



BANK OF ENGLAND

# Speech

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## Ten months after the EU Referendum: How is the economy doing?

Speech given by

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I would like to thank Thomas Belsham, Stuart Berry, Ben Broadbent, Pavandeep Dhani, Will Dison, Kristin Forbes, Dena Jacobs, Joanna Konings, Tamara Li, Clare Macallan, Gareth Ramsay, Chris Redl, Matthew Trott, Alex Tuckett, Carleton Webb, and Garry Young for their help in preparing this speech. The views expressed are my own and do not necessarily reflect those of the other members of the Monetary Policy Committee

On Sunday it will be ten months since the UK's vote to leave the EU in June 2016. In that context, I would like to discuss two main points. The first is backward-looking, and relates to the economy's recent marked outperformance compared to expectations just after the Brexit vote. The second is more forward-looking, and relates to the economy's adjustment in the next year or two to the Brexit process and how it is unlikely to be simply a microcosm of Brexit's long-run effects. In other words, the path to a post-Brexit Britain may not be a straight line.

I'll start with the first of those points: the economy's recent – and welcome – resilience. In the August 2016 IR, just after the Brexit vote, the MPC forecast that the economy would slow markedly, with quarterly growth close to zero in H2 2016 and early 2017. The BoE was not alone in expecting weaker growth: the IMF and OECD made similar forecasts, and in general the consensus was slightly gloomier than the BoE (see figure 1)<sup>1</sup>. In practice, growth has remained solid. Indeed, on the current vintage of the ONS data, quarterly GDP growth in H2 2016 was slightly stronger than H1.

Compared to the BoE's forecasts from last August, the economy's outperformance in H2 2016 was spread widely across consumer spending, housing and business investment. Exports and imports both did better than expected, but net trade overall was less supportive than forecast last August (see figure 2). In terms of contributions to QoQ GDP growth in H2 2016, the upside in business and housing investment combined was worth slightly more than the upside in consumer spending. Real wages turned out slightly softer than expected, with slightly higher inflation and lower pay growth than forecast. Household savings have fallen more than expected.

Even with weakness in retail sales volumes, most recent evidence suggests that the economy continued to grow in Q1 of this year. For example, most business surveys are around longrun averages, job growth has picked up, and NIESR estimate Q1 growth at 0.5% QoQ. The latest survey from the Federation of Small Businesses is broadly consistent with this picture (see figure 3).

The BoE's post-referendum forecast reflected three major factors.

First, the judgment that the possible longrun effects of Brexit would produce a modest adverse effect on actual and potential growth nearterm. Analysis by the IMF and OECD suggests that Brexit will reduce UK potential growth slightly over time, the next 15 years or so<sup>2</sup>. Possible factors at work include reduced trade openness, reduced inward investment, reduced competition in some sectors, lower net inward migration, and the need to reallocate resources between different sectors. Of course, the long-run effects of EU exit are highly uncertain, and perceptions may well change markedly as the details become clearer.

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<sup>1</sup> Using the Treasury survey of outside forecasters, the consensus for UK real GDP growth in mid-June (before the EU referendum) was 1.8% for 2016 and 2.1% for 2017. The consensus in August 2016 was for growth of 1.6% in 2016 and 0.7% in 2017. See also IMF (2016b), OECD (2016b).

<sup>2</sup> See OECD (2016a) and IMF (2016a).

The BoE's forecast assumed these longrun Brexit effects would come in linearly, hence having some effect even in the first year or two, before Brexit actually occurs.

Second, and more importantly, the BoE interpreted the sharp dive in business surveys just after the referendum as indicating that heightened uncertainty over the UK's future trading arrangements would weigh heavily on nearterm growth, notably consumer spending, business investment, housing and commercial property. This appeared consistent with evidence that uncertainty often causes businesses and households to defer major spending decisions<sup>3</sup>.

No single measure can always reflect all aspects of uncertainty. The BoE's approach is to combine various indicators, including financial market data, surveys of households and businesses, and media citations of uncertainty<sup>4</sup>. There was a sharp spike in this and other uncertainty gauges just after the Brexit vote<sup>5</sup>. This was accompanied by a marked deterioration in business surveys, commercial and residential real estate markets, and other signs (eg a preference for hiring temporary, rather than permanent, staff) that seemed to reflect heightened business caution (see figure 4)<sup>6</sup>. The BoE's mid-August forecast put a lot of weight on that sudden deterioration, although the forecast was actually less pessimistic than the surveys implied.

The third factor was the sharp drop in sterling, which is down by 16-17% since late-2015, with about two thirds of that depreciation occurring after the referendum. The BoE judged that this depreciation would lift inflation above target in 2017-19, eroding consumers' real incomes and spending. But, reflecting Brexit-related factors (including long run issues discussed above), the forecast assumed the lift to export volumes from sterling's depreciation would be less than usual.

Of course, forecasts are fallible<sup>7</sup>. They will always be wrong in some respect. This does not mean that forecasts are useless. It typically takes one to three years for the full effects of monetary policy actions on growth and inflation to come through. Forecasts help the central bank to distinguish between transitory developments in the economy – which usually do not warrant a monetary policy response – and more important underlying trends. It is better to include forecasts in the policy process – accepting that the forecasts are imperfect – rather than to only consider the economy's recent trends<sup>8</sup>. Moreover, it is useful for central banks to *publish* their forecasts to achieve public accountability for their actions, and to explain why monetary policy has been set a certain way to meet the inflation target<sup>9</sup>. Such forecasts also should make it easier for observers with different views about the outlook to gauge how policy might evolve if they rather than the central bank turn out to be right.

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<sup>3</sup> See, for example, Haddow et al (2013) and Caldara et al (2016).

<sup>4</sup> See Haddow et al (2013).

<sup>5</sup> See, for example, the economic policy uncertainty index described in Baker, Bloom and Davis (2015).

<sup>6</sup> See Broadbent (2016).

<sup>7</sup> See Vlieghe (2017).

<sup>8</sup> See Budd (1998). See also Giannoni and Woodford (2003a and 2003b), who argue that central banks can be less forward-looking if economic agents and interest-rate expectations are more forward-looking.

<sup>9</sup> See Stockton (2012).

