



BANK OF ENGLAND

Speech

The Structure of Regulation: Lessons from the Crisis of 2007

Comments given by

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In this paper, I shall briefly discuss five issues: (1) the ‘collective action’ problem, whereby bankers have an incentive to herd together; (2) the provision of central bank liquidity insurance; notably the time consistency and stigma concerns; (3) clarifying the objectives of central bank operations; (4) whether to ‘lean against the wind’ of credit cycles; (5) the macro-economic backdrop and preconditions for financial-system stabilisation. If there is a connecting theme, it is that regimes matter, if only for the way they affect the behaviour of the financial system (and the authorities).

1. The ‘collective action’ problem

In making sense of the turmoil of past months, I do not start from a proposition that bankers and asset managers are stupid or wicked. Like any of us, they do respond to incentives, as many commentators have stressed. They can also face a collective action problem, about which I want to say something.

For some time before the system cracked, a number of market participants commented that they thought risk was widely underpriced in credit markets. But they did not know when, or indeed whether, the correction would come; and were leery of ‘stepping off the bus’ before their competitors, as that would damage their franchise and so crystallise a form of ‘business risk’. The result was herding. It occurs on the way up, as well as on the way down.

These are circumstances in which the authorities, internationally, need to find ways of intervening to help resolve the collective action problem. That is easier to say than to do, but we need to engage with the challenge.

2. Central bank liquidity insurance: the time-consistency problem and stigmatised insurance facilities

The time-consistency problem that can bedevil monetary policy is well known². The solution has been to underpin the credibility of monetary policy through a combination of

² Broadly, if the monetary authority thinks it can achieve above ‘trend’ output growth or employment for a while by reducing interest rates, it may be tempted to let inflation temporarily rise above the rate it has promised to deliver. But people get used to this – or, in models, anticipate it – so the extra inflation is simply built into their wage and price setting, without any benefit to output or jobs, but at the cost of a higher steady-state inflation rate.

transparent goals and independent, accountable central banks that care greatly about monetary stability.

Much less is said about what may be an equally serious time-consistency problem in the sphere of financial stability. I am highlighting it in the hope that it will capture the eye of academics, policy analysts and other policy makers around the world.

Here is one manifestation of the problem. It concerns central bank liquidity insurance, but the problem recurs in policies about support operations, supervision that aims to tolerate the failure of individual firms, etc.

Commercial banks are widely regarded as special because their deposit liabilities are money. This puts them in a position where they can provide liquidity insurance, via deposits and committed lines of credit that can both be drawn down on demand. They make profits out of doing so, as it provides the basis for their running large mismatches between the maturity of their liabilities and assets (actual and contingent). The accompanying conversion of liquid savings into illiquid loans to households and firms benefits society. But it also exposes the banks to big liquidity risks. They guard against those risks either by buying liquidity insurance from bigger banks or, for the big banks, by holding liquid assets. Such holdings cover only part of the mismatch; to cover it completely would reduce their profits and the lending service they provide. So they are partially insured against their liquidity risk.

In stressed circumstances, market liquidity may dry up and the supposedly liquid assets held by the banks may prove to be illiquid.

That is where central banks come in. Central banks stand ready to ‘discount’ – or lend against the collateral of – certain assets in unlimited amounts.

If the central bank specifies in advance a list of high-quality collateral that it will lend against, the banking system knows that those assets are liquid in all circumstances and therefore has an incentive to hold them. But if a bank gets into trouble and still faces a liquidity problem after utilising all of its central bank-eligible assets, the authorities face a choice between letting it fail or lending against a wider class of assets. Their choice will

turn on an assessment of the trade-off between the risk of financial instability today and financial instability tomorrow: possibly today if the firm's failure would have nasty spillovers to other firms and markets; but tomorrow if the firm is salvaged and incentives for prudent risk management are diluted. If a bank judges that its own failure is very likely to cause widespread systemic distress, it is likely to believe that the central bank's collateral policy will be relaxed and so choose to hold less of the highest quality eligible assets than otherwise (since they carry a lower yield than other assets). In those circumstances, the central bank may not be able to stick to its collateral policy (i.e. time inconsistency).

