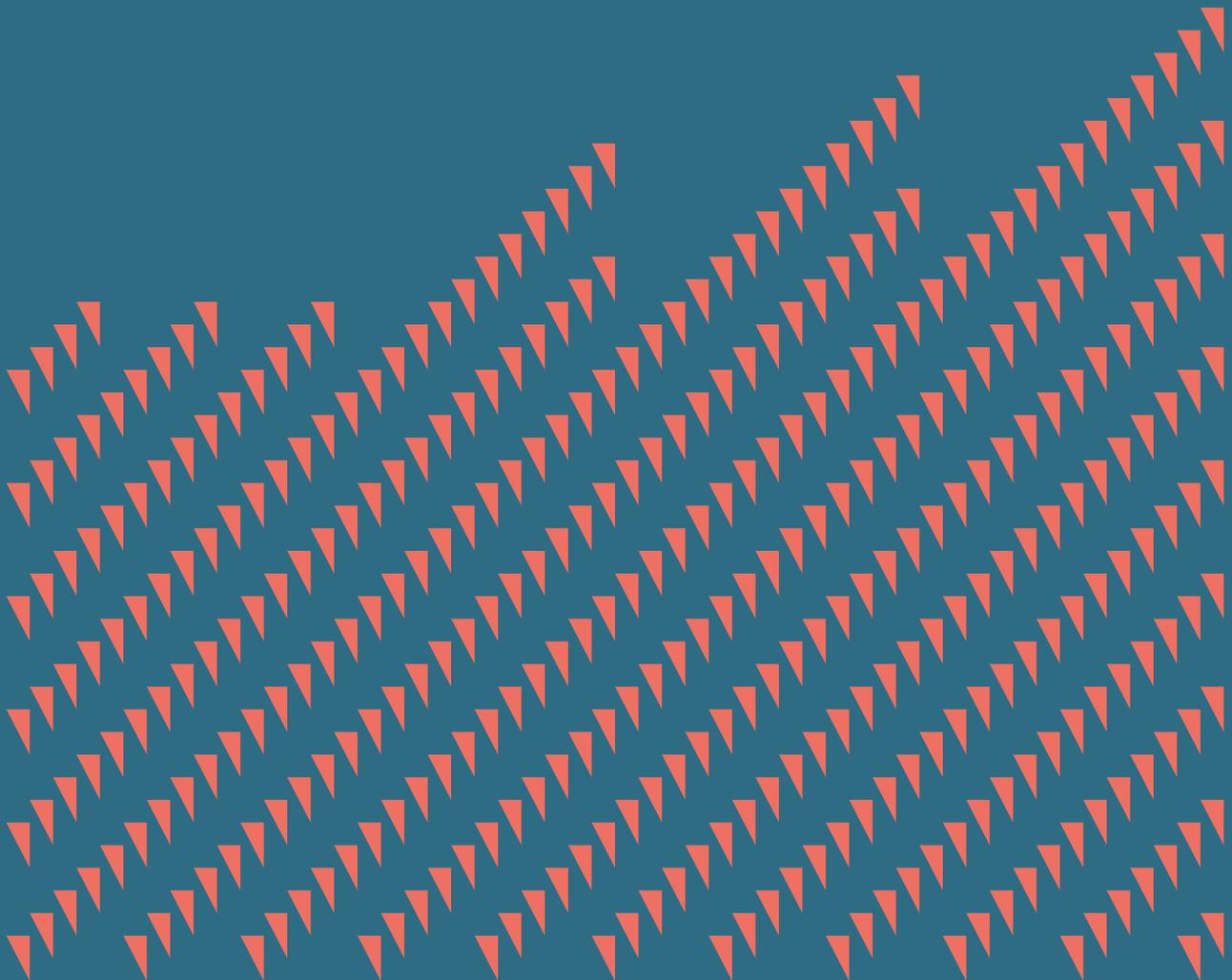


# Seeking public value

The case for balance sheet targeting in fiscal policy

Richard Hughes  
September 2019



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## Summary

The traditional measures of government financial performance in the UK, public sector net borrowing and debt, do not fully capture the way in which people think about, talk about, and make fiscal policy today. There are four reasons why the government's next set of fiscal rules should take a more comprehensive view of the public sector balance sheet:

- First in the wake of the global financial crisis, the government's balance sheet has become an important instrument of macroeconomic policy in the form of financial sector asset purchases by the Treasury, quantitative and credit easing by the Bank of England, and concessional loans to students and first-time home buyers.
- Second, with interest rates at historic lows, the fiscal debate on both sides of the political spectrum is increasingly focused on whether and how to make even more active use of the public balance sheet to address society's most pressing problems.
- Third, the latest cross-country economic research shows that countries with stronger public sector balance sheets can borrow more cheaply, are more resilient to economic shocks, and experience shorter and shallower economic recessions.
- Finally, targeting the public sector balance sheet is not only desirable but now possible. After more than a decade of preparatory work, the UK now has some of the most comprehensive, timely, and reliable public sector balance sheet data of any country in the world.

There are a range of possible options for targeting the public sector balance sheet for fiscal policy purposes, including by targeting:

- public sector net financial liabilities (PSNFL) which captures all *financial* assets and liabilities held by government and would illustrate how it is using its financial balance sheet to deliver its policy objectives;
- public sector net worth (PSNW) which captures all financial and *non-financial* assets and liabilities held by government and would illustrate the net fiscal benefit or cost of any strategy to "borrow to invest"; or
- the intergenerational balance which includes not only all assets and liabilities held by government but also the present value of *future taxes and spending obligations*. This would illustrate the long-run sustainability and intergenerational fairness of current fiscal policy settings.

Incorporating one of these measures into the government's next set of fiscal rules would help bridge the current gulf between policymakers' stated fiscal aims and measured fiscal reality. In doing so, it would enhance the political salience of fiscal rules, expand the

information base for fiscal decision-making, and reinforce public accountability for fiscal performance.

