



## Taking a longer-term perspective

Speech by Jaime Caruana

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Good morning, ladies and gentlemen.

A warm welcome to this presentation on this year's BIS Annual Report. The Report represents our contribution to the ongoing debate among policymakers, the private sector and academics on the post-crisis global economy.

I will start by highlighting four observations from the Annual Report. They all point to the need to adopt a longer-term perspective – one that allows us to better integrate finance in our analysis of the global economy. After that, Claudio Borio, Head of the Monetary and Economic Department, and Hyun Song Shin, Economic Adviser and Head of Research, will each elaborate on some of these points.

### Current very low rates do not represent a new equilibrium

Let me begin with an observation on the current situation and, in particular, the debate on whether the very low or even negative interest rates are the new normal.

Over the past year, three shifts in global markets have altered the balance of economic and financial risks. Oil prices fell by about 50% in dollar terms during the second half of 2014. The US dollar appreciated sharply across the board (Graph 1, left-hand panel). And, in perhaps the most unusual development of all, long-term interest rates declined further, even slipping into negative territory in some markets (Graph 1, right-hand panel). During the first five months of this year, on average about \$2 trillion of sovereign debt – most of it European – was trading at negative yields.

These shifts reflect reassessments of the global economic outlook by market participants: changing expectations about economic conditions in advanced and emerging market economies (EMEs), uncertainties about diverging monetary policy paths in major economies, and also concerns about unresolved long-term economic problems.

It is not surprising that markets are reassessing the situation. Despite all efforts to step out of the shadow of the financial crisis, conditions in the global economy are still far from normal. The build-up of leverage and financial risks, the dependence of financial markets on central banks, and the persistence of low interest rates – all these seem to have become routine. But just because something is routine does not mean it is normal.

Seven years after the global financial crisis, the policy mix remains highly unbalanced. We continue to rely too much on monetary stimulus, while progress on structural reforms has remained insufficient. Policy trade-offs are not getting any easier.



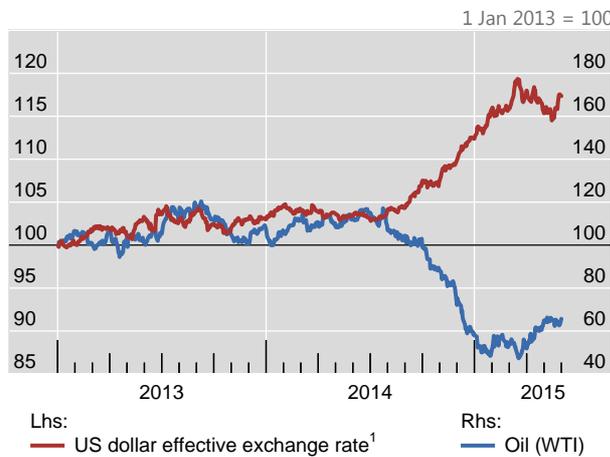
True, there may be secular forces that put downward pressure on equilibrium interest rates. Even so, we argue that the current configuration of very low rates is neither inevitable, nor does it represent a new equilibrium. Rather, it may well reflect, to an important degree, the shortcomings of today’s analytical and policy frameworks in dealing with financial booms and busts. Claudio Borio will elaborate on this point, and the implications for the global economy, in his presentation later.

Our conclusion is that policy normalisation should be welcomed. Overall, lower oil prices provide the global economy with a significant growth dividend. This tailwind could support a steady normalisation of monetary policy – with due regard, of course, to country-specific conditions. That normalisation might generate some volatility in the short term, but would help to contain risks in the longer term.

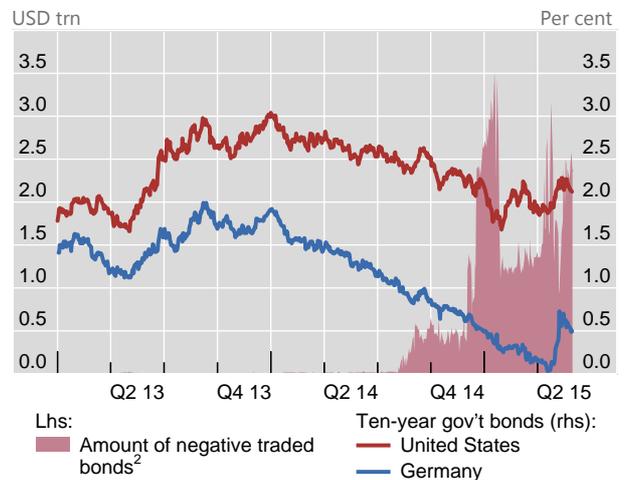
### Three major shifts in global markets

