of information from the bank supervisors (and the securities regulators) to the FPC and its staff in the Bank. The FPC's instruments will not be aimed at individual firms per se. But we are expecting that the Committee will be briefed by Hector Sants' supervisory team on the circumstances of the most significant firms, and to be informed routinely about shifts in the supervisors' ratings of firms generally. Symmetrically, the FPC's concerns will surely help the efforts of the microsupervisors. In particular, the macro perspective can make a big contribution to the design of stress tests of firms' soundness, whether "top down" stress tests conducted for the FPC itself or "bottom up" stress tests conducted as part of micro supervision. And the markets perspective can help to identify issues or types of firm that warrant closer examination. We need to make that work on the ground. Being part of the same organisation, the Bank of England, will help. The legislation needs to wipe away legal impediments to the free flow of information. And we need to embed a culture of mutual respect and co-operation.

The FPC's instruments

But what will the FPC be able to do?

What, indeed, would the world's financial stability authorities have done if they could have their time again? The answer is surely reasonably clear in the programme of the Financial Stability Board, as endorsed by the G20 leaders.

On markets, we – where "we" throughout is the authorities internationally – would have subjected the burgeoning CDS markets to the disciplines of central clearing in, I would say, around 2003–05; and the CDO markets to a more rigorous transparency regime. We could have contained the extent to which shadow banks could be built within insurance companies, money market funds, securities lending markets, etc. We would all have been noisier about the distortions in global capital markets caused by Fannie and Freddie. We would have pressed harder on the adequacy of the consolidated supervision of US securities dealers. We would have plugged the most obvious problems in the Basel Capital Accord for banks, so that they were less levered; and we would have remembered that banks need to carry a liquidity cushion, and that treasury functions should not be profit centres. We would have been attentive to the opacity around the ABS market; and to the cliff effects stemming from mechanistic reliance on rating agency ratings by banks, investors and regulatory regimes. And, finally, I trust that we would have been more exacting in following up the early-2000s' G10/Financial Stability Forum report on the difficulties of resolving Large Complex Financial Institutions.

Some of those interventions would have addressed long-standing structural faultlines in the global financial system. Others, perhaps more speculatively, would have been contingent on cyclical conditions. For example, a respectable macroprudential authority would ideally have tightened banks' capital requirements against exposures to property and to shadow banking. Perhaps more compellingly, I think a macroprudential authority equipped with powers to *do* things would at least have asked whether the system was sufficiently resilient given a pervasive sense, from the market itself, that risk was underpriced.

Lo and behold, the sphere of influence of the FPC will come via both "structural" and "cyclical" instruments.[7]

Once the legislation is in place, the FPC will be able to make Recommendations, on a "comply or explain" basis, to the Prudential Regulation Authority and to the Financial Conduct Authority (the planned securities markets-cum-consumer regulator) on their rules and policies. And the FPC will also be able to Direct the microregulators to take certain kinds of action, to be set out in secondary legislation; that is so that our Parliament decides the spheres in which the microregulators will be obliged to follow the FPC's lead. On the US side of the Atlantic, some of you will recognise echoes here of the Paulson Plan for the creation of a financial stability authority in the Federal Reserve.

Furthermore, FPC will have a responsibility to advise the government on when the *perimeter* of the PRA's microprudential supervision should change. Very obviously, this is aimed at countering the risk of regulatory arbitrage undermining attempts to tighten up banking regulation. It also recognises that the shape of the financial system is bound to evolve in unexpected ways over the years. The regulatory regime needs to be adaptable.

It is not all about banks: instruments addressed to network issues

That underlines that the UK's new macroprudential regime is not all about banks.

For example, were it to be warranted, the FPC could potentially intervene via Recommendations or Directions to the microregulators on disclosures made around the issuance and structuring of securities; on the trading infrastructure of markets, to increase the likelihood that liquidity would prove resilient under stress; on limits on large exposures amongst different kinds of firm; and on the rules of the game for the many varieties of shadow banking.

