



BANK OF ENGLAND

# Speech

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## The UK Economy Post Crisis: A Series of Unfortunate Events?

Speech given by

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There is a well-known myth – much loved in management schools – that if you put a frog in boiling water it will jump out; but if you put it in cold water and bring the water very slowly to the boil, its nervous system will not register the temperature change and it will be boiled.

I am assured by zoologist friends that it is indeed a myth. Frogs sense gradually changing temperatures like the rest of us. But it is an instructive parable. Sometimes when you focus on incremental changes you can forget the big picture until the water has become very hot – or very cold.

The Monetary Policy Committee (MPC) meets every month. We assess a very wide range of changing data – for the world and the economy is constantly changing. The past usually becomes clearer but the future is always uncertain. So as a policymaker occasionally it is worth standing a long way back and asking “What did I expect to happen last year and the year before? And what can I learn from what actually happened?”. And, crucially, “Have I been lulled by the ever turning kaleidoscope of data and missed a change in the big picture?”.

So tonight I want to stand back and review how I saw the big picture two years ago and how what has happened since has changed my view. And what evidence I am looking for to confirm my view of the likely future.

### **Slow healing story**

Since the Great Recession of 2008/9 we have had the slowest recovery in our modern history – slower than the recovery from the Great Depression. For those of you familiar with children’s literature, one title for the story of the last eight years is “a series of unfortunate events”.<sup>1</sup>

In this big picture story, the UK economy was hit by a very unfortunate event, a massive financial crisis, leading to the deepest recession for 80 years. Three years later, as it is just beginning to recover, the economy is hit again by the effects – via confidence and financial market and trade – of the euro-area crisis. Three years on the economy finally picks itself up with a burst of strong growth. Unemployment falls at the fastest rate for 40 years, confidence recovers and business investment starts to grow strongly. But pay growth and hence incomes respond much less, reflecting in part the fact that productivity growth does not recover. And, in the latest chapter, just as we see signs of income growth and productivity growth coming back into life, a deflationary shock from a collapse of oil prices, which should boost the economy, allied to a slump in emerging markets, pulls us back and the economy begins to slow. Markets worry that the next chapter will be another unfortunate event.

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<sup>1</sup> ‘A Series of Unfortunate Events’ is a series of children’s novels written by Daniel Handler (using the pen name of Lemony Snicket).

I would call this the ‘slow healing’ story. Recoveries from financial busts tend to be slow and painful. Indeed, that is why it is worth doing all that you can – in advance and in good times – to avoid financial crises. The academic literature suggests it takes an average of eight years to recover.<sup>2</sup> If in the meantime you are hit by other bad surprises it can take longer. And in this story most of the events are related. As many commentators have observed, as well as country-specific factors, many of the stresses now seen in emerging markets are knock-on effects, if not from the financial crisis itself, then from the responses to it in the post-crisis recession.

One can tell a version of this slow healing and unfortunate events story for the world economy as well as for the UK. You can see that reflected in the IMF’s forecasts for world growth. In every one of the last five years the world economy has underperformed the forecast.<sup>3</sup> Indeed it has pretty much become an annual event that the world economic growth forecast is downgraded as stresses emerge somewhere in the world economy or there are serial disappointments on pay and productivity. This is not to denigrate the IMF’s forecasters. You see the same effect in the Bank’s own forecasts and in private sector forecasting. For example, the Bank’s growth forecasts made in 2010 were derailed by the euro-area crisis. These outcomes are a combination of not understanding at the outset how slow the healing process from the 2008 crisis would be and subsequent unforeseeable and unfortunate events.

### **Secular stagnation story**

There is another rather different story however, one more reminiscent of our friend the mythical boiled or frozen frog. In this other world, we are not on a slow healing path, subject to a series of unfortunate events. Rather, there are deep secular and structural forces pushing down on our economies. These began to have an impact before the financial crisis. But their effect was masked somewhat by stimulative effects of the financial sector bubble as it inflated and was only exposed in the post-crisis world. In this story there is recovery from the crisis, of course, but it is recovery to economies with both considerably weaker growth potential and considerably greater vulnerability to shocks. We are in a ‘secular stagnation’ world but have not fully woken up to it.

