

1. Opening slide

- Thanks, Laura.
- Good morning, everyone.

2. Content of this report

- This year's report looks at three long-term risks to fiscal sustainability:
 - Chapter 2 considers the potential damage to our economy and public finances from a changing climate.
 - Chapter 3 looks at the impact of the health of the population on fiscal sustainability.
 - And Chapter 4 provides an updated set of long-term projections for the evolution of the public finances over the next 50 years.
- These projections take as their starting point the five-year forecasts we published in our March *Economic and fiscal outlook*.
- As such, they reflect our understanding of the state of the economy, and the cost of government policy, as they stood in March of this year.
- We'll be providing an updated five-year forecast, taking account of the effect of the new Government's policies, in our next *EFO* which will be published alongside the Chancellor's Autumn Budget on 30 October.

3. OBR climate change analysis

- Let me now turn to the first chapter of the report looking at the fiscal risks posed by climate change.
- These risks can be divided into three distinct, but related, categories:

- First, there are the costs to government of climate change **mitigation** – that is the actions necessary to reduce our future carbon emissions and limit our contribution to the rise in global temperatures. These were the focus of our 2021 *Fiscal risks report*.
- Second, there are the economic and fiscal consequences of the physical **damage** caused by the climatic changes that still occur *despite* those mitigation efforts. These climate-related damage costs are the focus of this year's *FRS*.
- Third, there are the economic and fiscal implications of **adapting** to a hotter and more volatile climate. We'll be looking into these potentially additional costs in a future *FRS*.

4. Climate change scenarios

- Our analysis takes as its starting point two of the UN Intergovernmental Panel on Climate Change's scenarios for the path of global carbon emissions and associated rise in average temperatures over the remainder of this century. These are:
 - A less than 2 degree rise in temperatures, which would be consistent with a successful global effort to reach net zero emissions by 2070.
 - And a less than 3 degree rise in temperatures, which would be consistent with current global commitments on emissions.

5. Indirect fiscal costs of climate damage

- Rising global temperatures, and the extreme weather events associated with them, impose both indirect and direct costs on the public finances.
- Indirect costs arise from the reduction in the productive potential of the economy due to things like rising energy costs, damage to residential and commercial property, and disruption to product, labour, and insurance markets.
- We estimate that these could reduce the level of UK GDP in 50 years by:
 - around 3 per cent in the below 2 degree scenario;
 - and around 5 per cent in the below 3 degree scenario.
- Lower GDP reduces government revenue and therefore increases government borrowing in 50 years by:

- 0.7 per cent of GDP in the below 2 degree scenario;
- and 1.1 per cent of GDP in the below 3 degree scenario.

6. Direct fiscal costs of climate damage

- In addition to these indirect costs, there are also likely to be direct fiscal costs from climate change in the form of the additional demands placed on the public finances due to more frequent and severe extreme weather events.
- These include:
 - additional pressures on the NHS and emergency services;
 - the need to repair damage to publicly owned buildings and infrastructure;
 - and pressure to compensate households and businesses for their uninsured damages.
- In the chapter, we look at the potential direct fiscal costs associated with the types of extreme weather events that have historically been the most relevant for the UK.
- These are: more frequent and severe heatwaves, and coastal, river and surface flooding.
- We estimate that the additional direct fiscal pressures generated by these events could cost the government a further:
 - 0.05 per cent of GDP per year in the below 2 degree scenario;
 - and 0.08 per cent of GDP per year in the below 3 degree scenario by the mid 2070s.

7. Total fiscal costs of climate damage

- Taking these indirect and direct costs together with the cost of financing the additional borrowing, and accounting for the smaller economy they produce, the total costs of climate-related damage over the next 50 years could add around:
 - an additional 25 per cent of GDP to government debt in the below 2 degree scenario;

- and an additional 35 per cent of GDP to government debt in the below 3 degree scenario.

8. Climate damage fiscal costs: Scenario range

- The uncertainties around these estimates are very large.
- And because they only look at domestically generated costs, and don't take account of potential spillovers from more severe climatic changes in other parts of the world, the balance of risks is likely skewed toward more adverse outcomes.
- We therefore look at a range of alternative scenarios based on different assumptions about the scale of economic damage and how government policy responds to it.
- Varying some of the parameters underpinning these estimates could:
 - reduce the overall debt impact to below 10 per cent of GDP;
 - or raise it above 65 per cent of GDP by the mid-2070s.
- It is tempting to want to conclude that these damage costs can be avoided by more determined action on our part to reduce our own emissions.
- And that is almost certainly true to some degree, especially if it spurs other countries to more determined action as well.
- But it is important to bear in mind that:
 - More than half of the stock of emissions released into the atmosphere and rise in global average temperatures assumed in these scenarios has already happened.
 - And the UK today represents less than 1 per cent of global emissions.
 - While the world's largest emitters like the US, China, and India, are significantly behind us in getting to net zero.
- So some increase in climate-related damage to the UK economy and public finances looks inevitable and already seems to be happening.
- It is therefore probably more realistic to think of these estimates of the fiscal costs of climate *damage* as being additional to the estimated 20 per cent of GDP in fiscal cost

associated with the UK's national effort to *mitigate* climate change by reducing our own emissions to net zero by 2050.