In summary, shifting the focus of fiscal policy from a narrow definition of public sector net debt to the wider public sector balance sheet is theoretically desirable, political necessary, and practically achievable. Exactly how that might be done, within the context of wider reform to the UK's fiscal rules, is the subject of a forthcoming Resolution Foundation paper.

## Going with the flows: The limits of current fiscal targets

In the UK, as in most countries, fiscal policymaking focuses almost exclusively on the government's financial *flows*: revenue, expenditure, and borrowing. The only *stock* that enters into the discussion is debt, usually expressed as a share of GDP (another flow used an imperfect proxy for its affordability).<sup>1</sup> Asset-holdings including shares, loans, land and buildings, infrastructure, and intellectual property appear nowhere in the main summary measures of government financial performance. Moreover, rapidly growing non-debt liabilities in the form of pension promises to government employees and citizens, public-private partnership contracts, and other long-term financial commitments are similarly outside the scope of the usual budgetary discussions.

For a long time, the omission of the government's wider asset and liability holdings from consideration by fiscal policymakers was due to a lack of data. The national accounts framework which statistical offices and ministries of finance used to track fiscal performance in the vast majority of countries was designed to understand the annual contribution of government to the flow of funds that constitute GDP (the G in C+I+G+X-M). Just as economists and statisticians have largely ignored trends in the accumulation of wealth in different parts of the economy, they have also paid scant attention to the accumulation of assets and non-debt liabilities by governments. Apart from government debt, which was important to calculating the flow of interest payments between government and the rest of the economy, the remainder of the government balance sheet was of little interest to those primarily focused on coming up with the most reliable estimates of monthly, quarterly, and annual GDP.

Moreover, most governments did not produce or publish balance sheets for their own purposes. If they did, it was only on an annual basis and with such long lags (12 months or more) that the information was too out of date to inform real-time decisions about tax and spending. Even those governments that did publish regular and timely balance sheet information seldom forecasted the evolution of their assets, liabilities, and net worth for

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<sup>1</sup> An OECD survey of fiscal reporting in advanced countries found that only 3 of 36 OECD member countries (Australia, Iceland, and New Zealand) include regular projections of the public sector balance sheet in their budget documentation. Delphine Moretti and Tim Youngberry (2018), "Getting Value out of Accruals Reforms," OECD Journal on Budgeting, Volume 2018/1.

the year ahead or over the medium term. Given that fiscal policy-making is an inherently forward-looking exercise, this was another serious impediment to trying to set fiscal policy objectives or understand the impact of fiscal decisions in balance sheet terms.

This deliberate ignorance of the stock position seemed an anathema to anyone working in the private sector, especially those who had some experience working in or with governments. How could any institution look only at the size and cost of its debts without also considering the potential returns on the assets they helped to finance? With reforms to corporate accounting rules revealing yawning deficits in companies' defined benefit (DB) pension schemes, why did the liabilities of analogous (and entirely unfunded) public sector DB pension schemes appear nowhere in government finance statistics? Why is a multi-year public-private partnership (PPP) contract recorded as an asset of the company providing the service but not as a liability of the government paying the bill?

## Time to take stock: Why balance sheets matter

There are a number of reasons for fiscal policymakers to remove this blind spot in their understanding of the public finances and take a more comprehensive view which incorporates both flows and stocks. These are a mixture of (i) the possibilities created by improvements in financial reporting, (ii) the desirability of capturing the full scope and cost of government interventions in the economy, (iii) the necessity of understanding the consequences of competing fiscal strategies for long-term sustainability, and (iv) the fiscal and economic benefits that accrue to countries with stronger balance sheet positions.

### Balance sheet data is increasingly comprehensive, timely, and reliable

First, governments in the UK and elsewhere are less and less able to plead ignorance about the state of their balance sheets. Over the last decade or more, there has been a quiet revolution in government financial reporting which has brought government accounting much closer to corporate accounting in both standards and practice. Starting in the late 1990s, the International Public Sector Accounting Standards Board (IPSASB)<sup>2</sup> has been adapting the International Financial Reporting Standards (IFRS)<sup>3</sup> used by listed companies for use by governments in the production of their accounts. Their 42 standards cover everything from valuation of agricultural produce to social benefits and have been adopted by 18 countries, the European Commission, OECD, NATO, and all organisations in the UN system as the basis for their accounts. And they require the publication of a comprehensive government balance sheet.

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<sup>2</sup> <https://www.ipsasb.org>

<sup>3</sup> <https://www.ifrs.org>

In the UK, public sector balance sheet reporting has become both more comprehensive and, in recent years, more timely. The Treasury has published Whole of Government Accounts (WGA),<sup>4</sup> which include a full balance sheet prepared in line with IFRS standards, for a decade. WGA is comprehensive not only in its coverage of assets and liabilities but also in its institutional coverage, consolidating over 8,000 entities across central government, local government, and all public corporations (including the Bank of England). The WGA balance sheet shows that the public sector's liabilities (£4.6 trillion) were more than twice its assets (£2.0 trillion) in 2017-18, and its net worth had steadily deteriorated from -£1.2 trillion (-77 per cent of GDP) in 2009-10 to -£2.6 trillion (-124 per cent of GDP) in 2017-18.<sup>5</sup> While it provides a richer picture of the state of the UK public finances, the principal drawback of WGA is that it comes out more than 12 months after the end of the financial year – long after the budget policies for the next but one financial year had been decided.

