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Lady Barbara Judge
Chairman, UK Atomic Energy Authority, Harwell, Oxfordshire

It is my pleasure to be here with you all today.

The causes of the financial crisis will no doubt be studied for many years. They are undoubtedly complex and deep-seated. But a consensus of sorts has already formed that the problems underlying the crisis were the result of an unintended confluence of events over many years. Those include, but are not limited to: global savings imbalances – with large surpluses, typically in Asia, financing large deficits, typically in the West; unsustainable increases in consumption in the West, paid for on credit; low real rates of interest, for a prolonged period, which helped fuel a global asset bubble; increased desire among investors for financial innovation to deliver required returns.

There were many actors in this drama. Banks were certainly one; sub-prime (or so-called “toxic”) assets in the U.S. were another. But neither appears to have been the principal actor. They each played, at best, supporting roles. At first glance, globalisation looks as though it could have a played a leading role. But we have to be careful what we mean by “globalisation”.

At one level, the implication seems obvious. Financial markets are global. Those global markets helped take mortgages from California, split them into different securities and sell the pieces to different investors all around the world. In doing so, financial markets exposed seemingly innocent purchasers of so-called asset-backed securities to risks (such as the likelihood that homeowners in rural California might not be able to repay their mortgage) that – we discovered after the fact – they did not understand. But at another level, globalisation’s role was more subtle.

Consider the transformational impact of the internet and 24 hour global news coverage in this crisis. What role did that play? At one level, this crisis was no more than a good old-fashioned bank run. Anxious depositors formed lines outside banks to withdraw their money when they got nervous about the banks’ ability to repay them. Think of Northern Rock in the UK and Washington Mutual in the US. News outlets around the world carried coverage of the lines that formed outside their branches. But there were two critical differences this time.

First, not only were real people going physically to their bank branches to withdraw their money, but there were also virtual lines of wholesale depositors that wanted their money back too. Think of what happened to Lehman Brothers; Morgan Stanley; and Goldman Sachs. In September of 2008, all three banks were on the brink of failure. Fortunately, only Lehman failed; but the other two were not far behind. They were only saved when they were converted into commercial banks and given access to funding from the U.S. Federal Reserve.

Second, all of this was high drama, and it played out in front of a global audience, in real time, on screens all over the world. In simple terms, banking is all about confidence. In the midst of the rumour, innuendo and supposition that swirled in the midst of this crisis, no one knew which institutions were truly safe. How could they have? And negative news in one part of the world spread to the rest of the world immediately. I can remember sitting in China, at lunch, watching the Lehman's failure play out on television in real time. It was the financial equivalent of a global pandemic.

I am not an economist, but all of this seems to me to have had a dramatic impact on turning what might otherwise have been a reasonably local banking crisis into a global economic crisis. In addition, supply chains have become global – suppliers in one market are dependent on customers in another. But that was not new: for example, the world has long been learning to cope with the fact that when America sneezes, the rest of the world catches a cold. But no one anticipated the simultaneous drop in demand across so many markets in late 2008. The demand for automobiles did not just drop by double digit percentages in the U.S.; it did so in Brazil, the U.K., Germany, South Africa, Russia, and so on. It was unprecedented.

Consumer confidence had been destroyed around the world. The fact that the supply chain is global made the impact even worse. For example: when demand for cars ceased in the markets I just mentioned, the consequence on the suppliers of the raw materials for cars in China and Africa was immediate. That caused a further decline in consumer confidence in these markets and elsewhere. Again, this all happened in real-time. The effect was so severe that there was much talk of a repeat of the Great Depression.

Fortunately, that did not happen. Why? Because the international community – largely in the form of the G20 – acted immediately, decisively and in a coordinated way. They fixed the immediate problems with the banks. And they established a clear plan for how they intended to fix the deeper problems with the banks. They put in place significant fiscal and monetary stimulus. In short, they restored confidence. Quickly and effectively.

While the recession was painful, and the cost of the rescue will endure, catastrophe was averted. And therein is the lesson.
I started by saying that globalisation could be considered a "cause" of the crisis. That might lead some to think we need to stop it or reverse it. But that would be wrong.

Globalisation is no doubt a mixed blessing. It is clearly beneficial for many; but it is painful for some. For example: for maturing workforces, like those in Western Europe, it can be particularly difficult. But the world is without doubt a better place because capital and goods can flow more freely than they did in the middle of the twentieth century, which ultimately makes individuals, on average, wealthier. Even if there are specific individuals, and there are, who suffer because of the changes this brings about.

