Mark Carney: Three truths for finance

Remarks by Mr Mark Carney, Governor of the Bank of England and Chairman of the Financial Stability Board, at the Harvard Club UK Southwark Cathedral dinner, London, 21 September 2015.

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> *"All England is an American shrine, full of rich records of the makers of their nation."*[1]

None more so than glorious St Saviour's – Southwark Cathedral – a few minutes south of the river from here.

Its connection with Harvard makes it something of an American Mecca.

For at St Saviour's was baptised a Southwark butcher's son who became benefactor to the university that would bear his name.

John Harvard would doubtless be delighted with what has become of the 320 volumes and £800 he bequeathed to posterity: a college founded for the avoidance of leaving "an illiterate ministry to the churches, when our present ministers shall lie in the dust".

From that bequest sprung one of the world's leading universities. A community dedicated to its motto: *Veritas* – truth; the pursuit of truth in the sciences, humanities, even economics. Truth to create a better world.

But recall Pilate's question that has echoed down through the centuries from the pulpits of Southwark Cathedral to Memorial Church, *"Truth? What is truth?"*

Indeed, upon arriving at Harvard, students and visitors are confronted with a curious truth, or rather, three ***un***truths.

In Harvard Yard sits a statue of John Harvard, seated on a bronze throne, commemorating 1638, the year of the university's founding.

Tour-guides relish in pointing out that, in fact:

No-one knows what John Harvard looked like, so it is unlikely to be a great resemblance of him;

The college wasn't founded in 1638, but two years earlier;

And it wasn't founded by John Harvard, but by the Court of the Massachusetts Bay Colony, which first voted to set up the university.

The "Statue of the Three Lies" is part of Harvard legend.

The Three Lies in question are harmless fun. But they should remind us how deeper untruths can persist, embodied in monuments or sustained by conventional wisdom and mores.

We gather this evening almost seven years to the day that the failure of Lehman Brothers shattered conventional wisdom and laid bare three lies about finance.

Unlike the statue's three lies, those falsehoods have had lasting consequences.

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1 So wrote F A Mackenzie, a Quebec-born writer and journalist who was the Daily Mail's travelling correspondent in the Far East in the early 1900s. See Mackenzie, F A, "American shrines in Britain", Chapter XLV in Hammerton, J A (ed.) (1926), *Wonderful Britain: its highways, byways and historic places*, Vol. 2.

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Lie I: "This time is different"

The first lie is the four most expensive words in the English language: "This Time Is Different."[2]

This misconception is usually the product of an initial success, with early progress gradually building into blind faith in a new era of effortless prosperity.

It took a revolution in macroeconomic policy to help win the battles against the high and unstable inflation, rising unemployment and volatile growth of the 1970s and '80s.

In no small part due to my predecessors, particularly Lord King, the stagflationary threats in the UK were tamed by a new regime for monetary stability that was both democratically accountable and highly effective.

Clear remits. Parliamentary accountability. Sound governance. Independent, transparent and effective policy-making. These were the great successes of the time and their value endures today.

But these innovations didn't deliver lasting macroeconomic stability. Far from it.

Price stability was no guarantee of financial stability. An initially healthy focus became a dangerous distraction. Against the serene backdrop of the so-called Great Moderation, a storm was brewing.

Debt was building rapidly, with total non-financial debt in the G7 doubling to 300 per cent of GDP between Prime Ministers Thatcher and Brown. In the US and UK, this was led by massive increases in household debt, the likes of which were last seen during the Great Depression.

Several factors drove this debt super-cycle including demographics and the stagnation of middle-class real wages (itself the product of technology and globalisation). In the US, households had to borrow if they wanted to increase consumption. "Let them eat cake" had become "let them eat credit."

Financial innovation made it easier to do so. And the ready supply of foreign capital from the global savings glut made it cheaper.

Most importantly – and this is the lie – complacency among individuals and institutions, fed by a long period of macroeconomic stability and rising asset prices, made this remorseless borrowing seem sensible.

After the reckoning, the ensuing crisis and feeble recovery would look very much like all others that have followed prolonged credit booms.

Policymakers quickly disassociated themselves from the received wisdoms of the Great Moderation and scrambled to re-learn the lessons of the Great Depression. That process continues today as central banks contemplate current parallels with the late 1930s.

