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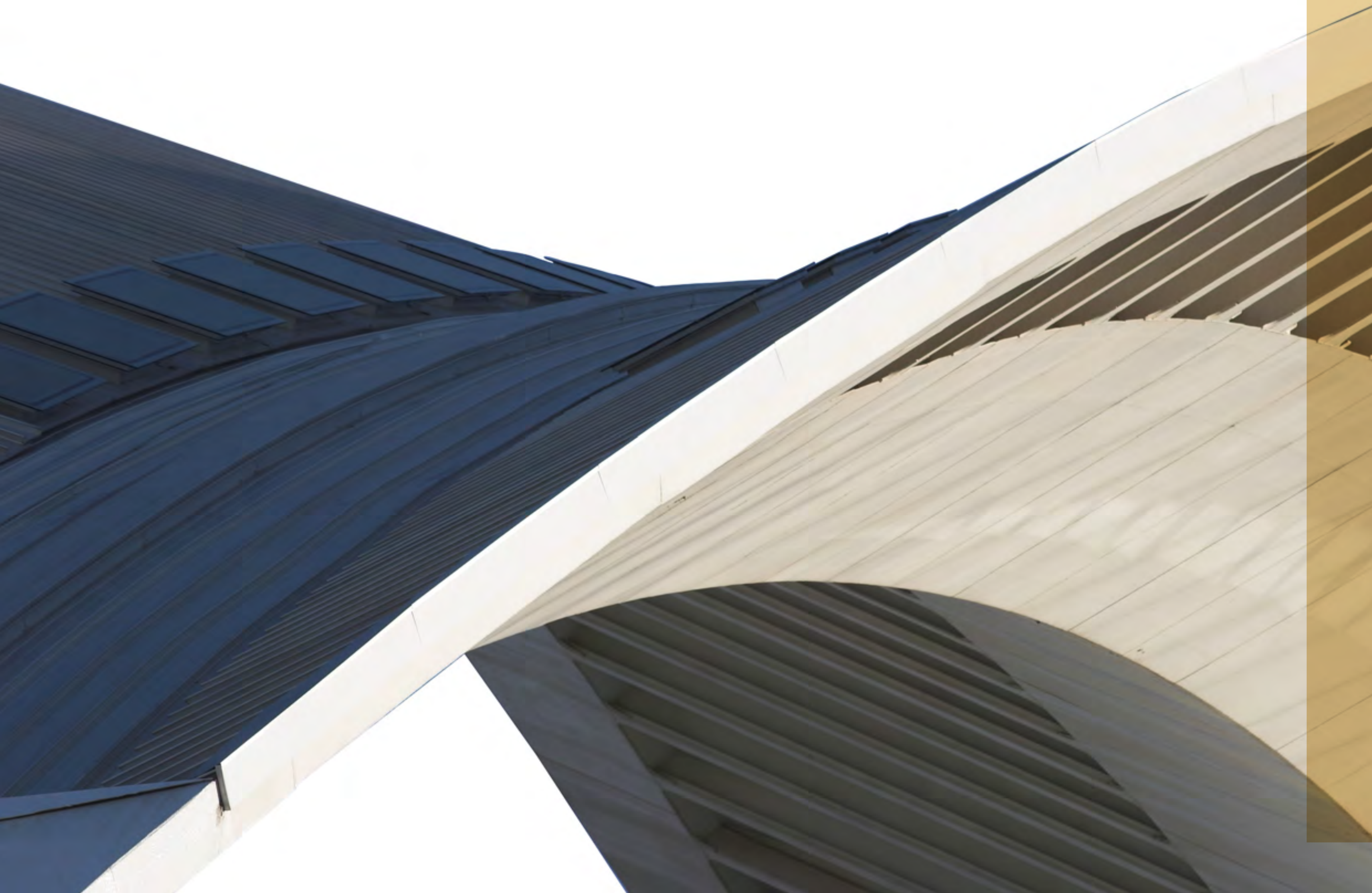
SHADOW BANKING, CREDIT CREATION AND INSTABILITY

A PERSPECTIVE FROM ADAIR TURNER



SHADOW BANKING, CREDIT CREATION AND INSTABILITY – A PERSPECTIVE FROM ADAIR TURNER

Adair Turner is an expert in economic trends and global finance. He led the FSB's work on shadow banking as chairman of the Supervisory and Regulatory Cooperation Committee which focused on both Basel III and shadow banking.