On the last, for example, it is no secret that, speaking only for myself, I should like to see the rules for money market mutual funds altered to address the "break the buck" problem. That could be done either by making MMMFs hold capital, which essentially amounts to turning them into de jure banks; or by requiring MMMFs to mark-to-market daily, so that they become Variable Net-Asset Value investment vehicles. In other parts of the shadow banking forest, I hope that we can consider the merits of the industry establishing a Trade Repository for data on what goes on in the securities lending market, including on the reinvestment of cash or securities collateral. While that will sound technical, this is one of the world's biggest financing markets: firms and the authorities need at least to be able to gauge broadly what is going on. And, to give a third example, I hope that we will treat ostensibly "non-bank" prime brokers as banks if they finance their business with client balances that can be withdrawn on demand.

My FPC colleagues will not necessarily agree with all of that, but I hope the examples illustrate that we are not going to focus myopically only on the banking system.

"Cyclical" instruments: how does macroprudential policy relate to monetary policy?

The *cyclical* dimension of macroprudential policy is essentially about leaning against credit booms with a view to maintaining financial system resilience.[8]

---

[7] See Chapter 2 of HMT's Consultative Document, "A new approach to financial regulation: building a stronger system", February 2011.

[8] I set out the Bank's developing thinking in this area in Tucker, "The debate on financial system resilience: macroprudential instruments" in the Barclays Annual Lecture, October 2009. See also the Bank's paper: "The role of macroprudential policy: A discussion paper", November 2009.

The benchmark instrument, in the sense that it will definitely exist, will be the countercyclical buffer (CCB) in the Basel 3 Capital Accord. In the UK, it will be the FPC that decides whether to switch off the semi-automatic application of the CCB when triggered by the ratio of credit to GDP and other indicators exceeding certain thresholds. (It is not altogether clear, by the way, who will have that responsibility in other countries; the function requires a system-wide perspective and a macroeconomic capability and so is not exclusively in the domain of *micro*prudential regulators.)

Beyond the one instrument agreed internationally so far, the UK government is also considering whether to give the FPC a variety of other instruments. These include varying liquidity requirements; and varying capital requirements against specific types of exposure ("risk weights") and/or minimum haircuts for specific types of secured lending, whether financing hedge funds etc or Loan-To-Value ratios for property-related lending. The availability of such targeted instruments might be especially useful where the FPC wished to mitigate risks from overexuberance and collective imprudence in lending to a particular sector without necessarily affecting credit conditions more generally. Targeting a specific area of business might also sometimes help to resolve a collective action problem sustaining a bubble if enough lenders themselves thought risk was being underpriced.

That is all about maintaining the resilience of *firms* as and when the environment proves more threatening than catered for in the standard, static regulatory requirements. There is also the possibility, argued by Governor Carney of the Bank of Canada, that maintaining appropriate minimum margining requirements across the cycle would help to prevent liquidity spirals in *key funding markets*.[9] The Basel Committee of the Global Financial System, when under the chair of my new colleague Don Kohn, has published a review of this important area.[10]

The interim FPC will have to advise HMG over the next year or so on which instruments in particular we think we should be granted by Parliament.

In their different ways, as well as making the system more resilient, they would have the effect of intervening in the (real) credit cycle. And so, in some degree, this endeavour recovers something of the spirit of the Real-Bills Doctrine disciples of a century ago.

In consequence, this part of the macroprudential scene has, naturally, posed questions about how it will interact with the setting of monetary policy. Not that the nominal business cycle and the credit cycle are the same thing or always perfectly aligned. In the years during which the latest crisis was brewed, credit conditions were plainly too loose, but the UK did not obviously experience burgeoning nominal demand growth or upward pressures on underlying inflation.

Nevertheless, influences will obviously flow in both directions. If the FPC requires lenders to carry higher capital, liquidity or collateral, that will affect credit conditions and so the outlook for aggregate demand and inflation. In the other direction, monetary policy settings plainly affect asset prices, and so influence credit conditions through the net worth of borrowers and lenders. Also, it seems to me plausible that they affect risk-seeking behaviour,[11] especially in a world in which many investment managers have nominal return targets.

Given those two-way interactions, some commentators worry about co-ordination problems from having separate monetary policy and macroprudential committees with different objectives.

---

[9] "Reforming the International Financial System", Mark Carney, Bank of Canada 2009.

[10] "The role of margin requirements and haircuts in procyclicality", CGFS Paper No.36, Bank for International Settlements.

