Report to the Treasury Select Committee
From Professor Kristin Forbes, External Member, Monetary Policy Committee
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When Odysseus set sail after the Trojan War, he had no idea of the many unexpected hurdles that would delay his trip home. My first year on the Monetary Policy Committee has also faced a number of unexpected hurdles on the journey to begin increasing interest rates. This series of hurdles, combined with little evidence of building inflationary pressures, have been key factors in my vote each month to maintain Bank Rate at 0.5%. But just as Odysseus eventually overcame these hurdles and returned home, I expect that the UK economy will also overcome these hurdles. The UK economy is on track to continue its solid recovery. Inflation should begin heading back toward target by year end, and in the not-too-distant future it will be appropriate to begin the next voyage of gradually increasing interest rates.

<u>**Voting Record**</u>

When I began on the MPC last summer, the UK economy appeared to have finally embarked on a solid and sustainable recovery. The August 2014 *Inflation Report* forecast that GDP growth would be 3.5% in 2014. Business investment was finally picking up and building on strong personal consumption to generate more balanced domestic growth. Unemployment had fallen rapidly, from a recent peak of 8.5% (at the end of 2011) to 6.4% (in the three months to June), and data suggested continued labour market gains would soon remove the remaining slack in the economy. House prices were increasing and on track to soon reach their pre-crisis peak. Banks were beginning to lend again, and financial constraints had eased substantially for most firms (albeit less so for smaller companies).

In other words, although the UK had undergone a devastating financial crisis and prolonged recovery, the economy was finally beginning to look more normal by many key measures. The numerous constraints to growth from the crisis—most importantly the need to rebuild balance sheets and the financial system—had taken years. But by last summer these substantive drags to growth had largely diminished and job growth had absorbed most of the large pool of unemployed. There were other drags that would continue—such as from fiscal consolidation and weak demand in our most important trading partner (the euro area). The UK recovery was solid enough to overcome these drags, however, and appeared to be nearing the point when an increase in interest rates would be appropriate.

But there was one critical missing piece in this solid recovery—wage growth. Although unemployment had fallen rapidly and there appeared to be little slack left in the economy, wage growth was depressed. Average annual growth (3m/3m) in regular private-sector wages (excluding bonuses) was only 1.3% in the first half of 2014. If wage growth did not pick-up soon, continued recovery would rely on consumers drawing down their savings. This would not be sustainable. Low wage growth also raised questions about how much slack existed in the economy. Could there be additional slack because more workers were joining the labour force or willing to work more hours than expected? Or was low wage growth simply another effect of the severe crisis which would soon fade—possibly reflecting hesitation by workers who had recently faced unemployment to push for salary increases? Delaying an increase in interest rates was appropriate until we had more clarity on these questions critical to the evolution of inflation.

By the end of 2014, however, wages began to turn around. Annual wage growth was above 2% in 2014Q4. There was new evidence that the previous weakness in wages may have been driven by stronger labour supply and from "composition effects" (based on the qualifications, skills, and other characteristics of recent hires). An unexplained weakness in wages was becoming less of a hurdle to begin increasing interest rates.

But then another hurdle appeared—sharp falls in energy and food prices. From June to end-2014, oil prices fell by 50% and food prices by 10%.[1] This drove inflation down sharply at the end of 2014 and start of 2015. Headline inflation reached -0.1% in April—the lowest since 1960—and was expected to stay close to zero for several months. Although BOE analysis and my own work showed that this fall in inflation would be temporary and could largely be explained by the effects of lower commodity prices and sterling's strength, the unprecedented low level of inflation—especially when combined with such low inflation globally—raised a number of risks. Would near-zero inflation give companies a reason to avoid raising wages? If so, this could slow income growth and undermine the recovery. Would near-zero inflation cause expectations of future inflation to decline, making companies hesitant to raise prices, consumers hesitant to spend, or repaying debt more difficult? Although I believed these later risks were unlikely to materialize, I was more concerned about how low inflation could affect wage dynamics and hinder the recovery of inflation to target. Given that inflation was starting from such a low level and other domestic price pressures were muted, there was little risk to waiting to raise interest rates until these questions were resolved.