Shadow banking is a difficult yet crucial issue for global financial markets. Dealing with it will inevitably be like painting the Forth Road Bridge, because shadow banking is not going to remain stable, it is going to continue to mutate, as will the regulatory responses required to deal with it; and like the Forth Road Bridge, we will find that once we have got to one end, we will need to keep going back to the beginning and refine the regulations time and again.

To explain this I shall consider four areas.

- First, a look at how shadow banking was perceived before the financial crisis.
- Second, an explanation of why shadow banking causes problems and how it can render the financial system unstable.
- Third, the question of the scale of shadow banking and how we can measure it; and
- Fourth, what policies have been and will in the future be deployed around shadow banking.

1. A reprise of shadow banking before the financial crisis

In principle non-bank credit intermediation ought to be more stable than bank credit intermediation; accordingly there ought to be a good argument for increasing the provision of credit via the capital markets. Unfortunately, we keep devising forms of non-bank credit intermediation which are not only just as unstable as bank funded credit but in some cases are more unstable. Determining what is good non-bank credit intermediation and what is harmful shadow banking is at the core of the debate.

Before the crisis there was a great deal of confidence that what we now call shadow banking had made the global financial system much safer. The IMF's global financial stability report of April 2006 said: "There is growing recognition that the dispersion of credit risk by banks to a broader and more diverse group of investors, rather than

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warehousing such risk on their balance sheets, has helped make banking and the overall financial system more resilient."

Ironically, these words were written only fifteen months before the beginning of the biggest financial crisis since the 1920s. The IMF had said that it was clear that credit derivatives enhance the transparency of the market's collective view of credit risks, provide valuable information about broad credit conditions and increasingly set the marginal price of credit in a way that might render it less vulnerable to credit and economic shocks. With hindsight this view is of course deeply flawed. But what led to it?

The widely held belief was that securitisation and other shadow banking activities made the world a safer place. It was also an article of faith, not only before the crisis but after it as well – that the world needs securitisation. A senior American regulator said in 2012: "Securitisation is a good thing. If everything was on bank balance sheets there wouldn't be enough credit." Some very strong positive things were said then about securitisation and shadow banking – yet shadow banking clearly played a major role in the origins of the crisis in 2008.

Before trying to analyse how and why this discrepancy arose, it is interesting to consider the timescale of the development of the crisis between 2007 and 2008. If you recall, the main events leading up to the emergency in Autumn 2008 were about shadow banks, hedge funds and money market funds. It was only in September 2008, immediately after the collapse of Lehman Brothers, that the crisis spread from brokers, dealers and money market funds to the core of the banking system.

2. Why can shadow banking cause problems and render the financial markets unstable?

"What went wrong?" Why did securitised credit, capital market credit and non-bank credit – all of which everybody thought was a good thing – end up being harmful? To understand that you need to look at the way financial intermediation works and how it evolved. Financial intermediation connects households and non-financial businesses and non-financial businesses and governments. If you do that through banks you put in an intermediary to achieve maturity transformation, in other words by matching short liabilities and long assets and by introducing leverage. The reason why people thought that non-bank credit intermediation might be more stable was that they believed that (absent the banks) you avoided maturity transformation and leverage. So if a party bought a corporate bond, they supposed they were buying a non leveraged non maturity transforming mechanism.