In that spirit, I would like to highlight several factors that probably help explain the economy's recent outperformance.

First, **Brexit-related uncertainty probably mattered less than expected**. The post-referendum spike in the BoE's uncertainty index proved short-lived and this measure now roughly matches its long-run norm. This has been reflected in a commensurate rebound in business confidence and hiring attitudes, with a relatively stable housing market. Moreover, the measurement of uncertainty is itself uncertain<sup>10</sup>.

The mid-2016 jump in the BoE uncertainty index was driven heavily by components that are less well correlated to economic growth (eg media mentions of "uncertainty"), see figure 5. The uncertainty indicators that are best correlated to economic growth (eg net balance of households expecting higher unemployment) generally did not deteriorate anything like so much, and maybe should be accorded higher weight in gauging the overall level of uncertainty.

Second, **UK monetary conditions loosened significantly** in response to the Brexit vote. The MPC cut Bank Rate and resumed asset purchases, the Term Funding Scheme helped ensure that the rate cut was fully passed through, while the FPC's reduction in the counter-cyclical capital buffer cut risks that the referendum outcome led to tighter credit conditions.

All this, plus the lift to export profitability from sterling's sharp depreciation, probably gave some boost to demand and confidence in recent quarters. Of course, forecasts made at the time largely included these factors, but their combined effect may have been greater than expected. The boost from these looser financial conditions is not yet over.

Third, **global activity has been stronger**, with better trends in world trade, business surveys and consumer surveys. This has given some lift to UK export prospects – but, perhaps more importantly, probably also boosted asset prices and UK growth expectations<sup>11</sup>. This is nothing to do with the Brexit vote, it just happened to occur at around the same time.

Fourth, the **uncertainty spike was not – unlike prior episodes -- accompanied by a major deterioration in the cost and availability of credit**, partly reflecting the factors noted above but perhaps also the greater resilience of the banking system<sup>12</sup>. The BoE Credit Conditions survey suggests there has been little overall change in credit availability for households and businesses since the referendum<sup>13</sup>: the FSB and Deloitte CFO surveys confirm that picture for businesses (see figure 6). UK bank lending spreads have been roughly stable and bank lending rates remain around record lows (see figure 7). Indeed, the average 2-year fixed

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<sup>10</sup> See Forbes (2016).

<sup>11</sup> The CPB reports that the 3-month/3-month change in world trade volumes was 2.4% in January 2017 (9.9% annualised), the highest pace since 2011, with especially strong import growth in emerging markets.

<sup>12</sup> See Caldara et al (2016).

<sup>13</sup> Although there are signs of tighter credit conditions for unsecured consumer loans in the Q1 2017 survey.

mortgage rate with 75% LTV has fallen by over 50bp since last May. It is hard to disentangle effects of uncertainty from changes in credit conditions, because they often move closely together. But the UK's 2016 experience supports the idea that uncertainty matters much less for growth if credit conditions do not worsen<sup>14</sup>.

And fifth, **it is also possible that, unconnected to the Brexit vote, the UK expansion has developed greater momentum and resilience**, reflecting low unemployment, several years of solid real income growth, and a reduced emphasis on balance sheet repair following the 2008-09 recession. Aggregate corporate liquidity is relatively high, the ratio of household wealth to income is at a record high, and private sector money growth has been reasonably firm since late-2012 (see figures 8 and 9). Once the post-Brexit uncertainty spike faded, these positive underlying drivers have helped sustain demand in recent quarters.

These factors, some of which are mutually reinforcing, probably help to explain why demand has held up better than expected. Many of these factors are likely to carry forward, supported also by the reduced pace of UK fiscal tightening announced in the Autumn Statement and recent Budget. As a result, the BoE has several times raised its near-term growth forecasts, and our central forecast for 2017 growth (published in the February IR) is above the external consensus. As it became clear that the economy was doing better than expected, the MPC moved from an easing bias last August to a neutral position in late 2016. Our latest forecast, based on market rates, assumes a gently rising path of interest rates.

Having looked back, let me now try to look forward.

For the sake of argument, let's assume for now that the work by the IMF and OECD is valid, and that Brexit will lead to a slightly worse outlook for trade openness, investment, and productivity growth over time. Over the long run, this is unlikely to affect either way the MPC's ability to keep inflation close to the 2% target, although it would affect the rate of economic growth consistent with that inflation path.

The near-term adjustment to Brexit may well differ from those long run trends in several respects. This is partly because the full effect of supply-side changes usually takes time to come through, especially for productivity growth<sup>15</sup>. It is also because the Brexit vote triggered a large depreciation of sterling, and this depreciation will have powerful effects on the economy in the next year or two. It is also because the UK economy is evolving in ways that have nothing to do with Brexit. Overall, I suspect that the next year or two will see steady growth, above-target inflation, stronger exports, and a pickup in business investment. And there are no signs so far that productivity trends are weakening.

**CPI inflation** has already risen from around zero in early 2016 to 2.3% in February/March this year, the highest since late-2013. And the pace of price hikes has quickened notably in recent months. The

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<sup>14</sup> See Alfaro, Bloom and Linx (2016).

<sup>15</sup> See OECD (2016c).

3-month/3-month seasonally adjusted annualized rate is running at about 4% for the headline CPI and 2½- 3% for core inflation. Both are the highest for over 4 years. These short-term measures are volatile, and our target is for the 12-month change in the CPI. But these short-term growth rates help illustrate the extent to which price hikes already are coming through, and beginning to squeeze consumers' real incomes.

Part of this rise in YoY inflation rates reflects the pass-through to prices of tradable goods and services from sterling's depreciation, including that before the referendum. But there are other factors, including global trends in oil and commodity prices. Indeed, YoY CPI inflation has risen by a similar amount in the OECD as a whole, and only slightly less in the Euro Area (see figure 10)<sup>16</sup>.

Given the usual lags, most of the post-referendum depreciation has not yet been reflected in consumer prices. As this continues to feed through, the MPC's base case, described in the February IR, is for YoY CPI inflation to rise to roughly 2¾% late this year and in early 2018. The full pass-through will probably take several years.