[11] See, for example, De Nicolo, Dell'Ariccia, Laeven and Valencia, "Monetary Policy and Bank Risk Taking", IMF, 2010.

As I have already explained in the context of having distinctive machinery for microsuperivsion, the UK has favoured having a separate macroprudential committee in order to ensure that the stability of the financial system is not neglected. The "macro" in macroprudential is not synonymous with macroeconomic but, as I have said, points us towards thinking of the financial system as a *system*. The members of the FPC need a knowledge base that, while overlapping, is different from that of the MPC. They need to know about the microstructure of the capital markets as well as about cyclical credit conditions.

A number of features of the FPC regime are relevant to ensuring effective co-existence with the MPC. Neither has goal independence. The objectives of both are set by the government. The MPC is charged with managing the path of nominal demand to achieve an inflation target, while the planned function of the FPC is to ensure the resilience of the financial system. Although the FPC's mission does not lend itself to the disciplines of a numerical target, government could use the Remit to check any systematically odd interpretations of what counts as Stability.

We recognise, however, that there could be challenges. That might emerge from signs of a boost (or hit) to productivity. Improved *future* productivity would tend to cause both current spending and borrowing to rise, given the prospect of higher permanent incomes down the road, but before the improved supply capacity was effective. In that case, monetary policy and macroprudential policy might move, if at all, in the same direction: towards tightening and building resilience. That would not necessarily be so in the event of an *immediate* but temporary shift in productivity (or the terms of trade). In those circumstances, monetary policymakers might be faced with a temporary undershoot of the inflation target, while credit growth still picked up. But the task of the FPC in those circumstances would not be to fine tune credit growth. Its first order challenge would be to reach a judgment on whether the financial system was undermining its own resilience by getting carried away in extending credit in an environment of rising asset prices and optimism about future output levels. The FPC would need neither to obstruct an improvement in the underlying performance of the economy, nor let the party get out of control. But that is what Taking Away the Punchbowl is about. The same difficult judgments would face a combined monetary-and-macroprudential decision maker. And a separate monetary policymaker would have a shared interest in the downside risks to inflation not being exacerbated by the prospect of a credit bust following an unchecked boom.

In those kind of circumstances, we should be helped by the tempo of the two endeavours differing. The FPC is less likely to make frequent course changes. That is reflected in its meeting routinely on a quarterly basis, contrasting with the MPC's monthly meetings. So, as in the relationship between monetary policy and fiscal policy, the MPC will be able to take into account perturbations to aggregate demand from the FPCs interventions. Both committees are part of the Bank of England, so the executive of the Bank will ensure that there is a common information base. FPC members are invited to the monthly briefing for MPC members. And vice versa, consistent with MPC members already being free to attend the internal financial stability briefings established over the past year or so. And finally, there will be a common chair, the Governor, and overlapping membership. The members common to the two committees – four of us – will be in a minority on both to ensure that our perspective does not dominate either.

How will the FPC operate and be accountable?

Although separate, the FPC will in many respects operate in much the same way as our Monetary Policy Committee. There will be a schedule of regular policy meetings: four per year. A record of each will be published. And twice a year, the analysis underpinning our Committee's deliberations and decisions will be set out in the *Financial Stability Report*. The role of the FSR will, therefore, become more like that of the Bank's *Inflation Report* in monetary policy. Put crudely, warnings will carry greater weight under a regime where the

FPC can actually take *action*. Consistent with that, the FSR will in future be launched via a press conference.

We expect, and hope, to be called regularly to give evidence to the Treasury Committee of the House of Commons, and perhaps Committees of the House of Lords too. Public hearings will help to keep financial stability issues in the public eye, and us on our toes, even when stability once again prevails and is expected to last. The Select Committee process, and the debate it sparks, will be a vital bulwark against complacency.

It will also give us the most important public platform to explain and defend our decisions, which sooner or later will prove unpopular. Unlikely as it may now seem, there will come a day when much of the public, businesses and banks find themselves on the same side, united in their opposition to the FPC taking away the Punchbowl before the party gets totally out of control.

But the FPC will not be like the MPC in all respects. In contrast to monetary policy decisions, at least as practiced in the UK where we decide via individual votes, we will aim to reach decisions by consensus (although there will be provision for voting). That is essentially because of the wide range of issues the FPC will consider and the range of instruments potentially under our control.