The arguments which were put forward for securitisation in the 1980s and 1990s were that mortgages could be taken off bank balance sheets and held by natural, long-term unleveraged investors such as insurance companies and pension funds and that these institutions would be safer. However, in practice, by 2008 very few securitised mortgages were held long-term by pension funds and insurance companies because the shadow banking mechanism had been created. How? In between the households and the non-financial businesses and those borrowers of money, a complicated set of activities was inserted: money market funds,

Asset Backed Commercial Paper, special purpose vehicles, hedge funds and broker dealers, and it is these entities which reintroduced maturity transformation and leverage into the system. The new intermediation system had just as much maturity transformation and leverage as the banking system itself. Nor was it separate from the banking system – it was closely linked to it through liquidity lines and liquidity support, ownership structures and sponsorship. So these new mechanisms were not separate from the banking system and nor had risk been taken off the balance sheets. Instead we had created something very complicated indeed. By way of illustration, at the time, the New York Federal Reserve asked a team to map the shadow banking system in all its complexity and they produced a map which they recommended should be printed out on paper three foot by four foot.

This new and highly complicated system had at least three important aspects. Firstly it was a new form of credit creation. From about 1980 onwards a large slice of US mortgages were not on bank balance sheets and took the form of mortgage backed securities. This was accomplished in the mortgage market and also in the asset backed commercial paper market with companies borrowing money through that market rather than borrowing from banks. Secondly, one of the things which drove the shadow banking system was not just a new way of providing credit, it was also an increasing demand on behalf of non-financial corporations and institutions to hold money-equivalent assets outside the banking system. Thirdly, there was the vastly expanded repo market, which had grown very significantly over the previous 20 years.

There is a tendency to think of these developments as happening primarily in the US, but that does not mean that the European system was absent from the shadow banking scene – on the contrary European banks were heavily funded by the US money market funds and other European banks, for instance the large German Landesbanken were very big buyers of US credit market securities.

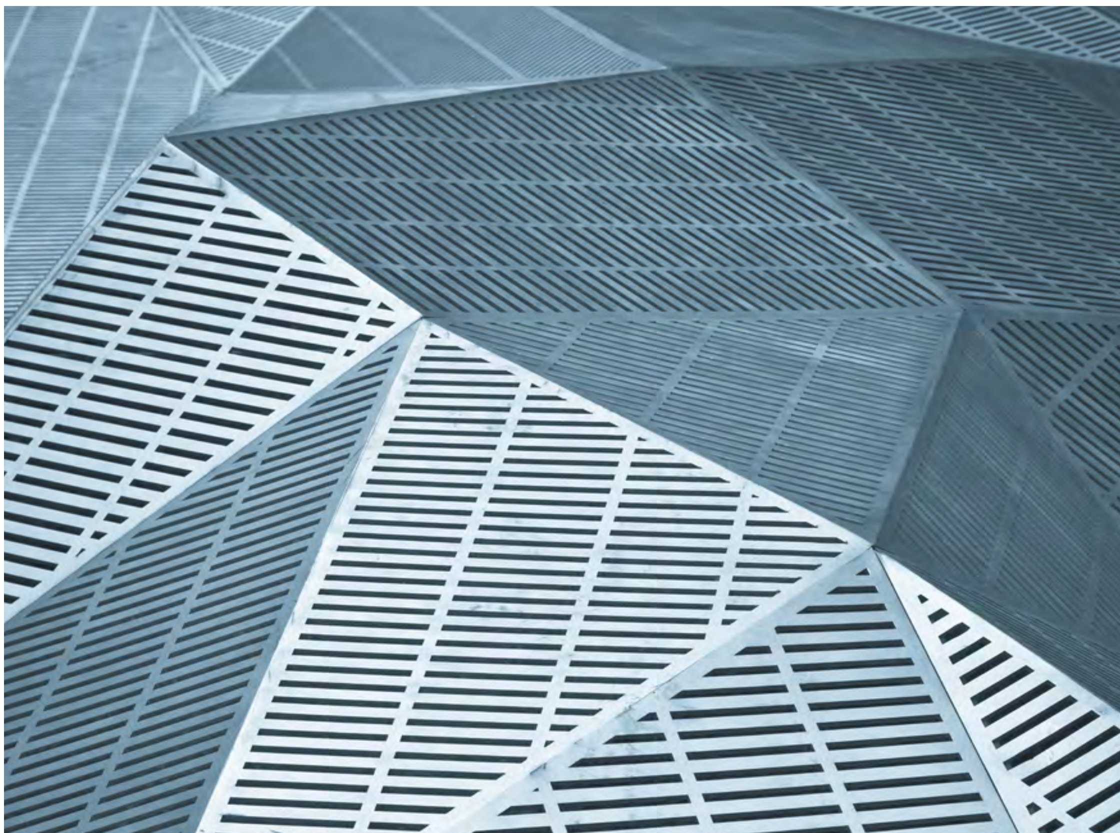
So a system had been created that was deeply unstable and which of course led to the crisis of 2008; but what was the essence of that instability? When I was at the Financial Stability Board we debated backwards and forwards, "What do we mean by shadow banking? Do we mean everything which isn't banking? Do we mean everything which is credit which isn't banking?" We ended up with this definition: "Shadow banking is credit intermediation involving entities and activities which fall fully or partially outside the regular banking system, involving maturity transformation and leverage." What we were trying to say was that the equity markets are not shadow banking nor is an insurance company buying and holding to maturity a long term credit security. It is only shadow banking if it is non-bank credit intermediation which ends up with the distinctive features of banking, namely maturity