9. Long-term health trends (Chapter 3)

- Let me now turn to the second topic in this year's *FRS* – health.
- The health of the population is an important driver of the UK's economic and fiscal prospects, and has been a major focus of our risks reports in recent years:
 - Our 2021 report looked at the near-term impact of the pandemic on the UK economy and public finances.
 - Our 2023 report look at the risks posed by the post-pandemic rise in health-related inactivity for our medium-term forecast.
 - In this report, we look at the long-run impact of the health of the population on the sustainability of the public finances.

10. Trends in healthy life expectancy

- The starting point for this analysis is an updated assessment of recent trends in health and healthcare spending.
- As you can see from the charts on this slide, the steady improvements in life expectancy and healthy life expectancy that the UK and other G7 countries witnessed through much of the past two centuries have slowed, and partially reversed, in recent years.
- Underlying this has been:
 - a mixed pre-pandemic picture on physical health with continued improvements in some areas but worsening in others;
 - a steady deterioration in self-reported mental health;
 - and the impact of the pandemic, which exacerbated existing health challenges and disrupted the delivery of both physical and mental health services.

11. Trends in health expenditure

- Over the same period, the UK has seen relatively strong growth in spending on health.

- Real health spending per person has risen three times faster than per capita GDP over the past two decades.
- And since the start of the century, total UK health spending as a share of GDP has risen from below 6 per cent to above 11 per cent – taking the UK from the lowest to the sixth highest among 19 advanced economies.
- So, despite devoting an unprecedented share of its national income to healthcare in recent years, the UK has seen the rate of improvement in the overall health of the population stall and possibly shift into reverse.

12. Growth in government health spending

- Looking ahead, the report provides an updated central projection for public spending on health over the next 50 years.
- This projection takes the estimated cost of the NHS Workforce Plan for the next four years, shown in purple.
- Thereafter, it's based on updated analysis of the main historical drivers of health spending in the UK.
- As you can see from the chart:
 - The single largest driver of health spending empirically has actually been rising per capita incomes, shown in yellow, which increase demand for healthcare as they do for most other services in the economy. If this were the only pressure on healthcare spending, then it would be much less of a worry from a fiscal sustainability perspective.
 - But the demographic pressures of an ageing society, shown in blue, add to demand for healthcare, especially over the next two decades as the post-war baby boom generation reach their 80s and 90s.
 - On top of these upward pressures on the *demand* for healthcare are a set of upward pressures on the unit cost of *providing* that healthcare, shown in green. These comprise:
 - the apparent productivity constraints on the delivery of in-person services like healthcare, the so-called 'Baumol effect';

- the growing prevalence of chronic conditions which raise individuals' lifetime healthcare costs;
 - and other factors like the rising cost of new medical technologies.
- Assuming current and future governments continue to respond to these pressures by increasing NHS spending, our baseline projection is for real health spending to continue to grow by just over 3 per cent a year on average over the next 50 years.

13. Government health spending

- Under these assumptions, public health spending rises from just under 8 per cent of GDP last year to 14½ per cent of GDP by the mid-2070s.
- As you can see from this chart, this is slightly less than we projected in our 2022 *FRS*. This largely reflects:
 - slightly slower growth in the unit cost of healthcare in the early part of the projection;
 - and a slightly lower old-age dependency ratio due to higher net migration in the latest ONS population projections.

14. Alternative long-term health scenarios

- But this is only one possible scenario for the future path of health spending.
- And changes in population health have wider fiscal effects beyond just their direct impact on health spending.
- Healthier people are more likely to be employed, often earn more, and tend to live longer. And the converse is also true for those in ill health.
- The health of the population therefore also has implications for government tax revenues, welfare spending, pensions, and other age-related spending.
- To illustrate the wider economic and fiscal implications of health, we also look at two alternative scenarios for the future evolution of the health of the population:
 - A better health scenario in which the incidence of work-limiting ill health is 25 per cent lower in 50 years' time than in our central projection.

- And a worse health scenario in which the incidence is 25 per cent higher.

15. Fiscal implications of better and worse health

- The long-term fiscal consequences of these alternative health trajectories can be seen in these two charts.
- They show how the level of the primary fiscal balance in the better and worse health scenarios differs from that in the baseline projection over the next 50 years.
- As you can see from the chart on the left, the primary deficit is just over 2 per cent of GDP lower in the better health scenario by the mid-2070s:
 - This is due to lower health and welfare spending and higher tax revenues, shown in purple, and blue and yellow.
 - But there's a modest offset from higher pensions and other age-related spending due to people living longer, shown in green.
- The primary deficit is over 2 per cent of GDP higher in the worse health scenario:
 - This is due to higher health and welfare spending and lower tax revenues.
 - And there is a modest offset from lower pension and other age-related spending due to shorter life expectancy and therefore a smaller pensioner population.

