BANK OF ENGLAND

Speech

The future of financial reform

Speech given by
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INTRODUCTION

It is now more than seven years since the first tremors of the earthquake that was to rock the financial system in 2008.

After the blood of the crisis, years of sweat and toil from authorities across the globe, and not a few tears from the financial sector, the job of agreeing measures to fix the fault lines on which the financial system had been built is now substantially completed.

The financial system today is vastly different from its pre-crisis self. That change didn't 'just happen': it is the intended, positive result of the G20/FSB reform agenda.

The Brisbane G20 Leaders' summit just completed was a landmark. The prudential requirements and supervisory framework for banks are largely settled. There will be adjustments, if necessary, but from a prudential perspective, banks now know what they need to do. It is now a question of implementation.

The result of the agreed reforms will be that:

The system is **safer**. Banks were woefully undercapitalised – many of the largest banks were levered 40 to 50 times. They are now much more resilient. As banking systems around the globe implement fully the new framework, a system that was built precariously on sand will stand more firmly on rock.

The system is **simpler**. Before the crisis, risks were hidden and financing chains were fiendishly complex. Banks were complacent, building business models on the belief that "this time is different" and assuming markets would be continuous and deep.

They were enthralled by models to the extent that every bank that failed or was rescued by the state reported on the eve of their collapse that it substantially exceeded the Basel risk-weighted capital requirements. Now, disclosure standards have been significantly improved, contingent exposures are on the balance sheet, essential wholesale markets are more reliable, and capital standards are more robust.

The system is **fairer**. Banks were in receipt of large public subsidies. In Brisbane we reached a watershed in ending too big to fail, with agreements to take forward proposals on total loss absorbing capacity for globally systemic banks. Globally systemic banks that fail will in future be resolved without recourse to the taxpayer and without jeopardising financial stability.

Does that mean the job of financial reform is complete?

No. Implementation must follow agreement. Our perspective cannot be only to look back. Just avoiding the repeat of past failures is not a recipe for success. Agreeing to measures to fix the fault lines is necessary and important, but not sufficient.

We must now consolidate our progress to build a financial system that can deliver strong, sustainable and balanced growth for all economies: large or small; advanced or emerging; home to large financial institutions or host to them.

Success would be a global financial system that maximises its full potential to ensure that:

- The payments infrastructure is efficient and reliable;
- Companies can access the working capital they need to operate;
- Liquid savings are transformed into long-term loans;
- Core markets function continuously to allow risks to be diversified and managed; and
- Capital is allocated efficiently across the globe.

Achieving these ends requires a financial system supported by three pillars: diversity, trust and openness. Building these pillars should be the focus of the future reform agenda.

A **diverse** system, with market-based as well as bank-based finance, can best support a wide variety of investment from infrastructure to SMEs that is necessary to create the jobs our citizens deserve.

A trusted system can retain its social licence to support the real economy in innovative and efficient ways.

An open system can avoid the risk of Balkanised finance, which would reduce the efficiency with which savings are matched to investment and lead to a global misallocation of scarce capital.
This is a daunting agenda and some might feel that, having apparently reached the finish line, the race has been extended. Indeed there will be inevitable calls by some vested interests to turn back.

To give in, to drop out, would be a tragedy.

The prize for running the longer race is great. By fixing the fault lines that caused the last crisis we have created strong foundations for a truly global financial system that can benefit us all. Now we must have the courage to seize that opportunity and build on those foundations.
Today I will refresh the case for financial reform and set out what I believe should be the drivers of the future reform agenda. But before turning to that next stage, allow me to take stock of the immense amount that has been accomplished since the crisis.[1]

[1] A detailed progress report is contained in the FSB Chair's letter to G20 Leaders ahead of the Brisbane Summit. See FSB (2014b).

COMPLETING THE JOB OF FIXING THE FAULT LINES

A safer financial system

Banks are now much more resilient. They have more capital, more liquidity and are less susceptible to procyclical spirals.

Capital requirements for banks are much higher, as are risk weights and the quality of bank capital. In all, new capital requirements are at least seven times the pre-crisis standards for most banks. For globally systemic banks, they are more than ten times.[2] Large internationally active banks are on course to meet the new requirements 4 years ahead of the 2019 deadline. Despite the scale of the changes, the aggregate shortfall of those banks that still have shortfalls was €15bn at end 2013, having been €115bn two years ago.

It is just as clear that banks' liquidity positions before the crisis were precarious.

Now, for the first time, global standards have been agreed to place requirements on the liquid asset buffers banks must hold and on the extent of maturity transformation in which they can engage.

The rapid contagion during the crisis showed how the system magnified shocks. Two particular fault lines made the system procyclical.

First, banks were heavily exposed to movements in market prices and volatility around them, creating a cycle in which falls in prices caused banks to retrench and reduce their positions, leading to further falls in asset prices.

That issue has been addressed through strengthening regulatory requirements on trading books – a move that has contributed to the share of banks' assets accounted for by trading assets almost halving.[3]

Second, banks and shadow banks were entwined in a dangerous funding spiral. Incredibly low initial margins on repo transactions facilitated the build-up of excessive leverage and maturity mismatches in shadow banks. The first wave of losses led banks to tighten margin requirements, effectively reducing financing available to the non-bank financial system, causing those institutions to deleverage through asset sales, driving a death spiral of falling asset prices and rising margin requirements.

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[2] Table 1 shows that the tightening in definitions of risk-weighted assets and capital under Basel III itself doubled effective capital requirements. The numerical requirements themselves have also more than tripled. Caruana (2012) describes these changes in some detail.

[3] Table 2 shows that the risk weighting of trading book assets has more than doubled. Despite accounting for only 5% of overall risk weighted assets, trading assets contributed more than one third of the overall increase in RWAs resulting from new regulatory requirements. Banks have responded by shrinking trading books. Chart 2 shows that across all advanced economy SIFIs, the share of such assets on bank balance sheets has almost halved.

Such dynamics have now been mitigated through agreed minimum haircuts for securities financing transactions and the net stable funding ratio for banks.

A simpler financial system

As the crisis highlighted, opacity hides frailty. Why was subprime not contained? How did $200bn in credit losses ultimately cause well over $1trn in market losses?

Because complexity obscured the link between ultimate creditor and debtor, it allowed false assumptions to develop that, when disabused, prompted panic. The mortgage originated by a bank was repackaged by a SIV, that financed it through ABCP, that was bought by a MMF, into which a retail investor placed their savings. It occurred to no one in the chain that the absence of a monitor would influence credit performance.

The whole model was based on continual rollover. When subprime losses exposed the misalignment of incentives between loan originators and investors in asset-based securities, the whole system collapsed, imploding core funding markets for banks.

Risks that had ostensibly been moved outside the banking system or diversified away were in fact just hiding and, when crisis struck, they came crashing back onto the balance sheets at the core of the system.

This complexity is being addressed.

To protect against risks that banks think are low but are in fact not, a global definition of a simple leverage ratio has been agreed. In the UK, the Bank of England has just recommended powers to set a simple leverage ratio for domestically-regulated banks, building societies and investment firms. This will enhance the resilience of banks against risks that are hard to model. [4] And it will ensure off-balance sheet exposures are properly capitalised.