> "We had created something very complicated indeed."

transformation and leverage. That is important because it defines what we are looking for when we are trying to work out how big shadow banking is and what we are worried about.

What exactly is it that makes shadow banking unstable? Well, it is unstable because it is just like banking, but then it is even more unstable because it is banking with an incremental set of financing devices, enabling shadow banks to perform maturity transformation. On a bank balance sheet you can link a long-term loan with an instant access account to achieve a short term maturity transformation; by contrast, with a shadow bank chain, you can have some long-term loans which may be held by an Asset Backed Commercial Paper vehicle, or by a hedge fund funded by a broker dealer which could also be funding the Asset Backed Commercial Paper vehicle funded in turn by the money market fund behind which lie money market deposits. It is another way of linking a deposit (which is regarded broadly as a money equivalent where the deposit holder believes that it can get back 100% capital value instantaneously) with a 20 year mortgage. However, the fact that shadow banking is done in a multi-chain fashion can increase the danger that one link in the chain can become panicked and pull its money from the rest of the chain – resulting in a complicated run.

Ironically, in 2008, the world, having worried for years about bank runs, recognised that in fact wholesale market runs are a real possibility;



i.e. runs implicating money equivalent assets in the chain as a whole: a situation which is even more dangerous. Essentially what occurred in August and September 2008 turned out to be just as unstable as a queue of people outside a bank waiting to get their money out.

Another reason why shadow banking can be even more unstable than classic banking is to do with taking security. We might think that taking security – calling collateral against the next step in one of these chains – makes the system more stable. Before the crisis we certainly perceived security to be a risk management tool, "I take security therefore I am safe." The irony of taking security and then enforcing collateral haircuts is that these are forms of risk management activity which individually make complete sense, but the collective impact of which may create an unstable system. Why is this?

Well, what often happens with banks and secured financing arrangements is that credit and asset price cycles are intimately linked: the very process of extending credit drives up the asset price. So asset prices increase and make both the banks and the borrowers feel richer. Accordingly borrowers decide to borrow and banks decide to lend more, so more credit is extended and more credit is borrowed and this sends the asset price cycle spiralling upwards. The problem with shadow banking is that it can create a chain where at each step everybody thinks that they have got a secured, money equivalent, claim on the next person in the chain because their money is collateralised; and that if the markets begin to turn they are safe because the collateral enables them to call margin. But, if you take this cyclical approach and apply it to a system with a whole load of links in the chain and with collateral being clawed back, it becomes even more unstable. With securitised credit, in addition to this "magnification" cycle, you also have a multiplier whereby mark to market accounting and value at risk state (VAR) risk management produces a process whereby an investor reasons that the markets are going up and that therefore they need less margin (because that is what the VAR model is telling them) and therefore they suppose that they can do more trading, and so the market goes up.

