



BANK OF ENGLAND

# Speech

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## **The Committee of Public Safety**

Speech given by

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I am grateful to many members of the FPC who have commented on early drafts of this speech, and especially to Tobias Neumann whose assistance has been indispensable.

It is a great pleasure to speak at a meeting organised by the Institute of International Monetary Research. It is nearly forty years since, as a journalist on the Financial Times, I first came across Tim Congdon, at about the same time that I got to know another great British institution, the Bank of England. The Bank was soon afterwards engaged, on behalf of the Thatcher government, in an attempt at once elaborate and quixotic (it was eventually abandoned) to control the growth of commercial bank balance sheets through a mechanism popularly known as “the corset”. Rival schools of thought poured forth interpretations of the arcane data concerning Interest Bearing and indeed Non Interest Bearing Eligible Liabilities that for a few crazy months mesmerised financial commentators and provided harmless fun for us journalists. Tim’s analysis was thorough and his conclusions were clear. Even then he was developing the knack of being inconveniently right.

Now I sit on one of the Bank’s policy committees, the FPC, charged with safeguarding financial stability. In another echo of stirring historical events, even more dramatic than the loosening of the Old Lady’s corset, I like to think of us as the Committee of Public Safety – the CoPS, if you prefer. We need to frame our objectives audaciously: this is the group that might – no, that would – have prevented the financial crisis if only it had been created in time. The original Committee of Public Safety had been formed in Paris in April 1793 – exactly 220 years before the FPC, at the height of a rather different revolution – to protect France from foreign enemies and internal sedition. In short, from instability.

The Paris committee soon assumed what might be described as “sweeping powers”. Roughly the same size as the modern FPC, it was enlarged from 9 to 12 members (these bodies never get smaller) at the time that Maximilien Robespierre joined, bringing his trademark concentration and drive to the group’s affairs. Perhaps because it was not answerable to parliament – the revolutionaries could hardly have been expected to get everything right at once – it rather overreached itself, approving at one significant policy meeting an idea, presumably put forward by a junior staff member, that all crimes should be punished by death. The Terror followed, and the committee, which took an admirably robust line on conflicts of interest, ended up guillotining half a dozen of its own members as well as nearly everybody else.

Though in some ways perhaps not an ideal model, the Committee of Public Safety showed in its short life – two hectic years from foundation to collapse – that policy committees can make a difference. It also showed the danger of going too far; of working, in fact, against the public interest. The FPC in its almost five years of existence (more like seven if you count, as I am very much inclined to, its two years as a pre-statutory body) may have been more circumspect than its Parisian forerunner but has nevertheless shown real determination to use macroprudential policy tools in a disciplined and effective manner. A remark made by Claudio Borio a few years back lingers in my mind – he urged macropru policy-makers to act with both ambition and humility. I hope and feel that captures the way the FPC has behaved so far.

I have talked at some length about the original Committee of Public Safety. Allow me now to give you an account of what the FPC is doing. I shall structure my remarks around three areas: first, how are we aiming

to keep the public safe? Second, how do we ensure we behave in a measured way, respond to criticism and therefore have the consent of the public – avoiding the executions that, quite literally, expunged the historical Committee of Public Safety? Finally, I shall delve into the workings of the present committee and explain how through vigorous yet consensus-seeking debate we aim to be both ambitious and humble.

Your conference tomorrow, as I understand, addresses the question “Has financial regulation gone too far?”. It is certainly worth considering, but I hope you won’t mind my pointing out that it does not belong to the set of unasked questions: bankers have been asking it every day for the last eight years. It is perhaps a shame, though, that few, if any, conferences were held in the years before the crisis, at the end of the *ancien régime*, to consider the question “Is financial regulation too feeble?”. Believe me, it was.

A fundamental asymmetry explains both the weak regulatory framework before the crisis and the re-emerging debate on capital. Outside periods of financial crises, bank regulation benefits to an almost imperceptible degree a very large number of people who know next to nothing about it (in a crisis, of course, the benefits become clear). It inconveniences to a more significant degree a relatively small number of people who take an intense interest in it. Some of those who consider themselves inconvenienced hold conferences and organise lobby groups. The inconvenience is immediate, while the benefits are diffuse, and show up so slowly as to be almost undetectable. Just halving the frequency and amplitude of financial crises – very difficult to prove in the short run – would represent a huge economic gain.