Over the past 30 years, even taking into account the impact of the current recession, the net growth in global GDP is well above 120%. That represents a real per capita increase of over 40%. That represents millions of people around the world having been lifted out of poverty and on to a better life. We must lessen its negative consequences. But we should not stop the march of globalisation. What the crisis shows is that we were ill-prepared to manage our global economy. And putting in place the necessary mechanisms to do that is not simple. The scale of the challenge may lead some to revert to the easy option of protectionism. We must not do that.
If we are to have a global economy, we must also have a global financial system and global banks. The markets and banks are simply intermediaries. They channel cash and capital to their most productive uses. The crisis demonstrated, starkly, how weak our cross-border systems of supervision for both markets and banks were. If the world is to get back on a path of sustainable economic growth, supported by increasing cooperation across markets, these systems must be remedied.

We need to ensure that the rules within which market participants and banks operate are truly globally consistent.
If we don't, we will have regulatory arbitrage, and financial institutions and activity will

move to where doing business is easiest and least regulated. And we will have done little to prevent a similar crisis from occurring again. And no one wants that.

Background Remarks

Background to prepared remarks

Session title: The financial crisis and globalisation: what linkages?

Session overview: For anti-globalisation warriors, the financial and economic crises confirmed the problems of unfettered markets. They made it possible for American toxic assets to be gobbled up by banks in many countries, and then helped to spread the malaise far and wide. The collapse of the US housing bubble brings Iceland and Ireland to their knees. Debt repayment difficulties in Dubai make the US and European stock exchanges stumble. Bank subsidiaries in one country bring their foreign parents to the brink of insolvency. Write-off losses, according to the IMF, have wiped out about half of the equity capital of the European banking system.

Lady Judge's perspective on the key questions put to the panel:

What does the crisis really say about globalisation?

The causes of the financial crisis will no doubt be studied for many years. They are complex and deep-seated. But a consensus of sorts seems to have already formed that the problems underlying the crisis were the result of a mix of unintended trends over many years. Those include, but are not limited to:

• Global savings imbalances – with large surpluses, typically in Asia, financing large deficits, typically in the West;

• Unsustainable increases in consumption in the West – paid for on cheap credit;

• Low real rates of interest, for a prolonged period of time – which helped fuel a global asset bubble; and

• Increased desire among investors for financial innovation in their quest to find higher investment returns in a persistently low rate environment.

These trends were spurred by a series of events in the late 1990s and early part of this century that highlighted the nascent links within the global economy. These events are worth briefly rehearsing because they illustrate quite dramatically and effectively the role globalisation played in this crisis.

The most relevant starting point is the Asian financial crisis of 1997. Many Asian countries were caught overly exposed to large fiscal deficits in this crisis. When exchange rates (particularly with the U.S. dollar) turned against them, several countries nearly defaulted. The lesson for Asia was to become fiscally conservative and to build large fiscal surpluses, which they promptly did. They invested these surpluses largely in U.S. Treasury bonds. As their economies turned around, and economic growth accelerated, the surpluses grew quickly, creating significant demand for U.S. Treasury bonds, pushing down the effective rates on those bonds in secondary markets.

The near collapse of Long-Term Capital Management in 1998, followed by the dot.com bust in 2001, and the 9/11 attacks on the U.S. each sparked fears of a global recession. As a result, Western governments, who had already adopted an easy money stance to prevent contagion from the Asian financial crisis in 1997, maintained those easy money policies for an extended period. As the U.S. economy started to recover after 9/11, the Federal Reserve began to raise interest rates quickly through 2004 and 2005. The U.S. yield curve, however, inverted (making it cheaper to borrow long-term money than it was to borrow short-term money), and remained inverted through 2006 and much of 2007.

This inversion accelerated many of the poor credit decisions that ultimately sparked the credit crunch in the latter half of 2007. Low long-term rates made mortgages look inexpensive and encouraged mortgage originators to push volumes. As the market for prime (i.e., clearly credit-worthy) borrowers became saturated, originators moved up the risk spectrum towards sub-prime (i.e., less credit-worthy) and even non-prime (i.e., not credit-worthy) borrowers to maintain volumes.

The demand for the mortgage volume was driven, in part, by investor interest in asset-backed securitisations. These securitisations packaged the mortgages into tradable securities. Financial innovations allowed the structure of the securities to be increasingly tailored to the risk / return profile of investors (via “tranches”), relying on rating agencies to judge the underlying credit quality of the assets placed into each tranche.