Retention and capital requirements for securitisations now have more closely aligned incentives between originators and investors. New requirements for money market funds have closed the gap between retail investors' perceptions and their exposures. International standards are agreed to capture properly and limit off-balance sheet exposures. And the Basel Committee is developing the capital framework to ensure implicit offers of contingent support by banks, for example to their SIVs, will be properly capitalised.

Interconnections created by derivatives are being reduced and made transparent. Requirements are being imposed, and incentives created, for banks to centrally clear derivative trades, helping to replace the

[4] Chart 2 shows that, for more than a decade before the crisis, average risk weights declined and, as they did so, banks increased leverage. This trend was central to the erosion of confidence in risk weightings. Since the crisis, average risk weights have stabilised and the increase in leverage has been unwound. The Bank of England's proposals are set out in Bank of England Financial Policy Committee (2014c).

complex web of bilateral deals with a central model. Trade reporting and margining requirements are being strengthened.

More broadly, overall disclosure has been enhanced on the key risks arising from business models, sources of funding, market risk measures and loan forbearance policies.[5]

Through such initiatives, complexity and obscurity are being replaced by simplicity and transparency.

A fairer financial system

That goes some way towards increasing the effectiveness of market discipline. But that discipline will never be felt fully if markets believe that creditors and shareholders will be bailed out in a crisis because banks are too big to fail.

Expectation of bail out was validated comprehensively last time. The US authorities sought to make Lehman Brothers a test case of moral hazard. Instead, this exception proved the rule. AIG was rescued within twenty four hours. As Barney Frank observed, the free market lasted for a day.

This 'heads-I-win-tails-you-lose' environment for the world's largest banks struck right at the heart of the sense of fairness in our societies.

It simply had to be fixed.

Tackling the rampant moral hazard at the core of the system has not been easy but, at the Brisbane Summit, G20 Leaders marked a watershed in our efforts.

Many jurisdictions have in place statutory regimes to allow the resolution of failing banks. But until now, the potential use of those regimes on systemic and cross-border institutions has been in doubt.

G20 Leaders endorsed two proposals that will allow global systemically-important banks to be resolved when they fail, without the need for taxpayer support and without disruption to the wider financial system or real economy.

The first is an agreement, catalysed by the FSB, between ISDA and an initial group of 18 global derivatives dealers.

[5] Much of this has been driven by the FSB and the joint public-private Enhanced Disclosure Task Force. Across the major jurisdictions, the recommendations of the taskforce are more than half way towards full implementation. Banks in the UK have implemented 95% of the recommendations. The latest progress report is in Banziger et al (2014).

This new Protocol prevents derivative contracts being terminated disruptively in the event of a bank entering resolution.

It is a crucial step to closing off the risk that foreign counterparties take their money and run.

Most jurisdictions already have legislation that achieves this nationally, but for global banks national solutions aren't sufficient. This new agreement fills the gap by extending the approach across borders. Together with existing legislation that applies stays domestically, the ISDA agreement means that over 90% of the dealer banks' OTC bilateral trading activity will be covered by either contractual or statutory stays.

The second initiative is yet more significant.

It is a proposal for a common international standard on the total loss absorbing capacity that globally systemic banks must have.[6]

It will ensure that shareholders and creditors who benefit in the normal course of business also absorb losses when banks fail.

It will establish a level playing field between global systemic banks, while taking into account differences in national resolution regimes.

It will set clear roles for home and host regulators in a resolution. And it will give host nations the confidence that they won't again be side-swiped by the failure of a large foreign bank.

It will ensure globally systemic banks finally have the quantum of total loss absorbing capacity that minimises the costs of an unsafe banking system. And, by removing the implicit subsidy that systemic banks have long enjoyed, it will re-establish market discipline.

This proposal will of course be subject to public consultation and comprehensive impact assessments.

Markets and rating agencies are already adjusting to the determination of authorities to end too big to fail. Credit ratings for globally systemic banks have been downgraded to reflect the much lower probability of state support.

Market prices suggest the implied subsidy has been substantially reduced as the expectation of public bail-outs dies away.[7] However, we have more to do in order to make cross-border resolution the only expected outcome in the event an institution fails.

[6] Clear principles and a detailed indicative term sheet covering the necessary amount, type and location of loss absorbing capacity are now being consulted on. See FSB (2014a).

The TLAC standards must be finalised next year and then implemented fully. Resolution plans for individual firms must be finalised and legal and operational impediments removed. Arrangements for the funding of firms in resolution must be put in place. Legislation must be enacted to allow regulators to give effect to the resolution actions of authorities in other jurisdictions.

And the solution of the too big to fail problem in banks must be broadened to include all systemic institutions, including insurers and critical financial market infrastructures, through designation, more intensive supervision and standards for loss absorbing capacity.

We recognise that our success can never be absolute. Specifically, we can't expect to insulate fully all institutions from all external shocks, however large. But we can change the system so that systemically important institutions, their shareholders and their creditors bear the cost of their own actions and the risks they take.

THE FUTURE OF REFORM

With a safer, simpler and fairer system in place, the FSB can begin to look ahead to how, collectively, we will engage in the next phase of reform and regulate and supervise the global system.

The foundations are laid. The next stage of reform should build a system that serves households and businesses to its full potential. Such a system must be supported by pillars of diversity, trust and openness.

Diverse

Although banking remains the most important business by some margin, the increase in the relative price of bank-based intermediation has encouraged a shift towards market-based intermediation. Virtually all net credit growth since the crisis has been in bond rather than bank finance.[8]

Non-bank financial sector assets have grown by 130% over the past decade and are now equivalent to 120% of global GDP.[9] Managed properly, that represents a welcome increase in diversity within the global financial system. If banking again comes under stress, these markets could act as a safety valve.

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[7] Chart 3 shows the implicit subsidy to the top 4 UK banks. At the height of the crisis it reached almost £140bn per year but has now shrunk dramatically.
[8] Chart 4 shows that non-securitised loans continue to account for almost 30% of global financial assets. Corporate bonds and securitised loans account for only 7%. Chart 5 shows that in each of the US, UK and Europe, the period since the crisis has seen the stock of outstanding bonds move towards the stock of outstanding bank loans.
[9] See FSB (2014e).

For there to be diversity under adversity, the connection between banks and markets must be appropriately sized and durable. I noted how pre-crisis links meant that the collapse of subprime spilled over into the core of the system. The post-crisis connection must be wired differently, but not severed completely.

