

How to tame global finance

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[Adair Turner](#)

A group of leading financial analysts quiz Britain's top regulator on what went wrong, while experts including Robert Kuttner and Oliver Kamm offer their responses.

The *Prospect* interview panel

John Gieve is chairman of financial transaction specialists VocaLink and formerly deputy governor of the Bank of England

Jonathan Ford is commentary editor of Reuters and an associate editor of Prospect

Gillian Tett is an assistant editor of the Financial Times, specialising in global financial markets

Paul Woolley is a senior fellow at LSE, where he founded a centre for the study of capital markets

Jonathan Ford What stage have we got to in the crisis?

Adair Turner I think we are well-advanced in the evolution of the financial aspect of the crisis—the extreme public policy interventions which followed the crisis last October have stabilised the system. We do now have banks which have adequate capital. I think there are still some issues across the world as to whether we have full transparency. But most countries have made sure their banks are capitalised to deal with the future. So I think we are beyond the point of fragility.

Economically, we are at some sort of turning point, in the sense that the period of extreme GDP fall has occurred. We are seeing increases of GDP in some parts of the world, like China and much of Asia, and in the developed countries we are probably on the turn. But what we don't know is how rapid that process of economic recovery will be and whether it will be constrained by either a very cautious banking system or by the scale of public sector debt overhanging many of the big economies. But the more fundamental thing, especially for regulators like me, is to realise that what has occurred has imposed huge economic harm throughout the world and so we really do have to work out how to stop it happening again in five or ten years' time. And that requires a very major reconstruct of the global financial regulatory system, and I don't mean a minor adjustment.

Ford George Osborne, the shadow chancellor, has put forward proposals that would transform the tripartite regulatory regime in Britain, effectively abolishing the FSA, moving its banking supervisory functions back into the Bank of England and creating a new consumer protection body. Do you think that's a sensible move?

Turner The institutional architecture is the least important issue here. If you look around the world, some countries combine the prudential supervision of banks with the central bank and some have it separate. And of those countries that are thought to have done well in this crisis, some of them do it one way and some do it the other. Everyone says Spain has done reasonably well and it has supervision of banks allied to its central bank. Yet Canada, a country which appears to have had a very sound banking system throughout the crisis, has a separation between the central bank and bank supervision. So there is a spectrum of activities, from the monetary policies of central banks through macro-prudential analysis, micro-prudential supervision and customer protection issues, and wherever you divide it up, you will create interface problems and you will have to manage them.

Of course the argument for a close relationship between central banking and prudential supervision of banks has been sharpened by the fact that we've realised that macro-prudential analysis—seeing the overall picture and pulling big counter-cyclical levers—is vitally important. I believe that the closeness of links required could be achieved by intelligent working relationships across the existing institutional divide. The Conservatives have convinced themselves that those links need to be so tight that you have to switch around the boxes, and you can argue this either way. But it is much less important than the substance of what we do.

John Gieve How risky will a transition be?

Turner You can't do a split like that without some risks of transition management—and I don't think George Osborne would deny that. But that's a challenge to be dealt with if the electorate decides to go in that direction..

Ford John Gieve, you used to sit on the other side of this fence at the Bank of England. Do you think the Bank would welcome a re-absorption of these activities?

Gieve I don't think I would have done it. I think it's possible to address the defects without having that wholesale change. The Conservative decision to reintegrate banking supervision with the central bank not only creates a transition problem, starting now by the way, there's also the risk that if you put all the responsibilities in one place you increase the risk of groupthink, and central banks aren't always noted for their openness and transparency.

Ford Are there ways in which the existing system could be improved?