Investors were awash with cash because of fast growth in Asia and the easy money policy of the U.S. (where investors from around the world could borrow easily and cheaply). As investors’ increasingly placed their cash into securities backed by U.S. residential real estate assets, the yields (or returns) on those securities declined. This, in turn, encouraged the creation of riskier securities that would produce higher returns, but would be structured in such a way as to apparently minimise investor risk, through the use, for example, of derivative hedging. This, in-turn, encouraged the pursuit of riskier – i.e., sub-prime – borrowers. The frenetic search for assets reached a crescendo as originators developed two new variants of mortgages – so-called “NINJA” loans (where applicants did not even need to provide evidence of a job or income) and so-called “option-adjustable mortgages” (which created a complex tier of rates over time, lowering the short-term rates to such a degree as to make them look affordable to just about any borrower, with difficult to understand increases obscured and coming over time).

This seemingly virtuous circle quickly turned terribly vicious in the middle of 2007, as investors started to see the first defaults in the residential mortgages underlying the asset-backed securities that had first started to incorporate sub-prime loans. These securities had been distributed around the world; their structures were decidedly opaque; and none of the originator, the issuer, or the investor had any real grasp of the quality of the loans in many of these securities.

The panic that became the credit crunch did not really begin until July 2007, when certain BNP Paribas funds announced that they were unable to meet client demands for redemption. These BNP funds had invested significant amounts of client money in U.S. residential mortgage assets linked to sub-prime borrowers. As fear of defaults in these securities began to increase, more and more borrowers began to sell. When clients demanded their money back from BNP, BNP found that it could not find buyers for the assets in the market, so could not redeem them, so could not provide its clients with their funds. Their announcement of this fact caused any confidence in the price for these securities to evaporate, as investors in similar funds around the world began to demand their funds back. The unwinding of the leverage that underpinned the virtuous circle described above created the credit crunch as we now know it. The most poignant example of this is the allocation of money market funds. Through 2005 and into 2006, money market funds placed nearly 100% of their funds in short-term commercial paper. This is significant, because the off-balance-sheet vehicles which banks used to sell asset-backed securities to investors relied on the sale of that commercial paper for funding. Between January 2006 and February 2007, however, money markets decreased their allocation to commercial paper from 100% to 11%. In its place, they invested in U.S. Treasury bonds, agency securities and repurchase agreements – effectively cash. The overall level of liquidity, or cash, in the system, stayed the same, but the wholesale funding available to banks more or less evaporated. This forced off-balance-sheet vehicles to sell their assets into a declining market, making the existing trends even worse.

Some suggest that the credit crunch was precipitated by banks being unwilling to lend to each other. In reality, in the early stages of the credit crunch, they increasingly could not lend to each other. The negative shift in investor attitudes effectively closed the wholesale funding market. Banks had to protect their other sources of funding to replace wholesale funding. Those banks that were overly reliant on wholesale funds quickly became vulnerable. Northern Rock and Washington Mutual are two good examples of banks that eventually failed because of their over-reliance on such funding sources.

As the leverage in the system continued to unwind, however, banks increasingly chose not to invest with those players they considered particularly exposed to either the wholesale markets or so-called "toxic" assets – that is, asset-backed securities linked ultimately to sub-prime borrowers, particularly those whose mortgages had been booked in 2006 and 2007, when origination standards were at their worst. Lehman, Goldman Sachs and Morgan Stanley became particularly vulnerable. When Lehman collapsed, panic ensued.

There is no simple root cause to this series of events. A wide range of different actors played critical roles as the events unfolded. Governments; regulators; central bankers; investors; banks; rating agencies; borrowers – all share some responsibility. And while the U.S. mortgage market became the epicentre, particularly in 2005 through 2007, it only did so because of a series of related events in the ten proceeding years.

If we stand back from the actual events, however, and look for a common theme, globalisation certainly stands out. We must assert that carefully, however, as globalisation may have been a proximate cause, but that does not mean it is the issue that needs to be addressed. To understand the distinction, it is worth separating out the specific role globalisation appears to have played.

At the simplest level, the credit crunch illustrates all too clearly that financial markets are global. Monetary policy decisions taken in one country change investor behaviour in other countries; investors will increasingly search for the returns they need to satisfy their liabilities around the world; issuers can package securities originated in one market in a way that will satisfy the needs of investors in any market; and large, cross-border banks have increasingly global distribution networks that can efficiently connect local originators in one market with local investors in another.