So the net result is that we see incredibly strong price spirals and unless we are very careful, shadow banking, with its reliance on value at risk models for assessing collateral requirements, haircuts and margin calls, can take the fundamental instability of credit and asset cycles and hard wire the associated risks into the financial systems.

3. How big is shadow banking and how can it be measured?

Now to my third point. How big is shadow banking? The FSB is monitoring the size of the shadow banking system on the basis of drawing a distinction between what is good, less risky non-bank credit intermediation and that which is even more risky than classic banking.

> "The fact that shadow banking is done in a multi-chain fashion can increase the danger."

The approach to monitoring this activity is to start with all non-bank assets and then work out what is the MUNFI – the Monitored Universe of Non-bank Financial Institutions – a wonderful contribution to the great world of acronyms. This involves stepping back from all non-bank financial institutions to MUNFI by taking out insurance companies, pension funds and financial institutions which are not treated by the FSB as part of the core shadow banking system. The FSB also tries to exclude transactions which at first may look like a new form of shadow banking, but which on closer inspection turn out to be already covered by the banks and therefore hopefully covered (in turn) by our own prudential regulation. For example, it removes assets for self securitisation held by banks, other financial intermediaries (OFIs) already consolidated into banking groups, equity funds on the grounds that they are not credit intermediation, E-REITs but not M-REITS and OFIs of non-financial corporations.

Is shadow banking growing? Possibly not. As a percentage of total assets it is actually fairly flat. We are not seeing any immediate signs that shadow banking is back and growing again. However, there are a lot of anecdotes in the market about particular forms of non-bank credit intermediation – hedge funds and insurance companies, for example, getting into the credit supply. The crucial question, however, is whether they are doing it in a risky fashion or doing it in a way which is good non-bank credit intermediation.

4. What policies have been and will in the future be deployed around shadow banking?

My final point is about what we need to do in terms of policy and the work of the Financial Stability Board to date. At the Financial Stability Board we said that as a minimum we wanted to make sure that banks were safe in relation to shadow banks. This lead to our tightening up the Basel rules around exposures to non-banks and to broker dealers – a workstream which is now broadly speaking complete and due to be implemented by 2019.

The FSB also undertook a lot of work on money market funds. If a money market fund is marketed as having a fixed net asset value whereby if you put in £10,000 or £100,000 or £1,000,000 it will not lose capital value and that you can get your money back tomorrow or at least a day later, then it looks like a bank. And if it looks like a bank and it quacks like a bank then the FSB says it should be regulated like a bank. Allowing such an institution to exist outside the controls of bank capital and liquidity requirements is just asking to have a bank run in the non-bank sector of the sort we had in Autumn 2008.

That principle has been adopted by IOSCO, the securities regulator. That said, such an approach was very contentious because in the US the money market funds are very powerful lobbyists and have the ability to terrify the SEC using

