Executive summary

Overview

1 In the *Fiscal sustainability report* (*FSR*) we look beyond the medium-term forecast horizon of our twice-yearly *Economic and fiscal outlooks* (*EFOs*) and ask whether the UK's public finances are likely to be sustainable over the longer term.

2 In doing so our approach is twofold:

- first, we look at the fiscal impact of *past* government activity, as reflected in the assets and liabilities on the public sector's balance sheet; and
- second, we look at the potential fiscal impact of *future* government activity, by making 50-year projections of all public spending, revenues and significant financial transactions, such as government loans to students.

3 These projections suggest that the public finances are likely to come under pressure over the longer term, primarily as the result of an ageing population. Under our definition of unchanged policy, the Government would end up having to spend more as a share of national income on age-related items such as pensions and health care, but the same demographic trends would leave government revenues roughly stable.

4 In the absence of offsetting tax rises or spending cuts this would widen budget deficits over time and eventually put public sector net debt on an unsustainable upward trajectory. The fiscal challenge from an ageing population is common to many developed nations – a conclusion echoed in the European Commission's 2015 *Ageing Report*.

5 Separate from our central projections, we also look at the long-term sustainability of particular tax revenues. We have updated our assessment of the outlook for oil and gas receipts, which we have revised down again.

6 Long-term projections such as these are highly uncertain and the results we present here should be seen as illustrative, not precise forecasts. We quantify some of the uncertainties through sensitivity analyses, particularly relating to demographic trends and health spending.

7 It is important to emphasise that we focus here on the additional fiscal tightening that might be necessary beyond our medium-term forecast horizon, which currently ends in 2019-20. The report should not be taken to imply that the substantial fiscal consolidation already in the pipeline for the next five years should be made even bigger over that period.

8 That said, policymakers and would-be policymakers should certainly think carefully about the long-term consequences of any policies they introduce or propose in the short term. And they should give thought too to the policy choices that will confront them once the current consolidation is complete.

Public sector balance sheets

9 We assess the fiscal impact of past government activity by looking at the assets and liabilities on the public sector's balance sheet. We look at two presentations of the balance sheet: the National Accounts and the 2013-14 Whole of Government Accounts (WGA).

10 The last two governments both set targets for the National Accounts measure of public sector net debt (PSND) – the difference between the public sector's liabilities and its liquid financial assets. At the end of 2014-15, PSND was £1,484 billion, equivalent to 80.4 per cent of GDP or £55,600 per household. Our forecast for the level of PSND has risen since last year's *FSR*, but that revision reflects accounting changes implemented by the Office for National Statistics (ONS). We expect that – thanks to significant planned asset sales during 2015-16 – PSND will peak a year earlier than was forecast last year, in 2014-15.

11 National Accounts balance sheet measures do not include liabilities arising from the future consequences of past government activities, for example the pension rights that have been accrued by public sector workers. More information on liabilities of this sort is available in the WGA, which are produced using commercial accounting rules.

12 According to the 2013-14 WGA, as of the end of March 2014:

- the net present value of future **public service pension payments** arising from past employment was £1,302 billion or 73 per cent of GDP. This is £130 billion higher than a year earlier. While some of this reflects an increase in the expected future flow of pension payments – due to an additional year of public employment – once again, a lower discount rate used to convert the projected flow into a one-off net present value has added to the measured liability;

- liabilities include £142 billion (8.0 per cent of GDP) in **provisions** for future costs that are expected (but not certain) to arise. Total provisions have increased by £11 billion since last year's WGA. As in last year's WGA, the two largest sources of provisions – for future nuclear decommissioning costs (particularly at Sellafield) and clinical negligence claims – increased significantly, by £7.6 billion and £3.0 billion respectively. Repeated and substantial increases in these provisions suggest they could become significant future pressures on public spending; and

- £63 billion (3.6 per cent of GDP) of quantifiable **contingent liabilities** had been identified – costs that could arise in the future, but where the probability of them doing so is estimated at less than 50 per cent (so they are not included in the headline total of liabilities). The £25 billion reduction compared with last year was more than accounted for by the removal of the £30 billion contingent liability associated with the

UK's capital subscription to the European Investment Bank and the cancellation of the £8 billion contingent capital facility available to the Royal Bank of Scotland (RBS). This was partly offset by a doubling of HMRC's contingent liability associated with ongoing tax litigation cases, after an adverse judgement in a 'lead' case that prompted a number of 'follower' cases to be classified as contingent liabilities.