16. Debt implications of better or worse health

- By the end of the long-term projection, the compounding impact of lower borrowing and consequentially lower debt interest spending mean that:
 - debt is projected to be 44 per cent of GDP lower in the better health scenario;
 - with the reverse effects pushing debt 49 per cent of GDP higher in the worse health scenario.
- This suggest that significant changes to the health status of the population can make a material difference to the long-run fiscal outlook.
- But they are not, in themselves, enough to put the public finances on a sustainable trajectory.

- As you can see from the yellow line, even in the better health scenario, debt still doubles as a share of GDP to over 200 per cent by the mid-2070s.
- This is because pensions and other age-relating spending, whose costs still rise with healthy life expectancy, continue to put upward pressure on debt.

17. Updated population projections

- That brings me to the final chapter of this year's report, which provides an updated set of long-term projections for the public finances as a whole.
- These estimates take as their starting point the latest ONS demographic projections. These show the total UK population rising from 68 million people today to 82 million by the mid-2070s.
- As you can see, this is much higher than the slight fall in the population we projected in our last *FRS* in 2022, with the difference due almost entirely to higher assumed levels of net migration in the latest ONS projections.

18. Age structure of the UK population

- The population is also expected to age considerably over the next 50 years, with, as you can see from this chart:
 - the share of young people falling from 20 to 15 per cent;
 - the share of people of working age, between 16 and 64, falling from 61 to 58 per cent;
 - and the share of people over 65 rising from 19 to 27 per cent.

19. Net fiscal contribution by age

- The ageing of the population matters for the sustainability of the public finances, because:
 - most of the government's tax revenues, shown here in light blue bars above the x-axis, come from people of working age;
 - whereas most government spending, shown in the various bars below the x-axis, goes on older people.

- And, as you can see from the diamonds on the chart:
 - those between the ages of 20 and 70 tend to make a net positive contribution to the public finances;
 - whereas those under 20 and over 70 tend to be net recipients of public resources.

20. Government revenue and spending

- Therefore, over the next 50 years, the ageing of the population is projected to drive a growing gap between:
 - government spending, shown here in green, which rises to over 60 per cent of GDP;
 - and government revenue, shown here in yellow, which falls to just under 40 per cent of GDP;
 - this results in total government borrowing, the difference between the two, rising to over 20 per cent of GDP by the mid-2070s.

21. Increase in government borrowing

- The biggest drivers of this projected increase in the fiscal deficit are:
 - falling revenues from fuel duty and other taxes on emissions, shown in orange;
 - rising spending pressures on health, shown in blue;
 - rising spending on pensioners, shown in yellow, due to both an ageing society but also the operation of the triple lock;
 - and the interest costs on the government's growing stock of debt, shown in green.

22. Level of government debt

- These growing fiscal deficits feed through into a mounting stock of government debt which is projected to rise from just under 100 per cent of GDP today to over 270 per cent in the mid-2070s in our baseline projection, shown here in green.

- But this doesn't account for the fiscal impact of future economic shocks, like the pandemic and energy crisis, which have been important drivers of recent increases in debt.
- Taking account of potential future shocks, as shown in the green dotted line, debt would rise to over 300 per cent of GDP, higher than it has even been in the country's history.
- A better outlook for productivity growth than assumed in our long-term economic projections could help to offset some of these fiscal pressures.
- As you can see from the yellow line on the chart, a return to pre-financial crisis rates of productivity growth could, in theory, stop debt from rising at all as a share of GDP over the next 50 years.
- But this would require the government to spend none of the fiscal proceeds of this higher growth.
- If government were, instead, to raise spending in line with the faster growing economy, then, as you can see in the yellow dotted line, debt would still more than double over the next 50 years.

23. Preserving fiscal sustainability

- There's clearly a lot of uncertainty about what might happen over the next half-century.
- And so the report looks at a range of alternative scenarios based on different underlying assumption for things like cost of climate change, the composition of inward migration, and the rate of productivity growth in both the health service and the wider economy.
- But on almost any scenario, government is likely to have to raise taxes or cut spending if it is to keep the public finances on a sustainable path in the long term.
- Keeping debt at around its current level of just under 100 per cent of GDP would require an additional fiscal policy tightening of around 1 to 1½ per cent of GDP per decade.
- Were these fiscal adjustments to come from greater spending restraint, this would require either significant improvements in public sector productivity or strict prioritisation between competing pressures.
- Were the adjustment to come from further increases in taxation, governments would need to weigh any additional direct revenue yield against the impact of a rising tax take on incentives to work, invest, and save.

- Long-term pressures on the public finances could be partly alleviated if we and other countries could find cost-effective ways of limiting the rise in global temperatures, improving the health of our populations, and boosting the productivity of our economies.
- But these would only improve debt sustainability if governments manage to refrain from spending all of the resulting fiscal dividends.