Graph 1

#### Oil and the dollar



#### Long-term interest rates



<sup>1</sup> BIS nominal effective exchange rate broad indices. A decline (increase) indicates a depreciation (appreciation) of the currency in trade-weighted terms. <sup>2</sup> Total amount of government bonds traded at negative yields; based on securities included in the Merrill Lynch global government bond index, average of end-January 2015 and end-May 2015.

Sources: Bank of America Merrill Lynch; Bloomberg; national data; BIS; BIS calculations.

## Financial booms have real implications

My second observation is on how financial booms can damage productivity growth. Specifically, it refers to our analysis of how financial booms may have contributed to the observed decline in productivity growth, particularly in advanced economies that experienced financial booms (Graph 2, left-hand panel).

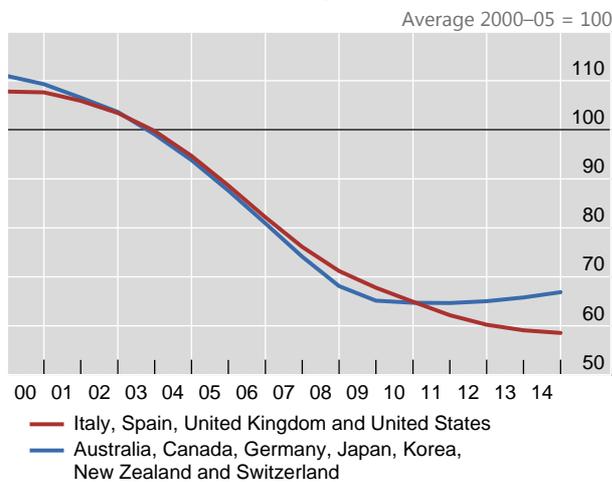
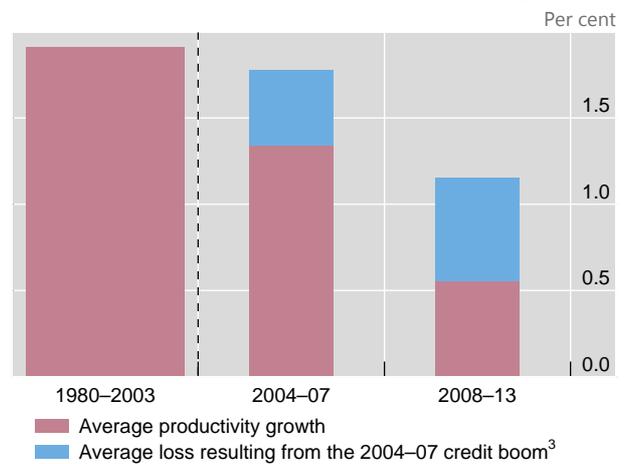
During the past year, the global economy has grown at a rate that is not far from its long-term average. However, corporate investment has remained weak even as mergers and acquisitions and bond-financed equity buybacks are booming. Risk-taking is more evident in financial markets than in the real economy, and labour productivity growth has continued to decline globally.

We have often discussed the BIS view that balance sheet recessions are different because they are associated with the bust of a financial boom. The negative impact on aggregate demand is obvious. But what about the economy’s productive capacity?



## Financial cycles contribute to lower productivity growth

Graph 2

Trends in labour productivity growth<sup>1</sup>Productivity trends in economies with financial cycles<sup>2</sup>

<sup>1</sup> Hodrick-Prescott (HP) filter applied to annual growth of output per person employed. Aggregates are weighted averages of trend growth based on GDP at current PPP exchange rates. <sup>2</sup> Economies in the sample: Denmark, France, Ireland, Italy, Spain, Sweden, the United Kingdom and the United States. <sup>3</sup> Calculated using average credit-to-GDP growth over 1994–2004 as a counterfactual.

Sources: EU, KLEMS; IMF, *World Economic Outlook*; OECD, *Economic Outlook* and STAN; Conference Board, *Total Economy Database*; GGDC 10-sector database; BIS; BIS calculations.