It is salutary to remind ourselves of what things were like a mere 11 years ago. In 2006 or thereabouts, a poll by the Centre for the Study of Financial Innovation found that bankers were already putting regulation at the top of the list of things that annoyed them, even though there was at the time no regulation to speak of. RBS, for example, ran a trading book of £470bn supported by equity capital of £2.3bn – leverage of over 200 times. In the end, losses on these activities in the crisis were more than five times higher than the equity that was meant to absorb them.<sup>1</sup> Undercapitalisation was a feature of the whole system, not an RBS-sized glitch. The FSA estimated that losses on investment bank activities of major international banks during the crisis – an astonishing \$240bn – were 60% higher than their *total* capital. Nearly a quarter of those losses were so-called credit valuation adjustments, the losses due to downgrading the credit-worthiness of a counterparty, which weren’t capitalised at all in the pre-crisis framework.<sup>2</sup>

Instruments that were designed to be loss absorbing, giving the illusion of respectability to bank capital levels, turned out to be largely homeopathic in nature – “alternative” capital indeed.<sup>3</sup> Even what was regarded as the most potent type of capital at the time, so-called Tier 1, gave an inflated view of banks’ solvency. RBS reported what they called a “strong” Tier 1 capital ratio of 7.3% in 2007.

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<sup>1</sup> Financial Services Authority (2011)

<sup>2</sup> Financial Services Authority (2010)

<sup>3</sup> Her Majesty’s Treasury (2009)

Subsequent estimates based on the new Basel III gold standard suggest they had been running their business on a risk-weighted ratio of barely 2%.<sup>4</sup>

Let me give a different kind of example. In the report on the failure of HBOS we may read that the FSA, at that time the banking supervisor, was worried about some aspect of HBOS's business and proposed to subject the firm to a stress test. The firm's reaction was to commission consultants to argue that the scenario in the stress test was unreasonable, and that it should therefore not be required to submit to such a tiresome exercise.<sup>5</sup> HBOS was then seen by its regulator, by the way, as one of the more co-operative firms to deal with; one can barely imagine how the others might have been behaving in a world that now appears to have been stark staring mad. Yet all these well-documented events are now called into question as historical revisionism is re-writing the crisis with alternative facts.

My own involvement with post-crisis regulation goes back to my membership of the Independent Commission on Banking, chaired by Sir John Vickers, in 2010-11. As a result I've either observed or participated in most of the reforms, and I must be, if regulation has gone too far, one of those most seriously at fault. I should perhaps remind you that there were and still are a number of influential voices calling for much higher capital in the banking system than is now required, or an end to fractional reserve banking altogether. Sir John himself has repeatedly questioned the FPC's approach to one of the capital buffers, set at what he considers far too low a level. Both the construction of the post-crisis bank capital stack and its calibration are matters on which people of goodwill can and do disagree.

But post-crisis regulation goes far beyond the capital stack. We have added liquidity regulation, overhauled risk weights, introduced increasingly thorough and systematic stress tests (the results of the UK's 2017 stress tests will be published in a matter of weeks), added a simple – well, fairly simple – gross leverage ratio alongside the risk-weighted system, and greatly increased the credibility and heft of the resolution regime by making it possible to bail-in debtholders. In the UK the credibility of resolution for large firms is being further enhanced by the introduction of ring-fencing, which should allow the resolution authority to pluck out the essential elements of a failing bank. And it will certainly end the pre-crisis scandal that free taxpayer insurance, by means of an implicit sovereign backstop for retail banks, also covered investment bank risk-taking.

The Bank of England has also entirely overhauled the sterling monetary framework, both clarifying and greatly liberalising the terms on which banks can access the central bank's balance sheet. During the crisis one often heard the view – and it is strongly held by some distinguished commentators even today – that in 2007/8 the system faced only a problem of liquidity, not solvency. My own time as a banker taught me two crude lessons relating to this point, one theoretical, one practical. The theoretical lesson is that many banks, on a strict mark-to-market of the illiquid assets in their banking books, are more or less insolvent in bad

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<sup>4</sup> Financial Services Authority (2011)

<sup>5</sup> Prudential Regulation Authority and Financial Conduct Authority (2015)

times, and one does well to bear this in mind (**Chart 1**). The practical lesson is that the reason a troubled bank cannot raise liquidity in the market is that other banks perceive it as insolvent. The liquidity/solvency argument concerns a distinction without a difference in a financial crisis.