In my view, there are risks that the near-term boost to inflation from sterling's depreciation will be somewhat steeper than the February IR base case, even with modest wage growth. In particular, a range of indicators point to sizeable cost pressures in sectors focused on tradable items, a message backed up by the latest FSB survey<sup>17</sup>. These surveys mostly measure the breadth, rather than the pace, of price increases. But in the past, they have been a useful guide to inflation trends for CPI items with a relatively high import content, and point to considerable further upside in CPI prices in the next few quarters (see figure 11)<sup>18</sup>.

With the average levels of sterling and commodity prices over the last few weeks, I would not be surprised if CPI inflation reaches 3% later this year or early next. Such an outcome might well imply that the near-term squeeze on household real incomes and spending, and on profits in sectors with high import content, will be sharper than the IR base case. In theory, these readings could simply reflect faster pass through of sterling's depreciation. In this case, higher near-term inflation would probably be followed by a faster subsequent drop in inflation. But currently I suspect it is more likely to reflect a greater total pass-through, as after sterling's depreciation in 2007-09. This would be consistent with evidence that currency swings driven by changes in the economy's supply side (and Brexit probably falls into this category) tend to produce above-average pass through to consumer prices<sup>19</sup>. In this case, higher near-term inflation may well also signal some upside risks to medium-term inflation, and hence to long-term inflation expectations.

Either way, I want to stress that this prospective near-term inflation pickup does not imply that Brexit Britain will face persistently high inflation. Nor does it signal that the MPC has gone soft on our low inflation remit.

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<sup>16</sup> Since March 2016, EA CPI YoY inflation has risen from zero to +1.5% YoY, with no change in core inflation. Over the same period, UK CPI inflation has risen from 0.5% YoY to 2.3% YoY, a rise of 1.8pp, with a 0.3pp rise in core inflation (from 1.5% YoY to 1.8%).

<sup>17</sup> See "*Agents' Summary of Business Conditions, 2017 Q1*", Bank of England.

<sup>18</sup> There have also been some announced increases in energy prices that will take effect in coming months.

<sup>19</sup> See Forbes (2015).

Over time, the appropriate monetary policy can and will ensure that inflation returns to the 2% target, consistent with our remit.

**Exports** did not play much role in the economy's resilience in the last few quarters<sup>20</sup>. However, most recent business surveys (including the FSB survey) show buoyant readings for export orders, confidence and deliveries (see figure 12). These surveys suggest that in aggregate, UK exports are now likely to benefit more or less as usual from sterling's depreciation rather than the more muted response implied by consensus and BoE forecasts.

This produces something of a paradox: the referendum triggered a substantial sterling depreciation, probably reflecting the view that Brexit will, over time, hinder UK exports in some way. But, for now, the UK remains a full EU member with corresponding trade access. There is the possibility of an implementation phase that might keep the UK's trade arrangements fairly close to their current status for a period beyond the expiry of the normal 2-year Article 50 deadline. The possibility of less-favourable trading arrangements post-Brexit may still be too uncertain and distant to constrain exports in many sectors.

Hence, as my colleague Ben Broadbent noted, UK exporters are currently in something of a 'sweet spot'<sup>21</sup>. In the near-term, the boost from sterling's depreciation may well outweigh any adverse Brexit effects and generate quite strong export growth, especially given signs of better external growth. CBI surveys suggest that a record share of manufacturing firms report improved competitiveness versus EU and non-EU markets in recent quarters (see figure 13).

Indeed, even though the improvement in export orders has yet to be fully reflected in export volumes, increases in export prices are already lifting the relative profitability of export-focused sectors. For example, ONS data show a sharp rise in H2 2016 in the growth of nominal value added in sectors for which exports play a major role (see figure 14), with a marked disparity between domestic-focused and export-focused sectors.

Not all export-related sectors are benefiting equally. In particular, optimism over export prospects has risen more sharply in sectors which usually have relatively short order books. On balance, in sectors with very long order books (eg aerospace) -- and whose order books are perhaps more likely to extend into post-Brexit conditions -- optimism over export prospects has fallen slightly (see figure 15). Some sectors may be constrained by limited spare capacity. Moreover, service sector exporters are generally less currency-sensitive than manufacturing, and, correspondingly, report less recent improvement in external competitiveness and export prospects. Nevertheless, there are signs of a sizeable boost from the low pound in some service sectors, especially those focused on tourism in the UK.

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<sup>20</sup> The current account deficit did fall sharply in Q4, but this owed a lot to swings in flows of non-monetary gold, which often are erratic. Excluding erratic items, the trade deficit was little changed between H1 and H2 2016.

<sup>21</sup> See Broadbent (2017).

If we have been too early in assuming that Brexit will reduce the economy's openness, imports may also prove to be stronger. Even so, I suspect that exports and net trade will add a bit more to growth this year, and perhaps also 2018, than generally expected. Of course, this does not prove or disprove the notion (which seems to be implicit in sterling's depreciation) that Brexit might constrain UK exports longer term.

Regarding **business investment** – again, in contrast to worries of Brexit's long-run effects – surveys suggest that firms' investment intentions have improved recently and are slightly above average overall, especially in manufacturing (see figure 16). Reflecting the boost from sterling's depreciation, the share of manufacturing firms citing capacity expansion as a key reason to invest is the highest since 1979, with particularly high readings among larger firms (more than 500 employees).

Investment may be supported also by the strength of corporate profits. The ratio of private non-oil corporate profits to GDP in Q4 last year was the highest since 2000 (see figure 17). Taking annual data, the return on capital for nonoil non-financial companies in 2016 was the highest since 1998. Overall corporate liquidity is strong, and both the cost and availability of credit are favourable. Moreover, the BoE agents report that for some firms, the need to increase efficiency in the face of increases in energy, labour and materials costs is an additional spur to nearterm investment<sup>22</sup>.

To be sure, Brexit uncertainties may limit the extent to which current favourable trading conditions lead to strong investment growth and increased export capacity. But even so, for now, the indications from business surveys seem to me to be less weak than implied by the consensus.

**Productivity** trends are more mixed. The BoE's view has been that any adverse effects of Brexit on productivity will be very gradual. In practice, with faster output growth but slower job growth, productivity (output per hour) picked up to 1.2% YoY in Q4 2016, roughly half-way between the recent pace (2010-15 average of 0.5% YoY) and the pre-crisis average (1995-2007 average was 2.0% YoY).