13 Overall gross liabilities in the WGA increased by £264 billion over the year to reach £3,189 billion at the end of March 2014. This was explained by the net deficit recorded during the year, as expenditure exceeded revenue, plus the accumulation of additional public service pension liabilities described above.

14 Unlike PSND, the WGA balance sheet also includes the value of tangible and intangible fixed assets – for example the road network and the electromagnetic spectrum respectively. These assets are estimated at £769 billion or 43.3 per cent of GDP at the end of March 2014. They have increased by £12 billion since last year's WGA. The overall net liability in the WGA was £1,852 billion or 104.4 per cent of GDP at the end of March 2014, up £224 billion on the previous year's restated results. This compares with PSND of £1,402 billion or 79.1 per cent of GDP at the same date.

15 One theme in this year's report is that the direct effects of the late-2000s financial crisis on the public sector balance sheet are now declining:

- the PSND inc measure of debt – which includes all net debt of the public sector banks, not just the government borrowing that financed purchase of equity in those banks – is now £0.3 trillion above the headline PSND ex measure, down from a peak of almost £1.5 trillion at the end of 2008. That reflects the public sector banks shrinking their assets and liabilities, but also Lloyds Banking Group being reclassified to the private sector as the Government has reduced its equity stake;

- the WGA contingent liabilities that the Government classifies as associated with financial sector interventions have fallen to £0.3 billion from £9.9 billion a year earlier, as the £8 billion contingent capital facility available to RBS was withdrawn. While these contingent liabilities have fallen to almost zero, there will remain a significant, if unquantifiable, fiscal risk related to the financial system (as is the case for all governments); and

- our medium-term forecast shows PSND ex falling in 2015-16 thanks to the sale of £20 billion of assets that the Government holds as a result of interventions made during the financial crisis – notably mortgage assets held by NRAM and much of its remaining stake in Lloyds. As these sales exchange one form of asset (e.g. mortgages or shares) for another (e.g. cash), they could have little or no effect on WGA net liabilities. That contrasts with the effect on PSND, where the assets being sold are not netted off net debt because they are illiquid, but the proceeds of the sale would either increase liquid assets if held as cash or reduce gross liabilities if used to pay down debt.

16 While these direct effects on the public sector balance sheet are now diminishing quite rapidly, the indirect effect via the recession that accompanied the financial crisis and, more importantly, the large and persistent hit to the economy's potential to produce national income continues. Our latest medium-term forecast is consistent with the hit to potential output relative to the pre-crisis expectation being 11 per cent by 2013-14 rising to 14 per cent by 2019-20, helping to explain why the structural fiscal deficit remained at 4.2 per cent of GDP (£76 billion) in 2014-15, despite five years of fiscal consolidation.

17 There are significant limits to what public sector balance sheets alone can tell us about fiscal sustainability. In particular, balance sheet measures look only at the impact of past government activity. They do not include the present value of future spending that we know future governments will wish to undertake, for example on health, education and state pension provision. And, just as importantly, they exclude the public sector's most valuable financial asset – its ability to levy future taxes. This means that we should not overstate the significance of the fact that PSND and the WGA balance sheet both show the public sector's liabilities outstripping its assets. Across countries and time, this has usually been the case.

Long-term fiscal projections

18 We assess the potential fiscal impact of future government activity by making long-term projections of revenue, spending and financial transactions on an assumption of 'unchanged policy', as best we can define it. In doing so, we assume that spending and revenues initially evolve over the next five years as we forecast in our March 2015 *EFO*. This allows us to focus on long-term trends rather than making fresh revisions to the medium-term forecast.