Many central banks seek to overcome this problem by identifying a wide range of financial instruments that will be eligible as collateral for borrowing via some (not necessarily all) of their facilities but subject to charging a rate above the normal market rate. But during the turmoil of the past nine or so months, around the world banks have been reluctant to pay such 'penalty' rates of interest for fear of signalling, if somehow it leaks, that they have an idiosyncratic problem even though they may not. This has become known as the Stigma issue. In consequence, a key piece of central bank machinery for providing liquidity in stressed conditions more or less atrophied during the second half of 2007.

This state of affairs is not sustainable, and is prompting a number of central banks to innovate to address current conditions. Auctions of funds against wider collateral have been introduced by the Fed and by the Bank of England, and have definitely helped to underpin the system. But, compared with a facility, those auctions have been available only periodically rather than every day. Central banks internationally are therefore actively engaged in debating longer run solutions.

3. Greater clarity is needed about the different objectives of different types of market operation

Another feature of that debate is the need to provide greater clarity about the varying objectives of different central bank facilities and their relationship, if any, to monetary policy. One can distinguish between

- deciding the monetary policy rate;

- delivering that rate in the very short-term money markets, by ensuring that the net supply of reserves (central bank money) is in line with demand;

- operations designed to alleviate financial-system stress without affecting monetary conditions.

Making all this clear is important in ensuring that market participants and commentators can understand what a central bank is trying to achieve in its response to stressed conditions.

For example, during a period of stress, banks' demand for central bank reserves may rise as they seek to hold higher precautionary balances to protect against payments shocks. Central banks can observe symptoms of such increased demand in a rising overnight rate of interest in the money markets, but will find it hard to quantify the scale of the increased demand. If the central bank responds by injecting a lot of extra reserves but does not pay interest (at the policy rate) on reserves balances, the overnight rate may flip from being too high to being too soft, potentially creating a perception that it is attempting to loosen monetary policy. A system that pays interest on reserves balances is relatively immune to this problem. That may be part of the background to the debate in the US about the Fed moving to paying interest on reserves, bringing it closer to the ECB and the UK frameworks in that important respect. In the UK, we have also found it helpful to have a framework that allows the banking system to reveal its demand for reserves by choosing reserves targets each month rather than have requirements set for them by the Bank; and that allows the Bank to increase the range within which reserves balances are remunerated at Bank Rate. The technical design of the system for implementing monetary policy can, therefore, affect the degree to which the central bank can accommodate shifts in the demand for its money without risking unintended and misleading signals about its policy stance.

The distinction between the second and third types of intervention has been relevant more widely in recent months.

Steps taken by a central bank to widen its counterparties, extend the collateral against which it lends, or lengthen the maturity of its operations are not strictly monetary (in the

sense that I have defined it) unless the net (and I stress, net) provision of reserves is affected. They are, of course, steps that alter the terms of the central bank's financing of the banking system (or the wider financial system). In practice, many of the measures taken by central banks in recent months have the effect of switching to lending for longer maturities against wider collateral. One effect has been to leave the banking system with higher holdings of government bonds, which would otherwise have been deployed in central bank operations and are, instead, free to be used in private repo markets. No increase in the provision of central bank money has been entailed. In that sense, these operations have many of the economic characteristics of medium-term collateral swaps, increasing the liquidity of bank balance sheets.

The system would, I think, benefit from central banks internationally saying more about the range of instruments available to them in the event of a crisis, and the terms on which they may be available and with what objectives. And as I noted earlier, this is now featuring in the international dialogue underway to learn lessons from the turmoil.

4. Credit cycles and 'mopping up'

As we entered this crisis, a dominant school of thought was that the monetary authorities should not 'lean against the wind' during periods of rapid credit growth and/or asset price rises, but should instead rely on 'mopping up' after the event by using monetary policy to cushion the blow to aggregate demand caused by the bursting of a bubble and/or tightening credit conditions.