By the spring of 2015, these key risks of low inflation were largely abating. Wage growth had not only remained steady, but increased faster than expected, to reach 2.8% on average over the first six months of 2015. Inflation expectations had stabilized and most measures were showing tentative signs of increasing (at least until this August's recent falls in oil and commodity prices). Measures of domestically-generated inflation had been stable over the past year, despite the sharp movements in headline inflation. This latest hurdle to increasing interest rates was beginning to recede, although some additional time was needed to ensure headline inflation would rebound as expected.

In the summer of 2015, yet more risks emerged from abroad. Discussions with Greece on an additional bailout package were at a standstill. And once this risk subsided, potentially greater risks to the global economy emerged from major emerging markets—especially China—and increased market volatility. In each case, the direct risks of contagion to the UK appeared manageable, especially due to important steps taken to strengthen the UK financial system. But any substantial problems in a nearby economy, or especially in the second largest economy in the world, would undoubtedly generate some spillovers. Contagion often occurs in unexpected channels. It is not yet clear if this economic uncertainty and volatility will have any significant or persistent effect on the UK economy. And even if there is some effect, it would not necessarily imply that these risks from abroad would be enough to derail the outlook for a continued, solid recovery in the UK.

The Outlook

The foundations for continued solid growth in the UK are in place. Growth has been 0.7% or higher for 5 of the last 6 quarters, and our forecast in the last *Inflation Report* is that growth will continue around 0.7% for five more quarters. Consumption should continue to be supported by lower oil prices, strong real wage growth, and positive consumer confidence—albeit hopefully less by reduced savings. Relatively easy lending conditions and momentum in profits and demand should continue to support business investment. GDP growth is expected to be 2.8% in 2015, so that the US and UK are neck and neck to be the fastest growing economy in the G7 this year.

Although low inflation today can be largely explained by the sharp falls in energy and other commodity prices and sterling's appreciation, these effects will begin fading over the next few months. I largely agree with the economic forecast in the most recent *Inflation Report*, so will not repeat the details here. When we next update our forecast in the next *Inflation Report,* I would not be surprised if our short-term inflation forecast is revised downward to reflect the recent additional falls in oil and other commodity prices, but I also would not be surprised if it was revised up in the medium term to reflect sterling's very recent depreciation and the boost to growth from lower borrowing costs and oil prices. It is hard to know exactly how these forces will balance out until we

[1] According to the IMF's IFS commodity food index.

have completed the full forecast round. I do not expect, however, any changes to the central expectation that inflation is on track to pick up by the end of the year and begin heading back towards target. Given the long lag between when adjustments in monetary policy fully affect the economy, rates will need to increase in the not-too-distant future to ensure that inflation does not overshoot our 2% target.

One critically important component of the *Inflation Report*, however, is the bands around the forecast. Although most people tend to focus on the mean forecast for inflation and growth, I tend to place just as much weight on the bands and what could put the economy in those bands. There is always a substantial amount of uncertainty around where inflation is in two years. More specifically, in the last *Report,* we can only say with 90% confidence that inflation will be between -0.4% and 4.5% (and with 60% confidence that it will be between 0.8% and 3.3%). And that doesn't even incorporate the extreme tail risk! This type of uncertainty is not unusual—during different time periods as well as in different countries and in forecasts by different institutions. There are always uncertainties, surprises, and new hurdles to the economic outlook.

Given this uncertainty, there are three key components of the economic outlook that I will be watching closely and that will be key factors for my decision on exactly when inflation is showing enough positive momentum that it is appropriate to begin raising interest rates.