Banks are needed to overcome the information asymmetries that prevent direct market access for smaller borrowers. But with the right standards an appropriate boundary between banking and securitisation can be drawn and financing capacity increased. With securitisation markets effectively closed, even in Europe where loss rates on consumer-related securitisations were one twentieth of those in the US, smaller borrowers are not being served by market-based finance.[10]

In response, the Bank of England and ECB are working to promote a sustainable model of securitisation that is Simple, Transparent and Comparable.[11] In other words, one that allows banks to originate and distribute assets for which credit assessment can be most readily performed in the market. Simple, transparent and comparable securitisations will support improved calibration of risk weights and retention requirements for banks and prudential standards for insurers that Ravi Menon has advocated.[12]

Greater reliance on market-based finance will need to be matched with measures to ensure its resilience. The international community will need to shift focus to new risks and vulnerabilities, many of which will emerge outside the banking system. As Deputy Prime Minister Tharman Shanmugaratnam has noted, the safety of finance will depend "on whether we stay intensely alert to the risks of the future, including especially the risks we do not yet see or know, rather than focus only on preventing the last crisis from recurring."[13]

The FSB has set up a broad-based network for information-sharing and reporting on the scale of shadow banking activity. This work is far from academic because, although you wouldn't necessarily know from a reading of financial market indicators, these are riskier times. There is a disconnect between developments in real economies and the degree of financial risk taking.

It is particularly notable how the search for yield has compressed liquidity premia across markets. This is unlikely to be sustainable over the medium term because it exists against a backdrop of much-reduced market-making activity.[14] Fundamentally, liquidity has become more scarce in secondary fixed income markets. It just appears that it hasn't.

The reasons for the changes are clear however. New prudential requirements have reduced incentives for banks to warehouse risk positions. Dealer inventories in fixed income have declined by 70% since the pre-

[10] Chart 6 shows the post-crisis collapse in European securitisation issuance, which has been particularly concentrated in residential mortgage-backed securities.
[11] Bank of England and ECB (2014) is a consultation paper on the development of such a model of securitisation. The EBA is also consulting on the same issue, see EBA (2014).
[12] Menon 2013.
[13] Shanmugaratnam (2013).
[14] Chart 7 shows model-based estimates of liquidity premia across corporate bond markets. On these measures, premia have returned to their pre-crisis levels.

crisis period, while the stock of fixed income assets outstanding has doubled. And the Value-at-Risk in banks' trading books has retreated to 2002 levels. The time to liquidate a given position is now seven times as long as in 2008, reflecting much smaller trade sizes in fixed income markets.

In part the current liquidity illusion is a product of the risk asymmetries implied by the zero lower bound on interest rates, excess reserves in the system, and perceived central bank reaction functions. However, interest rates in advanced economies won't remain this low forever. Once the process of normalisation begins or perhaps if market perceptions shift and it is expected to begin, a re-pricing can be expected.

The orderliness of that transition is an open question.

Certainly, conventional leverage and liquidity cycles – while dampened by reforms – can be expected to operate. High volatility, combined with lower prices, will tighten financing conditions, forcing some asset sales, dampening prices and increasing volatility further. An overshoot is possible.

Some have argued there is an additional risk arising from pricing and asset allocations based on an illusion of liquidity. This could lead to 'redemption risk' as detailed by Hyun Shin and others.[15]

Their argument begins with the observation that much of the shift towards market-based finance has been accompanied by an increase in assets under management.

We know that almost half of the $70 trillion in managed assets globally are in funds that offer their investors redemption at short notice.[16] At the same time, funds are investing increasingly in higher-yielding, less liquid assets. One example of this has been the exponential growth in 'liquid alternatives', giving retail mutual fund investors access to hedge fund-like strategies.[17]

The compression of liquidity risk premia suggests that investors are assuming any future withdrawals from funds will be conducted in an environment of continuous market liquidity and that the value of their fund holdings will not fall substantially when they exit.

The risks to that assumption are in only one direction.

The dynamic that fund under-performance tends to be punished with outflows creates the possibility of the sorts of spirals that were previously associated with leveraged investors. That potential procyclicality is reinforced by the selling of volatility-linked products by funds seeking to boost income through insuring tail risks.

[15] Feroli, Kashyap, Schoenholtz, Shin (2014).
[16] Chart 10 shows the increasing share of 'redeemable funds' in overall assets under management.
[17] Chart 11 shows the particularly sharp growth in assets under management in high-yield funds.

Although they were short-lived, the bouts of market turmoil in the past year have illustrated how there can be sudden and sharp outflows, particularly from high-yield and emerging market funds, resulting in illiquidity in the markets for those instruments.[18]

The macroprudential risk is that any revelation that continuous liquidity is illusory could generate potentially sharp changes in asset allocation. With net credit creation being largely reliant on bond finance, such a reallocation could generate a sharp deterioration in credit conditions for corporates and the risk may be particularly pronounced for cross-border flows to emerging markets.

But what, beyond talking about it, can be done about this risk?

Managing the risks in markets will require global co-ordination. The FSB provides the platform for authorities to monitor, analyse and address risks in a timely way. It brings all the relevant bodies together to develop this substantial body of work. Anticipating and managing market risk channels will be core to the future financial reform agenda.

This point is relevant to work, currently underway, to develop a framework for identifying globally systemic non-bank non-insurer financial institutions.

The fund management industry has become more concentrated, with the top 10 firms now accounting for almost one fifth of assets under management. However, size will not necessarily be the best indicator of systemic importance. It seems plausible that large unlevered funds with little maturity mismatch could pose few systemic risks. At the same time, smaller funds could be systemic if clusters of them conduct similar activities that do pose risks. Those activities include concentrated investments in illiquid assets, the potential for large short-term redemptions, and leverage, whether financial or embedded.

As such, there may be merit in this activity-based systemic risk assessment over and above a purely firm-focussed approach to systemic designation.

Of course, identifying systemic firms is just the first step in managing risks to global stability. To manage those risks, authorities can do more to work with market intermediaries to enhance transparency and understanding around secondary market liquidity.

Securities market regulators may have an important role to play in developing globally-consistent best practices in liquidity risk management and valuations. Liquidity buffers and redemption schemes should be assessed. And greater standardisation of debt securities will also need to be supported.

[18] Chart 12 shows the sudden and sharp reversals of flows into US high-yield bond funds and sets those flows in the context of funds' liquidity buffers.

The need to ensure resilience in the non-bank financial sector also raises questions about the nature of central bank operations. The maintenance of an effective monetary transmission mechanism now requires backstops for both banks and markets. Bagehot will need to be updated for the 21st century, with central banks standing ready to operate frequently, against a wide range of collateral and a broader range of counterparties.

In short, diversity will reap rewards, but resilient diversity will require a significant programme of reform and alertness to new risks.

Trusted

The second pillar of the future of reform is to rebuild trust in finance.

Trust between institutions, counterparties and investors is central to maintaining the ability of finance to function.

Trust between regulators across jurisdictions is needed to maintain an open global system.

And most fundamentally, trust between the public and the financial system is needed to maintain the social licence for finance to operate.

It has been severely tested by: taxpayer bail-outs of systemic institutions; rewards perceived as undeserved; a perception that clients have become counterparties; and egregious examples of misconduct and rigging of markets.

Without that licence, the door will be opened to a level of regulation that constrains the ability of finance to innovate and support growth and trade efficiently. The licence will require consistent exemplary behaviour, and finance to have a clear sense of its purpose not as an end in itself, but as a means to promote investment, innovation, growth and prosperity.

