Paul Tucker: Discussion of Lord Turner's lecture, "Reforming finance – are we being radical enough?"

Remarks by Mr Paul Tucker, Deputy Governor of the Bank of England, at the Clare Distinguished Lecture in Economics, Cambridge, 18 February 2011.

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Master, it is a real pleasure to be here this evening. And it is a real pleasure to kick off the discussion of Adair's paper. We spend a great deal of time together – constructive and productive time – at international fora, and this evening Adair has typically provided a splendidly thorough survey of responses to the financial crisis.

Adair casts it as about "Radicalism". I don't think it's necessary to frame the issues in that way. In his monumental survey of the long-eighteenth century revolution of ideas and practice, Radical Enlightenment,[1] Jonathan Israel argues that the "true" force of the Enlightenment was the democratic urge of a loosely allied group of thinkers underemphasised by mainstream historiography. But even if he is right, the so-called "mainstream Enlightenment" still, surely, turned the world upside down. One does not need to sign up to Whig views of history to believe that, by largely separating the world of enquiry from the world of faith, it set in train profound forces.

But if I do not see a need for one of the organising rhetorical constructs of Adair's lecture, I do most certainly think that we need to deliver fundamental change in the "rules of the game" for the financial system. Adair's talk therefore provides an excellent opportunity to pause and review some of the ways in which policy and theory have been interacting so far.

The literature on myopia and the crisis

I want to begin with theory not policy, and the paper by Shleifer et al cited by Adair helps to provide an organising framework.

This paper reflects the growing response of the economic profession to the crisis, and should hearten us all that theory is alive and well and productive. Unlike most papers written over the past three to four decades, Shleifer abandons rational expectations (RE) in favour of a world in which agents are seriously myopic about certain low probability, high impact risks.

It is worth reminding ourselves of the RE paradigm, which has dominated macroeconomics and finance since the '70s. It posits a state of affairs in which agents ***know the world*** – know the structure of the model, and so have ***model-consistent*** expectations. Bad things ***can*** happen – but only in virtue of exogenous shocks. And depending on the structure of the world, those bad states can be relatively small beer, as famously argued by Lucas on the relative unimportance of business cycles. Disagreeing with that, the so-called salt-water economists wanted to show that, upon the crystallisation of those exogenous shocks, ***really bad*** things, recessions and persistent unemployment, can happen due to flaws – or, as economists like to say, frictions – in the make up of the world. But the frictions perform an amplifying role only; the initial impetus comes from an exogenous shock over which the behaviour of agents exerts no influence, directly or indirectly. That is because agents – firms and households, as normal people call them – do not make ***any*** ex ante mistakes.

Shleifer describes a different kind of world altogether. It is a set up in which the myopia of the agents – investors, bankers, intermediaries –leads them, and the economy more widely,

[1] A short summary of the first two volumes is in Jonathan Israel, Revolution of the Mind, Radical Enlightenment and the Intellectual Origins of Modern Democracy.

towards trouble, sometimes disaster. Because they are effectively blind to certain lowish probability risks, they generate and invest too heavily in securities that carry precisely those risks. The effects of innovation get out of hand. This is a nice complement to papers by academics and policymakers attributing the ballooning of ABS issuance in the West to a combination of (i) an ex ante excess of savings from the East in the hands of investors with a preference for low risk fixed-income assets, and (ii) a shortage of precisely those highly rated fixed-income instruments. The effect, on that view, was initially to drive down credit risk premia relative to equity risk premia, and to spur the issue of ***synthetic*** securitisations to fill the gap in supply.[2] If that story drives expansion of ABS/CDO issuance, Shleifer's model helps motivate a lot of those securities being fundamentally mispriced.

During the good times, everyone feels that they are achieving a nice balance of risk and return. They are getting, they think, safety, liquidity and return! But something eventually happens to cause them to wake up, and to see the risks they have neglected. Investors can then react in a dramatic way. They stop buying, sell; prices collapse etc. But an exogenous shock is ***not*** needed to generate that unravelling. If the overpriced securities have led to credit conditions being too loose, then somebody – households, firms, sovereigns, or everyone – will have accumulated too much debt, and so eventually fundamentals assert themselves: defaults rise, and realisation sets in. As a younger colleague said to me, "the model's key features are all way outside what I was taught in the '90s". But doesn't it sound ever so slightly like the real world?