Turner The way that the tripartite system worked post 1997, and especially the relationship between the Bank of England and the FSA reflected a particular philosophy of the time, and in retrospect, I think everyone recognises that a different approach would have been better. The bank was focused on its monetary policy mandate. The FSA focused on micro-prudential supervision on an institution by institution basis, and on an interpretation of that which was fairly legalistic and focused on systems and processes. Somewhere between the big picture got lost; the overall trends in credit extension across the economy and in assets prices were not put together with certain business developments to sound a warning. To be more concrete: back in 2005, there was not a process between the bank and the FSA of saying look we have a large current account balance of payments deficit requiring the inflow of capital, rapid credit growth,

rapid growth of securitised lending to mortgage markets, rapid development of some go-getting mortgage banks—HBOS, Alliance & Leicester, Northern Rock and so on—which were heavily reliant on both the ability to sell mortgage securities through to US mutual funds and the ability to borrow money wholesale in the inter-bank market... there was a failure to put all of that together and say, “faced with this, we want to be imposing levers on the liquidity or the capital policy of HBOS or Northern Rock.” There wasn’t the philosophy that this was really part of either institution’s job. There was no definition of the levers to pull if you decided there were problems—no concept of counter-cyclical capital and so on.

Ford Now that most people have abandoned a crude “market is always right” philosophy what are we left with?

Turner I think we are still trying to work that out after a fairly complete train wreck of a predominant theory of economics and finance. For the regulators of the world, once you’ve accepted that you don’t have an intellectual framework of “more market is always better,” you’re in a much more worrying space, because you don’t have an intellectual system to refer each of your decisions, and that requires more judgement and therefore confidence.

There are two particular areas where we know the direction of travel but turning it into concrete analysis is tough. First of all, this whole area of macro-prudential policy, the importance of seeing the big picture and having the right levers to pull—we all recognise that we need levers other than micro-prudential ones or other than interest rates alone. There’s something that resides in the middle there, economy-wide capital or liquidity measures which make the system more stable. But one issue here is do we try to hardwire things into the system so that when you go into a boom an automatic formula demands of banks, for example, that they squirrel away more capital? Or should such decisions reside within a body of wise people, some financial stability committee?

Second, we have had a very fundamental shock to the “efficient market hypothesis” which has been in the DNA of the FSA and securities and banking regulators throughout the world. The idea that more complete markets and more liquid markets are definitionally good and the more of them we have the more stable the system will be, that was asserted with great confidence up to three years ago. But what precisely we do as a result of the collapse of that approach is unclear. Does that mean that we as regulators have to sometimes ban new products and say, “I’m going to ban that unless you can prove to me that it is socially useful”? The whole burden of proof in the past has been the other way round—an organisation like the FSA has worked on the assumption that it has to define that there is some specific market failure, or else our intervention is not legitimate. We have not felt it sufficient to say, “Well, there’s not a market failure here, but the management of this bank is completely out of control, and therefore we’re going to tell them to slow down.” We have not felt the ability to act against market volatility for reasons of financial stability; we’ve only felt that we can act on it for reasons of market abuse.

Paul Woolley The crisis, as you say, has served to discredit mainstream finance theory, and especially its key idea, that capital markets are efficient. The idea that prices are always right and that capital markets exert their own self-discipline—the so called

efficient market hypothesis—has received a deadly challenge. Some commentators now argue that if markets are inefficient that must be because investors are irrational. The way forward, they argue, is to understand finance based on psychological biases and irrational urges, the so called behavioural model, to better explain the erratic performance of asset prices and capital markets. But people in the financial markets are not all acting irrationally. The real key lies in understanding a crucial mistake that economists have been making. Their theories are based on the assumption that there is an army of private investors who invest directly in stock, bond and derivative markets. They have ignored the real world complication that investors delegate responsibility for financial matters to banks, fund managers, brokers and so on, and it is these intermediaries who determine asset prices. Delegation creates an “agency” problem in that the agents have better information than their customers and, moreover, the interests of the two are rarely aligned. Bringing agents into the analysis helps us to understand how bubbles form, why equities are so volatile and the forces behind these “momentum” surges and collapses in so many markets.