It is possible that, with the economy probably near full employment and uncertainties over the future availability of foreign workers, firms may now be more likely to increase investment in training and labour-saving technology, or to undertake difficult decisions to re-engineer internal processes, in ways that deliver more lasting productivity gains. Conversely, in recent years, the ample availability of labour -- including foreign workers – may have encouraged some firms to adopt labour-intensive production methods, and fuelled growth in labour-intensive sectors.

But it is also possible that the productivity pickup in H2 2016 was partly temporary, with Brexit uncertainties leading firms to defer hiring despite solid activity growth. Hence, there may now be a catch-up in labour

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<sup>22</sup> See "Agents' Summary of Business Conditions, 2017 Q1", Bank of England.



demand. Indeed, the latest ONS figures show a sharp rise in hours worked in early 2017 (see figure 18). The BoE agents report a slight pickup in firms' hiring intentions (see figure 19), while the FSB survey points to quite a marked rise in hiring plans<sup>23</sup>. So it currently appears that the late-2016 productivity pickup is not being sustained.

I stress that these recent and prospective near-term trends in prices, productivity, exports and investment probably tell us very little either way over the long-run effects of Brexit over the next 10-20 years.

Let me try to tie this together.

My hunch is that in 2017-18 we will see higher near-term inflation, plus a greater rotation of growth away from consumer spending and towards investment and net trade, than the February IR base case. The upturns in exports and investment may keep the economy growing at around 2% YoY across 2017-18 combined even as consumer spending slows. To me, growth seems more likely to exceed the external consensus (which is for around 1½% in 2017-18 combined) than to undershoot.

The continued modest pace of pay growth suggests that the output gap is not fully closed. Nevertheless, with the jobless rate down to 4.7%, matching the lows of the last 40 years, slack is probably quite limited. Moreover, recent months have seen quite a sharp drop in the numbers of under-employed part-time workers and in the numbers of people who would like to work but are loosely attached to the workforce. As a result, a U6-style under-employment rate - which adds these groups to the official jobless rate - has fallen from 9.7% four months ago to 9.0% now, and is only slightly above the 2000-07 average (8.4%).

Unless the recent productivity pick up of H2 2016 is maintained - for which (as noted) evidence currently is slim - economic growth of around 2% implies that unemployment and under-employment are unlikely to rise in coming quarters and may well fall further.

Of course, there are many uncertainties. For example, consumers might retrench more than expected in response to the currency-driven erosion of their real incomes. Exports might fail to live up to hopes evident in business surveys. The process of Brexit might be bumpy, creating new waves of uncertainties. But there are also upside risks to growth. For example, consumers might view the real wage squeeze as temporary and, amidst ample credit availability, save less and maintain spending more than expected. Moreover, the factors behind the economy's recent outperformance, including better global growth, may continue to propel the economy more than expected going forward.

I would like to conclude with some comments on monetary policy.

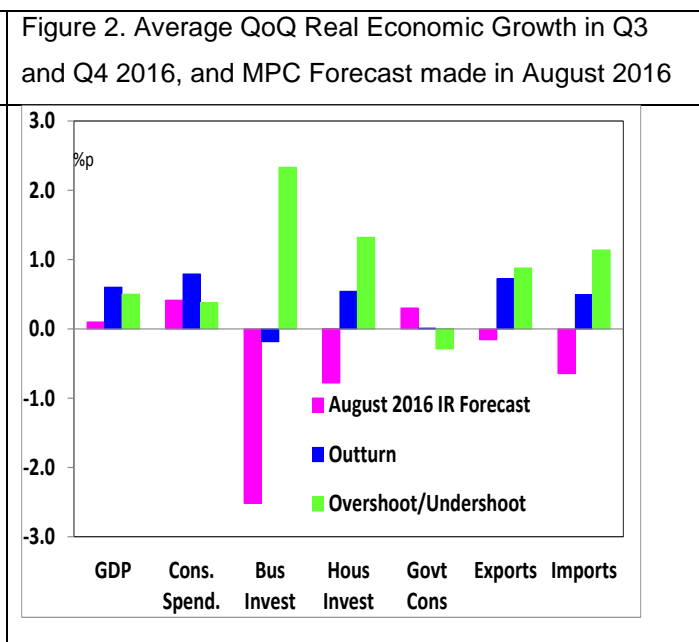
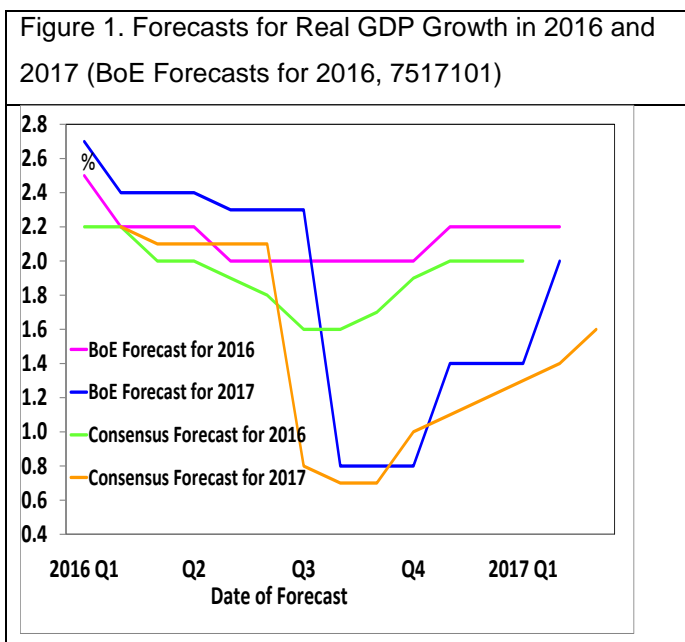
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<sup>23</sup> The figure for Q1 2017 is the second highest for any quarter since the start of 2010.

The neutral interest rate is probably significantly lower than in the period before 2007<sup>24</sup>, but even so, I judge that the current policy stance is clearly accommodative. The lower neutral rate implies that, if the MPC were to lift rates at some stage, the tightening path probably would be limited and gradual. Moreover – and, again, while not prejudging what I or the MPC might decide on monetary policy – a modest rise in rates would still imply that considerable stimulus remains in place, helping to support output and jobs.