However, over the last three years, the Office of National Statistics (ONS) has begun publishing more frequent and timely *statistical* data on the public sector balance sheet with a similar institutional coverage to WGA. In November 2016, the ONS began publishing quarterly data on public sector net financial liabilities (PSNFL) which covers all *financial* assets and liabilities of the public sector (including items like the student loans issued by Department for Education, the bank shares and residential mortgages acquired by the Treasury during the financial crisis, and the corporate bonds acquired by the Bank of England through its credit easing operations).<sup>6</sup> Crucially, in the 2016 Autumn Statement, the Office for Budget Responsibility (OBR) also began forecasting the evolution of PSNFL over the forthcoming five years.<sup>7</sup> However, PSNFL still provided an incomplete view of the public sector balance sheet as it excluded non-financial assets such as land, buildings, and military equipment and non-financial liabilities such as unfunded public service pensions. Some of these remaining gaps were filled in June of this year when the ONS published its first statistical estimates of the entire public sector balance sheet which included initial estimates of the government's non-financial assets.<sup>8</sup> The remaining gaps, including first statistical estimates of the government's unfunded public sector pension liabilities, are due to be filled in the ONS's Public Sector Finance release in October.<sup>9</sup> The assets and liabilities included in these different measures of the public sector balance sheet are summarised in Figure 1.

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4 <https://www.gov.uk/government/collections/whole-of-government-accounts>

5 WGA 2009-10 and 2017-18 and OBR public finances databank.

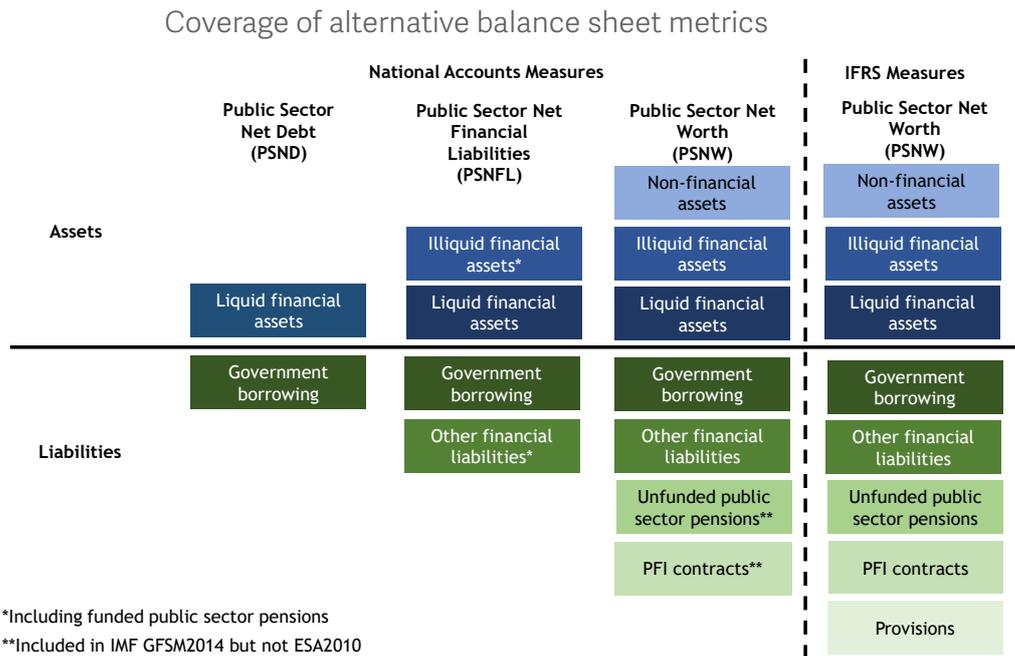
6 ONS (2016) Autumn statement: Supplementary fiscal aggregates, November.

7 OBR (2016), Public sector net financial liabilities, Annex C in Economic and Fiscal Outlook November 2016, November.

8 ONS (2019), International Monetary Fund's Government Finance Statistics framework in the public sector finances, June.

9 David Bailey (2019), How we measure what the Government owns and what it owes, ONS Blog, 23 September.

FIGURE 1: The UK publishes a range of public sector balance sheet measures



SOURCE: HM Treasury (2018) *Managing Fiscal Risks* and author

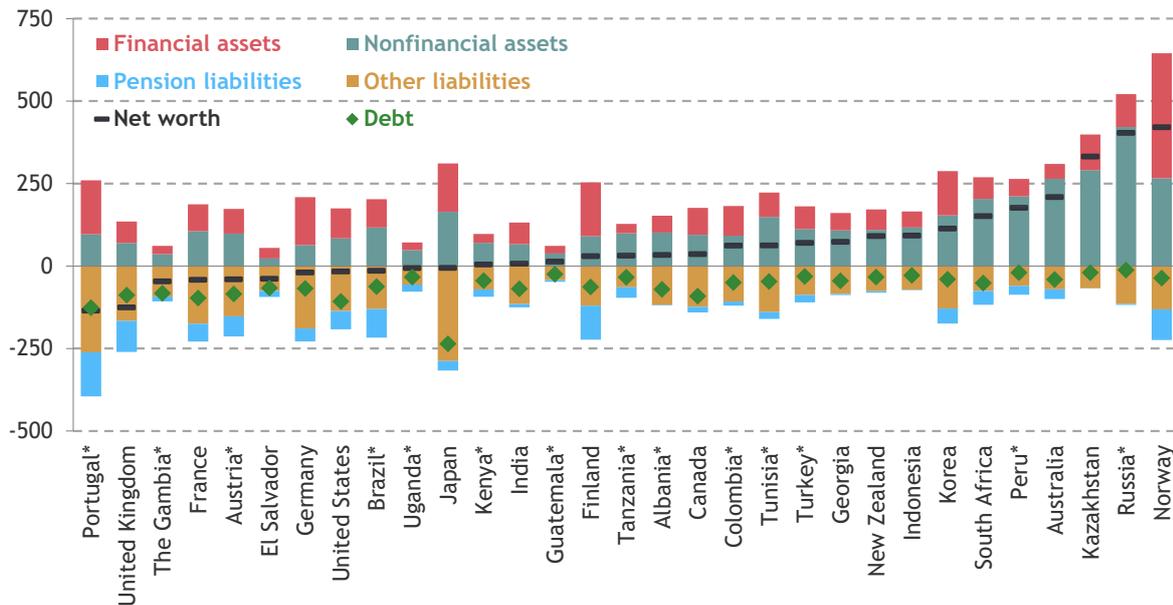
International organisations are also placing greater emphasis on understanding developments in public sector balance sheets in their multi-lateral surveillance. Stung by the experience of the global financial and eurozone debt crises which highlighted the complex interlinkages between sovereign and corporate balance sheets, the IMF, European Commission, and European Central Bank started taking a more active interest in governments’ holdings of different (and sometime highly exotic) financial instruments.<sup>10</sup> The IMF devoted the October 2018 edition of its bi-annual Fiscal Monitor entitled *Managing Public Wealth* to surveying the state of public sector balance sheets in 31 advanced, emerging, and developing economies as diverse as Norway (net worth of 421 per cent of GDP), India (net worth of 7 per cent of GDP), and Portugal (net liabilities of 136 per cent of GDP).<sup>11</sup> As shown in Figure 2, the UK has the second lowest public sector net worth among the countries sampled owing to a combination of its high government debt stock, large unfunded public sector pension liabilities, and lack of natural resource assets.