Gillian Tett There is a real sense of intellectual confusion. Over the past year I have been talking to former true believers and they’re like a priest who has lost faith in the Bible, but still has to go to church, and the congregation is sitting there but he doesn’t know what the Bible is any more. I was struck by one former true believer, a woman called Blythe Masters who said that she realised belatedly that their wonderful models had treated things like accounting issues and regulation stuff as the noise, when in fact they were the model.

Turner Yes, the fact is that intellectual systems—the whole efficient market theory, Washington consensus, free market deregulation system—can become like a religion. You do need some sort of framework but it must be eclectic, and always subject to challenge.

Woolley Can I return to this issue of the size of the financial sector? Banking and finance has grown at a colossal pace in the last few decades to the point where it has become by far and away the largest global industry in terms of revenue, long-term profitability and share of GDP. It is strange that an industry whose function is the quite utilitarian one of converting savings into real investment should have become so dominant. We need to ask how it has come about that this intermediary role is being performed at such high cost to society, with such complexity and capacity for systemic collapse. There are several explanations. One is the so-called “agency problem” which I just mentioned and which confers on banks, fund managers and so on, the power to capture a disproportionate share of the returns from the productive economy.

Turner I agree with a lot of what Paul is saying, and I think the fact that the financial services sector can grow to be larger than is socially optimal is a key insight. There clearly are bits of the financial system, and particularly the bits that relate to fixed income securities, trading, derivatives, hedging, but possibly also aspects of the asset management industry and equity trading, which have grown beyond a socially reasonable size. To see this you can simply take measures such as wholesale financial services as a share of GDP or consider what percentage of highly intelligent people from our best universities went into financial services. Now, unless you’ve got a theory that explains why financial intermediation suddenly needs all this extra resource, there is something of a conundrum. Is it really the case that financial intermediation today is a

more complex thing than a decade or two back? At a pinch you could argue that as people get richer, they recycle more money from one bit of their life to another bit of their life. They have bigger net savings positions and bigger net liabilities and that creates a bigger financial system. But you still have to say that a lot of the increase of the balance sheets of the banks was derived from activities internal to the banking system. And you have a financial system that creates products which at one level help you to hedge volatility but which can also be used in ways that create more volatility.

It is hard is to distinguish between valuable financial innovation and non-valuable. Clearly, not all innovation should be treated in the same category as the innovation of either a new pharmaceutical drug or a new retail format. I think that some of it is socially useless activity. On the other hand, I don't know whether that means the world would have been better off without any credit default swaps, or simply some credit default swaps. I just think it's difficult to work out where one can draw the line with this. And that leads me away from the idea that regulators should be saying: product X bad, product Y good, and more towards a set of mechanisms such as high capital requirements which create hurdles for new products, but do not stop those that are of obvious value.

Ford If one thinks that the finance sector is overblown, the question is how overblown? What is the optimal size?

Turner The answer is I don't think we know. But I think that as regulators we will be much less susceptible in the future to the argument that says "this product or market will create more financial activity, therefore that is a good thing."

Gieve I don't think it's very helpful to try to define the right size for the financial sector any more than trying to define the right size of the cosmetics industry. I don't know how on earth one would decide. Fortunately we don't have to take that decision because no one's directing labour into finance, they go there if they get paid well enough. If we are worrying that the sector has got too big and taken in too much talent—it's surely because it has been so profitable. And that raises the question, do we need a different sort of regulation for finance? When we regulate the electricity or the telecoms industry what we're talking about is economic regulation, which looks at industrial structure, pricing and market power—but apart from occasional forays by the OFT we don't do that in finance. Perhaps we should take that sort of economic regulation into finance—and the Conservative proposal, which has had less attention than the breakup of the FSA, is to bring the OFT and the consumer bits of the FSA together which might give you something which could be the basis of a new form of economic regulation.

