Jon Cunliffe: Pay and productivity – the next phase

Speech by Sir Jon Cunliffe, Deputy Governor for Financial Stability of the Bank of England, at the Automative Fellowship International dinner, Luton, 22 June 2015.

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Between 2000 and 2007, the average worker in the UK automotive manufacturing industry produced 7.7 vehicles a year. Over the past seven years he/she averaged 9.8 vehicles a year. Productivity – output per worker – in car manufacturing has increased by 30% since the onset of the great financial crisis. Britain has become the fourth-biggest vehicle maker in the EU and is more efficient than bigger producers such as Germany and France. It has not all been plain sailing. In the recession, productivity in the car industry fell as firms cut back production and held on to workers. But productivity in the industry recovered quickly.

If productivity in the UK economy as a whole had grown in the same way as in the car industry, and employment generally had grown as it did, the economy would now be 30% or £½ trillion larger than it is today. Annual GDP per person would be about £8k higher than it is.

Unfortunately productivity in the UK has not followed the lead of the car industry. Indeed, the opposite is true. In 2014 labour productivity in the UK was actually slightly lower than its 2007 level. In the seven years between 2000 and 2007 labour productivity grew at an average annual rate of about 2% a year. In the seven years that followed, our annual productivity growth averaged just below zero. Or to look at it another way, the level of labour productivity – output per hour worked – in the UK economy is now 15% below where it would have been if pre-crisis trends had continued. Of course, a hit to productivity is what you expect to happen in a financial crisis and deep recession. Firms cut production but try to hold onto workers. But even compared to the experience of others, the UK's productivity performance has been disturbingly weak. It is true that the average output per hour of the rest of the G7 advanced economies is only around 5% above its pre-crisis level. But as I have noted, in the UK it has not even recovered to that level. And in 2013 output per hour in the UK was 17 percentage points below the average for the rest of the G7 – the widest gap since 1992.

I am very conscious that in talking about the importance of productivity growth before this audience tonight I am taking coals to Newcastle – or should I say cylinder heads to Dagenham. But, against this background of the UK's productivity performance since the crisis, I want to review the prospects for the UK economy, the uncertainties that we on the Monetary Policy Committee (MPC) now face and the importance of productivity growth going forward.

I want to talk a little about how we have been able to grow relatively strongly over the past couple of years despite very weak productivity growth; but why that is unlikely to be possible over the coming years. And why we expect productivity to improve – albeit moderately – in the future.

And in doing so I will also talk about why the UK's productivity performance has been so puzzlingly weak, not just in the depths of the crisis and recession but in the recovery and expansion that has been underway since the middle of 2013; and whether the boom and bust of the financial sector can help us to understand the UK's recent productivity performance.

The importance of productivity

Productivity growth matters hugely. In the end it is the key determinant of rising living standards. For 18 centuries – from the year 1AD to 1800 when the industrial revolution started – living standards in the West were fairly stagnant. It is because of the step change in

productivity growth launched by the industrial revolution that living standards are now 20 times higher than they were then.[1] Increases in population and the labour force can make the national economy bigger. But in the end only productivity growth – producing more output relative to input – can consistently raise GDP per person.

Central banks like the Bank of England foster monetary and financial stability, which support investment and productivity growth. But we are not the main players in driving long-term productivity growth. We do not invent new technologies or processes. And the necessary supporting policies such as product and labour market reform, infrastructure, education, ensuring the economy is open to competition including from abroad – these are issues for governments and elected politicians. Looking at advanced economies, particularly with aging populations, we are all going to have to work a bit harder on productivity growth in the longer term if living standards are to continue to rise.

But the growth rate of productivity does matter to central banks. It is a very important factor in determining the supply side of the economy; the capacity of the economy to grow without generating inflationary pressure. And in recent years, it has become more important to us as the really hard questions about the economy have been as much if not more about understanding post crisis changes in the level of supply as about the level of demand. We spend more time now discussing the supply side in the MPC – mentions of 'supply' and 'productivity' in the minutes of MPC meetings have doubled, relative to mentions of other terms, between 2006 and 2014.Productivity is also a key determinant of the growth in real incomes and so affects the demand side of the economy as well.