<sup>10</sup> IMF (2018), *Managing Public Wealth*, Fiscal Monitor: October 2018; European Commission (2018) *Public Assets: What’s at Stake? An Analysis of Public Assets and their Management in the European Union*, Economic and Financial Affairs Discussion Paper 89, November. European Central Bank (2019), *Taking stock of the Eurosystem’s asset purchase programme after the end of net asset purchases*, Economic Bulletin Issue 2.

<sup>11</sup> IMF (2018).

FIGURE 2: **It's not just what countries owe, but also what they own**

Public sector balance sheets in selected countries (% of GDP)



SOURCE: IMF Staff Estimates

NOTES: \*Based on a single year of data, in most cases compiled as part of the Fiscal Transparency Evaluation: Albania, 2013; Austria, 2015; Brazil, 2014; Colombia, 2016; The Gambia, 2016; Guatemala, 2014; Kenya, 2013; Peru, 2013; Portugal, 2012; Tanzania, 2014; Tunisia, 2013; Turkey, 2013; Uganda, 2015

## Balance sheets were the key mechanism for socialising risk during and after the crisis

A second reason to start taking government balance sheets seriously is the critical role they have played in responding to the global financial crisis and tackling other public policy challenges. Governments across the advanced world made unprecedented use of their balance sheets to bail out financial firms and support businesses and households in the wake of the 2008 crisis. Central banks, whose financial position is ultimately backed by taxpayers, saw their own balance sheets balloon over the same period as they purchased a range of public and private sector assets financed by the creation of central bank money.<sup>12</sup> The partial nature of government financial reporting (which both ignores the asset side of the balance sheet and usually excludes the central bank entirely) has meant that, for most countries, one can only ever see part of the costs and benefits of these interventions from a taxpayer perspective.

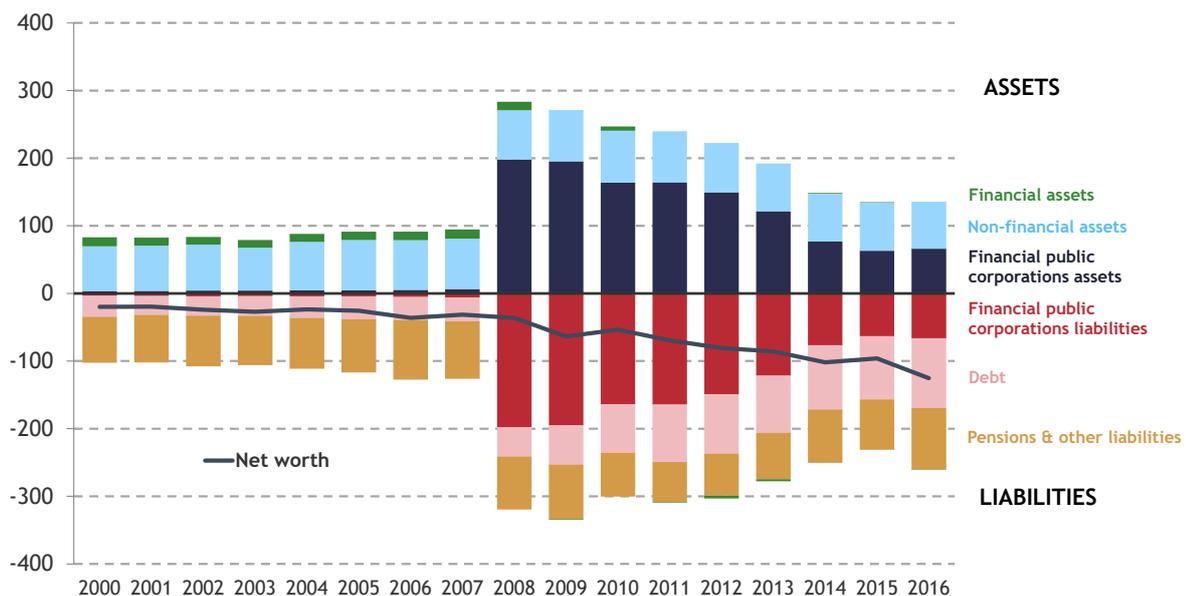
The active use of the government balance sheet to socialise risk in the heat of the 2008 crisis, and the legacy it has left behind, can be seen by looking at the evolution of the UK's public sector assets and liabilities since 2000. As shown in Figure 3, for the first seven years of the 21st century, the UK public sector had a relatively unexciting balance

<sup>12</sup> The UK taxpayers' implicit responsibility for the financial position of the Bank of England was formalised in a July 2018 memorandum of understanding on The Financial Relationship between HM Treasury and the Bank of England in which the Treasury formally underwrote the capital position of the Bank in exchange for enhanced information-sharing and risk analysis.

sheet comprised mostly of government debt and pension promises on the liability side and infrastructure, land and buildings, and other non-financial assets used in the delivery of public services (most importantly railways and roads) on the asset side. When the crisis hit, the public sector balance sheet ballooned with assets trebling from 95 per cent of GDP in 2007 to 285 per cent of GDP in 2008 and liabilities more than doubling from 123 per cent of GDP in 2007 to 320 per cent of GDP in 2008.