Turner On this issue of the size and profitability of the financial sector you must separate out the retail activity and the wholesale. On the retail side there is no evidence that it is too large in terms of employees or in terms of margins—the margin between what you get on a deposit and what you pay on a loan hasn't gone up over the last 30 years. And the CEOs of the major retail banks are paid what the CEOs of the major retailers are paid. What is surprising is when you go to the wholesale side, and you see the enormous amounts of money that are made out of the provision of liquidity or the provision of complicated products or bits of the asset management industry or the hedge fund industry—those are activities that have ballooned in size, appear to be making hugely more money than 20 years ago, and where you end up with levels of personal

remuneration which are just stunning. And the trouble is that the sort of economic regulation that John is talking about is hardest to do where it is needed most, on the wholesale side. Why? Partly because prices are opaque so that there's nothing you can actually get your arms around and regulate. Secondly, it is truly global, and unless you can get a rigorous global agreement, there's a problem.

Ford It may all be very complex but there is real public and political concern about the return of big bonuses, especially in banks backed by public funds. People think the bonuses are both immoral and part of what triggered the crisis in the first place by encouraging excess risk. And, fairly or not, the FSA is getting blamed—it is accused by the Tories openly and the government more privately of being too weak and watering down the latest code on bonuses. Isn't this a problem for you?

Turner Well, there's a lot of politics being played here, but let me try to be clear about what we can and should do about pay and about who has to do it. We must distinguish three issues. First, whether the structure of how bankers get paid—not the total level of pay and bonuses but the balance between them—creates incentives for excessive risk-taking. Second, whether there should be a special approach for the banks which are now partially state owned. Third, public concern about the overall level of pay in a financial sector which, as we have been discussing, has swollen beyond its socially useful size and seems to make excessively large profits. The specific legal mandate of the FSA is solely on the first of these, so let me comment on that first. What the FSA can do and is doing is to require banks to take into account the implications of pay and bonus policies for risk. It seems likely that in the run up to the crisis bad remuneration policies did indeed create incentives for excessive risk taking—for instance by paying bankers bonuses for making short-term profits before it was clear if they had also created toxic problems which produced losses later. So we will push banks to defer more bonuses for a period and to pay more in shares not cash—and we will demand higher capital requirements if we don't like the policies we see. And by the way the FSA is the first regulator in the world to do this and we are now pushing hard for a global agreement in line with our own—without that global approach there will be ways of getting round our national rules.

All this will make some difference to incentives to take risks. But the honest truth is that bad remuneration policies, though relevant, were far less important in the unravelling of the crisis than hopelessly inadequate capital requirements against risky trading activities. If ten years ago we had had a perfectly designed and globally enforced remuneration policy but with inadequate capital requirements on trading activity, the financial crisis would still have happened roughly as it did. And if we had done nothing different on remuneration but had had sensible capital and liquidity requirements and macro prudential policies, the crisis would either not have happened or would have been much less severe. Why is this? Because while we can enforce structures that make banks defer bonuses and pay them in stock—which people say we should be doing more aggressively—it will not stop some bankers getting carried away with irrational exuberance: Dick Fuld, head of Lehmans, was paid primarily in stock and it made no difference to his risk taking.

On the second issue, pay and bonuses at the banks which are taxpayer supported—I think there is a question as to whether a more robust approach could have been taken not just on risk but on the overall level of pay too. But that is an issue for the

government as shareholder not the FSA as regulator: we have no legal power to impose different requirements on different banks according to who owns them. The third question however is the really fundamental one. It is whether the overall level of financial services pay is a consequence of the swollen financial sector which has resulted from oversimplistic financial deregulation. This is not a question that any of the politicians have focused on but I think it's an important and legitimate issue of public concern. The question is, what if anything can be done about it? If it wanted to parliament could pass a law directly regulating pay in banks—you cannot get paid more than £x per annum. But in a global economy it would be totally unenforceable—people nominally employed in Frankfurt while working in London, people self-employed on consulting contracts not as employed staff, and so on. If you want to stop excessive pay in a swollen financial sector you have to reduce the size of that sector or apply special taxes to its pre-remuneration profit. Higher capital requirements against trading activities will be our most powerful tool to eliminate excessive activity and profits. And if increased capital requirements are insufficient I am happy to consider taxes on financial transactions—Tobin taxes, after the economist James Tobin. Such taxes have long been the dream of the development economists and those who care about climate change—a nice sensible revenue source for funding global public goods. The problem is that getting global agreement will be very difficult. But at least proposals for special financial sector taxes, with increased capital requirements, address the issue of excessive profits and therefore have some chance of doing something about it. Insisting that someone “does something” about bonuses, by contrast, is a populist diversion.