I have for some time been uneasy about this doctrine. In the first place, if one eases monetary policy to address the adverse macro-economic consequences of one problem/bubble bursting, one needs to take care not to set off the inflation of a bubble in another part of the system; one 'imbalance can lead to another' by virtue of the central bank's actions (Tucker, 2006).

But, as has become clear during this latest painful episode, the central bank cannot rely on being able to devote its interest rate instrument to cushion the effects of a bubble bursting. Whether it can do so depends on what else is going on that affects the medium-term outlook for inflation. Lately, the shock to costs from energy and food prices – and also

sterling's depreciation – has created potent upside risks to inflation via inflation expectations. Monetary policy must be set on a course to balance the two risks to the medium-term inflation outlook, as the MPC has stressed in recent months.

So I do not think that 'mopping up' is a doctrine than can be relied upon.

Nor do I think that monetary policy can be devoted to preventing or pricking asset price/credit bubbles over and above its dedicated task of delivering nominal stability over the medium term.

But I do think that the authorities need ways to intervene against risks gathering in the system. As I discussed earlier, from time to time many market participants may share the analysis and concerns of the authorities, but find themselves inhibited by competitive pressures from taking individual actions to protect themselves, and so the system, from uncertain financial risk. In a similar vein, we have seen very clearly that regimes designed largely to deliver micro objectives (accounting, prudential regulation, etc.) can have macro effects.

So, my conclusion is that we need to revive the debate about whether there might be other macroprudential levers that could be employed by the authorities, domestically or internationally. It may be that we will conclude that such levers are not available or reliable. But we do really need to have this debate – in earnest and in detail.

5. The macro backdrop and preconditions for financial-system stabilisation

The macro backdrop to the current problems warrants some thought. The world economy needs to rebalance. Domestically, the US, UK and some other economies need to rebalance.

During the run up, the debate about global imbalances and about the "Search for Yield" was too frequently conducted in parallel universes, the former about macro-economic conditions, the second about esoterica in the financial system (CDOs, monolines, SIVs, etc.). Of course, the two were, in fact, intimately connected. The global savings imbalances drove down long-term risk-free rates. Risk premia were compressed in part

by the appetite of the world's new (largely Asian) net savers for bonds, and in part by demand for long-duration bonds from defined-benefit pension schemes around the world. Many asset managers seem to have concluded that their super ex post returns could and should be maintained into the future, in part via leverage and maturity transformation – a toxic mix, especially when cast in complex and new forms. Why complex and new? In part because companies and governments did not need to issue (vanilla) fixed-income instruments on a scale that would meet demand. So the market synthesised them, filling the gap via securitisation and derivatives. The resulting phase of Vehicular Finance was, in some respects, a gigantic carry trade. And, at a macro level, the counterpart to external deficits was household deficits, facilitated in part by loose lending standards in a world where 'anything' could for a while be distributed via the capital markets.

The international official sector has spent a lot of the past decade debating the risks from hedge funds, following the failure of the LTCM fund in 1998. While certainly learning the lessons of the latest episode, we need to take care not to spend the coming decade debating just SIVs, CDOs and monolines. What we debate should depend on what is actually going on in the financial system and how it interacts with the macro conjuncture.

Nearer term, what is needed for the system to stabilise? No one knows for sure. But two obvious candidates are that the US housing market needs to bottom out; and that banks need to value their books conservatively, and to raise new capital quickly. These points are not independent. In the US at least, there has already been evidence of a feedback loop between financial and macro conditions.

Another precondition may be the emergence of 'bottom fishers' prepared to purchase assets they regard as 'cheap'. Given the view, apparently widely held in the market, that many asset values incorporate a heavy discount for illiquidity, and may therefore be priced below the 'fundamental' value appropriate for a buy-and-hold investor, it might be asked why 'bottom fishers' have largely remained on the sidelines. The most common answer we receive to this question is that the prevalence of mark-to-market accounting has the effect of shortening de facto holding periods for many investors. This, again, underlines the importance of the design of the financial system in determining its behaviour and its interaction with the real economy.

Reference

Tucker, P.M.W., 2006. Reflections on operating inflation targeting. Bank of England Quarterly Bulletin, Summer 46 (2).