There are different hypotheses as to why we might be in such a world. One is that we are stuck in an era of very low demand because there are more savers than opportunities to invest. This is due to fundamental factors such as demographic changes, inequality and preferences for low-risk assets. When the supply of savings exceeds demand for borrowing the price – i.e. the natural real interest rate – goes down.

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<sup>2</sup> This finding refers to recovery in real per capita GDP to its pre-crisis level rather than to making up lost output relative to pre-crisis trends. See Reinhart, C.M., and Rogoff, K.S. (2014) ‘Recovery from financial crises: evidence from 100 episodes’, NBER Working Paper No. 19823. Reinhart and Reinhart (2015) report that ten years after the fifteen worst financial crises of the second half of the 20th century, the median level of GDP per capita was 15% below the level predicted from the trend of the ten years prior to the crisis, which is roughly where the UK is currently. See Reinhart, C. M., and V. R. Reinhart (2015) ‘Financial crises, development, and growth: a long-term perspective’, The World Bank Economic Review.

<sup>3</sup> Refers to forecasts made for the first year after the April IMF WEO in question; for example the April 2010 WEO forecast for 2011 relative to the final outturn data.

If this natural real interest rate is pushed down below zero and held there by this imbalance between supply of savings and demand for borrowing, central banks can't push demand back up and economies remain stuck. In this world, neither central banks nor the private sector can easily break the cycle; the government has to step in to borrow massively to invest thus correcting the imbalance of savers and borrowers and pushing the natural interest rate back up.

Another, somewhat different take, is that we are stuck in an era not of low demand but of low supply growth. In this view, productivity growth slowed in the 1970s after the benefits of the Second Industrial Revolution had finished working through. And, despite the manifest technological developments, such as ICT, technological change has not since had an equivalent impact on productivity. Or, as Peter Thiel said: 'we wanted flying cars, instead we got 140 characters'. This is a world in which it is harder for policy to boost productivity and growth.

In these secular stagnation views of the world, the water around us was getting colder before the crisis and has become colder since. But we have not noticed it. And it is this, rather than the slowness of the healing process and the aftershocks of the crisis, that explains the serial disappointments in economic growth.

I have set this out as two very different stories about what is happening – 'slow healing' and 'secular stagnation'. Of course, given enough unfortunate events and enough repeated disappointment on the pace of recovery, they could look and feel the same for a long time. There is much that is common to them. In both stories for a period of time, productivity is lower, interest rates stay low for long and pay and income growth is weak. But these effects are longer-lived in a secular stagnation world. It is quite possible that we are in some combination of both worlds. But I think it is important, especially when thinking about policy, to distinguish the different forces that drive these respective stories about the world.

## **The UK picture**

Which brings me to the UK. When I joined the MPC over two years ago, the data seemed to point quite firmly towards the healing story. The UK was experiencing a burst of growth, driven by the return of credit and confidence and pent-up demand from the recession and slow recovery. Many commentators were arguing that the Bank was in danger of getting behind the curve; these arguments grew louder as unemployment fell at its fastest rate for 40 years. The Bank's forecasts two years ago suggested that growth would fall back a touch, but only a touch, to around its pre-crisis average of 0.7% per quarter. Our forecast for growth in 2014,15,16 was 3.4%, 2.7% and 2.9% respectively.

The reality has confirmed part but only part of that story. Over the course of 2014 and 2015 growth drifted down, slowly but consistently and by more than forecast. The economy grew at around 2% annualised in the last quarter of 2015 – around 0.7 percentage points lower than the February 2014 forecast; growth in 2015 was 0.2 percentage points lower. The Bank's most recent forecast is for growth to pick up slowly over the

next few years to 2.5%. That is less than the average growth rate of nearly 3% in the decade before the crisis but around the average growth rate in the last 60 years. It will, according to the OECD, be the fastest growth rate among G7 economies this year.