Demographic and economic assumptions

19 Demographic change is a key long-term pressure on the public finances. Like many developed nations, the UK is projected to have an 'ageing population' over the next few decades, with the ratio of the elderly to those of working age rising. This reflects increasing life expectancy, particularly among older people, relatively low fertility rates, and the retirement of the post-war 'baby boom'.

20 We base our analysis on detailed population projections produced by the ONS. In last year's report, we used the ONS 'low migration' variant of the projections, which we considered reasonable given international trends and the direction of Government policy. But with net migration having been much higher than expected over the past year, we have switched to the 'principal' variant – as we did for our medium-term forecasts in the March *EFO*. This is consistent with annual net migration of 165,000 a year rather than 105,000 a year, though it is still well below the 318,000 estimate of net migration in 2014. The effect of this change in assumption is to increase the size of the population by the end of our projections by 5.6 per cent, with the working-age population up 6.5 per cent and the over-65 population up 3.4 per cent. This therefore reduces the old-age dependency ratio relative to last year's projections.

21 As regards the economy, we assume in our central projection that whole economy productivity growth will average 2.2 per cent a year, in line with its pre-crisis average rate. As in each *FSR* to date, we assume CPI inflation of 2.0 per cent (consistent with the Bank of England's target). But we have made small revisions to other price assumptions, revising our GDP deflator growth assumption up to 2.3 per cent (from 2.2 per cent) and our long-term RPI inflation assumption down to 3.0 per cent (from 3.3 per cent). We have also revised up the assumed additional effect of the triple lock on pension uprating, which is informed by an estimate of its average cost had it been in place since the early 1990s.

Defining 'unchanged' policy

22 Fiscal sustainability analysis is designed to identify whether and when changes in government policy may be necessary to move the public finances from an unsustainable to a sustainable path. To make this judgement, we must first define what we mean by 'unchanged' policy over the long term.

23 Government policy is rarely clearly defined over the long term. In many cases, simply assuming that a stated medium-term policy continues for 50 years would be unrealistic. Where policy is not clearly defined over the long term, the *Charter for Budget Responsibility* allows us to make appropriate assumptions. These are set out clearly in the report. Consistent with the Charter, we only include the impact of policy announcements in our central projections when they can be quantified with "*reasonable accuracy*".

24 In our central projections, our assumption for unchanged policy is that beyond 2019-20 underlying age-specific spending on public services, such as health and education, rises with per capita GDP. As detailed spending plans are only available to 2015-16, we have to make an assumption about the composition of spending on public services in 2019-20:

- our central projection assumes that all types of departmental spending fall proportionately from 2015-16. This implies health and education spending, the main age-related elements of departmental spending, being reduced by 1.0 per cent and 0.6 per cent of GDP respectively between 2015-16 and 2019-20 (equivalent to £22 billion and £14 billion in nominal terms in 2019-20); or

- we could assume for these three years – as we do beyond 2019-20 – that per capita spending by age and gender is fixed relative to potential earnings. Under this scenario, health and education spending would be broadly flat as a share of GDP over these four years. The Government would then have to find cuts in other spending of 1.9 per cent of GDP (£42 billion in nominal terms in 2019-20) to stick to the March 2015 policy assumption for total spending.

25 We assume that most tax thresholds and benefits are uprated in line with earnings growth rather than inflation beyond the medium term, which provides a more neutral baseline for long-term projections. An inflation-based assumption would, other things equal, imply an ever-rising ratio of tax to national income and an ever-falling ratio of benefit payments to average earnings in the rest of the economy.

Results of our projections

26 Having defined unchanged policy, we apply our demographic and economic assumptions to produce projections of the public finances over the next 50 years. When comparing this year's results with our 2014 *FSR*, we have restated last year's projections to be as consistent as possible with the latest National Accounts treatment of the public finances and GDP.