It is not merely that we should want to follow Churchill's wish to see "finance less proud and industry more content".

We want to see industry content and finance taking justifiable pride in its contribution to society.

That is far from straightforward when, even six years on from the crisis and public bailouts, triggers for public opprobrium are plentiful. Last week, the UK's Financial Conduct Authority, US CFTC and Swiss FINMA

fined six banks $3.3bn for misconduct in FX markets: misconduct that went on long after banks had already been fined for abusing interbank interest rate benchmarks.

The repeated nature of these fines demonstrates that financial penalties alone are not sufficient to address the issues raised. Fundamental change is needed to institutional culture, to compensation arrangements and to markets.[19]

As Bill Dudley and my colleague Minouche Shafik have argued, the succession of scandals mean it is simply untenable now to argue that the problem is one of a few bad apples. The issue is with the barrels in which they are stored.[20]

Leaders and senior managers must be personally responsible for setting the cultural norms of their institutions. But in some parts of the financial sector the link between seniority and accountability had become blurred and, in some cases, severed.

The public were rightly angered that so many of the leaders and senior managers who were responsible for sowing the seeds of the crisis and for allowing cultures to develop in which gross misconduct took place have walked away from their actions or inactions.

In the UK, Parliament has established a stronger regulatory framework to allocate responsibilities to individual executives and board members and to give regulators the tools to hold them to account. The excuse of having delegated a responsibility simply will not wash.

The public bail outs and the fact that few of the consequences of scandal have been borne by those who were directly responsible revealed a great deal about the balance of risk and rewards for those who worked in in financial services.

Compensation schemes overvalued the present and heavily discounted the future, encouraging imprudent risk taking and short-termism.

To align better incentives with the long-term interests of the firm – and, more broadly, society – major changes have been made. At the request of G20 Leaders, the FSB has developed principles and standards for sound compensation practices.

In the UK, we have introduced a remuneration code prescribing that payment of bonuses must be deferred for a minimum of three years and, after payment, be exposed to clawback for up to seven years. Bonuses

[19] Chart 13 shows the sharp increase since 2010 in the number of FICC-related misconduct fines. The number of fines levied on 12 November alone amount to almost three quarters of the number levied in 2013.
[20] See Dudley (2014) and Shafik (2014).

can be reduced – or clawed back – if evidence emerges of employee misconduct or failures of risk management.

We are consulting on extending deferral periods, widening the scope for groups of employees to have their bonuses reduced where there are more pervasive issues of performance or risk management, and considering options to prevent individuals side-stepping these rules.

In an international labour market there is a particular role for international standards and co-ordination to ensure a level playing field. It is unfortunate, for example, that new European rules to cap bonuses to half (or with shareholder approval, two-thirds) of total pay have the undesirable side effect of limiting the scope for remuneration to be cut back. This makes the case for additional reforms to ensure that the burden of excessive risk-taking and misconduct by staff can still be borne by those staff.

Standards may need to be developed to put non-bonus or fixed pay at risk. That could potentially be achieved through payment in instruments other than cash. Bill Dudley's recent proposal for certain staff to be paid partly in 'performance bonds' is worthy of investigation as a potentially elegant solution.[21]

Senior manager accountability and new compensation structures will help to rebuild trust in financial institutions. In a diverse financial system, trust must also be rebuilt in markets.

That is why in the UK in June, Chancellor George Osborne and I launched the Fair and Effective Markets Review.[22] Far from seeking to constrain markets, the Review is seeking to restore true and competitive markets with open access to all and competitive prices. Behaviours that aim to undercut market mechanisms, such as collusion, the misuse of confidential information, or the manipulation of market prices and benchmarks, must be stamped out.

The Review has already recommended that further market benchmarks be brought within the scope of UK regulation, alongside a criminal charge for manipulation of such benchmarks. In that respect it complements the FSB work to reform and strengthen benchmarks internationally.[23]

The Review is now consulting widely before reporting next June. It is asking questions about deficiencies in two major areas: market structure and conduct. The Review is examining where structures exist that encourage excessive concentration, raise potential conflicts of interest or expose benchmarks to the potential for manipulation. And it is considering where voluntary codes of conduct seem inadequate, poorly understood or simply provide individuals with justification to judge their actions by the exact letter of the code rather than by more generally accepted norms.

[21] See Dudley (2014).
[22] See Bank of England (2014a).
[23] See FSB (2014c).

The Review will explore ways to improve market transparency, competition and trading infrastructure. Principles of fair markets, codes of conduct for specific markets, and even regulatory obligations can all help. There must be clear consequences - including professional ostracism - for failing to behave properly.

In global markets, these are not things that any country can achieve on its own. Global solutions are needed. That is where the FSB, working with IOSCO and others, can play a role in delivering fair and effective markets on the global stage by forging international agreement on common standards and structures and co-operation between authorities. International firms must play their part too.

Only with such global action can we begin to move on decisively from the scandals of recent years to slowly rebuild slowly the trust of society in finance.

We must build trust in other ways too, including the trust of financial markets in the safety and soundness of the firms operating in those same markets. Banks' internal models proved woefully inadequate in the crisis, and there remain worryingly large differences in banks' RWA calculations that cannot be adequately explained. That is why the plan the Basel Committee announced earlier this month to address these differences and to balance the risk-sensitivity and complexity of capital calculations is so important. Of course, the leverage ratio will play an important as a simple backstop against overreliance on models and past statistical relationships.

Open

Trust is also needed in a wider context: trust between countries in their supervisory and regulatory frameworks so as to support an open and stable financial system.

To achieve its full potential, the financial system must remain global. Fragmentation will reduce the efficiency with which savings are allocated to investments, and potentially lead to misallocation of capital on a global scale. All economies would be harmed by this, whether advanced, emerging or developing.

This is a real risk. Since the crisis, measures of capital market integration have declined notably.[24] A clear home bias remains in investment. The crisis was a vivid reminder that openness must be built on the foundation of stability and trust in the foundations of the global financial system.

For an open system, trust between authorities is therefore fundamental.

[24] Chart 14, from Haldane (2014), shows the correlation between national savings and investment. That correlation had reached zero just before the crisis, suggesting that the global financial system was fully integrated. However, this has now reversed sharply. Sapir and Wolff (2013) document the home bias in equity markets even within the euro area.

Although markets and many financial institutions are global, regulation remains national or regional and concerns about spillovers from failures of foreign institutions, or market contagion starting elsewhere, can prompt jurisdictions to safeguard themselves unilaterally. A national regulator's first responsibility is to do its utmost to ensure the safety and soundness of its own jurisdiction.

To avoid the Balkanisation of finance, each regulator must trust others to implement agreed common standards. In this regard, Singapore is a world leader. The IMF concluded its latest Article IV Report noting that financial regulation and supervision here is "among the best globally and…a frontrunner in implementing global regulatory reforms".[25]

Trust can be sustained only if all countries follow the example of Singapore to implement standards consistently, fully and in a timely way. To provide confidence that full and consistent implementation is taking place, the FSB will support that with rigorous and transparent peer reviews and implementation monitoring.