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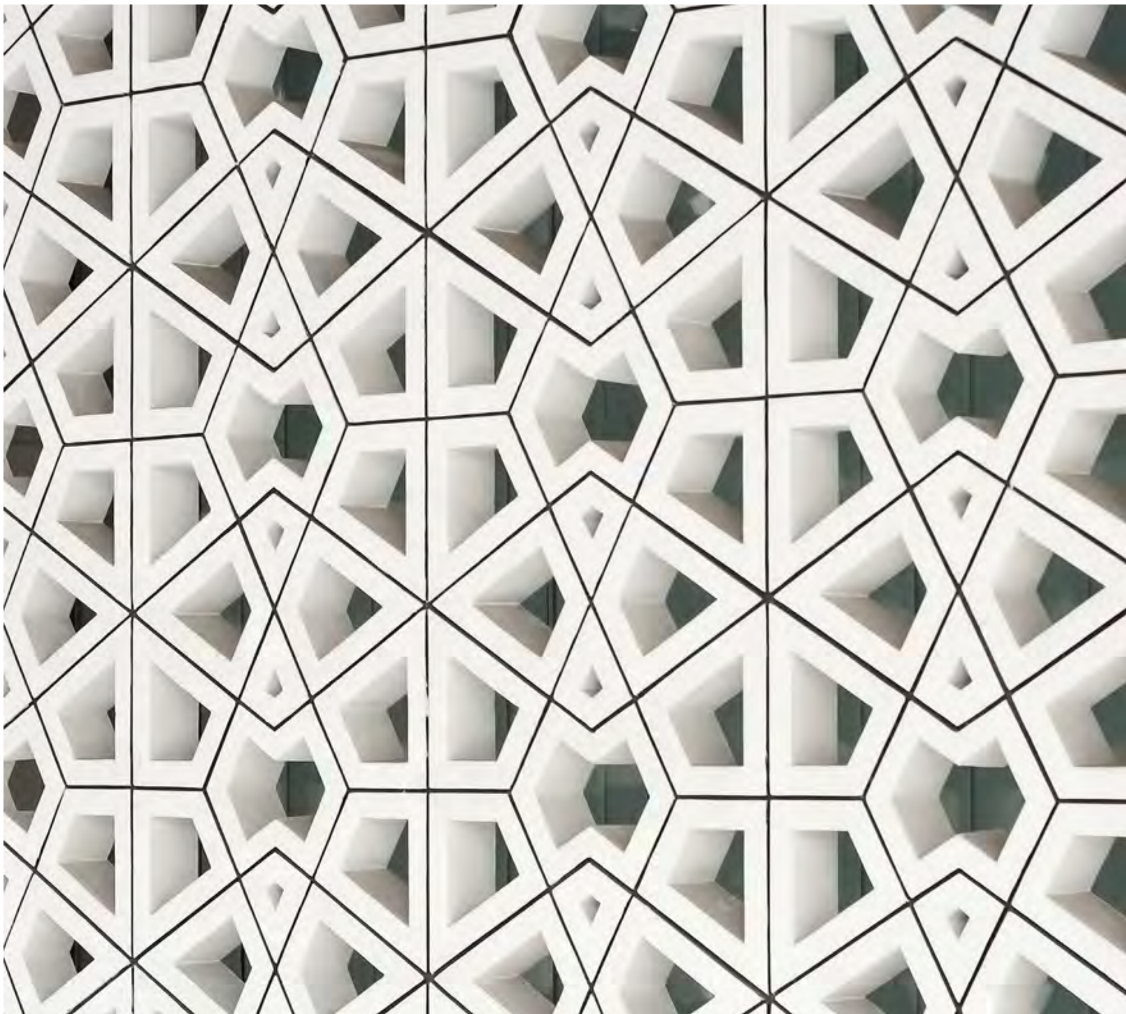
senate and congressional lobbying to affect their budgets. But at least we have now established the principle.

There are two other things that I think are particularly important in the FSB programme but which are particularly difficult. The first is in the arena of securities financing, securities lending and repo, connected to the risks that can be created when we have a complex system linked together with margin calls and haircuts. This nexus of activities and relationships between money market funds, broker dealers, banks and insurance companies is really very complex to understand and so creates a very complicated set of risks. The issue here is that in good times, we



may think that the risks have gone away. This in turn will drive down collateral margin calls and will create more and more business and more and more risks (as noted above). Then when times turn bad things head in the other direction. What we need to do is introduce some controls which will stop the excess in the good times and enable us to limit the extent of the panic in the bad times. The core issue is to ensure that in the good times people don't drive the haircuts, either explicitly or implicitly, down to zero.