The FPC, in addition to recommending a UK leverage ratio and establishing a framework to capitalise domestically important banks, has also tackled the calibration of the capital framework. The ‘how much?’ question lies at the core of achieving safety without overreach. Little wonder it is also at the centre of the public debate. Answering it, therefore, requires an even-handed assessment of how the wider regulatory framework lightens the burden of the capital framework.

For example, I spoke earlier of the credibility of the resolution regime. It is not just economic agents in general – bank customers and counterparties – who need to be persuaded that this regime will work. It is also the members of the FPC. If we did not believe either that resolution could be accomplished or that the combination of structural reform and beefed-up supervision provided some protection, we should feel the need to impose much higher capital requirements – something of the order of 500 basis points of Tier 1 capital as a percentage of risk-weighted assets – on the banking system. Those who consider the present system onerous should reflect on this point. I believe there is already evidence that a credible threat of resolution is proving to be an important source of discipline; the recent recapitalisation of the Cooperative Bank may be instructive here.

I also wish to take the opportunity to attack the canard, as Robespierre might have called it, that bank capital consists of dead money set aside that banks are required to “hold”. I’m sure no one present this evening would fall for this, but the view is surprisingly widespread. Rather than saying that banks hold capital, it would be truer to say that capital holds banks. Equity capital is a source of funding for the institution, a live liability not a dead asset, and the more there is of it the cheaper each unit of it should turn out to be.

Let me now turn to public accountability. Criticism takes various forms. Some would like to get rid of us altogether: Brian Griffiths in his Mais lecture earlier this year, for example, called for the FPC to be abolished, as the original Committee of Public Safety was in 1795 (he did not mention executions). He was particularly concerned by two supposed elements of Jacobin overstretch. First, the FPC was supposed to prevent another financial crisis. This was an impossible task, so the FPC would fail, and its failure would undermine by association the credibility of the Bank of England’s price stability mandate. Second, the policy tools used by the FPC, especially those bearing on the housing market, were too politically sensitive to be wielded by an unelected body. In other words – mine, not his – the committee could neither keep the public safe nor be trusted with the powers that had been granted to it.

On the first of these points my response to Lord Griffiths is to reject his counsel of despair. We may not be able to avoid crises, but we certainly ought to be able to prevent the financial system from amplifying a crisis as it did in 2008 (an ideally structured financial system would actually dampen crises). On the second, his

objection to interventions in the housing market is that they create winners and losers; so, of course, do movements in interest rates, as Lord Griffiths acknowledges, but he regards these as “accepted”. It is the FPC’s responsibility to act in such a way as to ensure that anything it may undertake in regard to housing – a sector that has been at the very centre of financial instability throughout recent British history – is equally accepted by parliament and public. It might surprise some observers of the FPC to learn how much time we spend asking ourselves whether in a given situation we have the right to intervene between willing borrowers and willing lenders.

Our modest interventions in 2014 and this year to prevent the mortgage and consumer credit markets overheating were technical in nature and operated through the banking system. The public noticed, though, that the Bank had actually done something, even if they were not quite sure what it had done. It had acted, rather than simply lecturing people on the dangers lurking in the housing and credit card markets. Comment on both occasions was overwhelmingly favourable. That won’t always be the case, of course, but the FPC is well aware of the importance of the consent of the public it serves. This includes giving due credit to the importance of a financial system that lends to the real economy. In fact, our aim is exactly to ensure that the financial system continues to lend instead of seizing up during a crisis.