We are providing clear and simple reporting, through the work chaired by Ravi Menon in our Standing Committee on Standards Implementation. In my letter to G20 Leaders last week, I provided that Committee's latest findings of our monitoring process, in a simple summary with report card.

From next year, the FSB will further enhance this reporting, through an annual reporting process on implementation. This will seek to highlight both shortcomings and good practice, and will seek to assess whether reform measures are having unintended effects and must therefore be adjusted. The FSB's work will include focus in particular on the effects in emerging markets. When a robust analysis is completed, the FSB will be prepared to draw lessons from these reviews to refine the regulatory framework.

Trust also requires confidence that others are alert to new risks. Initiatives to collect and share data are important – whether it be the hub built at the BIS for sharing data on the balance sheets of cross-border banks, the global aggregation of trade repository data in markets such as derivatives or repos, the global legal entity identifier, or enhanced operation of supervisory colleges and crisis management groups for systemic firms.

Those are complemented by initiatives to share analysis, assessment of risks and tools to address those risks, including in shadow banking and other forms of finance. The FSB provides a platform for this. Through shared analysis, authorities can build confidence in each other's work and trust in the policy responses being applied. This must encompass not just major institutions but also emerging markets that act as hosts to global institutions and that depend on global markets.

[25] IMF (2014b).

Building trust is a precondition for openness. It can also be drawn on to regulate the global system as efficiently as possible.
Even with agreed common minimum standards, there will always be differences in national approaches to regulation. Such differences can be appropriate, reflecting different stages of development and different economic structures.

Efficiency in regulating global institutions and markets will require the development of approaches to defer to each other in the cross-border application of market regulations. The alternative is the inefficient imposition of multiple regulatory regimes on the same markets and institutions.

In this regard, the way is being led in OTC derivatives regulation where progress has been made in establishing that regulators should defer to each other, based on an assessment of whether their regulatory regimes deliver similar outcomes.

Urgency is needed in applying that principle if we are to alleviate reductions in market liquidity and FSB members should begin to consider whether and where more widespread adoption of flexible approaches to regulating could be exploited.

The FSB is fully committed to supporting continued openness of the global system and to pursuing a new phase of global financial reform. To ready itself for its new roles, it has agreed changes to the structure of its representation, strengthened the inclusiveness of its working procedures and taken steps to increase the transparency of its operations.[26]

Currently emerging economies are on track, by the middle of the century, to account for the majority of G20 GDP and equity market capitalisation. It is essential that their increasingly important role in the global economy is reflected in the FSB and other international organisations. The changes we have made to increase the number of seats held by emerging markets will allow us to reflect that while maintaining effectiveness in decision making.

THE BENEFITS OF REFORM

Having argued for the extension of the reform race, I am conscious of the risk of fatigue. But as Ravi Menon argued more than a year ago: “it is imperative that we press on with the reform agenda and do not succumb to reform fatigue.”[27]

[26] FSB (2014d) reports on the changes to the structure of FSB representation.
[27] Menon (2013).

Already we can hear some of the runners, particularly those at the back, making world-weary arguments that more reform will hurt jobs and growth, and even that financial crises are just something that happens every five to seven years.

If that were true, we are due for another crisis about now. Does anyone find that acceptable?

As the memory of the crisis fades, it will be ever more important to explain the benefits of reform to counter the fatalism. So let me take this opportunity to take stock of the benefits of reforms, both of those already agreed and of the next phase of reform I have outlined.

While we all recognise that future crises can never be ruled out, the steps taken to make banks safer and simpler have certainly reduced the likely frequency and severity of future financial crises. In doing so, they have reduced the exorbitant costs of instability.

The Basel Committee assessed in 2010 that the economic cost of the median financial crisis amounted, over time, to 60% of national income. With a 5% probability of a crisis each year, that is equivalent to annual costs of 3% of GDP. For the G20 as a whole that is $2trn. By eroding these costs, financial reform alone can therefore more than deliver the G20 commitment to raise GDP by more than 2%.

The Basel Committee found these costs to be minimised only if risk-weighted bank capital ratios were raised above 15%.[28] The Basel III requirements did not go this far, in part because they anticipated the additional requirements for loss absorbing capacity that G20 Leaders have just endorsed.

Once implemented, the combined effects of the reforms will take the system much closer to the degree of safety needed to minimise the costs of financial crises. That authorities have reached this point in a measured way – allowing both equity and forms of debt to qualify as loss absorbing capacity – shows our sensitivity to the potential costs of greater safety.

What are those costs? Three points are worth emphasising.

First, the Basel Committee study judged that each 1% increase in capital ratios could reduce output by just 0.1% as higher bank funding costs were passed through to borrowers. However, even that small number seems an upper bound. It fails to take account of the fact that monetary policy can offset the impact of higher lending spreads on effective borrowing rates.[29]

[28] See Basel Committee on Banking Supervision (2010a).
[29] See Basel Committee on Banking Supervision (2010b). Furthermore, reforms to OTC derivative markets were found to have supplemented that by a further 0.1% of GDP. By making the system simpler, these reduce the probability of crises. See Macroeconomic Assessment Group on Derivatives (2013).

In fact, the need to offset the impact of higher lending spreads is one reason why some advanced economy central banks, such as the Bank of England, are so clear now that interest rate increases, when they come, will be gradual and limited.

Second, the transitional costs of moving to higher capital requirements were found to be a little higher than the long-run costs. But that result depends on the starting position. Outside of financial booms, undercapitalised banking systems do not provide the credit needed for economic growth, regardless of capital requirements.

Where banking systems have raised capital and restored trust in their creditworthiness, access to credit has returned. This central lesson from the US and the UK recoveries could not be clearer. The evidence internationally suggests much the same. With the possible exception of parts of the euro area, lending spreads have fallen and credit volumes have increased at the same time as capital has gone up. In other words, if anything, regulators may have significantly overestimated the transitional costs, or even possibly got the sign wrong.

Third, although tighter regulatory requirements have caused bank balance sheets to shrink, that does not translate fully into reduced access to credit for real economy borrowers. As I said, some of the reduction in bank-based intermediation has been substituted with market-based finance for the real economy. Moreover, as bank balance sheets have shrunk, and as they have rebalanced more towards traditional banking than trading, they have become more focussed on the real economy.

In short, any serious look at the experience of post-crisis reform shows that reform and regulation support – not damage – long-term prosperity.

Furthermore, the reforms have also brought benefits in terms of the distribution of the costs and benefits of finance. The removal of the implicit taxpayer subsidy transfers the costs of excessive risk taking to private creditors and away from the taxpayer.

And by making resolution of failing institutions a real possibility and facilitating smooth exit, the reforms will also promote competition. Before the crisis, the largest and most systemic firms enjoyed the largest subsidies. Now, over time, the absence of that subsidy will create a level playing field, transferring the benefits of finance to customers and clients.

These benefits will accrue slowly over time. Indeed, they may never be obvious to many who don't recall a different world. That is why it is vital that our sons and daughters are taught not that financial crises are inevitable, but that they are both avoidable and tremendously costly for jobs, growth and prosperity.