Another contrast with monetary policy is that, in some respects, we are entering unchartered territory for a developed economy. We will all – policymakers, bankers, investors, commentators, politicians – be learning about how, for example, varying capital, liquidity or collateral requirements is transmitted into the credit markets and the economy more widely. I therefore expect us to publish papers on how we approach our task and on the underlying economics. And, through the Remit process I described earlier, the government will be able to adapt the regime at the edges as we all learn. And we will need to learn, sometimes from mistakes or missed opportunities.

The international dimension

I have discussed the interaction of the UK's macroprudential regime with our domestic arrangements for microsupervision and for monetary policy. But the third set of interactions will be with our counterparts in other countries.

This is especially important to the UK. London hosts what is probably the world's most *international* financial centre. Crucially for us, it is *not* an entrepot. It is more than an important source of jobs and tax revenues. Many of the overseas firms active in the City are also active in providing services to parts of the UK's real economy. We therefore have a double stake in their safety and soundness. If they get into distress, there are spillovers to UK financial firms through wholesale markets, but also at least a temporary reduction in the financial services available to UK firms and households.

For all these reasons, the UK has a special stake in the adequacy of international standards for financial firms and markets. And, hosting many subsidiaries of major global firms, our supervisors need to play a special role in the collective consolidated supervision of internationally Systemically Important Financial Institutions (SIFIs).

This extends into the macroprudential arena. At a global level, we are active participants in the Financial Stability Board. And, regionally, the UK authorities will be engaged in the European Supervisory Authorities. Our Governor is first Vice Chairman of the European Systemic Risk Board (on which I and Adair Turner, Chairman of the FSA, also sit). The FPC might well find itself wanting the Bank executive to take an issue with EU-wide ramifications to the ESRB or to the European Banking Authority, Markets Authority or Insurance Authority. And sometimes the FPC may find itself wanting to follow up an EU-wide recommendation from the ESRB.

Co-operation will be especially important in the deployment of "cyclical" instruments. If one country tightens capital or liquidity requirements on exposures to its domestic economy, the effect will be diluted if lenders elsewhere are completely free to step into the gap. Basel and the EU are addressing how to handle that where the instrument is the Basel 3 Countercyclical Buffer. But we need to explore whether other potential instruments should be subject to similar rules of the game. This is not like monetary policy with a floating exchange rate.

The big challenges

The reform of the financial system is a global endeavour. Much of it is about strengthening existing regimes. But two parts of it are essentially new. One, on which I spend a good deal of my time, I have not discussed this evening: building effective resolution regimes for the world's largest and most complex firms.[12]

The other new challenge is building macroprudential regimes. This is about plugging a gap between microprudential regulation and macroeconomic policy. It will entail the following:

– focusing on the resilience of the *system as a whole*
– on "shadow banks" as well as banks
– attending to core capital markets and infrastructure as well as to the robustness of firms
– increasing transparency to reduce, but no doubt not eliminate, myopia
– attending to incentives that can distort behaviour in stability-threatening ways
– adapting requirements to changing conditions, including leaning against the wind
– co-operating closely with the securities market regulators, as well as with the line supervisors of banks and insurers
– transparency and accountability.

This will not be easy. And in a world of global capital markets, it is unavoidably a shared enterprise. National authorities will fail unless we work together. Which is why I am giving this speech here.

Governor King and I have long believed that the market intelligence available to central banks through our operational roles has a central place in identifying threats to stability, whether exuberance in markets or faultlines in the fabric of the system. If that is true of central banks in general, it is especially so for the Bank of England and the Fed, based as we are in the two most significant financial centres. The partnership between our institutions, going back to Benjamin Strong and Montagu Norman, is more important than ever. We need to maintain a free flow of information and ideas. We owe that to the public we each serve, and we owe it to the rest of the central banking and macroprudential community. As those of us at the Bank of England build the UK's Financial Policy Committee, we will need the active support of you all here and, in particular, of our colleagues from around the Federal Reserve system, for whom central banking began very nearly a century ago.

[12] See Tucker, "Developing an EU cross-border crisis management framework", September 2010.