Regulatory tightening after the crisis – an overdue correction of the frankly negligent status quo ante – has naturally attracted the charge that it was procyclical, potentially restricting credit supply at a time of economic weakness. Tim Congdon in his recent book on “Money in the Great Recession” expresses the view that the tightening of capital requirements exacerbated the crisis. And Adair Turner has eloquently made a similar point in his review of what went wrong. Banks’ internal models, which to some extent drive their capital requirements, have a tendency – not unlike bankers themselves – to jump from complacency about risk to full-blown hysteria. Where models were not used to assess risk, ratings were – and no one has accused the rating agencies of having had a good war. Margin calls on derivatives happened at precisely the moment when there was no money.

The Bank of England has shown itself sensitive to credit supply issues in the last four years through its sponsorship of the Funding for Lending scheme and then, after the EU referendum, the Term Funding scheme. And of course the early launch of quantitative easing, right in the teeth of the crisis, prevented a severe monetary contraction. The combination of looser monetary policy and tighter macroprudential policy, far from being incoherent and contradictory, as it appears to some observers, has turned out to provide a mutually reinforcing setting at this unusual juncture. I leave to more learned commentators the interesting and important question of the extent to which the use of active macroprudential policy has allowed (or required) interest rates to remain lower for longer than they would otherwise have been.

Rightly or wrongly it is the potential throttling of credit to businesses that most tends to preoccupy policymakers. The FPC has spent a lot of time on this issue, because it worries us too, and credit supply to small businesses was certainly constrained in the immediate aftermath of the crisis. In my view widespread

risk aversion by both borrowers and lenders played a much bigger role here than regulatory changes, if only because small business loans account for such a tiny proportion of bank balance sheets that they are not especially sensitive to shifts in the capital regime. Large businesses generally fund themselves outside the banking system (**Chart 2**) – it is hard, after all, for a bank to make money on intermediation with a client that enjoys a better credit rating than its own. The majority of lending to non-financial companies concerns either real estate investment or de-equitisation, the process by which a conservative corporate balance sheet is geared up until it is conservative no more (**Chart 3**). Commentary on bank lending to businesses, or its absence, frequently relates to an idealised model of the banking business that is something like 40 years out of date (**Chart 4**).

Although we may disagree on the extent to which regulation after the crisis had pro-cyclical effects, we can agree that such effects are undesirable. The FPC has criticised regulations and practices on the grounds of pro-cyclicality, and it is actively deploying – and this is certainly an ambitious aspect of the new regime – the Countercyclical Capital Buffer, or CCyB. The objective is to absorb shocks rather than amplify them. If we have built the buffer in good times – and we are building it at the moment – we can release it as risks crystallise. The really bold design feature here is that the CCyB release is designed to override the instinct of a microprudential regulator, and to prevent capital requirements standing in the way of banks' providing the real economy with finance during a crisis.

We have said that in normal times the CCyB should be around 1%. We have indicated that we expect to raise it to 1% at our meeting this quarter. In principle, there is no limit to its size; you would doubtless have seen a significantly higher number in 2006 had the CCyB existed then (**Chart 5**). We have some experience with using it; we first increased it from the zero setting in early 2016, and then released it after the EU referendum to encourage the continued provision of credit at a time of high uncertainty. Now by raising the buffer gradually we reduce the need for banks to tighten credit conditions in order to comply, and we are conscious of the uncertainty inherent in assessing a concept as nebulous as the risk environment. Gradualism should help us avoid both negligence and raising expensive false alarms. It is only in hindsight that countercyclical policy is easy.

Countercyclical policy lies at the heart of macroprudential policy. But some in this audience may be concerned more generally about potential macroeconomic consequences of structurally tighter bank regulation. The clearest message from the banking market immediately after the crisis was that undercapitalised banks did not lend: it was the strong institutions – think of Wells Fargo, or the Canadian banks – which kept credit going.<sup>6</sup> Alongside the supervisory imposition of gradual increases in capital requirements, funding pressures ruthlessly distinguished between institutions. Once the possibility of failure had become a reality the market itself imposed higher capital norms.

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<sup>6</sup> See, for example: Berger and Bouwman (2013).

Outside of crises, the macroeconomic impact of capital regulation has two aspects – the required level of capital in steady state (a configuration of affairs decidedly more often evoked than observed), and the transition to this level. The FPC’s judgement is that the gross burden of higher capital requirements on banks’ funding costs is very low – in the single-digit basis points. That said, one has to get to the steady state.