Recent BIS research has found evidence that financial booms have a tendency to undermine productivity growth. They do this by shifting workers and other production factors to sectors with slow-growing productivity. Contrary to what happens in normal recessions, this labour misallocation has a long-lasting negative effect on the path of aggregate productivity – and hence potential output after a financial crisis.

The economic intuition is as follows. In a normal business cycle, workers displaced during the recession will be re-hired once activity picks up. But in a balance sheet recession, the sectors that were artificially bloated during the financial boom cannot be expected to return to boom-time levels of activity. Misallocated labour needs to move from these sectors to other parts of the economy – which typically takes much longer. The resulting damage to aggregate productivity, and hence potential output, after a financial crisis can be quite persistent.

To be sure, there are other factors behind the trend decline in productivity growth. But the point we want to make is that past financial booms may have done more than just mask these other factors. They themselves may have also contributed to the decline by misallocating resources. This is clearly an aspect that deserves further investigation.

Is the impact of financial booms on productivity significant? Our figures suggest that it is. Our analysis looks at a set of advanced economies that had experienced credit booms in the run-up to the financial crisis. We estimate that their productivity growth for the boom period 2004 to 2007 was, on average, cut by some 0.4 percentage points per year, relative to what would have happened had there not been such a boom – by that, we mean: had the credit-to-GDP ratio evolved at its average rate over the decade before the boom (Graph 2, right-hand panel). More strikingly, this effect persists even as the boom turns to bust. Our estimates suggest that, for the period 2008 to 2013, these countries' productivity growth was, on average, reduced by 0.6 percentage points per year, relative to what would have happened had there been no boom. In fact, for this latter period, the estimated loss is about as large as the actual productivity growth itself.



The main takeaway from this analysis is that we need to pay more attention to the supply side. Demand management policies cannot substitute for measures that deal with supply side deficiencies that obstruct demand and undermine growth. Restoring strong and sustainable growth requires a deeper analysis of supply side constraints, which will inevitably be country-specific. It will also require a determined pursuit of structural reforms.

What about the economies that largely escaped the financial crisis? These include some smaller advanced economies as well as many EMEs. They too may find some relevance in the link between financial booms and the decline in productivity growth. Many of these economies have been experiencing strong credit booms. And they have reached a point where the combination of these booms with lower growth has given rise to domestic and external vulnerabilities.

In many respects, EMEs are stronger today than in the 1980s and 1990s, when many of them experienced financial stress. Macroeconomic frameworks have improved; exchange rate flexibility has increased; financial system infrastructure is more robust; and prudential regulation is more stringent. The development of local currency bond markets has freed EMEs from the “original sin” of borrowing only in foreign currency. Larger foreign exchange reserves have strengthened the lines of defence.

Yet, not all is well. Flexible exchange rates and good macroeconomic performance may not be enough to fully insulate economies from external shocks. While foreign currency debt has come down in relation to GDP, it is concentrated in the corporate sector – where currency mismatches are harder to detect, and may affect investment and employment more directly. The role of the central bank will not be easy in this case since foreign reserves may be difficult to mobilise effectively to counter liquidity shortages in specific sectors, or to support the domestic currency or bond market. And the shift from bank finance to finance mediated by non-banks may have altered market dynamics in ways that are not well understood. I will come back to this last point.

## Low rates for long affect the financial industry

Let me now turn to the third observation, that is, the potential risks associated with the price of leverage being low for too long – something that we at the BIS have discussed on many occasions.

Let me be clear. Our main concern is the persistence of very low rates. It is this persistence that gives economic agents the incentive to change behaviour, and that allows time for leverage and risks to build up – perhaps so gradually that it may be difficult to detect them.

Today, I would like to focus on two specific issues. One is how all this matters for the core business models in the financial industry; and the other is the implications for liquidity and market risk.

Very low interest rates for a protracted period can hurt banks’ intermediation capacity. They make maturity transformation and long-term lending less profitable, and they erode the franchise value of retail banking.

The good news is that large international banks are now on a stronger footing, as their profits have boosted regulatory capital ratios. Common Equity Tier 1 increased by 45% between 2011 and 2014 (Graph 3, left-hand panel). The less good news is that banks have yet to regain full market confidence. The price-to-book ratios of large banks from advanced economies are still hovering around 1, which is about half the ratio for non-financial firms, if not lower. These low valuations may reflect uncertainties about their business models, including doubts about the consequences of having to live with very low and flattened yield curves for a long time.