Expenditure

27 An ageing population will put upward pressure on public spending. We project total non-interest public spending to rise from 33.6 per cent of GDP at the end of our medium-term forecast in 2019-20, to 38.0 percent of GDP by 2060-61, before falling slightly to 37.8 per cent of GDP in 2064-65. That would represent an overall increase of 4.2 per cent of GDP – equivalent to £79 billion in today's terms.

28 The main drivers are upward pressures on key items of age-related spending:

- **health spending** rises from 6.2 per cent of GDP in 2019-20 to 8.0 per cent of GDP in 2064-65, rising smoothly as the population ages. This profile is little changed from last year, with spending slightly lower by the end of the period due to the effect of higher migration on the old-age dependency ratio. A larger, but slightly younger, population means higher health spending and higher GDP in cash terms, but with the effect on GDP proportionately larger;

- **state pension costs** increase from 5.1 per cent of GDP in 2019-20 to 7.3 per cent of GDP in 2064-65 as the population ages. This profile is also little changed from last year, but due to the broadly offsetting effects of a higher assumed cost of uprating (in line with the triple lock) and a lower old-age dependency ratio (associated with higher net migration); and

- **long-term social care costs** rise from 1.2 per cent of GDP in 2019-20 to 2.2 per cent of GDP in 2064-65, reflecting the ageing of the population and the Government's announcement of a lifetime cap on certain long-term care expenses incurred by individuals. The projections are little changed from last year.

29 Our conclusions about age-related pressures on public spending in the UK are similar to those in the European Commission's 2015 *Ageing Report*, which was published in May. The Commission's results suggest these pressures in the UK are close to the average projected across the EU.

Revenue

30 Demographic factors will have less impact on revenues than on spending. Non-interest revenues are projected to be broadly flat across the projection period as a share of GDP. In our central projections, those revenue streams that are not affected by demographics are explicitly held constant as a share of GDP – even though non-demographic factors may affect them in the future.

31 In our detailed analysis this year, we have again updated our long-term projections of North Sea revenues, in light of the substantial drop in oil prices since last year and the changes to the policy regime announced in Autumn Statement 2014 and Budget 2015. Our latest medium-term receipts forecast – the starting point for our long-term projection – is for receipts of just £0.7 billion in 2019-20. That compares with the £3.5 billion in 2018-19 that underpinned last year's projections.

32 Our latest projection shows that the effect of lower oil and gas prices and production has been partly offset by lower expenditure to leave the implied pre-tax profits from the North Sea positive, but relatively low. The effects of accumulated losses reducing the effective tax rate paid by companies in the North Sea, plus the repayments associated with decommissioning costs, mean that in our central projection just £2 billion of receipts will be raised in total between 2020-21 and 2040-41. That is down from around £37 billion in last year's projection.

33 As we always stress, North Sea revenues have been the most volatile receipts stream and are subject to large forecast errors, even over the short term. These projections are therefore subject to considerable uncertainty. It is quite possible that the industry's response to conditions that currently prevail could lead to very different outcomes.

Financial transactions

34 In order to move from spending and revenue projections to an assessment of the outlook for public sector net debt, we need also to take public sector financial transactions into account. These affect net debt directly, without affecting accrued spending or borrowing.

35 For the majority of financial transactions, we assume that the net effect is zero. Student loans are an important exception. The Government's decision to sell the pre-2012 student loan book exchanges some future loan repayments for upfront sale proceeds, while crystallising the loss associated with interest rate and write-off subsidies. We have lowered our medium-term forecast for student numbers, which knocks through to our long-term projections. That slows the accumulation of debt over the near term, as it immediately cuts outlays but only gradually lowers repayments. Its ultimate effect is to lower the stock of debt in the long term, but not its profile from year to year. But this is eventually outweighed by other changes, such as lowering the assumption on prepayments, so that the peak impact on debt is 8.8 per cent of GDP by the late-2030s – 0.5 per cent lower than last year's figure (adjusted for National Accounts methodology changes) – and the impact at the end of the 50-year horizon is 8.0 per cent of GDP – 0.1 per cent higher than projected last year (again, on an adjusted basis).