During such a transition we can reasonably expect adjustment costs. If whole business models are fundamentally predicated on excessive leverage, as they were before the crisis, they will have to be cut back. And of course regulators understand that banks need time to retain earnings, especially when they are cyclically low. That’s why the Basel reforms – into which, by the way, the ring-fencing rules were slotted – had an eight year transition period. When the Independent Banking Commission recommended in 2011 that ring-fencing should be introduced alongside other reforms at the beginning of 2019, people were incredulous: we were obviously kicking the ball into the long grass – surely this was never going to happen. Well, it’s happening now: some things take time. That distant rendezvous of January 2019 is suddenly just round the corner, and I frankly believe that we would have risked adverse macroeconomic consequences had we tried to hurry things.

Since I agreed to give this talk two of my FPC colleagues, Don Kohn and Alex Brazier have laid out in speeches, which I commend to your attention (but do not intend to recapitulate), the underpinnings of current policy.<sup>7</sup> For me, the crucial point in Don Kohn’s speech at Wharton reads as follows: “In finance, the private sector, left to its own devices, will never fully price in the consequences of its actions”. Society hands out banking licences and the privileges that go with them; it is then left to deal with the externalities that the industry disregards. After the experience of the financial crisis, we may be excused for pre-positioning, so to speak, the clean-up. To put it pithily: regulators are needed to keep banks safe because no one else will. Let us not forget that in the remote pre-regulatory period, bank shareholders had unlimited liability and directors in some cases faced the death penalty.<sup>8</sup> Our French predecessors would doubtless have approved. And now bankers complain about the Senior Managers’ regime...

Moving to the international stage, the criticism to which the construction of the post-crisis capital stack, with its plethora of buffers, is most frequently exposed is that of excessive complexity. While every detail of it can be lovingly defended, I think it’s quite difficult to put hand on heart and say that the intricacy of the overall design is both necessary and desirable. But complexity at the margin is a price worth paying for international agreement and a precious, even if not absolute, degree of international consistency. Of course it is possible to reach bad international agreements, but even moderately good ones can bring disproportionate benefits. This is a rather unfashionable view at the moment where powerful people in some countries seem keen on tearing them up. It sometimes feels as though the only international agreements such people approve of are the imaginary ones that they have not yet been able to sign.

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<sup>7</sup> Donald Kohn (2017), Alex Brazier (2017)

<sup>8</sup> Richard Davenport-Hines (2004)

Complexity of all kinds, regulatory and other, weighs most heavily on smaller firms; for big firms it probably helps in a perverse kind of way, since it creates barriers to entry. Some of those large firms, no doubt, would happily put up with a system three times as complicated if it allowed them to operate with half as much equity and less competition. But we know from Sam Woods' recent remarks that the PRA is keen to simplify the conditions challenger firms face wherever appropriate.<sup>9</sup>

Let me conclude by briefly touching on the way in which the FPC operates as a committee. It differs from the Monetary Policy Committee, the established and successful body on which its design was modelled, in a number of important respects. It holds fewer policy meetings: 4 routine rounds of meetings a year against the MPC's 8. It considers a wider set of issues and has a broader set of tools with which to handle them. It works in general by addressing directions and recommendations to other bodies rather than by taking unilateral action. Its financial stability objective is frankly vague beside the precision of the inflation target – financial stability can be defined in terms of continuous credit provision, which gets you some of the way there; we all know, though, what financial instability looks like. The FPC has a different cast of mind: while the MPC concentrates on the central path for the economy and likely deviations from it, we are focused on tail risks, an activity which requires peripheral vision. And the FPC reaches the majority of its decisions (so far in its life, all of them) by consensus rather than by vote.

The requirement to seek consensus is imposed by statute on the chair of the meeting – as a general rule, the Governor. This wise legislative stipulation takes into account the variety and complexity of the FPC's decision making processes. It is rare for the committee to be faced with the kind of binary choice for which voting represents a suitable mechanism. Is housing a field in which we should intervene? – is now the time? – which of many available tools at our disposal is the most appropriate to deploy? – at what level should it be calibrated?... this not untypical chain of decisions may require a long period of reflection, consideration, preparation and debate. That isn't always the case; the committee reacted very swiftly to the referendum result in the summer of 2016, in concert with the MPC, to reduce the risk of a credit contraction. But generally the pulse of decision-making is deliberate, and the committee usually signals before it acts, in order both to observe external feedback on the judgements it expresses and to build market confidence in its reaction function.