This is not, at its core, a problem with markets or the extent of constraints that surround them. What the crisis exposed is the lack of consistent frameworks and infrastructure that govern in-market activity at a global level. The process was analogous to a business expanding into a new region, and growing strongly, before it has established the appropriate capabilities to support that growth. It is easy in that context to blame the principal facilitators of this market activity – the banks. They connected the dots between originators and investors; they often created the securities that were sold and subsequently traded; they created the off-balance sheet vehicles that facilitated the accelerated volume that worked its way through the system; they encouraged originators to source riskier and riskier loans.

Banks certainly deserve some blame. But banks are just facilitators. They could not force investors to buy; they could not force borrowers to take a loan; and they did not create the regulatory architecture that allowed the off-balance-sheet vehicles they used to make the chain work; and they did not assert the credit ratings for the securities that investors came to rely on in making their purchase decisions. They may have had incentives to sway how all of those things were done. But that doesn't restrict the free-will of other market participants.
At another level, globalisation's role was much more subtle. In many respects, the credit crunch was nothing more than an old-fashioned bank run. Consider the queues of depositors that formed, for example, outside Northern Rock; Washington Mutual; and Wachovia. Those queues precipitated the failure of all three banks. But there were two critical differences in this crisis.

First, those more traditional queues outside bank branches were accompanied by virtual queues of wholesale depositors. Consider the pressure that Lehman Brothers, Goldman Sachs, and Morgan Stanley were under in the run-up to Lehman Brothers failure and the subsequent conversion of Goldman Sachs and Morgan Stanley into commercial banks. Some wholesale creditors were removing their funds from each institution in large volumes; others were asking for significantly more collateral to protect their interests. These banks were rapidly running out of the cash they desperately needed to fund their highly leveraged positions.
Second, the credit crunch was high drama, and it played out in front of a live, global audience, in real time. In simple terms, banking is all about confidence. Consider maturity transformation – banks take deposits, which the depositor is free to reclaim at any time, and loans the funds to someone who wants to buy a home, for example, which they may not be able to repay for many years. If the depositor returns and asks

for their funds, and the bank's only recourse to funds is the borrower, it will become technically insolvent.

The global aspects referred to above, and the complexity of some of the financial securities at the heart of the crisis, conspired to make the situation seem particularly worrisome to anyone who was following. Commentators frequently referred to this complexity and uncertainty in describing the events as they transpired. No one could be certain which assets were truly safe; therefore, no one could be certain which institutions were truly safe. Rumour, innuendo and supposition swirled, and frequently made outcomes forgone conclusions. Negative "news" in one part of the world was transported around the world, taking fear and anxiety with it. Consider live images of depositors queuing outside of a Northern Rock branch in Newcastle being re-broadcast by a local television station in Seattle or Cairo or Rio de Janeiro.

The credit crunch became the financial equivalent of a global pandemic. No one was prepared for these behavioural influences. In attempting to prevent such a crisis from ever recurring, the infrastructure issues are challenging enough to overcome. The behavioural are much more difficult. At minimum, they raise the threshold for what is required of the infrastructure significantly. Put differently, the infrastructure must be able to create and maintain confidence through even particularly severe stresses.

Did the globalisation of the supply chain exacerbate the crisis's effects or its scope?

The aspect of the credit crunch that appears to have surprised commentators the most is the speed with which the banking crisis, particularly post Lehman, turned into a crisis in the real economy. The economic slowdown hit virtually every country and every continent around the world, at more or less the same time.

For those markets, particularly in the West, that were directly connected to the root causes of the credit crunch, this was not particularly surprising. But even markets whose investors and banks were not significantly involved in those root causes were affected to a similar degree. There appear to be at least two principal reasons for this.

First, the behavioural consequences outlined above no doubt played a prominent role. As the spread of uncertainty and panic associated with the credit crunch accelerated in the wake of the failure of Lehman, consumer confidence around the world collapsed. Consider the fact that many commentators quickly foreshadowed the onset of a depression to rival that of the 1920s. This quickly started to become a self-fulfilling prophecy, as consumers, much like the wholesale investors at the start of the credit crunch, effectively withdrew their funds from the economy. Savings rates jumped significantly, and spending rates dropped considerably.

Second, this decline in consumer confidence was exacerbated by the globalisation of manufacturing supply chains. Economists had long recognised the increasingly interconnected nature of supply chains and had factored these relationships into their economic models. Consider the significant and growing debate about the “coupling” of the U.S. and Chinese economies over the past decade or so.

While there was significant debate about the degree of coupling, no one anticipated it could be as severe as what occurred in the fourth quarter of 2008. That’s because most models assumed that one part of various global chains might become weak, but not the whole chain simultaneously. When the demand for automobiles dropped by double digits in multiple markets at precisely the same time, because of the evaporation of consumer confidence, the demand for raw materials, such as steel, from China and India necessarily dropped precipitously. The declines in demand and supply were unprecedented. And this had a significant knock-on impact on consumer confidence. There was, again, a real-time, significant feedback loop. Given that trade barriers are usually easier to erect than to dismantle, what is the outlook for globalisation in the coming years?