Drivers of the economic recovery

Over the past two years, UK economic growth has averaged 2.5%; stronger than most of our G7 partners and we are forecasting that to continue. But our productivity growth has been dismal How is it possible for us to have grown relatively strongly with poor productivity performance but without generating inflation pressure? The answer is simple. We have grown by using the spare labour supply in the economy after the great recession. This spare labour supply was not just the post-recession stock of unemployed workers. It was also people who were in work but wanted to work longer hours. It was people who were not previously participating in the workforce who now wished to work. It was people who we would have expected to retire but who decided to stay in work. And it was workers from abroad.

It is true to say that this reservoir of labour supply available to the economy has been larger and deeper than we or others would have predicted on pre-crisis trends. We have had what economists would call a "positive labour supply shock". The crisis, recession and hit to living standards have clearly changed attitudes to work; more people want to work and work more hours than before. And the impact of those two domestic trends – higher participation in the workforce and people wanting to work more hours – are the most important elements of this positive "shock" relative to what we expected, outweighing factors like higher net inward migration.

The numbers are striking. In the 10 years prior to the crisis, growth in the hours worked in the UK economy, accounted for 23% of the UK's overall economic growth. The mainstay of our economic growth, the other 77%, came from growth in productivity. Since 2013 only 9% of our annual economic growth has come from productivity improvement. The remaining 91% has come from the increase in the total hours worked As a result, employment in the UK is now around its highest rate since comparable records began in 1971. Over 73% of people aged 16–64 are working. There are now over 31 million people in work in the UK.

[1] See Jones C I (2015) 'The Facts of Economic Growth', NBER Working Paper No.21142.

Unemployment has fallen at among its fastest rate for 40 years and is now very close to its pre-crisis level – over the past two years over 1 million jobs have been created.

The benefits of this are clear. Perhaps only a proponent of the 'dismal science', only an economist would find something here to worry about. But the fact is that we can only go so far down this route. Since 2013, the economy's output has grown by some 5%. But though we have increased by 5% the amount we have produced, we have increased even more the hours worked to produce it. And as a result the simple arithmetic means our productivity growth has been broadly flat. And the low of productivity that has resulted is one of the main reasons why pay growth has remained so low. We are now getting close to the end of that reservoir of spare labour supply. It is very difficult to say how close; measuring spare capacity in the economy with great precision – to single decimal points – is not really possible. But for the economy to grow robustly and sustainably over the next few years' productivity growth will need to begin to pick up. This does not need to happen overnight. But it does need to happen.

The MPC's economic forecast

I am pleased to be able to say that this is the central scenario in the MPC's latest forecast. Our forecast is for the economy to grow robustly at around 2.5% a year over the next three years. That is a bit slower than the average annual growth rate of nearly 3% in the seven years before the crisis. But it's a great deal better than the roughly 0.5% annual average over the seven years that followed. In our forecast, growth continues to be driven by private domestic demand – essentially, household consumption and business investment, both of these have been growing strongly since the middle of 2013. Of course, given our history any forecast of sustained robust consumption growth in the UK automatically raises eyebrows; the suspicion of a debt fuelled spending boom is never far away. But our forecast of strong consumption growth over the next three years does not depend on an increase in household debt.

In our forecast, consumption is initially supported by the growth in real incomes that result from the very low inflation we are now seeing – from the one-off windfall from lower international energy and food prices. But as the sharp, one-off, drop in oil and other prices washes out of the system, real incomes increase over the next three years mainly because both pay and productivity gradually recover. In terms of inflation, we are forecasting that this growth in demand from business investment and consumption against a background of tightening supply in the economy will push inflation back to its 2% target over the next two years. We expect interest rates to rise over the forecast period but gradually and to a level below the pre-crisis average. As with all forecasts, there are risks. There is of course geopolitical risk, including at present obvious risks around Greece. But that is not my focus tonight.

Another risk that has attracted some attention is whether we see a change in people's expectations about inflation due to the very low inflation over past months driven by the drop in oil prices. Clearly, if very low inflation expectations became entrenched this could weaken growth. Sustained deflation can also in more extreme cases lead to lower incomes and higher real debt burdens – so-called 'debt deflation'.