At the MPC’s most recent meeting, in March, I voted for unchanged policy, especially on the grounds that it would be useful to see a bit more economic data for early 2017. I am not going to announce today how I will vote at the May meeting. There is plenty of data still to receive, and insights to be gained. So that decision will be made and announced at the proper time. I am not a big fan of using code words or language to signal or pre-announce policy decisions before they have been made. But, I do believe it is important that any monetary policy decisions, and the context underlying them – whether they are policy changes or not – are clearly explained.

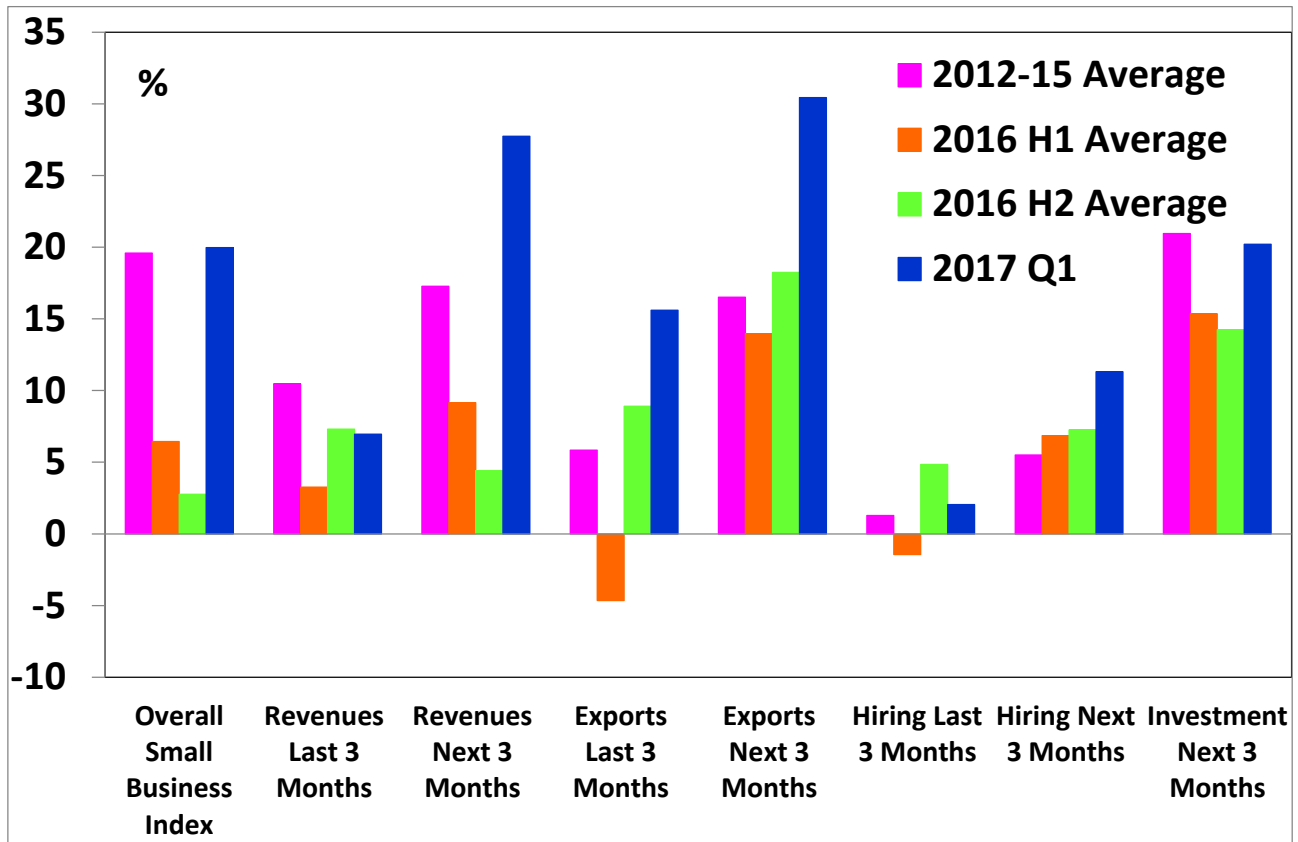
Finally, I do not believe the MPC is necessarily obliged to delay any policy moves until we have certainty over the exact shape of Brexit and its long-run effects on the economy. We make our decisions from meeting to meeting, and will fulfil our remit during the Brexit process and after it. Any policy decision carries risks that subsequent events make the decision controversial, but that is always the case. Perceptions of the economic outlook have already changed markedly in recent months and may well continue to do so. It is natural for policy to respond to the changing outlook if needed, consistent with our low inflation remit.



Source: HM Treasury, ONS and BoE.

<sup>24</sup> See box “Explaining the long-term decline in interest rates”, in the Inflation Report of November 2016.

Figure 3 -- Key Results from FSB "Voice of Small Business" Survey, 2012-17



Source: Federation of Small Businesses

Figure 4. Uncertainty Index and Economic Activity, 2007-17

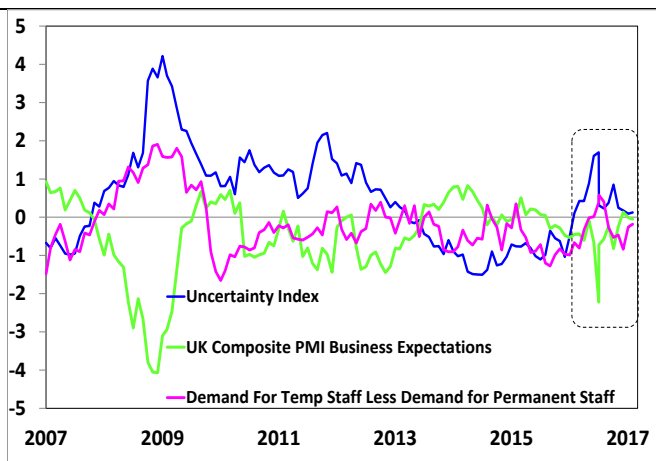
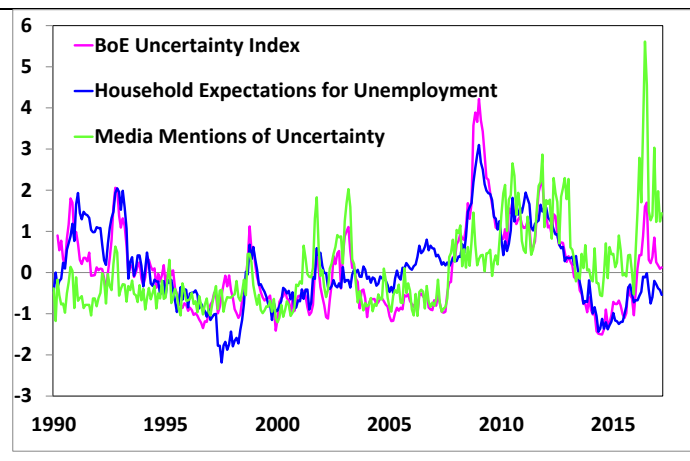