The downside of consensus is that it may be inseparable from the threat of groupthink. There is something magnificent about the voting rituals of our colleagues on the MPC. The group debates and considers, then the individuals decide. Most of us on the FPC expect that we shall use votes when we reach contested binary choices in, say, the setting of a buffer. But that will be the exception rather than the rule, and in the meantime the absence of voting may fuel the suspicions of those who see consensus as simply a Latin word for groupthink.

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<sup>9</sup> Sam Woods (2016)

I want to say something about groupthink here because the risk of it has, quite reasonably, preoccupied some recent members of the Treasury Select Committee, the body through which the FPC - and that very much includes those of us who are external members - is scrutinised. On this scrutiny the independence of the Bank of England and its policy committees ultimately rests. It matters. What exactly is this dreaded groupthink?

Let me set out two things that I believe it is not. It is not just unanimous agreement. If it were, the uncontested opinions of successive Treasury Committees that groupthink was bad would in themselves be mere groupthink, and thus to be deplored. Clearly it is difficult to accept this subversive conclusion. Unanimity arrived at after vigorous debate is not the problem.

For the second thing it is not, let me use plain words, partly because the Bank is anxious to communicate clearly, and partly because outsiders sometimes courteously pussyfoot around delicate matters. Groupthink is not the failure of external members to argue with the Bank staff or stand up to the Governor because they are too idle, too cowardly or too thick. Let me assure you that this is very much not what goes on. But if it did, it would not be groupthink. It would be spinelessness.

I see groupthink as more subtle and more insidious than either of these rather coarse phenomena. I see it as a condition arising from a network of shared assumptions which are so deeply held by participants that they never surface for question or debate. They are culturally based, and culturally biased. They are more or less invisible, and in consequence extremely hard to spot by members of the group. Groupthink is what goes by default. I rather fear, though, that many shared assumptions may be closely correlated with the skill, experience and knowledge required to make someone a useful member of the FPC. A colleague who couldn't follow the debate would be unlikely to spot a fatal flaw.

We are all attached to the idea that diversity in its various manifestations provides one form of immunisation against this condition. It may, and the FPC could do with being more diverse. But in the context of groupthink, the type of diversity needed must balance differences in underlying assumptions with shared skills and experience. As an independent external member I feel a special responsibility to be alert to this, especially since everything we know of the behaviour of committees and boards points to the difficulty of getting this right.

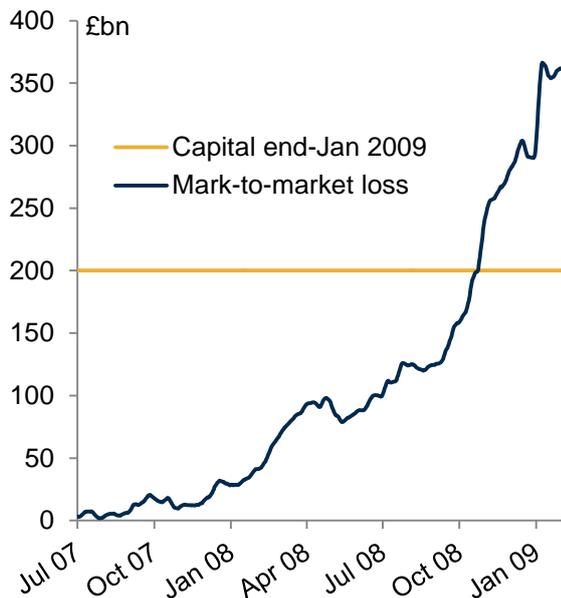
Public debate at present on any number of issues – this is not an original remark – is both more polarised and more raucous than it has been for some time. This may offend the sensitive, but one would hope the violent circulation of warring ideas might at least inoculate the body politic against groupthink. Unless, of course, we are dealing with rival versions of the truth that are unable to communicate with one another - a paradoxical multiplicity of thought systems that each believe themselves to be singular. Robespierre and his colleagues would have felt at home here: can what the French call *la pensée unique* have plural forms?