The MPC has made clear that it is alive to this risk and would act if necessary to counteract it. But the evidence of the past six months is that despite very low inflation, peoples' expectations about inflation have so far remained pretty anchored. The ratio of household debt to income is not rising. We are certainly seeing no evidence of debt-deflation or of deflationary spirals.

But there are other risks as well. Productivity growth might not pick up. It has, after all, been a cause of serial disappointments over the past seven years. And if productivity does not pick up pay growth might not be sustained. Were that to happen, the increases in peoples' real incomes that we are forecasting to support consumption and growth will not transpire.

Demand will be weaker. Lower productivity would mean less supply capacity in the economy. But there would be less demand as well because of weaker pay. In such a scenario, the prospects for inflation might therefore not be very different to our forecast. But the impact would certainly be felt through weaker economic growth. It is however also possible that productivity does not pick up but pay continues to grow. There is some room for pay to grow before productivity picks up and as any remaining spare capacity in the labour market is used up. In fact, we need to use that to boost unit labour costs and push inflation back to target.

But a sustained increase in pay over the forecast period without a commensurate pick up in productivity would mean that the supply side of the economy could not keep pace with growing demand. That would mean upward pressure on prices. And it would mean greater pressure on the MPC than in our forecast to act to bring supply and demand into balance so as to meet the inflation target.

The outlook for pay and productivity

So the gradual pick up first in pay and then in productivity is central to the MPC's forecast for both growth and inflation particularly in the later years. Given the serial disappointments on both pay and productivity in recent years, why do we now think that will happen? On pay there do seem to be signs now of stronger, more sustained growth. In the latest data, whole economy regular pay is growing at 2.7%. This is the highest annual growth rate since early 2009 and over a percentage point higher than six months ago. The latest reading on private sector pay growth was 3.2% – the highest rate since December 2008. So the period of very cheap labour seems to be ending as expected.

What about productivity growth? It was effectively zero in 2014. And we forecast it to remain pretty weak in 2015. But there are reasons to think that we will see a pickup in 2016 and 2017 as set out in the forecast Productivity growth can be divided into two sorts of change: the change in productivity inside individual firms and the changes between firms. The first, the changes within firms, happens as firms increase their efficiency. The second happens as labour and capital are reallocated between firms, from the less productive ones to the more productive. This reallocation between firms in the economy happens through changes in market share as the more productive, higher return firms, grow and the less productive, lower return, firms shrink. And it happens through the deaths of the low return firms and the birth of new ones. After collapsing in the crisis, productivity began to increase again within firms two years ago. We expect that to continue. As the economy grows, spare capacity is used up. The real cost of labour increases relative to the cost of investment. Firms have a greater incentive to find efficiency gains and to switch away from more labour-intensive forms of production. This should boost productivity.

In contrast, productivity growth due to the reallocation of resources in the economy remains weak. We can see this in the divergence of rates of returns across firms which remain remarkably and unusually high and the change in capital across sectors which has been particularly low. When the reallocation mechanism is working, the transfer of capital and labour from the less productive to the more productive pulls up the level of productivity in the economy and reduces the divergence between firms. The high degree of divergence between firms at present implies that this reallocation mechanism is working significantly less powerfully now than before the crisis. This can also be seen in the proportion of loss-making firms which stands at around 20% higher than its long-run average.[2] Company liquidations also remain low. So there is still more than a hint of 'zombiness' in the corporate sector.

[2] Changes in 2002 to the HMRC's preferred creditor status means that the proportion of loss-making firms might not return to its long-run average.

The damage to the banking system has certainly played a large part in this. A well-functioning banking system is a key part of the reallocation mechanism. It allocates capital efficiently to its most productive use and matches risk to reward. A badly damaged one, recovering slowly from a period on life support does not play that role well. And the exceptional stance of monetary policy that has been necessary to cushion the fall of the economy and to provide the platform for recovery may also be part of the story here by reducing the pressure on poorly-performing firms.