In response, the FSB is producing a major piece of work on haircuts, securities and financing transactions. The broad approach is clear. It is a set of qualitative standards for methodologies in haircut application and some numerical haircut floors. However, there are a set of issues still being debated by the Financial Stability Board. Does this only cover things which are non-centrally cleared? How do we deal with the centrally cleared areas? In particular does this only cover banks/brokers to non-banks? Do we exclude government securities? When I suggested that government securities should be subject to haircuts, a lot of my colleagues from Europe and Japan said that this might get in the way of the liquidity of their particular government bond markets and given that their governments need to sell an awful lot of bonds, they were reluctant to embrace this approach. So they may well be excluded. These are complicated issues, but in some way we have to lean against the self reinforcing volatility of the system. I must emphasise that I attach huge importance to those issues relating to limiting the self reinforcing cycles that happened in secured financing, secured funding and securities lending activities.

Finally, we need to consider other shadow banking entities and activities. It is a sort of "everything else" bucket and it is incredibly difficult to understand because it covers a huge number of different institutions which are called different things in different countries. One of the problems for financial regulation and for monitoring the system is that there is no commonality. We have an enormous variety of institutional names but we don't have standardisation across the world. Shadow banking will never lend itself to an easy rule like Basel III. We will never be able to write a definitive set of rules and say we think that we have got it right. What we have is an incredibly mutating and changing system with different names and different activities. The challenge for regulators is to know what to look for, know why you should worry and then keep evolving the regulatory regime in response to an evolving financial system.

In conclusion, non-bank credit intermediation which doesn't involve maturity transformation and leverage and doesn't involve multi-step chains of secured financing could not only be a good thing, it could be a very good thing. It could make the global financial system much safer. However, when we create global credit intermediation with maturity transformation and leverage and when we split it into multi-step chains and link that with secured funding vehicles with collateral calls driven by value at risk models, we need to know that we have created something incredibly unstable. We need to be continually on our guard. And so, back to my original point, regulating shadow banking is just like painting the Forth Road Bridge in that it is a continuing and evolving process.

Adair Turner, Senior Fellow, Institute for New Economic Thinking

Lord Adair Turner is a world-renowned expert on global economic trends, global finance, macro prudential regulation and the Chinese financial system. Since 2013 he has served as Senior Fellow at the Institute for New Economic Thinking, a new think tank founded by George Soros dedicated to re-thinking the field of economics in the wake of the financial crisis.

Adair Turner served as Chairman of the Financial Services Authority (FSA), the regulatory body overseeing the financial services industry in the UK, from 2008 until its abolition in March 2013. He successfully rebuilt the institution's reputation after the financial crisis and negotiated changes to the regulatory regime. Under his leadership, the FSA produced an influential report in 2009 (the Turner Review) recommending a rethink of global banking regulation in response to the credit crunch and collapse of global banking liquidity.

He has also been Chairman of the Overseas Development Institute and a Visiting Professor at the London School of Economics and Cass Business School, City University. He is also former Chairman of the Pensions Commission, the Committee on Climate Change and the Low Pay Commission. He became a cross-bench member of the House of Lords in 2005. Until September 2008, Adair Turner was non-executive Director at Standard Chartered Bank. Previously he was Vice-Chairman of Merrill Lynch Europe, and Director General of the Confederation of British Industry (CBI). Prior to that, between 1992 and 1995, he built McKinsey's practice in Eastern Europe and Russia as a Director.

Adair Turner has written two books, "Just Capital – The Liberal Economy" (Macmillan, 2001) and "Economics after the Crisis – Objectives and Means" (MIT Press, 2012). He is currently writing a third, due for publication in 2015, on the subject of reforming the global financial system after the crisis.

To view Adair Turner's keynote address on shadow banking and to read our other publications related to this topic please visit:
http://www.cliffordchance.com/thought_leadership/shadow_banking.html

Working Group on Shadow Banking and Market Finance

The Group of Thirty will commence a study on shadow banking and sustainable market finance in December 2014. The Steering Committee will be led by Adair Turner as chairman, with Jacques de Larosière and Masaaki Shirakawa serving as vice chairs. The study will focus on identifying how shadow banking risks are evolving and the appropriate policies required to encourage sustainable market finance. We expect the results to be published in 2015. For further details, please visit: http://www.group30.org/workprogram.shtml

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