36 On top of the sale of student loans, the Government has announced the sale of mortgage assets of NRAM and its shareholding in Lloyds Banking Group that are together expected to reduce PSND by £20 billion in 2015-16. The sale of financial assets is classified as a financial transaction in the public finances data. So sales reduce public sector net debt directly and indirectly via net borrowing (because interest is paid on a smaller stock of debt), but typically they also have offsetting effects when the government loses a related income stream. This is the case in each of these sales – forgoing repayments on student loans and

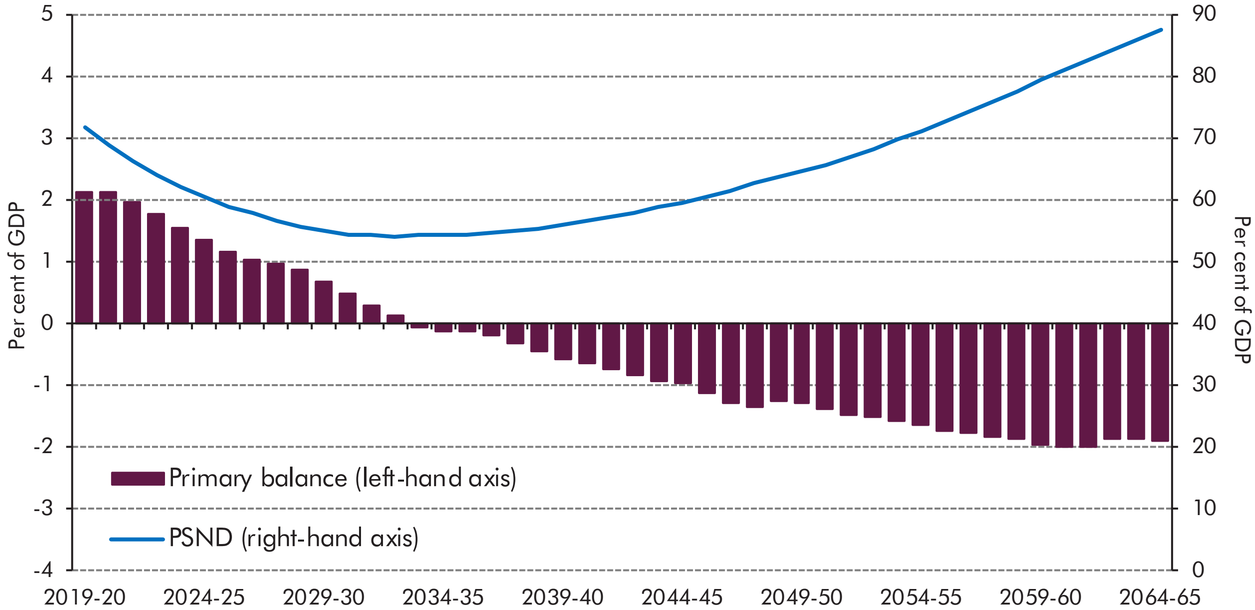
NRAM mortgages, and dividends from Lloyds shares. Over the long term, therefore, the net impact of asset sales on net debt is significantly less than the sale price.

Projections of the primary balance and public sector net debt

37 Our central projections show public spending increasing as a share of national income beyond the medium-term forecast horizon, gradually rising towards and then exceeding receipts. As a result, the primary budget balance (the difference between non-interest revenues and spending that is the key to the public sector's debt dynamics) is projected to move from a surplus of 2.1 per cent of GDP in 2019-20 to rough balance in the mid-2030s and then to a deficit of 1.9 per cent of GDP in 2064-65 – an overall deterioration of 4.0 per cent of GDP, equivalent to £76 billion in today's terms.

38 Taking this and our projection of financial transactions into account, PSND is projected to fall from its medium-term peak of just over 80 per cent of GDP in 2014-15 to 54 per cent of GDP in the early 2030s, before rising to 87 per cent of GDP in 2064-65. Beyond this point, debt would remain on a rising path.