The benefits of globalisation to the economies of the world over the past 30 years are difficult to deny. Over that period, Gary Becker estimates that, even taking account of the current recession, the net growth in global GDP is well over 120%, representing a real per capita increase of over 40%.
Standards of living in the developed world have improved to levels that would have been unimaginable 100 years ago. And, while standards of living in many developing countries remain, on average, unacceptably low, they have improved at remarkable rates. This must surely still be one of the periods of fastest per capita income growth in history.

But globalisation is certainly not a panacea. For maturing workforces, particularly in the West, it can be particularly painful, in fact. As jobs migrate to lower wage economies, many workers near retirement age suddenly find themselves out of work and, because of their age or educational attainment, find it extraordinarily difficult to retrain to find productive work elsewhere in the economy.

Over the past 20 years, in particular, these consequences were relatively easy to ignore. Growth was strong, and that brought prosperity that appeared to, and in some ways actually did, benefit all. But the recession through which we have just lived, the worst in nearly 100 years, will no doubt force them back to the fore, particularly in the West.

That is, at least in part, due to the significant fiscal challenges that many Western countries must now confront. Tackling those challenges will require difficult choices, and those choices are very likely to lead to further job losses before they lead to job creation. This will no doubt spur calls for nationalistic behaviour on the part of governments and businesses – to protect jobs on the premise that doing so will benefit the economy.

Similarly, the nature of the credit crunch has certainly raised the spectre of individual markets erecting stronger barriers to the free operation of the financial markets across borders. Markets, like the U.K., that felt particularly fiscally exposed to the risks posed by the financial sector at the peak of the crisis may want to adopt this posture to prevent taxpayers from having to suffer so significantly economically. Equally, markets that were not exposed to the worst of the underlying issues of the crisis, for example Japan, do not want to suffer, in the future, because of the poor decisions of market participants based in other countries. Both feel an incentive to restrict access – either for banks in their country to others; or for banks in other countries to theirs.

Both outcomes would be poor for the future health of the global economy. We have a global economy. We cannot reverse that without suffering economically, potentially even more than we would otherwise. But we must find productive ways to deal with the downsides of globalisation, particularly those related to employment. Re-skilling works for some of the workforce, but not all. The benefits of globalisation rely on individual market participants recognising and exploiting their role within it. It could be that there is a case for countries to be more strategic in both the identification and exploitation of possible areas of advantage. That could lead to more strategic, and focused, investment in the creation of sectors (rather than individual companies) as national champions. Consider the dominance of the Swiss in pharmaceuticals; the Germans and Japanese in car manufacturing; the Portuguese in olive oil.

Will finance become a more local affair?

If we have, and want to foster even further, a global economy, we must have a global financial system and global banks within it. The markets and banks are simply inter-

mediaries. They channel cash and capital to their most productive uses.
The crisis certainly demonstrated, starkly, how weak our cross-border system of supervision for both markets and individual banks are. Those must be improved. We cannot get back on to a path of sustainable economic growth, supported by increased cooperation across markets, without doing so.

To be strong and healthy, banks need to be able to facilitate the taking of risk by clients. To support the global economy, banks must be able to help clients take risk across borders, because trade is critical to global growth.

Making finance a more local affair implies erecting barriers to such cross-border risk. And it implies localising the rules within which banks operate – by tailoring those rules to the specific requirements of individual jurisdictions.

The crisis did not demonstrate that globalisation is bad. What it demonstrated is that we do not have the frameworks, tools and infrastructure necessary to support the global economy we have. The remedy is surely not to reduce the level of globalisation by re-erecting national barriers to the operation of banks. The remedy surely is the creating of increasingly harmonised rules around the world. We need a level playing field.

That does not preclude strengthening the context within which local banks operate, enabling them to better serve the needs of local customers and clients and, therefore, the local economy, over the long-term. Such a development would be an effective complement to the similar strengthening of the context within which global banks operate.

Finally, the world needs big, cross-border banks to help solve some of the big issues that the world needs to confront over the coming decades. Consider climate change; or ageing populations; or the need for dramatic improvements in infrastructure around the world. The financing solutions to these problems cannot be solved locally – there simply isn’t the balance sheet capacity to do so. Banks have an important role to play in these areas. A globally consistent regulatory framework will help ensure they are able to do so.