The lessons of the crisis need to be learned and handed down to future generations in order that the next phase of reform is sustained.

Those reforms have the potential to make finance more effective in serving the real economy.

A more **diverse** financial system can be both more resilient and more effective.

If it is structured correctly, each form of intermediation will not be subject to the same risks. Diversity also allows risks to be more closely aligned with risk-bearing capacity in the system. With scope for creditor preferences to be more closely matched with those of borrowers, the full potential of finance to intermediate can be exploited and the cost of finance for the real economy minimised.

If we can succeed in safely and sustainably combining bank and market-based finance, the effectiveness of the system can be dramatically increased. Households and businesses can benefit from access to markets while the advantage of banks in originating loans can continue to be exploited.

A **trusted** financial system can be much more effective. Through cultural change, reforms to compensation and building markets that are transparently fair, finance can earn the legitimacy needed to operate and innovate to serve customers and clients in the real economy.

The literature on the benefits of an **open** global financial system is admittedly mixed. The contradiction between this conclusion and the clear and overwhelming benefits of trade integration is reconciled by the previous unsafe and potentially unstable nature of the global system. As my colleague Andy Haldane observed recently, connectivity can serve as a shock-transmitter.[30] A risky system cannot be an open system.

The renewal of globalised finance must therefore go hand in hand with making the global system safer, including through mutual trust and cooperation between supervisors and regulators. How can we expect emerging economies to participate fully in an open global system without the confidence that they won't again be side-swiped by the failure of a large foreign bank?

That confidence is growing as we make the system safer. Consistent, full and timely implementation of global standards is necessary to continue to build the cross-border trust on which an integrated system can be founded. Once the safety of the system is secured, the costs of openness will be contained. The road will be clear to secure the substantial benefits of openness in supporting trade and investment.

[30] Haldane (2014).

CONCLUSION

The Brisbane Summit marked the point at which the post-crisis system of prudential regulation was settled.

That system, built on safer, simpler and fairer foundations than the one that led to disaster is able to serve households and businesses right across the globe.

That we have reached this point is a triumph of the optimists over the world-weary arguments of the pessimists. The mutual trust and co-operation that has allowed authorities to get to this point is a vivid reminder of what can be achieved when countries work together.

But as I said at the outset, just avoiding a repeat of past failures can't be the height of our ambitions. Having built that level of co-operation it would be a travesty to stop at the foundations.

As I said in Washington three years ago: when bankers were pushing back against our core agenda, in no other aspect of human endeavour do men and women not strive to learn and improve. So onto the foundations we must now build the pillars of diversity, trust and openness that will support a global financial system serving the global economy to its full potential.

Finance is a means to end. It is the real economy that delivers prosperity.

The next phase of reform will give businesses and households the confidence that finance, far from being a threat to them, is here to serve them in their work to deliver prosperity.

Reform should stop only when industry and society are content and finance justifiably proud.

Thank you.

Appendix

Table 1: Minimum capital requirements – Basel 2 to Basel 3

	CET1 requirement	Multiple of Basel 2 minimum
Basel 2 CT1 minimum *using Basel 3 definitions* [(a)]	1.0	0.5x
Basel 2 CT1 minimum	2.0	1.0x
Basel 3 CET1 minimum	4.5	4.5x
+ Capital conservation buffer	7.0	7.0x
+ G-SIB buffer	8 to 10.5	8 to 10.5x
Countercyclical capital buffer	8 to 13	8 to 13x

[(a)]Based on Basel Committee on Banking Supervision quantitative impact study (www.bis.org/publ/bcbs186.pdf) which found that for large internationally active banks the application of Basel 3 definitions reduced measured core capital by an average of 41%, and increased risk weighted assets by an average of 23%. After making those adjustments the Basel 2 Core Tier 1 minimum of 2% is broadly equivalent to 1% under Basel 2 (as noted by Jaime Carina - http://www.bis.org/speeches/sp120208.pdf)

Table 2: Effect of increased trading book capital requirements [(a)(b)]

Increase in trading book RWA %	Trading book RWA as share of total RWA %	Impact on overall RWA %	*Memo:* Total impact of changes to RWA[(c)] %
57.4	5.4	3.1	8.3

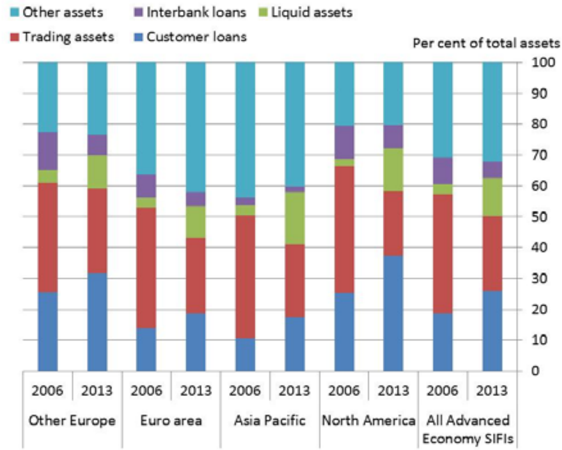
Source: BCBS and Bank calculations

(a) Sample includes the largest internationally active banks ('Group 1'), of which 29 are G-SIBs. Data as of 31 December 2013.

(b) Changes to trading book RWA reflect the impact of Basel 2.5: stressed value-at-risk, the incremental risk charge (IRC), capital charges for the correlation trading portfolio, as well as changes to the standardised measurement method for other securitisations and n-th to default derivatives.

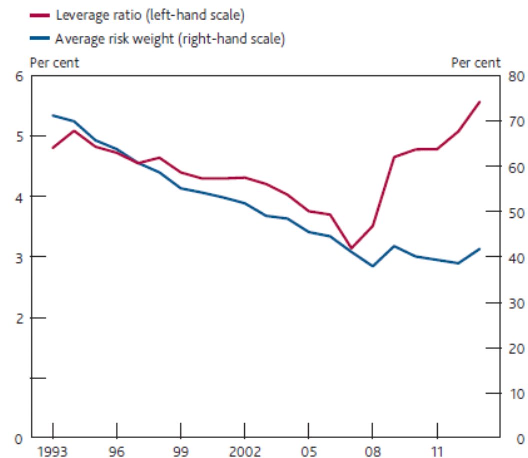
(c) Other drivers include a new capital charge for credit valuation adjustments, changes to the counterparty credit risk framework, and changes caused by changes in definition of capital (eg, where positions where previously deducted from capital but receive a 1250% risk weight under Basel III).

Chart 1: Bank balance sheet assets have more loans, less trading assets and are more liquid [(a)(b)]



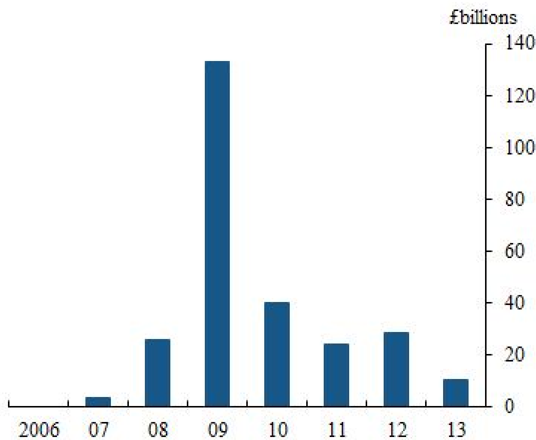
Sources: IMF GFSR October 2014.
(a) Other assets include nongovernment securities in the banking book, reverse repo, and fixed assets. Based on 90 large banks.
(b) SIFI = advanced economy systemically important financial institutions.