The aftermath of the global credit crunch has been severe. Global output is now ten percent below its pre-crisis trend, and with global nominal growth running two percentage points short of its pre-crisis average, the challenge of deleveraging remains acute.

These challenges appear more pressing as some are now questioning their faith in another new era – China's glide path to global economic hegemony. China's economic miracle over

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[2] For an extensive survey, see Reinhart, C and Rogoff, R, (2009), *This time is different: eight centuries of financial folly*, Princeton University Press.

the past three decades is extraordinary, and it has helped to lift billions of people around the world out of poverty. However, the Chinese economy's post-crisis performance has been bolstered by a large build-up of debt, which has more than doubled to reach almost 200% of GDP.

As had been the case in the advanced world, the Chinese debt boom owed much to an explosion of shadow banking, which relates to the second lie of finance.

Lie II: "Markets always clear"

Beneath the new era thinking of the Great Moderation lay a deep-seated faith in the wisdom of markets. Policymakers were captured by the myth that finance can regulate and correct itself spontaneously. They retreated too much from the regulatory and supervisory roles necessary to ensure stability.[3]

That "markets always clear" is the ***second*** lie, one which gave rise to the complex financial web that inflated the debt bubble.

In markets for goods, capital, and labour, evidence of disequilibria abounds.

In goods markets, there is 'sluggishness everywhere'. Left to themselves, economies can go for sustained periods operating above or below potential, resulting, ultimately, in excessive or deficient inflation.

Yet efficient market forces 'should' bring about changes in prices sufficient to equate demand with potential, leaving inflation as a purely monetary phenomenon.

In labour markets, there is 'rigidity everywhere'. Rather than fluidly adjusting to equate the demand for labour with its supply, periods of deficient labour demand can persist, sustaining mass unemployment and joblessness.

Yet efficient market forces "should" eliminate these disequilibria by having wages adjust to ensure full employment always and forever.

Monetary Policy is not only a response to these rigidities; it is made effective by them.

In capital markets, there is 'momentum everywhere'. From bonds to equities to currencies and commodities, past winners seem to enjoy further winning streaks, while past losers persist in trailing behind.[4]

Yet efficient market forces 'should' eliminate these predictable movements before they become apparent.

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The belief that markets always clear had two dangerous consequences.[5]

First, if markets always clear, they can be assumed to be in equilibrium; or said differently "to be always right." If the received wisdom is that the market is efficient, then bubbles can neither be identified nor their potential causes addressed. Such thinking dominated the (non)reaction to US subprime and housing booms.

Consider that many market participants find it more profitable to anticipate each other's behaviour than to divine the fundamentals.

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3 For a review of this broader phenomenon, see Padoa-Schioppa, T (2010), "Markets and government before, during and after the 2007-20xx crisis", The Per Jacobsson Lecture, June.

4 Asness, C, Moscowitz, T and Pedersen, L (2013), "Value and momentum everywhere", Journal of Finance, LXVIII, No. 3, June.

5 See also Turner, A (2010), "Market efficiency and rationality: why financial markets are different", Lionel Robbins Memorial Lectures, London School of Economics.

The game of guessing what everyone else is guessing (everyone else is guessing…) was familiar to Keynes who observed that too often investors "devote [their] intelligences to anticipating what average opinion expects the average opinion to be".[6] This disconnect between decisions and fundamentals feeds market volatility and capital misallocation.

Such "beauty contest" dynamics afflict not only sophisticated investors, but also many mortgage lenders and homebuyers, particularly during a "new era".

If house prices can only go up, it's possible to borrow large multiples and pay off future obligations with the capital gains that will almost surely follow.

Such "rational" behaviour fuelled the credit binge that ultimately led to the global crisis.

Second, if markets always clear, they should possess a natural stability. Evidence to the contrary must be the product of market distortions or a result of incomplete markets.

Much of financial innovation springs from the logic that the solution to market failures is to build new markets on old markets.[7] Progress through infinite regress.

During the Great Moderation, such thinking became an organising principle for financiers and policymakers. The latter pursued a light touch regulatory agenda in quest for the perfect world of complete markets first described by the economists Arrow and Debreu.[8]

Their world imagines self-interested, atomistic agents, coolly calculating odds over all future possible states of the world, writing and trading contracts with each other, all frictionlessly enforced, all achieving mutually beneficial – indeed socially *optimal* – outcomes.