Woolley If we agree that agents in the financial sector are capturing too much of the productive economy's return then surely part of the solution is in educating the principals, the pension funds and so on, to make the agents deliver longer term investment strategies with less dealing for the agents' own sake.

Tett It's a complete pipedream to think that the principals are suddenly going to change their ways. Basically at the moment you have an exceptionally well organised “sell” side of the business which has captured the intellectual framework for decades—they're very well organised, they have all the critical PR machines, they've dominated the political process. And then you have an utterly fragmented “buy” side, which is completely powerless and is ripped off the whole time in the wholesale markets, and does nothing about it, it's astonishing. The pension funds are so dumb and fragmented, they're not going to protect their own interests, the FSA is going to have to be interventionist and protect the end interests of the people who supply the money—the pensioners.

Turner If we do agree that there is a problem about the size of the financial sector, and the degree of profit extraction, it is expecting an awful lot of a regulator to then sit down and redesign the entire financial system to create better value added for society. But maybe that is partly how we have to see this. In any case it's not straightforward and it's quite difficult to know where the points of intervention are. I have spent the last year focusing on the instability of the banks and investment banks. When I was working as chairman of the pension commission (2003-06), I was then focusing on the issue of very large middlemen costs in pension provision, at both retail and wholesale level. And the commission concluded that it was impossible to reduce these by market regulation and that the best way to proceed was to take it out of the private system altogether. We ended up believing that there was a slice of activity there to which the answer was not a

private regulated market of any sort but rather a national funded pension scheme that essentially socialised the retail part of the distribution chain. Previously the government had been trying, through the stakeholder pension proposals, to create a product sufficiently simple that it could be sold at low margins but it didn't work. Obviously we're not going to decide that the whole financial system should be socialised because the alternative, which is the Soviet banking system pre-1989, also has its problems to put it mildly, but I think we have to realise that this is what we're struggling with, where markets work and where they don't.

Tett That leads very neatly to securitisation—the idea that a loan you take out from a bank does not just sit on the bank's balance sheet but is turned into a “security” and sold. Securitisation was a classic case of finance saying “Whoopee, we've got this amazing innovation, it's going to make everything much more efficient for all concerned,” and yet effectively it injected many new links in a complicated chain, with every single link in that chain extracting rents, and skimming off commissions, and creating a system in which nobody knew where risk was. If you look back has securitisation been a good thing for the financial system or not?

Turner That's a good question, and the answer is that I don't know. The complex form of securitisation which grew in the past ten years was a bad thing. I think it is possible that the original developments of it were a good thing, but we just don't know what is the optimal form of credit intermediation. The basic arguments for it are sound ones. Let's remember, we've just gone through a crisis of securitised credit dispersed throughout the world, but 1930s depression America was a crisis of reasonably small regional banks, each holding undiversified portfolios of credit extension to their own region. And when the farmers began to default, the bank went bust and then more farmers defaulted and then the bank next door went bust and so on.

So we mustn't romanticise the pre-securitisation era either. The basic proposition of securitisation is not daft and I think we will probably need to see the redevelopment of securitised credit in order to get the global economy running again. The problem was that it became over complicated, we had securitisation and re-securitisation, we had the over development of the credit-derivatives swaps market— somehow we just created this empire of activity. We need to create a stable and sensible form of securitisation rather than the monster of the past five years.

Tett It has been suggested that financial regulators should look to the pharmaceutical sector, where you have the same problem of innovative, profit-making companies producing something which has a wider social impact, but which in the pharmaceutical sector is heavily regulated. Maybe it would be possible to apply some of those lessons to the financial sector, it might mean finance becomes more expensive, the cost of capital rises a bit, but you have more stability over the entire cycle.