First, are there any implications of recent weakness in key emerging markets and market volatility for the UK outlook? My view is that one should largely look through the normal gyrations in financial markets when setting monetary policy. But the large swings that have occurred recently need to be evaluated in terms of their impact on the UK. Do these sharp movements imply greater weakness in emerging markets, which would affect UK exports, growth or financial vulnerabilities? Will recent market volatility lead to a permanent increase in risk aversion, which could increase borrowing costs even absent any change in Bank Rate? If recent market declines are not reversed, will there be a meaningful wealth effect that reduces consumption? Although I do not put a high probability on any of these risks materializing, they need to be monitored closely.

Second, what is the effect of recent exchange rate movements on UK inflation? Sterling has appreciated by 17% since its recent trough in the spring of 2013. This has created substantial challenges for some UK companies to remain competitive—both in export markets as well as relative to imports in the UK. Standard models predict that this has created a small drag on growth (by reducing exports and increasing imports) and more substantive drag on inflation. The magnitude and timing of this "pass-through" of sterling's movements to prices is critically important for forecasting inflation and setting monetary policy. A key focus of my speeches and analysis on the MPC over the past year has been better understanding these exchange rate movements. Recent evidence suggests that the pass-through from sterling's recent appreciation has been substantive, but may have been less than in the past. If this continues, or sterling's depreciation over the last few weeks continues, it would imply less drag on future inflation than currently expected.

Finally, will measures of core and domestically-generated inflation pick up? Given structural changes in the economy, it is impossible to put any precise estimate on the output gap today. My reading of the labour market indicators, however, suggests that there is very little remaining slack (if any) in the economy. This would normally imply a solid pickup in wages and other production costs. The many factors dampening inflation—from falls in energy and commodity prices, to sterling's appreciation, to weak global inflation—have made it harder to assess if this pickup is beginning to occur. My analysis, however, does not find any evidence that the normal inflation-generating process has been derailed. The recent improvement in wage growth, and stability in measures of domestic inflation despite the sharp falls in commodity prices, suggest that underlying inflation should therefore begin to pick-up soon. If productivity also continues to recover (a very big unknown), however, this could moderate the extent to which faster wage growth affects unit labour costs and headline inflation. Therefore, it will be critically important to monitor this series of indicators of core and domestic inflationary pressures and productivity growth.

In addition to these three primary considerations for the economic outlook, other unexpected hurdles will undoubtedly emerge. Over the past few years, most of these hurdles have presented valid reasons to hold interest rates constant. Over the next few years, they may push in the same direction. But they may also push in the opposite direction and present valid reasons to increase interest rates sooner rather than later. For example, if the recent recovery in the Euro area continues, this could counterbalance broader weakness elsewhere given the UK's strong trade and financial links to the region.

There will always be surprises and uncertainty, and that in itself is not a reason to delay an adjustment in monetary policy that makes sense for the UK. The low level of headline inflation and stable domestic inflationary pressures have provided us the luxury of time to evaluate the hurdles and uncertainties that emerged over the last year. But this luxury of inflation remaining low is unlikely to last. As a result, whatever new surprises emerge, the journey to begin raising interest rates from 0.5% should be less prolonged than Odysseus' 10-year voyage back to Ithaca. His strength helped him overcome everything from the Cyclops to cannibals to the six-headed monster Scylla to the whirlpool Charybdis—and eventually return home. Similarly, the underlying strength of the UK economy will help it withstand new hurdles and I expect that inflation will soon begin its journey back to target.

Explaining Monetary Policy

I have used a range of different forums and outlets to attempt to explain monetary policy, the views of the committee and my personal views. Below is a list of: 1) written speeches; 2) other presentations, talks, briefings, and conferences (including Inflation Report briefings); 3) meetings with various business groups; 4) interviews and articles for the press; and 5) agency visits.