For me, one of the strengths of Shleifer's paper is that he cites good examples, not only from the recent crisis but earlier ones too. A key past case is the boom in issuance of Collateralised Mortgage Obligations (CMOs) in the run up to the 1994 mini-crisis, an episode that I tried – too timidly – to highlight in 2006.[3] Of many examples from the run up to the recent bust , a great one is the late-cycle CPDOs – constant proportion debt obligations – which were rated AAA, paid around 200bp over money market rates, and had a ***big*** exposure to tail risk.[4] And on the great awakening, Shleifer himself gives the example of a realisation about ABCP, ABS and so on in mid-2007 after subprime delinquencies had risen and faith – note, ***faith*** – in rating agency ratings of structured finance securities had evaporated. This exactly chimes with the market intelligence that the Bank was picking up in August 2007. I well remember Stuart Gulliver, now CEO of HSBC, saying to me very early on something to the effect of "anything with "ABS" or "securitisation" in the label is now toxic".

Indeed, Shleifer's story, and the broader one told by Adair this evening, fits with the thrust of the Bank of England's strategy towards Market Intelligence, framed in around 2002/03. This amounted to saying that we needed to think about markets somewhat differently when we are doing monetary policy and financial stability. For monetary policy, in most circumstances a reasonable default assumption is that core markets are more or less efficient most of the time. So, while we absolutely have to be alert to distortions, we are not crazy to infer, from yield curves, expectations about the path of policy rates or of inflation. But for financial stability, which of course affects macroeconomic conditions, I have always encouraged the team to do a Gestalt flip to thinking of markets as inefficient, riddled with preferred habitats, imperfect arbitrage, regulatory arbitrage, herding, and inhabited by agents with less than idealised rationality. That's how during the early 2000s the team came to write about CDOs, ABCP, monolines and, eventually, vehicular finance etc.

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[2] Caballero R J (2009), "The "Other" Imbalances and the Financial Crisis", *MIT Department of Economics Working Paper No. 09–32*.

[3] See page 12 of Tucker P M W (2006), "Uncertainty, the Implementation of Monetary Policy and the Management of Risk", a speech to the Association of Corporate Treasurers.

[4] The potential risks associated with CPDOs (and other AAA-rated products) were discussed in the Bank of England's April 2007 *Financial Stability Report*.

Shleifer's paper strikes me, therefore, as one example of exactly what the academic end of the economics profession needs to do in order to speak to policymakers framing and implementing reform. It engages with what I have previously described as "risk illusion", in motivating a macroprudential prudential approach to policy.[5]

In other words, it carries policy implications.

Policy

Moreover, the policy implications of Shleifer's paper are arguably rather different from those stemming from theories that attribute the crisis solely to bankers acting ***rationally*** in response to the private incentives created by remuneration packages and the problem of Too Big To Fail. In that sense, Shleifer's model formalises the argument of Charles Goodhart and others that bankers badly misjudged the risks rather than ***consciously*** ran the system towards the edge of the cliff.

One policy implication of myopia is that, as Shleifer himself says, we need to attend to risks beyond banking – in shadow banking etc. I spoke about that around this time last year.[6] We need policies on firms and funds that perform similar economic functions to banking, such as money funds; as Shleifer says, the constant-net-asset-value basis of most money funds encourages a belief that they are riskless, and yet in fact they are not insured and carry no capital. We also need policies on ***markets*** that deliver maturity transformation and leverage. This crisis happened partly because the authorities did not keep up with developments in capital markets. I shall not revisit that in detail this evening, other than to say that the Bank is glad that its new Financial Policy Committee will have a responsibility for advising HMG when to move the perimeter of microprudential supervision and a power to make Recommendations to the securities regulator on rules governing funds and markets where they are material to stability. Thankfully, all this is now also being worked on internationally in the Financial Stability Board.

A second and obvious policy inference that one could draw from Shleifer's paper, and one I want to spend a little more time on this evening, is that it is absolutely vital that (regulatory) capital requirements for banks more or less truly capture their ***risks***. Two thoughts on that, of rather different kinds. First, it was very obviously a false step when, in Basel 2, the international-standard setters tried to follow the techniques and calibrations of private sector risk managers rather than engaging with the externalities that warrant State intervention in this area in the first place. Second, more particularly and more concretely, this underlines the vital importance of the current Basel work to review fundamentally the capital requirements for banks' ***trading books***. In short, Basel has recognised that the amount of capital a bank should hold against a liquid trading position often has good reason to be smaller than needed for a hold-to-maturity portfolio, ie where the bank can shed its exposure. But it failed utterly to recognise that since such books are marked-to-market (or model) and since the boundary conditions for solvency derive partly from accounting measures of asset values, it is vital that banks hold capital against the risk of violent swings in ***liquidity premia***. Yet that is exactly what torpedoed a fair fraction of the largest banks and dealers in the world through their (levered) holdings of leveraged loans and super senior tranches of CDOs. It was a risk about which bank management, investors, regulators and supervisors were all myopic. The so-called Fundamental Review of Trading Book Capital Requirements is, as Adair said, a very important opportunity to correct this.