Turner Well, one version of that is when a bank comes to us and says “can I produce this product,” and we will say “no, it's a dangerous product, it hasn't been test-run.” I think this is the way that we are heading. And I think we will have a bias to conservatism when it comes to new and unproven products. We won't necessarily say you can't do this, but we are going to hit it with a large capital requirement.

Woolley There are some products which should be offered but aren't because although they are very attractive to long-term investors they are bad for "agent" business because they are buy and hold investments with low price volatility—I'm thinking of, for example, GDP bonds, bonds that give a return equal to the increase in nominal GDP each year, thereby capturing the three things that many investors want: some growth, inflation protection and price stability.

Turner Indeed. Financial innovation has produced some products of very dubious social value and then there are other products that on paper you would have thought would be useful that have not happened. And you're right, GDP bonds have always struck me as logically meeting the requirements of both issuers and investors. And if you ask experts why these things don't exist you will be told there is no liquidity in the market for them, there's no demand for them—but that's because there's no supply! This is an area where perhaps a government should create certain financial instruments as strategic aims of policy.

Ford Gillian earlier referred to the lobbying power of the financial sector. I'd be interested to hear what you think about that and the extent to which there has been regulatory capture and also whether Britain has a particular problem with its financial sector given its scale.

Turner It's useful to distinguish two things here, one of which I'd describe as overt lobbying power and another is regulatory capture through the intellectual zeitgeist. In the US there have been certain egregious examples over the years of lobbying influence. In the US political system, because it is a system of legislative initiatives from congress, because it is not a whipped party system and because there is unrestricted spending on elections, there is a power of money which is fundamental. It's not the same in Britain. I do, however, think there is a tendency for a very successful industry to create a general assumption that what it is saying must be sensible. Moreover, there are many good economists, for example, who work for investment banks yet none of them are likely to write papers that suggest the financial sector has got too large. And also the fact that in Britain the financial system is very big and was a large source of taxation revenue—both through corporation tax and income tax—was bound to reinforce the political idea that a relatively light-touch regulatory regime must be a good thing, and therefore we should not just be regulating for prudence, we should be regulating for the competitiveness of London as a financial centre.

Ford The government used to regard the FSA as a trade promotion body for the City as well as the regulator. Has that changed?

Turner It's clear to me that the FSA has to be very, very wary of seeing the competitiveness of London as a major aim, and that's not a popular thing to say because it has been defined as an aim—not as one of our primary objectives, but as a consideration we have to take into account. Incidentally, I think the good news is that around the table on the international financial stability board (FSB)—the group of central bankers, regulators and finance ministers appointed by the G20 to design a more stable financial system—there is a determination, not to let national competitiveness arguments come between us in London, New York, Paris, Tokyo and Switzerland. And there has been an open discussion about how we did do that in the past over things like capital adequacy regulations.

Gieve International co-ordination and co-operation is much harder than people think, not only do most countries do things differently but there are sometimes real differences of economic interest as well as shared interests. How optimistic are you that we will build on the crisis to get a step change in international co-operation?

Turner I'm in the glass a-bit-more-than-half-full camp. I was just in Frankfurt for the latest meeting of the steering committee of the FSB and we were discussing quite openly this issue of is there a danger that after the crisis, everyone gives up, either because of finance sector lobbying or because it's all very exhausting. I think that one of the really good things about the FSB is that emerging countries—Brazil, China, India—are now making important contributions to the debate. Rather than just sneering at the apparent failure of western financial deregulation they want to talk about what is an intelligent degree of financial sector liberalisation. So round the table I think we have a very strong global consensus. We now have to come up with new rules.

Gieve Doesn't this come down to the Americans. In the past they've resisted any international control over their own policies. But let me just ask about London's future. It has obviously taken a big blow in the short run but would you agree that the underlying pressures for consolidation and globalisation are still at work, there's still got to be massive consolidation in the European and US banking markets, and all that will favour London as a financial centre in the future?