Of course, markets only clear in textbooks. In fact people are irrational, economies are imperfect, and nature itself is unknowable.

When imperfections exist (which is always), adding markets can sometimes make things worse.

Take credit derivatives, which were supposed to complete a market in default risk and thereby improve the pricing and allocation of capital.

Financial alchemy seemed to have distributed risk, parcelling it up and allocating it to those who wanted most to bear it.

However, the system had only spread risk, contingently and opaquely, in a way that actually ended up increasing it. Risk ended up concentrated on the balance sheets of intermediaries that were themselves capital constrained. With the fates of borrowers and lenders tied together via hyper-globalised banks and markets, problems at the core spread violently to the periphery.

A truth of finance is that the riskiness of an asset depends on who owns it. When markets don't always clear, the ultimate owner may be surprised to find what they do own. When that surprise is – *or is thought to be* – widespread, panic ensues.

The impossibility of completing markets was not the only practical problem with the pre-crisis approach. Even if markets were perfect, nature itself is unknowable.

Recall that the Arrow-Debreu world relies on people being able to calculate the odds of each and every possible scenario.

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6 Keynes, J M (1936), Chapter 12.

7 But economists of a more nuanced persuasion pointed out as far back as the 1950s that this logic is flawed. See Lipsey, R and Lancaster, K (1956), "The general theory of the second best", Review of Economic Studies, 24(1).

8 Arrow, K and Debreu, (1954), "Existence of an equilibrium for a competitive economy", Econometrica, 22 (3).

Then they can trade contracts and insure each other against risks they are unwilling to bear.

A moment of introspection reveals the absurdity of these assumptions as a description of the actual world.

More often than not, even describing the universe of possible outcomes is beyond the means of the mere mortal, let alone ascribing subjective probabilities to those outcomes.

That is genuine uncertainty, as opposed to risk, a distinction made by Frank Knight in the 1920s.[9] And it means that market outcomes reflect individual choices made under a ***pretence*** of knowledge.

The swings in sentiment that result – pessimism one moment, exuberance the next – don't reflect nature's odds, but our own assessments of them, inevitably distorted by Keynesian "animal spirits".[10]

In the end, belief in the second lie that "markets always clear" meant that policymakers didn't play their proper roles in moderating those tendencies in pursuit of the collective good.

Lie III: "Markets are moral"

Despite these shortcomings, ***well-managed*** markets can be powerful drivers of prosperity.

By financing firms to hire, invest and expand, they drive growth.

By opening up cross-border trade and investment they create new opportunities for businesses and savers.

By transferring risks to those most willing to bear them, they help households and businesses insure against the unexpected.

But if left unattended, markets can be prone to excess and abuse.

That is particularly so in financial markets, where means and ends too easily become conflated. Value becomes abstract and relative. And the pull of the crowd can overwhelm the integrity of the individual.

Lie three is that "markets are moral" – that financial capital can take for granted the social capital necessary for markets to fulfil their promise.

Consider the example of fixed income, currencies and commodities markets, which historically have relied heavily on informal codes and understandings.

That informality was well suited to an earlier age. But as markets innovated and grew, it proved wanting.

Markets need to retain the consent of society – a social licence – to be allowed to operate, innovate and grow.

Repeated episodes of misconduct (such as the Libor and FX scandals) have called that social licence into question.

To restore it, we need to rebuild fair and effective markets.

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9 Knight, F (1921), *Risk, uncertainty and profit*, Signalman Publishing.

10 In Keynes (1936), Chapter 12, he wrote: "Even apart from the instability due to speculation, there is the instability due to the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than on a mathematical expectation, whether moral or hedonistic or economic. Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits – of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities." Keynes, J M (1936), *The General Theory of Interest, Employment and Money*, Palgrave Macmillan.

Not markets that collapse when there is a shock from abroad.

Not markets where transactions occur in chat rooms.

Not markets where no one appears accountable for anything.

Real markets are professional and open, not informal and clubby. Their participants compete on merit rather than collude online.

Real markets are resilient, fair and effective. They maintain their social licence.

But real markets don't just happen; they depend on the quality of market infrastructure.

Robust market infrastructure is a public good in constant danger of under-provision because the best markets innovate continually. This inherent risk can only be managed if all market actors, public and private, recognise their responsibilities for the system as a whole.