Over the period, inflation has been pushed down to around zero by the strength of sterling and by the very sharp fall in the oil price. I hesitate to describe the oil price fall as an 'unfortunate event'. Much of the fall is the result of an increase of supply, the product of the oil investment cycle that accompanied oil prices staying at over \$100 per barrel for much of the last ten years. That will have boosted consumption and supported growth in oil-consuming countries like the UK. But the speed and size of the fall has made the shock to inflation very abrupt and exposed weaknesses in oil-producing economies. And more worryingly some of the fall over the last 18 months has been due not to an increase in supply but rather to slowing demand in emerging markets especially China. This will have had an adverse effect on world growth.

There are continued signs of strength in the UK economy. Consumer confidence is near record levels and business investment intentions are strong. Housing market transactions and investment are picking up. Credit has picked up and is growing around the rate of GDP. On pre-crisis metrics, there are signs of tightening in the labour market. Unemployment is now at 5.1% – its lowest level since 2006. Job-to-job flows have picked up sharply and are nearly at pre-crisis levels and the vacancy to unemployment ratio – a measure of labour-market tightness – is at its highest level since 2005.

But, some things have still not improved as we had hoped. Despite being stronger in the middle of 2015, pay growth has now fallen back to the 2% range – roughly its average since the crisis. And forward-looking surveys do not suggest any significant recovery in pay growth is around the corner.

Productivity growth similarly showed signs of picking up in the middle of 2015 but has dropped back to annual growth of around a quarter of a percentage point at the end of 2015. Unit labour costs have picked up a bit over the last year. The picture is not completely consistent across different measures but most measures are subdued or expected to fall in the near term.

Meanwhile, risks from the rest of the world economy have shifted and increased. Boosted by monetary policy, the euro area has recovered over the past two years, albeit to low rates of growth. The stresses around Greece and its creditors have so far been managed. But the risk to the UK from a more severe hard landing in emerging markets has grown. Emerging market economies now account for more than half of global GDP and they accounted for more than 95% of world economic growth between 2008Q1 and 2011Q4.<sup>4</sup> They are now facing a set of inter-related challenges, including high and growing levels of debt to GDP, slowing economic growth, falls in commodity prices which has hit commodity exporters and a strong US dollar.

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<sup>4</sup> Emerging market economies now account for 60% of global GDP in purchasing power parity terms and around 53% at market exchange rates.

## The healing process

How should we read this picture? Is it still slow healing, just slower and hit by more adverse events than we expected? Or, like our friend the frog, has the gradual nature of the drift down in prospects and the fact that the deflationary shock looks so clearly to have been externally generated lulled us into missing some more fundamental shift? Is the water around us much colder than we thought?

I think there is still some mileage in the slow healing story to explain the drift down in UK growth and the failure of pay and productivity to recover. One cannot repair quickly the damage to the global economy from the worst international financial crisis for 80 years. Some, but not all, of the effects of the financial bust and deep recession have passed. But some have not. I want to look now at some of these effects and headwinds that may be holding us back.

First, there are signs that there may still be some scarring effects in the labour market. The amount of average weekly leave taken – a sign of worker confidence – has recovered sharply over the last two years but remains somewhat off its pre-crisis level. And long-term unemployment and the proportion of part-time workers who say they want full-time jobs remains elevated. To the extent that workers do not yet feel confident in asking for a pay increase, that might be one reason why wage growth has been relatively unresponsive to the sharp fall in unemployment.

And we may still be seeing some cyclical effects from changes in the composition of those in work; low skilled, low paid workers tend both to lose their jobs early in a recession and regain employment late in the recovery. The increases in employment over the last year or so have added proportionally more younger and lower skilled workers and hence pushed average pay down.

Second, on top of some of these scarring effects, the deflationary shock from lower energy prices does seem to be having some effect on pay. The Bank's Agents have reported that low inflation is restraining pay awards. And the resulting increases in real disposable income may have made workers less willing to press for higher pay. Medium term inflation expectations appear to remain anchored and consistent with the inflation target. But the current very low rate of inflation may have made it less necessary for employers to increase pay now especially given low productivity. As the deflationary shocks pass, any dampening effect of inflation on pay should fade, providing inflation expectations remain well anchored. Migration may have had some role in restraining wage growth too, though evidence suggests that it has had only a small negative impact on average British wages.<sup>5</sup>

Third, the economy is facing fiscal headwinds as the Government repairs the damage to the public sector balance sheet from the crisis and the deep recession. This drag on growth will continue for a number of

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<sup>5</sup> See Nickell, S. and Saleheen, J. (2015) 'The impact of immigration on occupational wages: evidence from Britain', Bank of England Staff Working Paper No.574.

years. In the decade prior to the financial crisis, government spending on average contributed 0.6 percentage points per year to GDP growth – over 2016-2018, the MPC expect it to contribute 0.1 percentage points on average.