Figure 5. BoE Uncertainty Index and Selected Components, 1990-2017



Note: The uncertainty index and its components are shown as standard deviations from average.

Source: REC Report on Jobs, Markit and BoE.

Figure 6. BoE Uncertainty Index and Credit Availability, 2007-2017

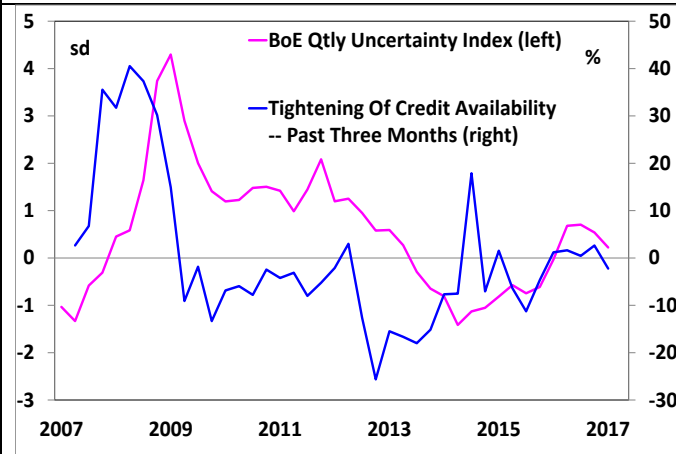
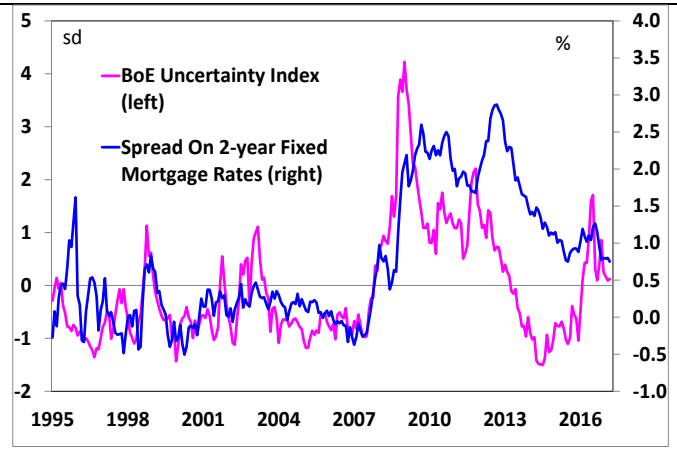


Figure 7. Uncertainty and Credit Spreads, 1995-2017



Note: In the left chart, spreads are measured as the average spread over swap rates on 2-year fixed mortgages with 75% LTV. In the right chart, the overall reading for credit availability is the weighted average of the readings for secured personal lending, unsecured personal lending and corporate lending. Uncertainty index measured as standard deviations from average. Source: BoE.

Figure 8. Liquid Assets and Debts of UK Private Non-Financial Corporate Sector (As Pct Corporate Gross Operating Surplus), 1987-2016

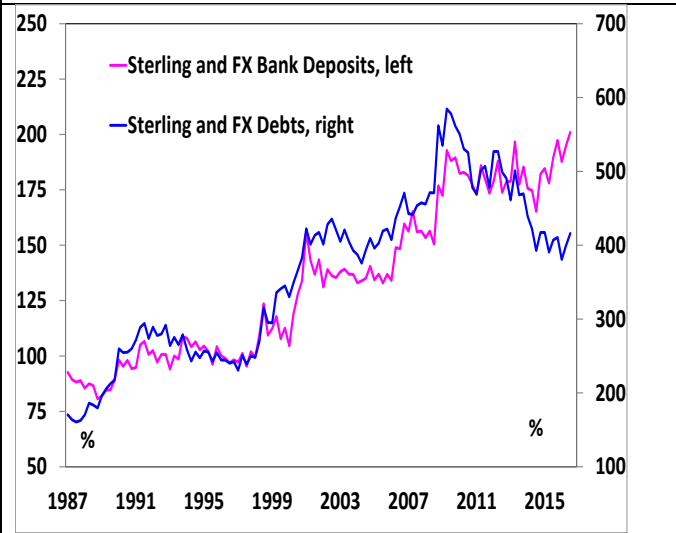
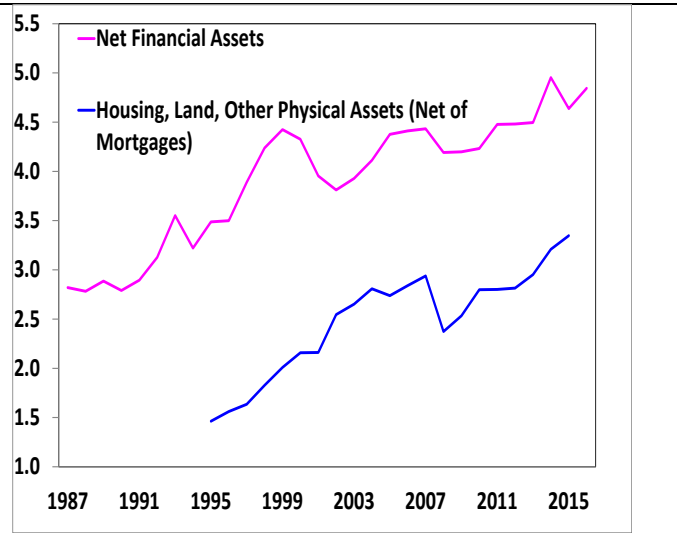


Figure 9. UK Household Wealth as Pct Gross Disposable Income, 1987-2016



Source: ONS and BoE.