Moreover, banks’ exposures to interest rate risk and also credit risk have increased. Managing the financial stability risks of persistently low interest rates, and maintaining their risk sensitivity, is a



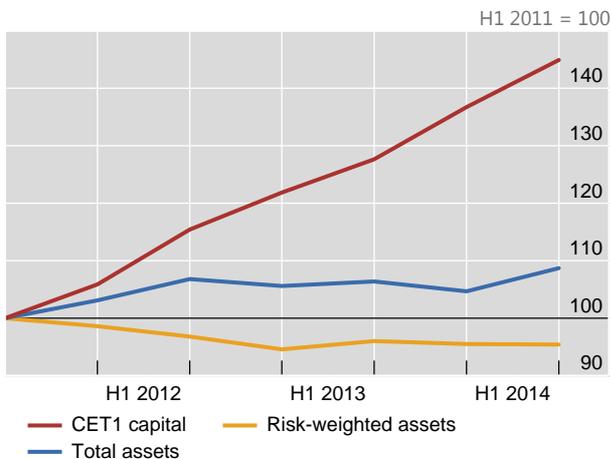
priority for these institutions. Regulators and supervisors are aware of the risks. Proper safeguards against interest rate risks in the banking book are one important element.

The impact on life insurers and pension funds, given the very long-term liabilities of these institutions, is even larger. In the face of ballooning liability values and declining yields, insurance companies have explored new, riskier investment strategies. In the investment portfolios of North American and European companies, the share of bonds rated below single-A rose from about 20% to 30% between 2007 and 2013 (Graph 3, right-hand panel). Increasingly, they have also offloaded risks onto their customers. Still, the pressure on their financial strength may persist.

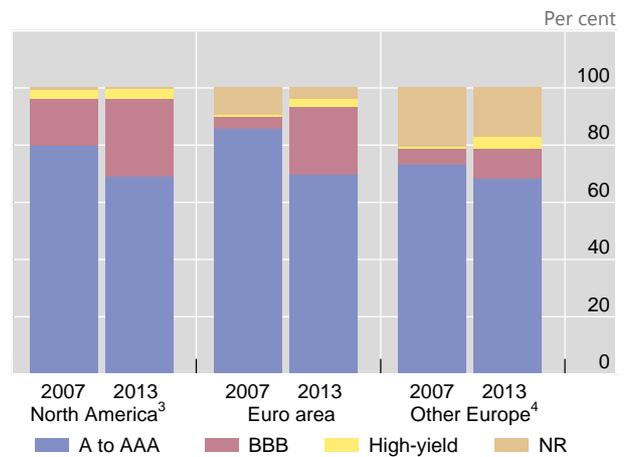
More bank capital, riskier insurance assets

Graph 3

Evolution in banks' regulatory position<sup>1</sup>



Credit risk<sup>2</sup>



<sup>1</sup> Reflects Basel III definitions. Internationally active banks with Tier 1 capital of more than €3 billion; CET1 = Core Equity Tier 1. <sup>2</sup> Investments by insurance companies by rating, as percentages of securities bearing credit risk. <sup>3</sup> Canada and the United States. <sup>4</sup> Denmark, Norway, Switzerland and the United Kingdom.

Sources: Basel Committee on Banking Supervision, *Basel III Monitoring Report*; SNL; BIS calculations.

Financial market conditions, combined with demographic changes, have put a heavy strain on pension funds. Funding ratios have deteriorated relative to pre-crisis levels on both sides of the Atlantic. For pension funds of large corporates, for instance, the typical funding ratio was about 80% at end-2014. Pension funds have responded to such shortfalls with more aggressive investment strategies, shedding exposures to traditional risks and loading up on alternative investments.

But the problem in ageing societies runs deeper. As the number of people worried about their retirement grows, low returns from savings, and the shift of investment risks onto households, may increase precautionary savings and weaken consumption. Analogously, funding deficits in corporate pension plans may affect companies rather like a debt overhang, constraining their capacity to make new investments. These changes in behaviour may challenge our traditional thinking of economic relationships in ways that need closer analysis.

The other aspect I would like to highlight is the change in the channels of financial intermediation. Capital markets and asset managers have been gaining prominence. Global assets under management reached \$75 trillion in 2013, more than doubling within a decade. And the sector is highly concentrated: the top 20 asset managers account for 40% of total assets.