Chart 2: Average risk weights fallen since 1996 [(a)(b)]



Sources: The Banker and Bank calculations.
(a) The series represent the weighted averages across the sample of 17 global banks. Leverage ratio measured as Tier 1 capital/Assets.
(b) Sample includes Bank of America, Barclays, BNP Paribas, Bank of New York Mellon, Citigroup, Commerzbank, Deutsche Bank, HSBC, ING, JPMorgan, Lloyds Banking Group, Royal Bank of Scotland, Santander, State Street, UBS, UniCredit and Wells Fargo.

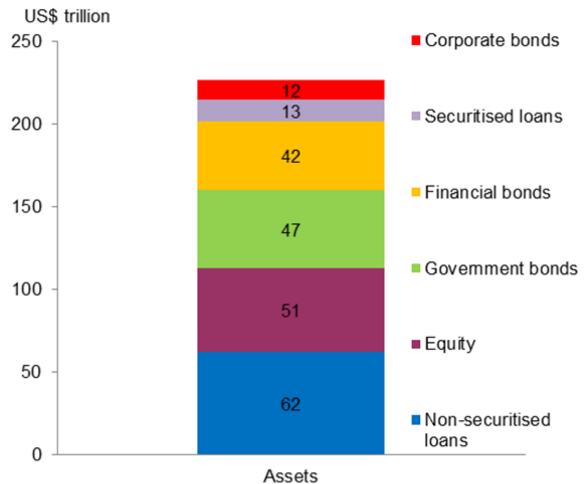
Chart 3: Implicit subsidy to UK banks is falling [(a)]



Source: Bank calculations.

(a) The total value of implicit subsidies to the Top 4 UK banks. Sum of the estimated implicit subsidies for Barclays, HSBC, RBS and LBG. Estimates obtained by multiplying the differences in bond yields associated with Moody's support and stand-alone rating by the corresponding quantity of ratings-sensitive liabilities.

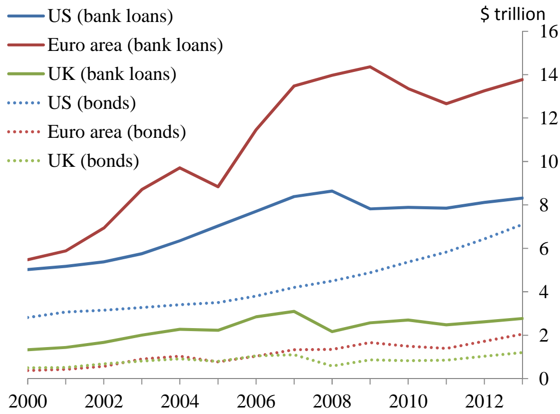
Chart 4: Global financial assets [(a)]



Sources: McKinsey Global Investors.

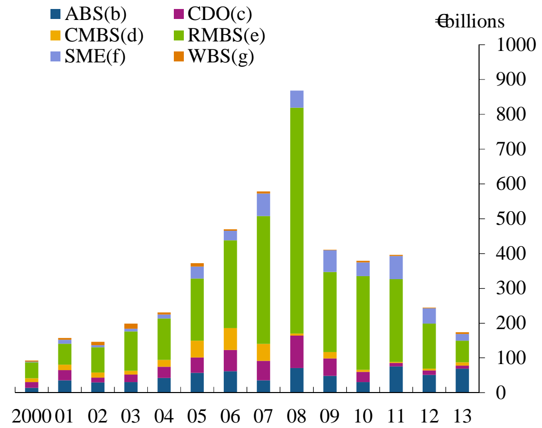
(a) Cash markets only, excluding derivatives.

Chart 5: Bonds account for virtually all credit growth since the crisis



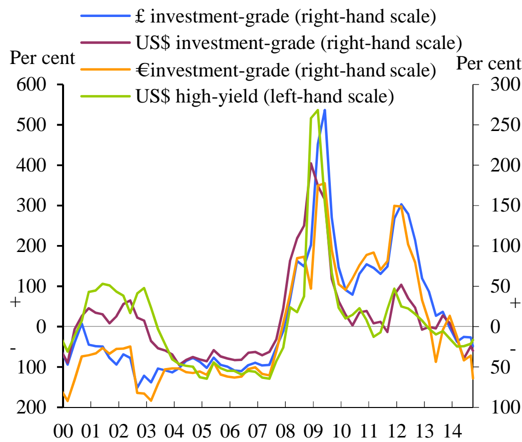
Sources: Bank for International Settlements and Bank calculations.
Notes: Bank loans measured by domestic bank lending to the non-financial private sector. Bonds measured by total debt securities issued by the private non-financial sector.

Chart 6: European securitisation issuance has fallen sharply [(a)]



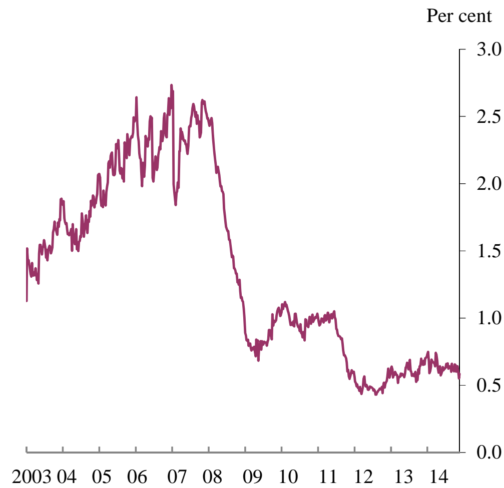
Sources: Association for Financial Markets in Europe (AFME), Securities Industry and Financial Market Association (SIFMA), Thomson Reuters Datastream and Bank of England calculations.
(a) Includes retained issuance.
(b) Asset-backed securities.
(c) Collateralised debt obligations.
(d) Commercial mortgage-backed securities.
(e) Residential mortgage-backed securities and mixed mortgage-backed securities.
(f) Small- and medium-sized enterprises.
(g) Whole business securitisation and public finance initiatives.