**FIGURE 3: The UK’s public sector balance sheet exploded following the financial crisis**

Evolution of the UK public sector balance sheet, 2000-16 (% of GDP)



SOURCE: IMF (2018) *Managing Public Wealth*

This leveraging up of the UK public sector was driven initially by the Treasury’s efforts to rescue the financial sector at the height of the crisis and later by the Bank of England’s attempts to rekindle economic growth in its aftermath. The acquisition of RBS, Lloyds, Northern Rock and other distressed financial institutions accounted for most of the almost £3 trillion increase in assets and liabilities in 2008.<sup>13</sup> These purchases were gradually unwound as the shares, loans, and mortgages of these banks were sold back to the private sector over the next decade, and, by early 2019, £95 billion of the £137 billion in public financing raised to acquire these assets has been recouped by the taxpayer.<sup>14</sup> Over this same period, the balance sheet of the Bank of England has continued to grow initially through the purchase of primarily UK government bonds (which net off within the public sector accounts) and later through the purchase of corporate bonds and other

<sup>13</sup> IMF (2018) and WGA 2009-10.

<sup>14</sup> OBR (2019), *Fiscal Risks Report*, March, Table 3.1.

securities (which do not).<sup>15</sup> By the end of 2018, the Bank of England's total assets and liabilities stood at £611 billion (29 per cent of GDP) or six times its size a decade earlier.<sup>16</sup>

However, the use of the government balance sheet was not limited to financial stability and monetary policy purposes. Over the last decade, the government has made active use of loans, guarantees, and other financial instruments to increase access to higher education, help first time buyers get a foot on the housing ladder, finance infrastructure projects, and manage the cost of healthcare. At the moment, none of the £65 billion (3 per cent of GDP) in assets or £84 billion (4 per cent of GDP) in contingent liabilities created through these interventions are recognised in the summary fiscal aggregates used for fiscal policy.<sup>17</sup> With Brexit looming on the horizon, the government is also under pressure to use its balance sheet to offer loans or guarantees to firms struggling to cope with the uncertainty and disruption created by changes in the UK's trading relationship with the EU and rest of the world.<sup>18</sup>

Moreover, the government is not a mere passive investor in these financial instruments but actively manages its portfolio of assets and liabilities to meet its fiscal targets. The government's current fiscal rules commit it to putting public sector net debt on a declining trajectory in 2020-21, an objective it has met two years early in 2018-19. However, as shown in Figure 4, over the next five years most of the reduction in the government's debt burden is actually being financed by the redemption or disposal of asset holdings by the Bank of England and Treasury, rather than any underlying improvement in the balance between revenue and spending. Transactions in financial assets and liabilities therefore play a critical role in meeting not only the government's microeconomic policy objectives but also in the delivery of its overall macro-fiscal strategy.

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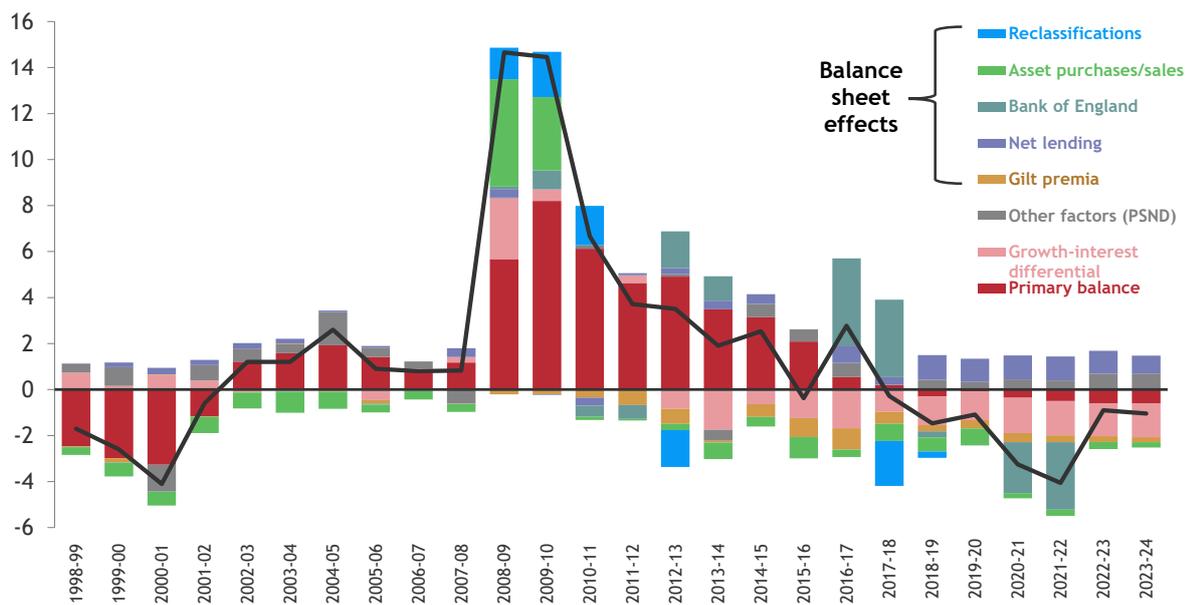
<sup>15</sup> The Bank did conduct some small-scale purchases of corporate paper and bonds in the early stages of the QE programme with a total volume of just over £1 billion.

<sup>16</sup> Bank of England, Annual Report and Accounts 2008 and 2018.

<sup>17</sup> HM Treasury, Whole of Government Accounts 2017-18.

<sup>18</sup> See Richard Hughes, Jack Leslie, Cara Pacitti, and James Smi, Dealing with 'no deal': The economic policy response to a 'no deal' Brexit, Resolution Foundation, September 2019.