Chart 1: Central projection of the primary balance and PSND



Source: OBR

39 The primary balance and PSND at the end of the projection period are little changed from last year's projections. That reflects the net effect of a number of offsetting factors:

- classification changes have had a small effect on the primary balance, but a larger effect on net debt in the short term that diminishes over the projection period;
- the primary surplus at the end of our medium-term forecast is lower than last year, which pushes through to the long-term projections, raising net debt. The main factors explaining this difference relate to the Coalition Government's spending assumption

that was applied in our March 2015 forecast. Lower debt interest spending implied higher departmental spending within a total spending envelope that had been tightened up to 2018-19. In addition, the spending assumption for 2019-20 implied departmental spending rising as a share of GDP in that year; and

- the effect of a looser fiscal position at the end of the medium term was broadly offset by our decision to switch our central projections from the ONS low migration population projections to the principal projections. That reduces the old-age dependency ratio relative to last year, reducing the extent to which age-related spending rises as a share of GDP in the long term.

40 Needless to say, there are huge uncertainties around any projections that extend this far into the future. Small changes to underlying assumptions can have large effects on the projections once they have been cumulated across many decades. We therefore test these sensitivities using a number of different scenarios.

41 The eventual increase in PSND would be greater than in our central projection if long-term interest rates turned out to be higher relative to economic growth, if the age structure of the population was older, or if net inward migration (which is concentrated among people of working age) was lower than in our central projection.

42 Given the importance of health spending in the demographic challenge to fiscal sustainability, the rate of productivity growth in the sector and the level of health spending at the start of the projection are also important assumptions. If productivity growth was weaker in the health sector than in the rest of the economy, and health spending was to be increased more quickly to compensate, then in our illustrative scenario health spending would rise by a further 5.0 per cent of GDP by 2064-65. This would see PSND rise substantially faster. If we assumed health spending moved in line with demographics from 2015-16, rather than being cut in line with other departmental spending, it would be 1.2 per cent of GDP higher in 2019-20. This would be compounded by the demographics to increase health (and therefore total) spending by a further 0.4 per cent of GDP by 2064-65.

Summary indicators of fiscal sustainability

43 In our central projections, and under most of the variants we calculate, on current policy we would expect the budget deficit to widen sufficiently over the long term to put public sector net debt on a rising trajectory as a share of national income. This would be unsustainable.

44 Summary indicators of sustainability can be used to illustrate the scale of the challenge more rigorously and to quantify the tax increases and/or spending cuts necessary to return the public finances to different definitions of sustainability. We focus on a measure of sustainability that asks how big a permanent spending cut or tax increase would be necessary to move public sector net debt to a particular desired level at a particular chosen date. This is referred to as the 'fiscal gap'.

45 There is no consensus on what would be an optimal level for the public debt to GDP ratio. So for illustration, we calculate the additional fiscal tightening necessary from 2020-21 to return PSND to 20, 40 or 60 per cent of GDP at the end of our projections in 2064-65.

46 Under our central projections, a once-and-for-all policy tightening of 1.1 per cent of GDP in 2020-21 (£20 billion in today's terms) would see the debt ratio reach 40 per cent of GDP in 2064-65. But this is less than the 1.9 per cent of GDP required to stabilise debt over the longer term and so the debt ratio would continue rising beyond the target date. Tightening policy by 0.4 per cent of GDP a decade would see the debt ratio fall more slowly to begin with, but the overall tightening would be large enough to stabilise the debt ratio at around the target level and prevent it from taking off again. These conclusions are little changed from last year. Targeting debt ratios of 20 and 60 per cent of GDP would require larger and smaller adjustments respectively.

47 These calculations depend significantly on the health of the public finances at the end of our medium-term forecast. If the structural budget balance was 1 per cent of GDP weaker or stronger in 2019-20 than we forecast in the *EFO*, the necessary tightening would be bigger or smaller by the same amount. The sensitivity factors that we identified in the previous section as posing upward or downward risks to our central projections for PSND similarly pose upward or downward risks to our estimates of fiscal gaps.