Turner I think London will continue to be a major financial centre and I say that despite agreeing that the whole financial system has grown bigger than is socially optimal. There will still be the process of researching, distributing and trading equities, there will still be Lloyds of London doing wholesale insurance, there will still be ship-brokers and so on, and I think the concentration effects in financial services are very strong—London is a classic cluster and it will remain the dominant time zone centre in Europe. From the point of view of Britain as a whole we have over-relied on the City and we need other dynamic sectors, but in 20 or 30 years London is not going to have shrunk to the equivalent of Rome. There will remain four or five global financial centres, and it is almost certain that one will be London.

Ford Mervyn King has said that giant banks are global in life and national in death. On this issue of the winding down of banks, and who is responsible, will it be possible to get an international agreement on apportioning costs or is it more rational to end up in a situation where every bank is seen as a sort of collection of nationally based banks each with their own capital and supervised by the national authorities where they are based?

Turner It varies according to the type of bank we're talking about, and it's important to realise that although there has been a generalised discussion about "too big to fail," actually we are talking about three different categories. You have the large investment banks and trading wings of large commercial banks which run global businesses as an integrated whole, with a lot of fluidity of liquidity across borders with complicated legal structures, and who have demanded and been given the right to be looked at in a global fashion. You then have some banks, the HSBCs, the Santanders, the Standard Chartered, which are already to a very significant extent constellations of separate national banks, so it is somewhat misleading to say "oh my God, Britain has banking assets which are 500 per cent of UK GDP," when those include HSBC and Standard Chartered Hong Kong. And then you have the third category, which is a variant of that,

which is within Europe—in the context of EU rules a bank in one country has a right to operate in any other member country as a branch and continues to be regulated by the home country authorities not the host.

I think in relation to the Santanders, HSBCs, Standard Chartered, which are already more or less constellations of separate national banks, it may well be that we will make overt what is reasonably implicit already, that all their major operations are somewhat stand alone businesses with their own liquidities and capital, and we simply agree in advance that it is not the responsibility of the Spanish government to necessarily bail out the whole of Santander if it ever got into trouble.

In relation to the more global investment banks trading in New York and London it's more difficult to do that because it's more difficult to ring fence liquidity and capital—if there's a problem in one of the branches, you're going to have catastrophic confidence effects in the other. So the question is should we have had a system in which when Lehman's went down the Americans phone up and say "OK chaps, 60 per cent us, 20 per cent Britain, 10 per cent Germany, are we all in"? I suspect that's very difficult and I think we therefore have to design a regulatory approach and a level of capital where our prime focus is on making the likelihood of failure very small.

Woolley We got into this pickle of the last two years partly because of the policy maker's response to the tech bubble bursting, which was to keep interest rates too low too long. Interest rates are now even lower, so are we not in danger of creating the mother of all bubbles down the line?

Turner At the moment I wouldn't worry about that, it would be like Scott of the Antarctic worrying about dying of heat stroke. Obviously it's possible to overdo it, but I think we should still be more worried about potential deflationary pressures. One of the interesting things about this recession is that labour markets are proving surprisingly flexible, and that's one of the reasons why unemployment is not going up as much as one might expect. Moreover, I think some of the more global factors which led to relatively low inflation are still there. Obviously it's possible that pumping in huge amounts of liquidity means that we then get asset bubbles again, but I think we can deal with that when we see it. Maybe in retrospect there should have been slightly tighter monetary policy in some of the years before the crisis, but the real lesson is that we cannot rely on interest rates to constrain credit and asset bubbles. To manage the modern complicated economy, we do need some other macro-prudential levers, and therefore to stop the credit bubble of 2015-20 we do need to have levers for tightening liquidity rules or tightening capital rules. We have to make sure that during a downturn the weakness of the banking system does not become an autonomous factor driving the downturn. But if we think we are going to get rid of the economic cycle itself we are probably fooling ourselves.