These dialectical tensions arise in part because it is uncomfortable for human beings to hold competing ideas in their heads for very long. Are banks dangerous beasts that need taming, or do they provide the lifeblood of the economy and should therefore be left alone? Simplification may sometimes be unrespectable, but it is reliably analgesic.

Perhaps the fundamental anti-groupthink challenge for FPC members is never to lose sight of the underlying duality of financial markets and financial institutions. These are capable of unleashing both transformational forces for the benefit of society and destructive forces which can cost it very dearly. Depending on the state of the financial cycle, it is easy to concentrate on one of these at the expense of the other. Regulators certainly made that mistake before the crisis, when the possibility of destruction was more or less overlooked, and we are, as I hope I have shown, conscious of the accusation that we have now gone too far the other way. Metaphor around the FPC tends to the hydraulic; in the committee's earliest years, the fire brigade was often summoned. Think of us, perhaps, as a corps of engineers responsible for the height and state of the dams closing off a reservoir, and for dredging channels in the floodplain. Everyone needs a reliable water supply, but rainfall is unpredictable and rivers sometimes burst their banks.

I trust the serious and unglamorous work of the FPC in looking after a crucial aspect of public safety will endure. The times are turbulent and a responsible financial system, constrained by thoughtful and measured regulation, has a huge role to play. As a committee, let us continue to work on being humble in seeking public consent and on being bold in providing safety. And no, I don't believe financial regulation has gone too far. No way.

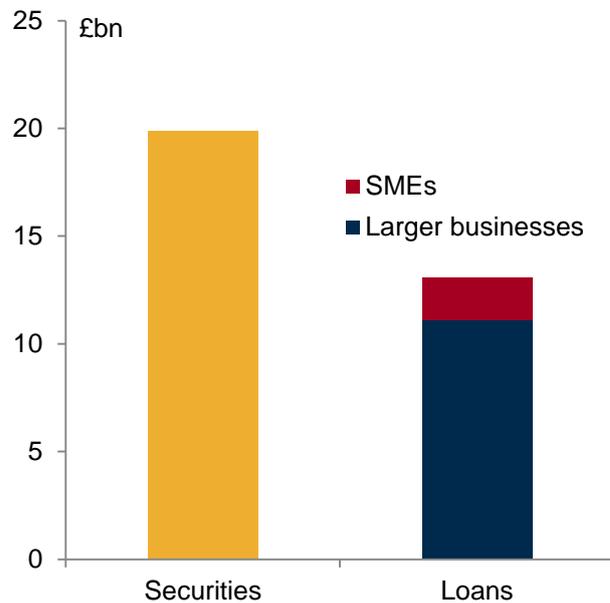
**Chart 1:** Estimated losses in major UK banks' banking books had they been marked-to-market<sup>(a)(b)</sup>



Sources: Bank of England, Bloomberg, JPMorgan Chase & Co., Merrill Lynch, UBS Delta, published accounts.

- (a) Reproduced from Chart 2 in the June 2009 Financial Stability Report.
- (b) Based on weekly moving average prices of traded instruments as proxies for market value of similar banking book exposures. Sample comprises Banco Santander, Barclays, HSBMC, Lloyds Banking Group, Nationwide, Northern Rock and RBS.

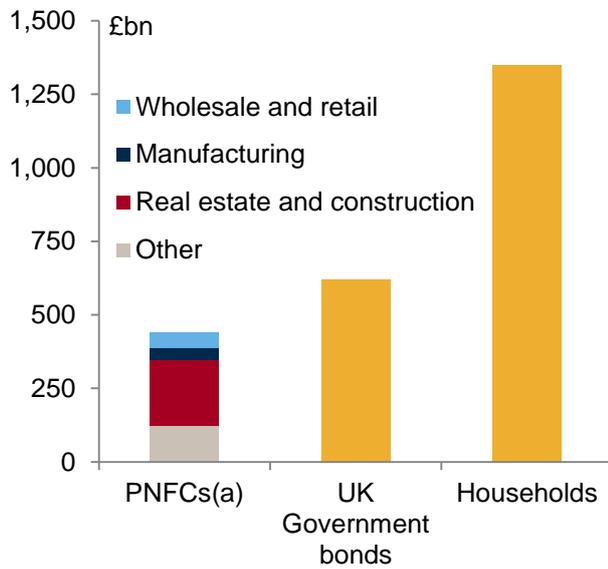
**Chart 2:** Net finance provided to UK companies between Sep. 2016 and Sep. 2017<sup>(a)</sup>



Source: Bank of England (Bankstats).