Written speeches (all available at http://www.bankofengland.co.uk/publications/Pages/speeches/default.aspx)

October 2014	Speech to 100 women in Hedge Funds at CIBC, London, "*The Economic Impact of Sterling's Recent Moves: More than a Midsummer Night's Dream"*
November 2014	Speech at Queen Mary University, London, *"Financial "Deglobalization"?: Capital Flows, Banks and the Beatles"*
January 2015	Speech to London & Partners dinner, BoE, *"Risks Around the Forecast"*
February 2015	Speech at IoD, The Institute of Economic Affairs' 32nd Conference, State of the Economy, *"Low Interest Rates: King Midas' Golden Touch?"*
June 2015	Speech at LSE conference, London, *"When, Why, and What's Next for Low Inflation?: No Magic Slippers Needed"*
September 2015	Speech at MMF, Cardiff University, *"Much Ado about Something Important: How do Exchange Rate Movements Affect Inflation?"*

<u>Other presentations, discussions, briefings and conferences</u>

July 2014	Presentation at Banco de Mexico conference in Mexico City. *"Capital-Flow Management Measures: What Are They Good For?"*
September 2014	Brookings Papers on Economic Activity in Washington, DC
October 2014	Panelist at Institute of International Finance event in Washington, DC. *"Capital Flows to Emerging Markets"*
December 2014	Discussion at Tuesday Dinner Club in London. *"The MPC Process"*
January 2015	Panelist at American Economic Association Meetings in Boston. *"Emerging Markets: The Changing Nature of Financial Stability Risks"*
January 2015	Comments at Chatham House in London. *"Oil in the US, UK, and Global Economy"*
January 2015	Bellagio Group Meetings in Munich.
February 2015	*Inflation Report Briefing* in Leeds.
March 2015	Speaker at Nomura 34th Central Bankers Seminar speaker in Kyoto, Japan. *"Capital Flows: What's Next? What's Changed?"*
May 2015	Speaker at WIIB network in London. *"Women in the Bank"*
May 2015	Presentation at State Street Research Conference in Boston. *"Liquidity, Volatility, and the Deglobalization of Capital Flows"*
May 2015	Panelist at an IMF-CFR conference in Washington, DC. *"Monetary Policy in a New Oil Price Environment"*
June 2015	Panel speaker at Fortune's Most Powerful Women International Conference in London.
June 2015	Discussant at BOE conference in London. *"The Global Dimension of Systemic Risk and Policy Mitigation"*
August 2015	Monetary Policy Symposium organized by the Federal Reserve Bank of Kansas City in Jackson Hole, Wyoming.

<u>Meetings with business groups</u>

September 2014	Roundtable lunch with businesses, Southampton
October 2014	Nomura client lunch, London
October 2014	Roundtable lunch with businesses, Birmingham
November 2014	Deutsche Bank lunch, London
December 2014	Roundtable lunch with businesses, Bristol
January 2015	Barclays Lunch, London
January 2015	JP Morgan Dinner, London
January 2015	Roundtable dinner hosted by London and Partners, London
February 2015	Royal Bank of Canada Lunch, London
February 2015	Roundtable dinner with businesses, Leeds
March 2015	UBS investor breakfast, Boston
April 2015	Roundtable lunch with businesses, Derby
September 2015	Roundtable dinner with businesses, Cardiff

Published interviews and articles

October 2014	Interview in *Evening Standard* Interview in *City A.M.*
Fall 2014	Interview in *MIT-Sloan alumni magazine*
January 2015	Interview in *TheEditorial.com*
January 2015	Interview in the *Wall Street Journal*
February 2015	Interview in *Yorkshire Post*
March 2015	Oped in *Evening Standard*, "Zero Inflation is Here, but There's No Need for Soul-Searching"
June 2015	Interview and appearance in *ITV News*
August 2015	Oped in *The Telegraph,* "Avoiding Sunburn and Other Considerations for Interest Rates"

Agency visits and meetings

September 2014	Central Southern Agency
October 2014	West Midlands Agency
December 2014	South West Agency
January 2015	Greater London Agency
February 2015	Yorkshire & Humber Agency
April 2015	East Midlands Agency
September 2015	Wales Agency