FIGURE 4: **Balance sheet transactions are now the main drivers of debt**  
Sources of year-on-year changes in the debt-to-GDP ratio (% of GDP)



SOURCE: Office for Budget Responsibility, Public Finances Databank

## The post-crisis fiscal policy debate is increasingly about the public balance sheet

Third, ten years on from the global financial crisis, fiscal policymaking in advanced countries is increasingly dominated by a debate about whether and how to make more active use of the public balance sheet to deal with society’s most pressing problems. As the exigency of deficit reduction has receded post-crisis, the focus of the fiscal policy debate has shifted to a discussion of whether government should either continue to rebuild fiscal resilience through further steady reductions in government debt<sup>19</sup> or take advantage of permanently lower interest rates to borrow to finance growth-enhancing investments.<sup>20</sup> Some political parties are even making the case for direct government investment in the reacquisition of public utilities and other strategic industries.<sup>21</sup>

Implicit in both of these arguments is a conception of the public sector balance sheet that goes beyond just borrowing and debt. Those on the hawkish end of the debate point to the looming future costs associated with an aging population as a reason to keep the government’s conventional financial liabilities (in the form of debt) on a downward trajectory.<sup>22</sup> Those who argue that government should borrow to invest make the implicit assumption that these investments will pay dividends either directly (in the form of

19 See HM Treasury July 2018 report on Managing Fiscal Risks.  
20 See Olivier Blanchard’s January 2019 speech on Public Debt and Low Interest Rates.  
21 Labour Party September 2018 Consultation Paper on Democratic Public Ownership.  
22 See IMF’s April 2019 Fiscal Monitor.

actual dividends on shares acquired in nationalised companies)<sup>23</sup> or indirectly (in the form of a higher tax take from a larger economy).<sup>24</sup>

However, neither side has been able to fully illustrate the mechanics of their policy positions using traditional fiscal policy concepts. Pension, health, and other future liabilities associated with an aging society do not appear in conventional measures of government debt. And neither the financial assets acquired through the nationalisation of public utilities nor the fixed assets created by investments in public infrastructure are netted off against the borrowing required to finance them in traditional fiscal forecasts. The last Labour government in the UK got around the latter problem by simply excluding investment expenditure net of depreciation from its Golden Rule which guided fiscal policy between 1997 and 2007. But this was largely as a consequence of the fact that the Whole of Government Accounts (WGA) were only on the drawing board in 1997, and the Treasury lacked the financial reporting tools needed to illustrate both sides of the 'borrowing to invest' equation.

Today, policymakers on both sides of this debate have at their disposal the toolkit to give definition and expression to these strategies. Pension liabilities are recognised in government accounts under the latest international standards and broader balance sheet measures bring in liabilities from health and social care as well. The financial and non-financial assets created by government investments are included in measures of public sector net worth. Governments are also more equipped to make intelligent use of their balance sheets to pursue their policy objectives. In the last three years, the Treasury has established a Balance Sheet Analysis unit and launched a Balance Sheet Review aimed at getting better value from the government's assets and liabilities.<sup>25</sup> The outcome of this exercise will inform the setting of multi-year financial settlements for each department at the conclusion of the next Spending Review.

## Governments with stronger balance sheets enjoy better macroeconomic performance

Finally, new cross-country research indicates that countries with healthier public sector balance sheets perform better fiscally and macroeconomically. An August 2019 IMF Working Paper by Seyed Reza Yousefi looked at the relationship between indicators of public sector balance sheet strength<sup>26</sup> and government borrowing costs among 30 countries since the turn of the century.<sup>27</sup> It found that financial markets take account of not only government debt but also government assets and overall net worth

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<sup>23</sup> Speech by Rt Hon John McDonnell to the 2018 Labour Party Conference, 24 September 2018.

<sup>24</sup> Rt Hon Boris Johnson Interview with Sky News, 30 June 2019.

<sup>25</sup> Vincent Tang et al. (2019), Reviewing the UK balance sheet-proving its (net) worth, IMF Public Financial Management Blog, June.

<sup>26</sup> Including both net financial worth and overall net worth.

<sup>27</sup> Seyed Reza Yousefi (2019), Public Sector Balance Sheet Strength and the Macro Economy, IMF Working Paper WP/19/170.

when pricing sovereign bonds. According to the author, a 10 per cent improvement in a government's net worth position reduces government bond yields by 15.4 basis points.

Governments with healthier balance sheets can not only borrow more cheaply but are also more resilient to macroeconomic shocks. The same paper found that, for a sample of 17 advanced economies from 1970-2015, governments with stronger balance sheets experienced shorter and shallower recessions. Five years after the start of the recessions, countries with stronger starting public sector net worth positions had real per capita income levels that were more than 6 per cent higher than those with weaker starting balance sheets. This was due, in part, to their capacity to use public expenditure to cushion the impact of the economic downturn on real incomes. Five years after the start of the recession, governments with higher starting net worth positions spent around 30 per cent more in real terms than countries with weaker starting balance sheets.

With the UK economy's tepid recovery from the global financial crisis menaced by both domestic and international developments, and monetary policy constrained, the government will need to rely more heavily on fiscal policy to support real incomes during the next economic downturn. Using a simple model based on financial market data, a July 2019 paper from James Smith of the Resolution Foundation estimated that the probability of entering a recession today is at its highest level since 2007.<sup>28</sup> A subsequent paper from Cara Pacitti and James Smith found that those on low and middle incomes are more financially vulnerable going into the next recession than they were in 2008.<sup>29</sup> The health of the UK public sector balance sheet is therefore of critical importance not only to long-term fiscal sustainability but also to the near-term prospects of the UK economy and welfare of the most vulnerable in British society.

## Targeting the balance sheet: What are the options?

With fiscal policy goals increasingly expressed in terms of the desired balance between public assets and liabilities, what would balance sheet targeting look like in the public sector? Recent experience in both the UK and internationally offer some insights into what the range of options might be.

### Targeting the financial balance sheet: Public sector net financial liabilities (PSNFL)

Targeting the government's financial balance sheet would provide a more accurate picture of the government's use of financial instruments such as loans or equity stakes to deliver its policy objectives as well as a more complete picture of the government's

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<sup>28</sup> See: J Smith (2019), Failing to plan = planning to fail: The risk of recessions and the importance of macroeconomic policy in limiting the damage they cause, Resolution Foundation, July.