True lies

So this time is the same. Markets don't always clear. And we can suffer from their amorality.

So what to do with such knowledge? And how to retain it?

The longer you are a central banker, the more careful you become in your forecasts. "Irreducible uncertainty" and "multiple equilibria" are occupational hazards; so if you must predict the future, you are tempted to hedge heavily and must modify constantly.

But in two areas I'm confident: the Three Lies of John Harvard will continue to be revealed for years to come, and with time, the Three Lies of Finance will come to enjoy widespread credulity again.

To resist their siren calls, policymakers and market participants must bind ourselves to the mast. That means building institutional structures that make it harder to act on the lies.

Over the past seven years great strides have been made.

Take "this time is different".

To guard against future complacency, policy frameworks have been substantially overhauled. The Bank of England has been given formal responsibility to maintain financial stability and has considerable powers to promote it. In anticipation of problems, we have increased bank capital and tightened mortgage standards. We are using our monetary policy and macroprudential policy tools in concert, so that a low for long interest rate environment can promote both price and financial stability.

Moreover, when next time proves no different, the financial intermediaries at the core of the system will be on a substantially stronger footing.

Their capital requirements have already increased ten-fold and their liquid assets are up four-fold. Their trading assets are down by a third and intra-bank exposures by two-thirds.

Though we cannot hope to eliminate systemic risk altogether, reform is ending Too Big To Fail for individual institutions. The combination of eliminating the implicit public subsidy and increasing capitalisation will reduce distorted pricing by banks and shift activity to market based finance. Choice and competition – real market forces – are increasing.

Recognising that "markets do not always clear" has spurred several initiatives.

Reform is improving risk transfer by untangling the complex web of derivatives and creating simple, comparable and transparent securitisations.

The Bank is helping to change the plumbing of markets so that they are more resilient to the failure of individual counterparties, and we are working to understand better the dynamics of market liquidity given changes to regulation, trading strategies and the rise of asset management.

The Bank has also overhauled the way we provide liquidity by expanding the range of collateral as well as the number and types of counterparties. And recognising that the instability of markets may mean they occasionally seize up, the Bank now stands ready to act as a Market Maker of Last Resort.

And the third lie? In order to help restore trust and fairness, financial reform is re-building ***real*** markets.

Earlier this year, we published the *Fair and Effective Markets Review*. It identified multiple root causes of misconduct in FICC markets that contributed to an ethical drift and an abdication of responsibility.

A good start has been made in addressing these shortcomings including through changes to compensation regimes, clarifying the responsibilities of senior management and overhauling the structure of some markets to reduce opportunities for abuse.

But more is needed.

Individuals need to be held more to account for their actions. Doing so will require new common standards, cast in clear language, better training and higher qualifications, and ways to ensure that when employees are fired, their history is known to those who consider hiring them.

Firms must take responsibility for the system by improving the understanding of acceptable trading practices. The industry has already taken the lead by establishing a new FICC Markets Standards Board that will establish common standards of market practice that are well understood, widely followed and keep pace with markets.

Regulators need to take a tough line on market abuse, including extending criminal sanctions to every corner of currency and fixed income markets.

And to consign the Age of Irresponsibility well and truly to history, London, as the largest global market, must lead the development of global standards.

With the main building blocks of reform in place, now is the time to take stock. It's vital that we – public authorities and private market participants – work together to reverse the tide of ethical drift. This cannot be a one-off exercise; we need continuous engagement so that market infrastructure keeps pace with market innovation.

This November, the Bank of England will hold an Open Forum at the Guildhall.

The programme, published tomorrow, has been developed not just by policymakers and market participants, but also representatives of well-known companies, trade unions, academia, the media and civil society.

An online portal for registration will open tomorrow morning, with attendance determined shortly thereafter by a ballot.[11] Debate on social media is already underway,[12] and there will be live webcasts available on the day. The Open Forum is open to everyone, because the UK's markets matter for everyone.

Our goal is to discuss the prospects for market functioning, where regulations might overlap or conflict, and whether enough has been done to build the real markets the UK deserves. Markets that merit social licence and reinforce social capital.

In the best traditions of Harvard, we should use the compass of *Veritas*, so that, when we too are dust, others can build on our legacy, as so many have on that of Southwark's John Harvard.

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[11] See www.boeopenforum.co.uk.

[12] See #BoEOpenForum.