Fourth, headwinds from weakness in the world economy are also likely to endure. Net trade detracts from growth in every year of the MPC's forecast for UK growth.

Overall, the healing story is for me, the story behind the MPC's latest forecast to which I subscribe. Growth picks up slowly over the next few years, driven by domestic consumption and business and housing investment. As the deflationary shocks from oil prices and the past strength of sterling wane, the closing of the output gap and consequent domestic cost pressures push inflation slowly back up to target. This forecast is premised on a market yield curve in which interest rates rise gradually though to levels substantially below their pre-crisis average. The forecast recognises the risks to this picture from another unfortunate event in the form of a harder landing in emerging markets.<sup>6</sup>

### **Secular signals?**

But while one can still explain the current conjuncture this way, there must be less confidence in the healing story than when I first arrived on the MPC.

We have already incorporated a weaker structural picture into our thinking. A few years ago we were expecting a period of above trend productivity growth to recover some of the productivity growth lost during the Great Recession. We no longer expect any catch-up of the lost productivity growth and indeed, productivity growth in our latest forecast only recovers to 1.8%, compared to 2.7% between 1950-2007 and 2.2% in the decade before the crisis. This downgrading of prospects is true more broadly – according to the IMF, potential output growth in advanced economies fell from 2.2% over the period 2001-07 to 1.5% over 2013-14.

And the natural rate of interest probably remains around, or a touch below, zero. This is the unobservable underlying real interest rate that is consistent with inflation at target and economic activity at its potential. One cannot observe this 'natural rate' directly; it has to be estimated and that is difficult to do with precision. In the crisis, estimates of this rate were deeply into negative territory, which is why the MPC cut Bank Rate to 0.5% and launched quantitative easing (QE). The MPC's asset purchases can be thought of as equivalent to reducing the level of Bank Rate, since both policies provide stimulus to activity and boost inflation. If you adjust real Bank Rate to factor in the effects of QE, the resulting, 'adjusted', rate is probably below zero at

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<sup>6</sup> The GDP projections in the February 2016 forecast include a downside skew, reflecting the possibility that global activity and, in particular, growth in emerging economies may disappoint.

present.<sup>7</sup> Our latest forecast is consistent with the natural rate and adjusted Bank Rate recovering slowly. But it is very much part of our thinking that the natural rate of interest will not rise to pre-crisis levels which is why we believe increases in Bank rate will be both gradual and limited.

Moves in financial markets may also be signalling nervousness in the slow healing story. Financial markets drifted down in the second half of 2015 and they fell quite sharply in the first months of this year. Some of these moves have recovered a bit in the last week or so. But nevertheless current market signals seem to be suggesting a structurally weaker economic picture. UK 10-year real yields are negative. And yield curves are flat as far as the eye can see – the 5-year point on the UK forward market interest rate curve has fallen by around 0.8 percentage points to 1% in the last month.<sup>8</sup> It is difficult to identify any really major economic news in 2016 that might underlie this. Rather it may be that markets are shifting to a new perception of the world economy and risks, and of policy-makers' ability to respond to future challenges.

### **Policy implications**

What does all of this mean for policy? While the water has not become as warm as two years ago I thought it would, I do not yet see enough evidence that we have missed some shift to a permanently colder environment. My central expectation remains that as the effects of the crisis continue to heal and as the deflationary effects of past sterling strength and oil price falls wane, domestic cost pressures will gradually push inflation back to target.