(a) Securities include bonds, commercial paper and equity from capital markets; loans were raised from UK Monetary Financial Institutions.

**Chart 3:** UK MFIs' stock of lending to companies, the UK Government and households (Sep. 2017) <sup>(a)</sup>

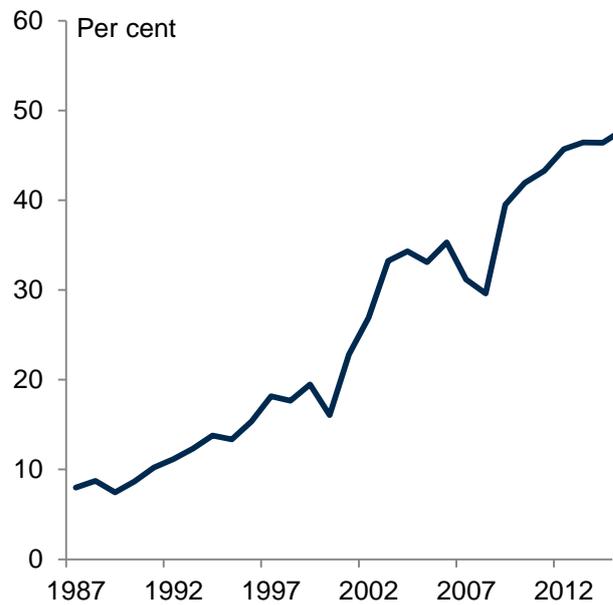


Source: Bank of England (Bankstats).

(a) MFI = Monetary Financial Institutions

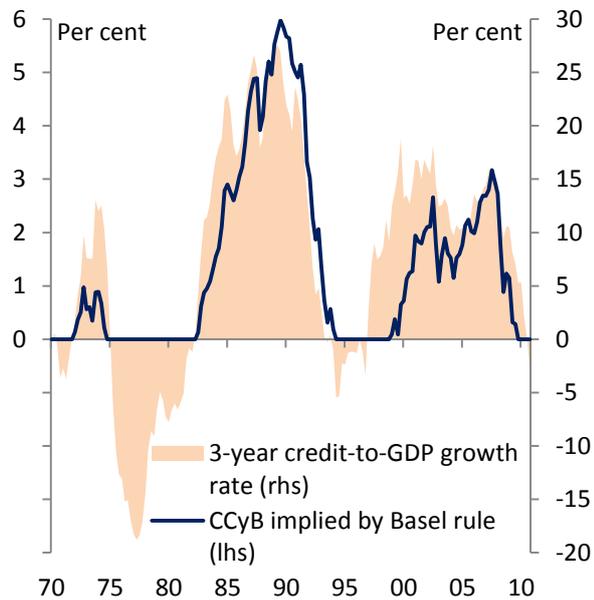
PNFCs = private, non-financial companies

**Chart 4:** Bonds as proportion of total debt for UK-listed companies



Source: Thomson Reuters Datastream.

**Chart 5:** Illustrative UK countercyclical capital buffer (CCyB) mechanically implied by Basel III<sup>(a)(b)</sup>



Source: Bank of England.

(a) This does not reflect the countercyclical capital buffer (CCyB) the FPC would have set had it existed then. Instead, the illustrative CCyB is based on the credit-to-GDP gap, which has particular prominence in the Basel III standard. In the FPC's judgement, the long-run trend of this indicator gives undue weight to the rapid build-up in credit prior to the global financial crisis. The FPC relies on a range of indicators and judgement, not a mechanical rule, when setting the UK CCyB.

(b) The chart shows the growth rate of credit-to-GDP as an intuitive visualisation of the build-up of credit. The credit-to-GDP gap is a statistical measure closely related to this growth rate.

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