Chart 7: Liquidity risk premia are very low [(a)(b)(c)(d)]



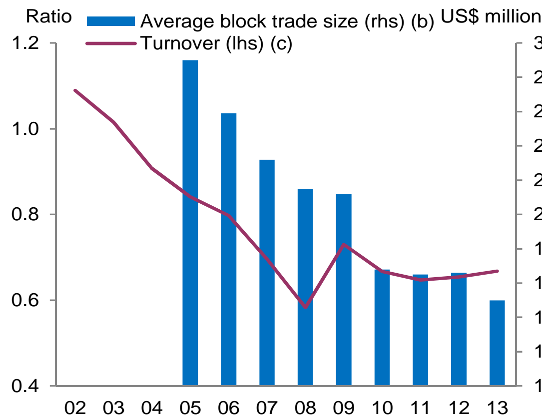
Sources: Bloomberg, BofA Merrill Lynch Global Research, Thomson Reuters Datastream and Bank calculations.
(a) Implied liquidity premia are estimated using a Merton model as in Leland, H and Toft, K (1996), 'Optimal capital structure, endogenous bankruptcy, and the term structure of credit spreads', Journal of Finance, Vol. 51, pages 987-1,019, to decompose corporate bond spreads.
(b) Quarterly averages of deviations of implied liquidity risk premia from sample averages.
(c) Sample averages are from 1999 Q4 for € investment-grade and 1997 Q1 for £ investment-grade, US$ investment-grade and US$ high-yield.
(d) Updated until 19/08/2014.

Chart 8: Dealer inventories have fallen sharply [(a)]



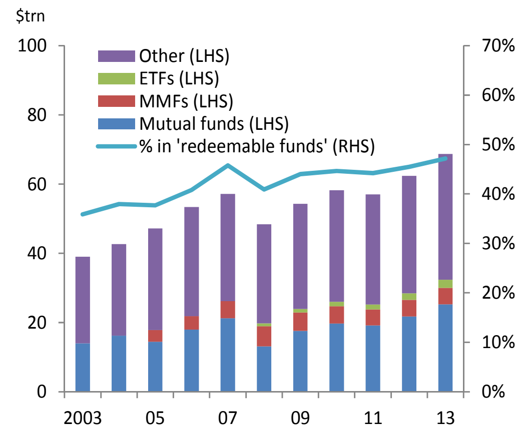
Source data from: Securities Industry & Financial Markets Association, New York Federal Reserve and Bank of England calculations.
Outstanding (annual) and inventories (monthly) include corporate bonds, non-agency RMBS/CMBS and commercial paper.

Chart 9: The secondary bond market is less liquid [(a)]



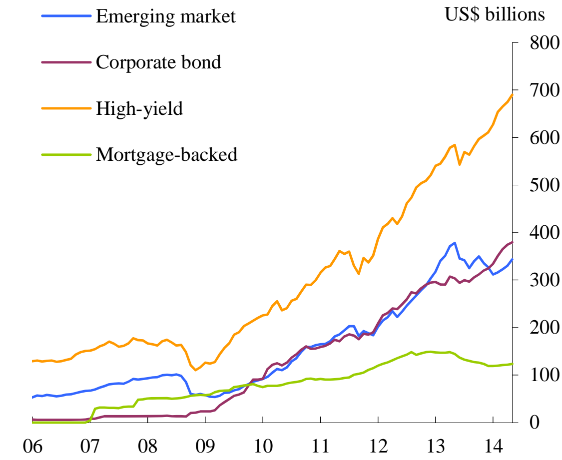
Sources: Citi, FINRA, SIFMA, TRACE and Bank calculations.
(a) OTC secondary market transactions executed by US dealers.
(b) Average size of trade for transactions larger than US$5 million in US$-denominated investment-grade corporate bonds.
(c) Annual trading volume as a proportion of notional amount outstanding for US$-denominated investment grade and high-yield bonds.

Chart 10: Global assets under management have risen sharply since the crisis [(a)(b)]



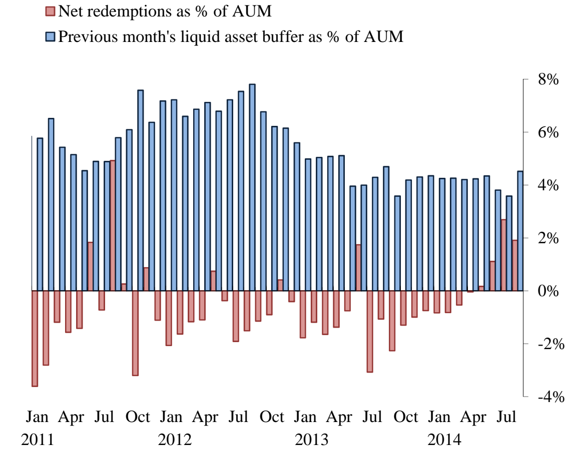
Sources: Boston Consulting Group, TheCityUK, ICI Global, Bank Calculations.
(a) Assets held in mutual funds, money market funds and ETFs used as a proxy for 'redeemable' funds as they typically offer investors the option to redeem at short notice. Other includes separately managed accounts, hedge funds and private equity.
(b) Data for MMFs starts in 2005 and ETFs in 200

Chart 11: Less liquid assets managed by selected specialised mutual funds have surged



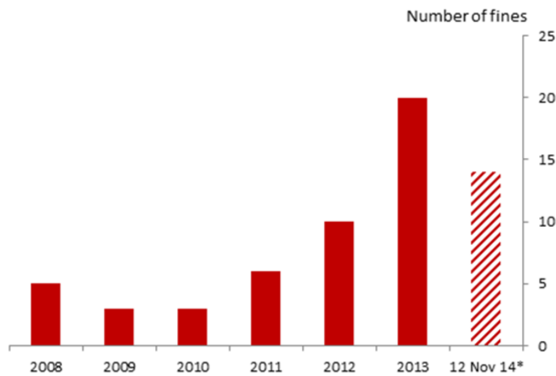
Sources: EPFR Global and Bank calculations.

Chart 12: US high-yield bond funds net redemptions relative to assets under management and 'liquid' assets



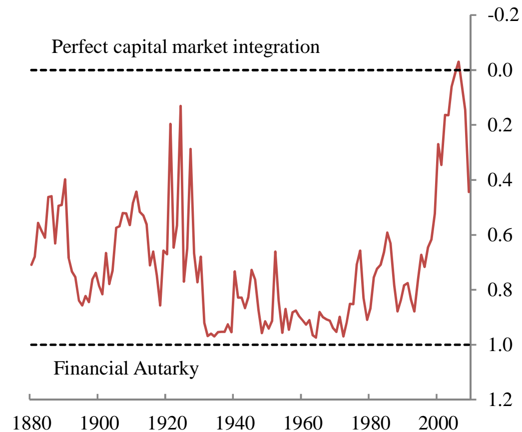
Source: ICI and Bank calculations. Data as of end-August 2014

Chart 13: Fixed income, foreign exchange, and commodities markets-related fines have surged



Source: Conduct Costs Project at the CCP Research Foundation, fines imposed on a sample of ten banks by authorities in the United States, the United Kingdom and the wider European Union.
*Fines imposed by FCA, US Commodity Futures Trading Commission (CFTC), the Swiss Financial Market Supervisory Authority FINMA, and Office of the Comptroller of the Currency (OCC) on 12th November.

Chart 14: Global capital market integration has fallen [(a)]



Sources: Taylor (2002), IMF WEO, Obstfeld and Taylor (2004) and Bank Calculations
(a) Global capital market integration is the correlation coefficient between savings and investment for 15 countries (the sample varies slightly over the period)

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