Figure 10. CPI Inflation in UK, Euro Area and OECD Average, 2010-17

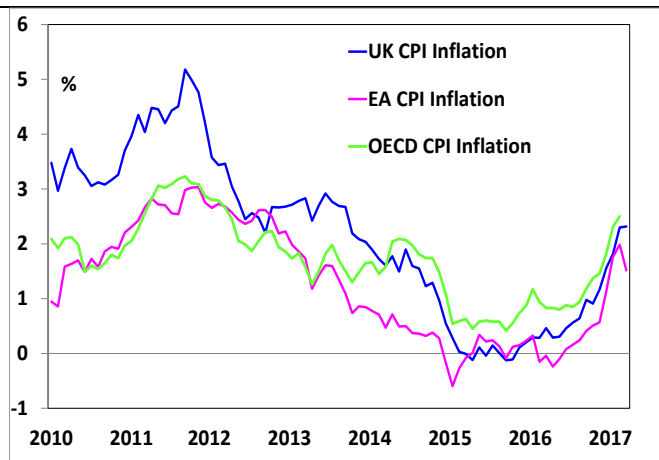
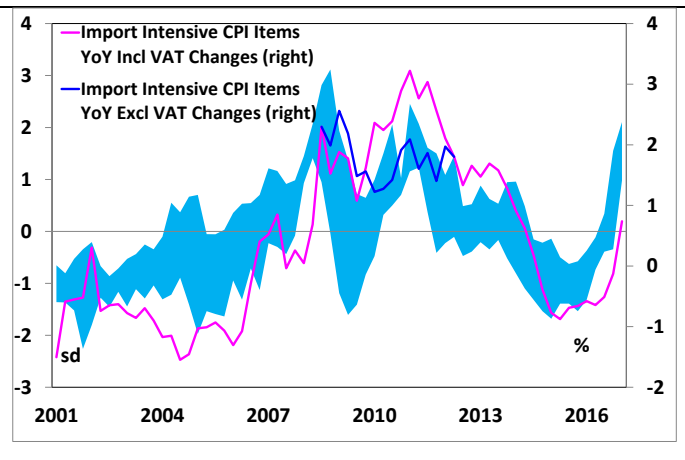


Figure 11. Guides to Inflation Pass-Through from Sterling and Global Costs, 2001-17



Note: The right chart shows the weighted average inflation rate for CPI items (excluding fuel and education) with a relatively high import content, accounting for 45% of the CPI. The price and cost indicators used are CIPS manufacturing output prices, ONS output prices ex food, drink, tobacco and petrol, CBI distributive trades expected price changes among retailers, CBI expected price changes among manufacturing firms, BoE Agents index on prices of finished goods import prices. These are shown as standard deviations from average. Source: Datastream, ONS and BoE.

Figure 12. Export Volumes and Survey Guides to Export Growth, 2002-2017

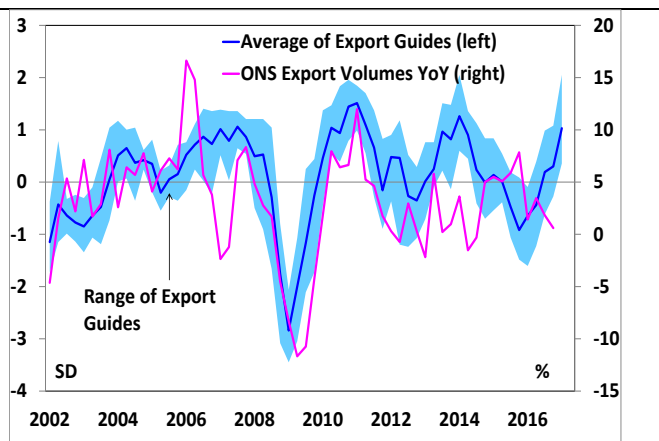
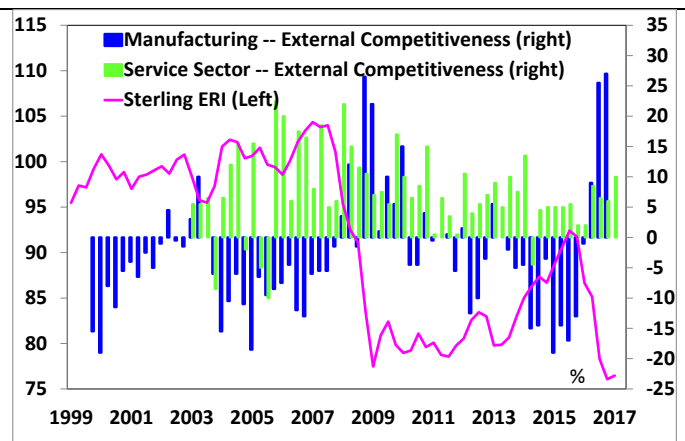


Figure 13. Sterling ERI and Net Balance of Firms Reporting Better/Worse External Competitiveness, 1999-2017



Note: In the left chart, export volumes are goods and services ex MTIC-related fraud. The right chart uses the average readings for the change in competitiveness versus EU and non-EU markets. Sources: EEF, CBI, BCC, CIPS and BoE.