I will be looking to see that consumer confidence remains robust and business intentions remain strong. I will be watching to see if pay growth picks up as disinflationary pressures fade and if productivity growth accelerates as a result of the pick-up in investment and of the tightness of the labour market. And I will be looking very carefully at the risks of another unfortunate event for the UK economy from a hard landing elsewhere in the world. If economic growth falters and pay and productivity remain stuck at current levels then the healing story will become increasingly less convincing.

There are of course other possible stories one can tell about the economy and other risks. I want to mention three. The first is the possibility, much in the news two years ago, that monetary policy will not react in time to the build-up of inflationary pressure. Monetary policy typically has its peak impact on inflation somewhere between 18 and 24 months ahead. The risk here is that when the current external disinflationary pressures

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<sup>7</sup> The adjusted measure of Bank Rate is calculated by comparing the estimated effects of QE with those for a cut in Bank Rate, and using that to convert the MPC's asset purchases into an equivalent change in Bank Rate. Expected inflation is also subtracted from the adjusted rate to convert it from a nominal to a real rate and so make it comparable to the estimates of the natural rate of interest discussed in the text. The MPC's central estimate that QE had a total peak impact on GDP of around 2.5% in 2013 implies that adjusted Bank Rate fell below 0.5% during the depths of the crisis. In the May 2014 Inflation Report the MPC judged that maintaining the stock of asset purchases at £375bn would provide continued, albeit declining support to activity implying that adjusted Bank Rate is still currently below 0.5%.

<sup>8</sup> The implied pace of tightening in the current yield curve between 75 and 125 basis points (bps) is 4 bps per quarter compared to 7 and 5 bps in the November and February Inflation Reports respectively. The average pace of tightening in the cycles since the start of inflation targeting in 1992 is around 50 bps per quarter.



subside, domestic cost growth pressures will have built up and will push inflation above target before monetary policy can restrain it. I would not discount this risk. The labour market has clearly become much tighter. And if pay is being held down by cyclical or scarring effects, these could change quickly. And there has been a substantial depreciation in sterling in the past three months which will push up on inflation, possibly more quickly than the usual prolonged lag between changes in the exchange rate and inflation.

But with interest rates near the effective lower bound, with powerful disinflationary forces from abroad likely to persist for the next year, with low growth in unit labour costs and with an economy growing at around 2%, I think this is the lesser risk.

Second, there is the concern that continued low interest rates lead to the build-up of financial stability risks through an acceleration of credit growth, increase in bank leverage and household indebtedness. The financial system has only recently come back to life with economy-wide credit now growing in the UK at around the rate of GDP. While there are some elements of credit that are growing more strongly, such as buy to let mortgages and unsecured debt, I think we are now emerging from the post-crisis phase and in a more standard stage of the credit cycle and we now have macroprudential tools to manage risks as they build up. Of course, even after paying down debt following the crisis, UK households' indebtedness is high by historical and international measures so there may not be a great deal of room for growth in this area if we want to avoid vulnerabilities building up in the economy generally.

The growth in credit since the crisis, however, has been in emerging markets rather than in advanced economies which brings me to the last risk – an unfortunate event from some form of a hard landing in major emerging markets. These are now a large part of the world economy and debt stocks in many emerging economies have grown sharply over the last eight years. This could amplify the stresses many of these economies already face from the inter-related effects of slower emerging market economy growth, much lower commodity prices and a stronger dollar. A more severe slowdown and debt-related financial stress in key emerging markets could well have an impact on advanced economies, including the UK, through a number of channels. One reassuring point is that the major UK banks and building societies were tested against precisely this scenario by the Bank of England in 2015 and demonstrated they had the resilience to weather such a shock and carry on lending to the UK economy.

## **Conclusion**

Looking back over the last two years, I think that the slow healing story can still explain where we are and provide a guide to our future prospects. But the story has to be adapted in the face of more UK and world weakness than I had expected and this weakness might be signalling that there are deeper structural factors at work.

Nonetheless, my central projection remains that the UK economy will continue to grow solidly and that inflation will return to target over the next few years. But, as always, policymakers need to be alive to the possible meaning of disappointments, to be very sensitive to the possibility of changing temperatures around them, and to the risk of unfortunate events. We have a range of tools at our disposal and should be ready to use them whichever risk materialises.