Against the background of the pervasive search for yield by investors, one particular issue is risks arising from market liquidity. Bouts of market volatility over the past year have highlighted the fragility of market liquidity. Regulation has aimed at encouraging a better pricing and management of



liquidity risks. But stocks of debt have increased and trading volumes have decreased. Preventing liquidity illusions and strengthening market participants' resilience to liquidity shocks would make it less likely that such shocks could undermine system-wide liquidity in the first place. Policymakers can also provide incentives for maintaining liquidity – for example, by encouraging regular liquidity stress tests, and by helping to discourage perceptions that ample liquidity can be taken for granted.

These shifts raise at least two issues for policymakers. One is to gain an understanding of exactly how exposed asset managers are to liquidity and market risks. In particular, some practices may give rise to leverage-like behaviour, even if leverage itself, in the form of debt funding, may be relatively small. The question is whether and to what extent the resulting dynamics can create systemic liquidity problems. The other issue is to understand exactly what prudential policies – whether micro or macro – can and cannot do on their own: the financial stability implications of low interest rates for so long are too pervasive, affecting a broad range of markets and institutions.

## The international monetary and financial system has a blind spot

The fourth and final theme I would like to highlight is the shortcomings of the international monetary and financial system, and the potential for spillovers and spillbacks.

The appreciation of the US dollar in the past year is one of the most obvious signs of changing global adjustment patterns. It encapsulates several of the mechanisms that have created international spillovers.

One aspect is the interaction of monetary regimes. The monetary policies of core countries influence financial conditions elsewhere. This happens directly, because key currencies – above all, the US dollar – are extensively used internationally. And it happens indirectly, whenever countries resist an unwelcome appreciation of their exchange rate. As a result, policy rates are kept lower globally than standard yardsticks would suggest (Graph 4, left-hand panel).

Moreover, if countries resort to foreign exchange intervention, global bond yields are further compressed once the proceeds are invested in reserve currency instruments. Central banks and other public entities now hold around 40% of the stock of government bonds in major reserve currencies. This has increased the sensitivity of world bond markets to central bank actions (Graph 4, right-hand panel).

The other aspect is the interaction of financial regimes. Capital moves freely across currencies and borders. This has generated waves of easy financing in international markets. We have on various occasions discussed the concept of "global liquidity". Hyun Shin will elaborate on these financial interactions and the need to consider spillovers and feedback in his presentation in a few minutes.

Flexible exchange rates are an important line of defence, along with strong fundamentals, sound macro policies and deep and resilient financial markets. But flexible exchange rates cannot fully insulate countries from the international impact of monetary policies in large economies. Nor can they fully protect countries from common global factors that are playing an increasing role in domestic financial conditions, such as the changes in risk aversion of large asset managers.

The current situation illustrates the existence of a blind spot in the functioning of the international monetary and financial system. The system is unable to constrain the build-up or transmission of international financial imbalances. In essence, this element of inherent instability reflects the combination of policies with a too narrow domestic focus in a world of free capital flows.

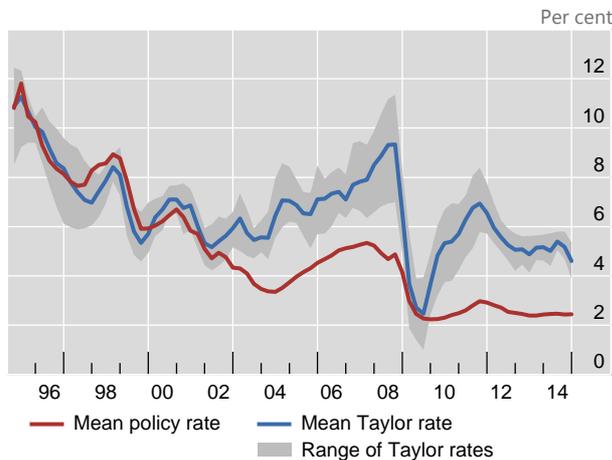
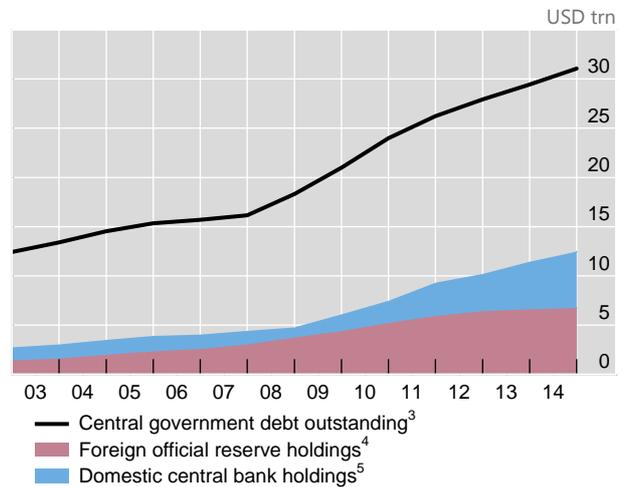
A specific question in this regard is whether we might be underestimating the size of potential spillbacks, in particular from EMEs. Today, EMEs produce half of the world's output in purchasing power