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[5] See the Bank's paper: "The role of macroprudential policy: A discussion paper", November 2009 and Tucker P M W (2009e), "The debate on financial system resilience: Macroprudential instruments" at the Barclays Annual Lecture in London.

[6] Tucker P M W (2010), "Shadow Banking, Financing Markets and Financial Stability", Speech at a BCG Partners Seminar.

What that amounts to in practice is recognising that the degree of ***resilience*** of market liquidity matters a lot. I have been arguing that a market's liquidity is unlikely to be resilient if demand is dominantly from ***leveraged*** investors and traders. They buy when prices are rising, but stop buying or even sell when the price stops going up, leaving prices without a firm underpinning – and often with prices perched on a precipice. That element of recent events is missing from Shleifer's set up, but in the real world it is precisely what we might expect if one joins up his story about innovation induced by myopia with Hyun Shin's earlier paper[7] about the association of leverage and asset-prices fluctuations.

If securities are fundamentally mispriced because of blindness to a type of risk ***and***, further, are held dominantly by leveraged players, the adjustment when it comes will be all the greater. In commentary on other papers, Shleifer himself has argued against one of the fundamental drivers of the crisis being the liquidity exposures stemming from ABS and other securities being financed by short-term repos; what Gary Gorton and others have called the run on repo.[8] But the spirit – if not the analytics – of his paper could extend to myopia about liquidity risk; it was neglected because agents forgot about it. Only recently the leader of a financial institution that emerged relatively unscathed from the crisis told me that they had been blind to the possibility of a really severe liquidity crunch; and that they had reacted by massively cutting their short-term funding in the worst days of the crisis. As a policymaker, for whom explanations can be complementary rather than seminar papers in competition, the myopia and run-on-repo se stories seem to me to join up rather well.

What to do? As the Basel Supervisors Committee proceeds with the FRTB, I can imagine reluctance to opine on the liquidity of markets, but it was not beyond the wit of the official sector to observe that crucial parts of the ABS market were utterly dependent on levered money and so very unlikely to be liquid when the music stopped. This partly makes the case for reconnecting supervisors and markets specialists in central banks.

This is all part of getting the level of capital in the banking industry closer to what is warranted. Adair has said a great deal about that this evening. But before coming to the associated international policy debates about the biggest and most complex firms, I want to go back to incentives. Because whatever the merits of the riskmyopia argument I have been reviewing, we absolutely must ***not*** build a system that relies on dismissing the incentives argument. While I doubt that many bankers deliberately – that is to say, consciously – took outsized risks that crashed the system because they believed they would be bailed out, I do believe that their behaviour will have been profoundly affected by their cost of debt being too low because ***asset managers*** believed they would not lose money. Asset managers held beliefs about the policy world that fatally diluted their incentive, as creditors, to monitor and discipline banks (this is the Too Big To Fail problem).

That brings me to the policy debate on resolution. Those of us promoting enhanced resolution regimes, who include Adair by the way, do so for two reasons. First, no one can ***guarantee*** that losses will not exceed equity cushions in the future and when that happens if the losses do not fall on bondholders – via resolution or the much more disruptive liquidation – they will end up falling on taxpayers. And second, exposing bondholders to risk has the potential to harness ***market discipline*** – or, as I have put it, to bring capitalism back into the heart of capitalism. That weighs with me both as a matter of principle, and because minds have been concentrated by the planned transfer to the Bank of responsibility for micro prudential supervision of banks. A system in which our bank supervisors were the next line of

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7 Adrian, Tobias, and Hyun Song Shin (2010), "The Changing Nature of Financial Intermediation and the Financial Crisis of 2007–09", *Annual Review of Economics* 2: 603–18.

8 Gorton G B and A Metrick (2009), "Securitized banking and the run on repo", *NBER Working Paper 15223*. See also Shleifer's comments on Gorton and Metrick "Regulating the Shadow Banking System" *BPEA*, Fall 2010.

defence after management would be badly designed. We need to set rules of the game that harness boards, shareholders, auditors and, in today's context, crucially bondholders to the cause of preserving the safety and soundness of the firms they run, monitor and finance.

Adair airs some questions about ***reliance*** on resolution. Namely, (i) the incidence of failure amongst the largest and most complex firms is so rare that, over time, participants in financial markets will forget it can happen; and (ii) that when such a firm does fail, the spillovers will be so great that the market will expect it to be bailed out, validating the myopia.

Those arguments seriously underestimate the determination of policymakers in this area.