<sup>29</sup> See: C Pacitti and J Smith (2019), A problem shared?: What can we learn from past recessions about the impact of the next across the income distribution?, Resolution Foundation, August.

marketable wealth. The net financial impact of (often soft) loans to students to pay for university tuition fees, first-time buyers to purchase houses, and businesses to reorganise their supply chains would all be captured by this broader measure. The equity stakes acquired in any nationalised utilities and loan portfolios of any national development banks would also be recognised, offsetting any borrowing required to finance them. Any difference between the government's cost of financing these interventions and the value of the assets they create would show up as a financial gain/loss to the taxpayer, strengthening incentives to ensure these investments at least cover their financial costs. Moreover, any write-down in the value of these instruments (either because of distress on the part of the borrower or leniency on the part of the lender) would also be recorded as a loss. Finally, any sales of government assets at prices above/below their retention value would also appear as a gain/loss on disposal, discouraging "fire sales" of assets to flatter the profile of government debt.

Targeting PSNFL would be relatively straightforward from an administrative perspective. The ONS already produces quarterly outturn data, and the OBR forecasts PSNFL and its components twice a year as one of the supplementary balance sheet indicators in its *Economic and Fiscal Outlook* (EFO). The ONS would need to increase the frequency of reporting from quarterly to monthly to give the Treasury and OBR more real-time data on its performance. Since most of the assets and liabilities included have either a fixed nominal or daily market value, this should not present a serious obstacle.

One of the most common reservations about targeting the balance sheet for fiscal policy purposes is the volatility or "noisiness" of summary balance sheet measures. In fact, as discussed in Box 1, balance sheet measures such as PSNFL and PSNW have actually proved to be less volatile than PSND, the stock measure that the UK government has used in all of its fiscal frameworks since 1997.

### BOX 1: How volatile is the public sector balance sheet?

One factor that has kept some governments from targeting the balance sheet has been a concern that measures like public sector net financial liabilities (PSNFL) or public sector net worth (PSNW) are likely to be more volatile than more conventional stock measures like public sector net debt (PSND). Fiscal policymakers

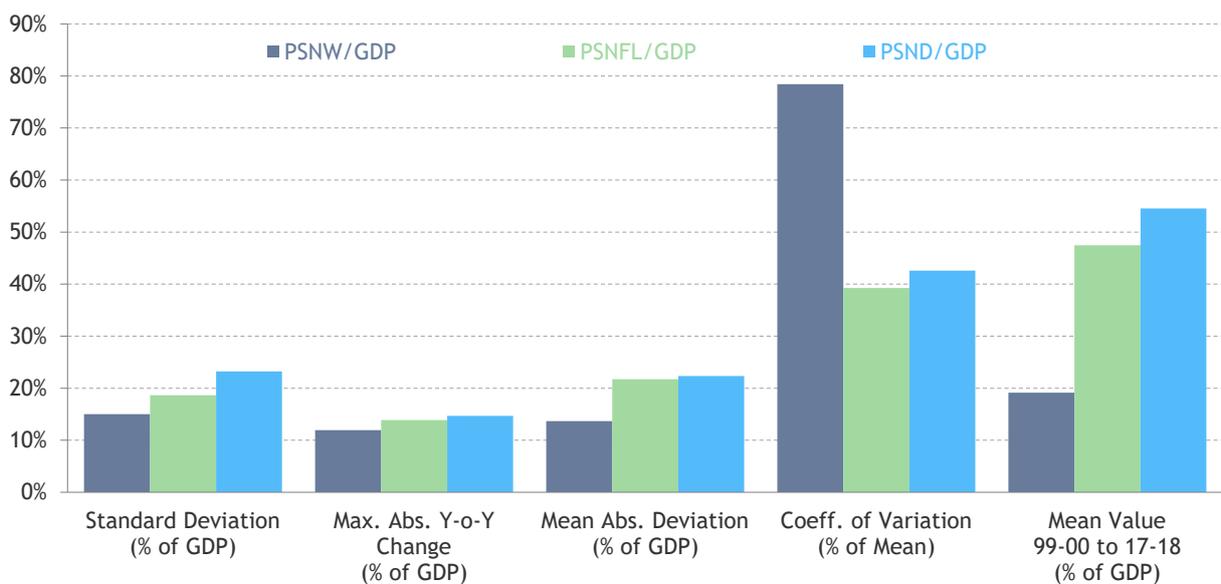
often cite two features of these more comprehensive balance metrics that they believe will make them more volatile: (i) that a number of balance sheet items are recognised at fair value which makes their value susceptible to changes in market prices; and (ii) that a number of the larger items on the balance sheet (such as public sector

pensions, the road network, or nuclear decommissioning costs) can be subject to large valuation changes due to revisions to the discount rate used to estimate their future benefits/costs.

While these individual balance sheet items can be subject to large changes in valuations from year-to-year, a comparison of the relative volatility of the different stock measures suggests that *more comprehensive measures* are actually *less volatile* on most metrics. As shown in Figure 5, between 1999-00 and 2017-18,<sup>30</sup> PSND is the most volatile on three out of four measures of volatility with a standard deviation of 23 per cent of GDP, maximum absolute year-on-year change of 15 per cent of GDP, mean absolute deviation of 22 per

cent of GDP, and coefficient of variation of 43 per cent during this period. PSNW is actually the *least* volatile on three out of four measures with a standard deviation of 15 per cent of GDP, maximum year-on-year change of 12 per cent of GDP, mean absolute deviation of 14 per cent of GDP and coefficient of variation of 78 per cent. PSNFL is consistently between PSND and PSNFL on all four measures of volatility. The high coefficient of variation (standard deviation/mean) for PSNW is, in part, an artefact of its relatively low mean value over the period. The other three measures of volatility, which capture their absolute deviations in per cent of GDP, are, arguably, more relevant to their viability as fiscal targets.<sup>31</sup>

FIGURE 5: Year-on-year volatility in different balance sheet metrics



SOURCE: Resolution Foundation analysis of ONS

<sup>30</sup> Source: ONS Public Sector Finances May 2019

<sup>31</sup> It is important to note that UK PSNW data does not currently include unfunded pension liabilities which may make the series more volatile when it is incorporated by the ONS in October 2019.