As an aside, I want to make a brief comment in the context of the other part of my job: financial stability. We know that recoveries from financial crises tend to be slow; it takes on average about eight years to reach the pre-crisis level of real per capita income following financial crises.[3] Distorted and damaged financial sectors don't allocate resources effectively. We may not pay the price for a number of years as the boom builds up. But in the end the price we pay is large when a financial system misallocates resources in the boom and in the following bust. Real GDP per head – the best measure of our aggregate living standard – remains 1% below its pre-crisis peak. This high cost to the economy and to society is why we need not only robust regulation of financial institutions but also of the financial system as a whole. Financial stability and sustainable growth are complements. They are not alternatives.

Turning back to the reallocation mechanism, there are now some positive signs. The financial sector is well into its recovery. Bank lending growth to non-financial businesses was positive in 2015 Q1 for the first time since the crisis. Beyond the banking system, the Bank's agents are reporting private equity firms purchasing debt-laden companies and restructuring their funding. The creation of new firms, a sign of vibrancy and reallocation in the economy, increased by 30% in 2013. And labour market 'churn', the movement of workers between firms is almost back to its pre-crisis average having fallen sharply in the crisis.

In addition, we have seen a return of business investment over the past two years. Well directed investment is a key driver of productivity. The very sharp drop in investment in the crisis and the years immediately afterwards cast a shadow that has certainly damaged productivity growth in the recovery. Again the damage to the banking system will have played a part here. If business investment had continued to grow at its pre 2007 average, capital per worker would now be around 5% higher. Firms' investment intentions are strong at present and the MPC expects business investment to continue to grow strongly over the forecast period. That should increase capital per worker and therefore productivity, albeit with a lag

And lastly, productivity over the last two years is likely to have been held back by changes in the composition of the labour force towards lower-skilled and lower productivity occupations. This has almost certainly had something to do with the very fast draining of the reservoir of labour supply that we have seen over the past few years. The rate of decline in unemployment is slowing noticeably now and the level of participation and hours worked seems to be getting close to their trends. So the headwind to productivity from the change in the composition of the labour force should diminish over the next few years.

I have given some of the reasons why we expect productivity growth to pick up over the next few years. To be clear, we are not forecasting a sustained burst of high productivity growth but a rather more modest pick up. Nor are we forecasting that we will recover any of the accumulated 15% loss in the level of productivity, relative to pre crisis trend, since 2007. The longer term issues remain; UK productivity is now around 30% behind the US. And as I have explained these longer-term issues are not something central banks can do a great deal about.

[3] See Reinhart, C M and Rogoff, K S (2014) 'Recovery from Financial Crises: Evidence from 100 Episodes', NBER Working Paper No.19823.

Nor can we explain fully what has happened to productivity in the UK economy since the crisis. As well as the factors I have mentioned, other factors have surely played a role. And I don't doubt there has been some mis-measurement of productivity growth in some sectors and of output more broadly. The Bank, like many others, has tried very hard to explain the puzzle but we can't explain it all. Indeed, we may never solve the productivity puzzle. Perhaps that is not so strange. A very important part of productivity growth, so called Total Factor Productivity is pretty mysterious by definition. It is the extra efficiency with which a given amount of labour and capital can be used to produce output. It exists – but we can only estimate it by looking at the part of productivity growth our equations can't explain. Indeed, because of this it is sometimes referred to by economists as the 'Magic Fairy Dust'. And the last seven years are not the only productivity puzzle in history that we can't explain. Economists are still arguing over the explanation of the industrial revolution which as I said heralded the largest step-change in productivity growth ever seen

But even if we can't fully explain the puzzle, we can I think now point to an alignment of factors that suggest that productivity growth will start to move in the right direction over the next few years. This is of course the MPC's forecast. It is not a given. We have been disappointed by UK productivity often over the last seven years. We seem now to be coming to the end of the reservoir of labour capacity and to the end of low cost labour. So if productivity were to continue to disappoint over the next few years, other, lower growth outcomes are likely to follow. I have set out why I think that is not the most likely scenario.

But I for one will continue to watch the evolution of pay and productivity very carefully as it is crucial to the prospects for growth and inflation in the UK over the next three years. And, when it comes to productivity, I very much hope the UK economy as a whole will take its lead from the UK automotive industry.

Thank you.