Perhaps the first point to make is that Lehman ***was*** allowed to fail, even though no one can seriously have been in much doubt about the severity of the consequences. In a democracy, interventions are sometimes severely constrained. It would be myopic for market participants to set aside the probability of that happening again. In fact, I doubt markets will forget for a long time. And arguably one can see awareness of this risk in bank debt spreads today and in the movements following policy consultations in Europe and the US on "bailin" and resolution reforms. But, secondly, the idea of not equipping ourselves with better tools for the "last chance saloon", when all else had failed, would be a counsel of despair. Adair must be right, though, that we will need to build credibility for our commitment to resolve rather than bailout. That means building institutions to underpin that commitment. Idiosyncratic failures ***do*** occur. We can – and where appropriate should – prospectively apply the same resolution tools to the failure of medium-sized firms as we are developing for the largest global firms, demonstrating our willingness to use them. Living wills – or, as they are now called, Recovery and Resolution Plans – will help, provided they have teeth. Which means ensuring that firms are organised and structured to permit effective resolution of different kinds of business line. And a prompt-intervention supervisory action regime can be designed to limit the scope for regulatory forbearance. That will be an important part of the reforms of microsupervision in the UK, as we prepare for the Prudential Regulatory Authority.

Enhanced resolution regimes are aimed at putting asset managers at risk through their holdings of credit instruments, just as they accept risk as equity investors. That will affect the oxygen that bankers breathe. But we could underpin the positive incentive effects by paying part of the deferred element of the remuneration of bankers in risky debt securities as well as in equity; equity gives them upside as well as downside, whereas a fair chunk of their wealth being a debt claim on their bank would give them a powerful interest in its medium-term soundness. My guess is that senior bank management team would not object to that.

But none of what I have said makes a case for placing ***all*** of our eggs in the resolution basket. Switching metaphors, we need belt ***and*** braces. Which is why the G20 agreed that the so-called Global Systemically Important Financial Institutions (G-SIFIs) should carry greater loss absorbing capacity (or GLAC) than implied by Basel III.

First best would be equity. Indeed, Adair has argued this evening that ideally Basel 3 would have set a higher equity requirement. But that did not happen. In practice, we are going to have to be open-minded, but also principled, about quasi-equity instruments contributing to GLAC for SIFIs (sorry about the acronyms!). Currently, the leading candidate is so-called Contingent Capital bonds (CoCos), which convert from debt into equity in certain states of the world. It seems to me that to serve the purpose of GLAC for large and complex firms, such instruments would need to convert when a firm was still fundamentally sound, which is to say that they should have high capital triggers. For a large and complex firm, a low capital trigger would be dangerous, as funders and counterparties would be likely to flee before reaching the point at which the firm would be recapitalised through the CoCos' conversion.

Moreover, high-trigger CoCos would presumably get converted not infrequently which, in terms of reducing myopia in capital markets, would have the merit of reminding holders and issuers about risks in banking.

"Macroprudential" and the Financial Policy Committee

Bringing this together, policies on trading-book capital requirements, loss-absorbing capacity, resolution and shadow banking can all contribute towards addressing the stability-threatening problems of myopia identified in the literature. And the higher effective capital requirements that this package can deliver might potentially affect incentives by exposing debtholders to risk; and, via reducing return on equity, by harnessing the energies of shareholders in monitoring the terms of distributions to managers. In that sense, quite technical things might have significant effects over time on behaviour and the structure of the financial system.

That assumes that lessons from this crisis endure. But, of course, the most pernicious forms of myopia surely come out of ***prolonged*** periods of apparent tranquillity in markets and the economy. That is when everyone gets suckered into believing the world is a safer place than it is, with elegant theories and eloquent practical stories for why the world has really changed. Which ultimately tips us from tranquillity to disaster. One of this university's greatest twentieth century thinkers taught us that what counts as an argument – not just as a good argument, but as an argument ***at all*** – is not always firmly grounded. The deepest problem during the years in which a grave crisis is brewed is that those who see the signs are marginalised or literally not heard. What on earth are we to do about that?

Part of the solution must lie in the design of policy institutions. One reform would ask a dedicated and expert group to identify risks to stability and give them powers to address those risks that threaten the system or are leaving it vulnerable; and, vitally, to require them to ***stick*** at that task year in-year out, even when everyone else would otherwise be losing interest, taking stability for granted. As Adair said this evening, that is ***precisely*** what is going on in the UK through the creation of the Bank of England's Financial Policy Committee. The first members were announced yesterday. This is a ***big*** reform. Rather undermining my strictures to Adair on his use of "radicalism", I've described it a number of times as revolutionary.

The FPC's success (or otherwise) will not depend solely on ***its*** own ability to identify risks. Rather we must ensure that the debate about stability – the flame if you like – never dies. For that reason, our accountability to the Treasury Select Committee can help greatly through the public debate and commentatory that our appearances will stimulate.