parity terms. EME borrowers account for 20% of the foreign exposures of banks reporting into the BIS banking statistics, and for 14% of all outstanding debt securities. All these are very significant quantities.

## Spillovers push global interest rates down

Graph 4

Taylor rule: global<sup>1</sup>Official holdings of government securities<sup>2</sup>

<sup>1</sup> Weighted averages based on 2005 PPP weights. For details, see BIS, *85th Annual Report*, Graph V.3. <sup>2</sup> Covers the euro area, Japan, the United Kingdom and the United States; for the euro area, Japan and the United Kingdom, converted into US dollars using end-2014 constant exchange rates. <sup>3</sup> For the United States, total marketable Treasury securities, excluding agency debt. <sup>4</sup> For euro- and yen-denominated reserves, 80% is assumed to be government debt securities; for dollar-denominated reserves, as reported by the US Treasury International Capital System; for sterling-denominated reserves, holdings by foreign central banks. <sup>5</sup> For the euro area, national central bank holdings of general government debt and ECB holdings under the Securities Market Programme.

Sources: ECB; Bank of Japan flow of funds accounts; Federal Reserve flow of funds accounts; IMF, *International Financial Statistics*, *World Economic Outlook* and COFER; UK Debt Management Office; US Department of the Treasury; CEIC; Consensus Economics; Datastream; national data; BIS calculations.

What could be done? A first step would be to take financial factors more fully into account in domestic policy frameworks. This should help reduce potential spillovers at the source.

But there is a case for going further, and seeking to better internalise international spillovers and spillbacks and the interactions of policies. This step is much more challenging since we have yet to develop an analytical framework that allows us to properly integrate these factors into monetary policy.

And there is certainly scope for more international cooperation, not in the sense of formally coordinating policy decisions – that's not the point here – but in the sense of sharing information and reaching a common understanding of the externalities of domestic policies and the dynamics of spillovers and spillbacks.

In other words, there is a case for exercising enlightened self-interest. That means, it is good to keep your own house in order – indeed, it is a priority. But it is even better to help keep the neighbourhood in order – because, ultimately, it is good for you and good for everyone.

Beyond enlightened self-interest, there is of course the question of whether we will need to develop some new global rules of the game to help instil additional discipline in national policies. But that's perhaps a question for another day.



## Conclusion

Let me conclude. We should not accept the unusually low interest rates as the new normal. If we do, we run the risk of validating the perception that they are the only way to deal with the current challenges. This could entrench the weakness, make any normalisation even more difficult and, no less importantly, reduce policymakers' room for manoeuvre in case of new shocks.

Rather, there is a case for drawing on a different perspective – one that is longer-term, macro-financial and global. With such a perspective, the costs of the current unbalanced policy mix become more evident. Unless the underlying problems are addressed head-on, short-term gain may be purchased at the price of long-term pain – in the form of misallocated resources, damaging financial booms and busts, a weaker financial sector, and aggravated flaws in the international monetary and financial system.

All this means placing greater emphasis on reforms that remove impediments to growth, support an efficient reallocation of resources and restore productivity growth. This would also ease the burden on monetary policy and help pave the way towards a steady normalisation process.

Let me finish with a final thought regarding our incomplete knowledge of the dynamics in financial markets and their interaction with the real economy. If we are to develop this longer-term, macro-financial and global perspective, we will need to further improve our analytical tools: to better understand the interaction of domestic monetary and financial regimes; to fully appreciate the intended and unintended consequences of domestic policy actions; and, eventually, and ultimately, to improve our policy frameworks.