25 January 2018

Supplementary forecast information release

Long-term economic determinants

1.1 In our 2018 *Fiscal sustainability report (FSR)* later this year, we will publish updated long-term fiscal projections that will build on the medium-term forecasts in our forthcoming March 2018 *Economic and fiscal outlook (EFO)*.

1.2 The economic determinants that underpin our long-term fiscal projections are used by organisations inside and outside government to inform their own long-term modelling. Since the revisions to potential output growth set out in our November 2017 *EFO*, we have received requests for updated determinants and are therefore presenting the assumptions that will underpin this year's long-term projections ahead of publishing the *FSR* itself (as detailed in Table 1.1).

Table 1.1: Long-term economic determinants

	Annual growth rate, unless otherwise stated	
Labour productivity	**2.0**	OBR assumption
Prices and earnings		
Average earnings	4.2	Product of labour productivity and GDP deflator
Public sector earnings	4.2	Assumed to grow in line with private sector
GDP deflator	2.2	Constant from end of forecast
CPI	2.0	Constant from end of forecast at inflation target
RPI	3.0	Calculated as CPI plus 1.0 percentage points
RPIX	2.8	Calculated as CPI plus 0.8 percentage points
'Triple lock'	4.6	Calculated as average earnings plus 0.36 percentage points
Interest rates (per cent)		
Gilt rate	4.7	Calculated as nominal GDP growth plus 0.2 percentage points
Bank Rate	4.7	Calculated as nominal GDP growth plus 0.2 percentage points
Employment growth		
Public sector workforce growth	0.21	Broadly in line with total employment growth
Memo: average real GDP growth	2.2	*Product of labour productivity and employment growth*
Memo: average nominal GDP growth	4.5	*Product of real GDP growth and GDP deflator*

1.3 Our latest medium-term forecast runs to 2022-23, so these long-term assumptions will be applied from 2023-24 onwards. The exceptions to that are:

- **interest rates**, which are assumed to stabilise in 2037-38;
- **RPI inflation**, which is assumed to stabilise at the rate determined by the long-term wedge relative to CPI once interest rates reach a steady state in 2037-38;
- **productivity growth**, which is assumed to converge to its steady-state rate by 2030-31; and

- **average earnings growth**, which is assumed to stabilise once productivity growth reaches steady state in 2030-31.

1.4 Our latest economic forecast shows the gap between actual and potential output closing by the end of the medium term. We will assume the output gap remains closed thereafter.

Labour productivity

1.5 In November 2017, we revised down trend productivity growth significantly, having reassessed the hypotheses put forward to explain the weakness since the financial crisis. We assumed that trend hourly productivity growth would rise slowly from 0.7 per cent in 2018 to reach 1.2 per cent in 2022, significantly lower than the pre-crisis average of 2.1 per cent but higher than the post-crisis average of just 0.2 per cent.

1.6 We continue to assume that this post-crisis weakness will ultimately fade, so base our long-term projections on an assumption of 2.0 per cent a year trend productivity growth – as we did in our 2017 *FSR*. We assume an extended transition period over which productivity growth will converge to that long-term assumption, rising by 0.1 percentage points a year from 2023-24 to 2030-31.

Employment growth

1.7 We project long-run employment growth by combining ONS population projections with our employment rate projections, which in turn are derived from our projections of the unemployment rate and the participation rate. We calculate an employment rate consistent with an assumed non-accelerating inflation rate of unemployment (NAIRU) of 4.6 per cent of the labour force, which is the assumed rate at the end of our medium-term forecast.

1.8 Since our 2017 *FSR*, we have adjusted participation rates for changes in our projections for the State Pension age (SPA), reflecting updated ONS population projections (published in October 2017) and our assumptions about the operation of the longevity link. In July 2017, the Government announced its intention to bring forward the SPA increase to 68 from the years 2044-46 to 2037-39, and to aim for up to 32 per cent as the average proportion of adult life one should expect to spend in receipt of the state pension. When combined with slower growth in the adult population in the latest population projections, it has meant that employment growth has been revised down by around 0.14 percentage points a year relative to last year's *FSR*.

Prices and earnings

1.9 We have reduced our assumption for long-term growth in the GDP deflator by 0.1 percentage points to 2.2 per cent a year. This figure is constructed bottom-up by weighting assumptions for each of the expenditure components of GDP. The downward revision largely reflects updated weights for the different components. We continue to assume that CPI inflation remains at 2.0 per cent in the long term, consistent with the Bank of England's inflation target, and a long-run wedge between RPI and CPI inflation of 1.0 percentage point, giving a long-term assumption for RPI inflation of 3.0 per cent a year.

1.10 We assume that the labour share of national income is constant in the long run. As a consequence, average earnings growth is equal to the product of labour productivity growth and whole economy inflation. It rises at 4.2 per cent a year from 2030-31 onwards.

1.11 For the purposes of our long-term projections, we assume that the triple lock on state pensions uprating continues to apply. We have revised up the extent to which we assume that it will, on average, exceed earnings growth in the long term by 0.02 percentage points to 0.36 percentage points a year. This figure is calculated as the average additional uprating each year if the triple lock had been applied rather than earnings from 1991 to the end of our medium-term forecast in 2022-23, with the change since our 2017 *FSR* reflecting outturns for 2017 and revisions to our medium-term forecasts.

Interest rates

1.12 Market expectations for interest rates continue to lie well below our projections for nominal GDP growth. We have kept the difference between the long-term nominal interest rate and nominal output growth at 0.2 percentage points, leaving interest rates close to but above our growth rate projections. As a result, we have revised down our assumption for the long-term nominal gilt rate to 4.7 per cent. This reflects the downward revisions to growth in employment and the GDP deflator in the long term, as discussed above. It is assumed to take a little longer for the forces that have depressed safe interest rates over the past couple of decades to unwind than it does for productivity growth to revert to historical averages.