Figure 14. YoY Growth of Nominal Value Added, 1998 H1-2016 H2

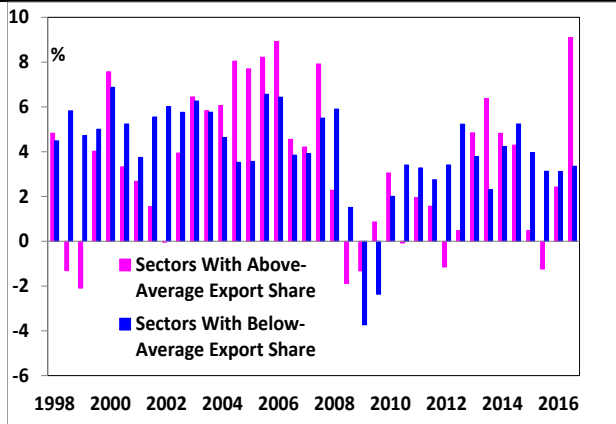
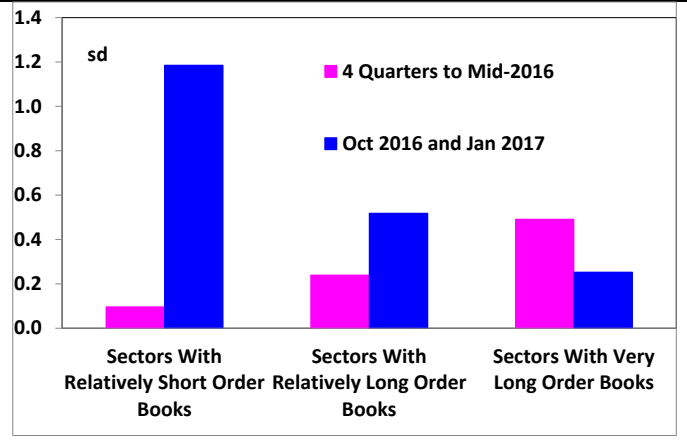


Figure 15. Export Optimism (sd from 20-year average) Split By Normal Length of Order Books, 2016-17



Note: the left chart uses a 97-sector split of the economy, with sectors allocated according to whether the share of exports in sectoral output is above or below average. The right chart uses a 21-sector split of manufacturing industry in the CBI Quarterly Industrial Trends survey. Sectors are split depending in whether the average length of order books over 2010-16 is below or above the average for all sectors. The sectors with very long order books are those for which at least 15% of firms on average have an order book equal to over 12 months of production: this covers aerospace, electrical engineering, motor vehicles and transport equipment. Sources: CBI and BoE.

Figure 16. Survey Guides to Business Investment, 2005-17

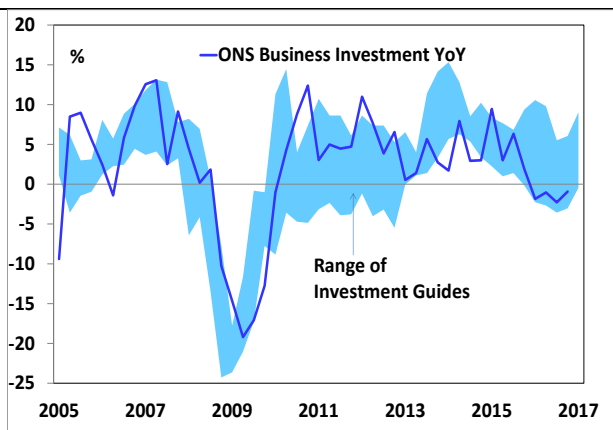
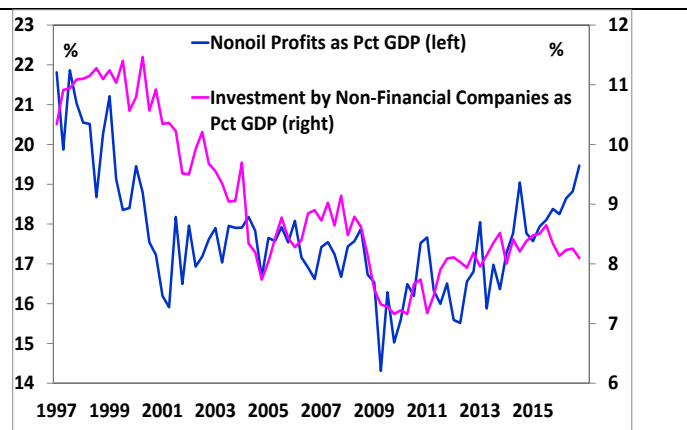


Figure 17. Profits and Investment as Pct GDP, 1997-2016



Sources: EEF, CIPS, BCC, ONS, CBI and BoE.

Figure 18. YoY Growth of Real GDP and Total Hours Worked, 2000-2017

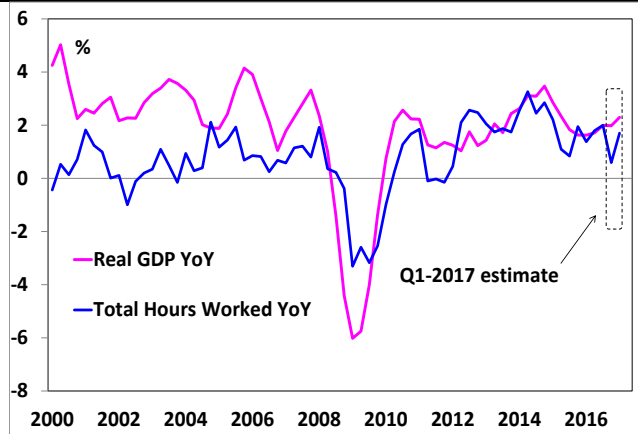
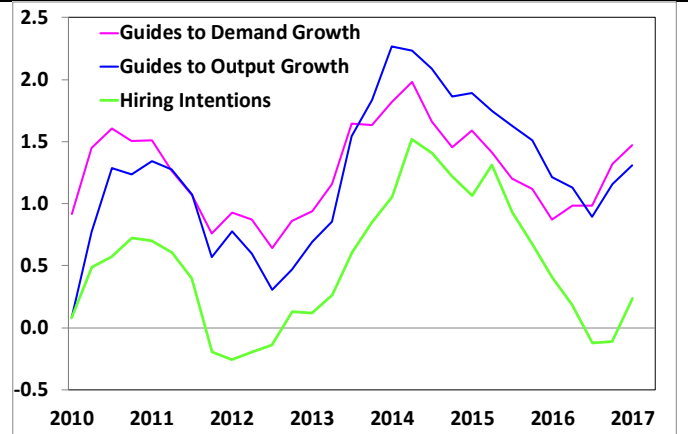


Figure 19. BoE Agents Survey Readings for Activity and Hiring, 2010-2017



Note: The left chart assumes that Q1 real GDP rose 0.5% QoQ, in line with the NIESR estimate. The latest figure for total hours worked is for the three months ended February. The right chart uses a weighted average of the BoE Agents readings for different sectors. Sources: ONS and BoE.

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