There are three main reasons for the relative stability of PSNFL and PSNW as a per cent of GDP. First, the statistical measures of PSNFL and PSNW, which would be used as the basis for any fiscal targets, value many stocks (including debt) at their nominal value. Market valuations are only used for a small number of tradable assets such as equities. Second, where market prices or discount rates are used in valuations, there are often offsetting changes in both assets and liabilities which net off in PSNW or PSNFL but not in PSND. For example, recent reductions in

discount rates have increased pension liabilities but also increased the present value of the road network. Third, one of the largest sources of volatility in PSND is the reclassification of entities into/out of the public sector which tends to result in large changes in debt (as some of these entities can be highly leveraged). However, these reclassifications tend to generate much smaller changes in PSNFL and PSNW, as these entities often also have significant assets which net off against their debts.

## Targeting the whole balance sheet: Public sector net worth (PSNW)

Targeting the whole government balance sheet through an objective for public sector net worth would bring public sector accounting into line with that of the private sector. All borrowing undertaken to finance the creation or purchase of not just financial but also fixed assets (such as hospitals, schools, or roads) would net off, regardless of whether the assets generated a direct financial return to government. Investments in intangible assets including research and development, patents, know-how, data, and other forms of intellectual property, which play key roles in driving growth in the knowledge economy, would also be recognised as assets in PSNW.<sup>32</sup> At the same time, the depreciation of these assets would score as an expense in government accounts, encouraging investment in their maintenance and/or replacement. Depletion of environmental assets such as forests and water resources would also reduce measured net worth. As with financial assets, any sale or transfers of assets at above/below their retention value would be recognised as a gain/loss to the taxpayer. PSNW also captures the accrued cost of public sector pension liabilities, providing a more accurate reflection of the total costs of public sector remuneration (encompassing wages, pensions, and other benefits). It would also include as liabilities the long-term costs associated with things like decommissioning of nuclear sites and oil and gas installations and clinical negligence claims on the NHS, some of the largest and fastest-growing provisions on the public balance sheet.

<sup>32</sup> For a more detailed discussion of wider UK government efforts to improve the management and exploitation of intellectual property see HM Treasury, *Getting smart about intellectual property in the public sector*, October 2018.

Targeting PSNW would therefore enable the government to borrow to invest in any fixed asset so long as its value was greater than or equal to its cost of financing. However, it would also compel government to adjust tax and spending policy to accommodate the costs associated with maintaining those assets, meeting its pension promises to public servants, and funding other longer-term pressures - as all of these costs would be recognised in the operating balance, the new surplus/deficit measure. It would also encourage the government to pay more attention to the spiralling long-run costs of clinical mistakes in the health service and clean-up costs of hazardous nuclear facilities.

Targeting PSNW would be more challenging but not impossible administratively. WGA has published annual estimates of PSNW for over a decade, but with a lag of a year or more. The ONS began publishing a more timely annual and quarterly statistical estimate of PSNW in June 2019 with only a 6-month lag.<sup>33</sup> However, as with PSNFL, PSNW estimates will be needed on at least a monthly basis if it is to be tracked as a headline indicator of fiscal performance. Moreover, because it includes a much broader range of long-term assets and liabilities, PSNW is more sensitive to changes in accounting parameters such as the discount rate used in the calculation of pension liabilities or the useful life of the rail network. For these reasons, PSNW may be more subject to level shifts than debt (which is recognised at face value). This argues for any PSNW-based target to be expressed in-terms of direction over the medium-term, rather than level in a given year.<sup>34</sup>

Adopting a fiscal target based on PSNW which the allowed government to invest in any fixed asset clearly raises questions about both the quality and the valuation of those assets relative to the cost of financing. Box 2 discusses various ways in which government can help to ensure that such debt-financed investments are genuinely net worth-improving.

## BOX 2: Ensuring the quality of public sector assets

Two key challenges associated with balance sheet targeting for fiscal policy are (i) estimating the rates of return on investment and (ii) the proper valuation of the assets created by that investment. If adopting PSNW as a fiscal target is to incentivise genuinely net worth-enhancing investments,

the government needs to prioritise investment in those projects with the highest economic rates of return and the valuation of the resulting assets needs to be reliable. The UK government has already taken a number of important steps in this direction but, as discussed below, there

<sup>33</sup> ONS Public Sector Finances May 2019

<sup>34</sup> This was the approach used by Australia and New Zealand when they set fiscal targets for the balance sheet.

is more that could be done to provide the necessary assurances.

### **Prioritising high quality rates of return**

The UK has long been a pioneer in the evaluation of public investment projects including through the publication and periodic refinement of the Green Book on economic appraisal of investment projects.<sup>35</sup> In addition, since its establishment in 2015, the National Infrastructure Commission (NIC) has provided independent advice on the country's long-term infrastructure needs and evaluation of the value for money major infrastructure projects, including through its quinquennial National Infrastructure Assessment (NIA).<sup>36</sup> The government could look to further enhance the level of assurance concerning the returns on major investment projects by (i) publishing the cost-benefit analyses (CBA) for all projects, (ii) mandating a NIC assessment of the value-for-money case for all projects above a cost threshold; (iii) setting a minimum hurdle rate for the benefit-cost ratios of major investment projects and requiring the government to comply or explain its rationale for financing any projects below that hurdle ratio; and (iv) tasking the NIC with ex-post evaluations of how actual returns on major projects compared with the ex-ante assumptions in cost-benefit analyses

and using this as the bases for further refinement of its methodology.

### **Ensuring fair and objective valuation of fixed assets**

In recognising fixed assets on its balance sheet, the UK public sector follows internationally agreed standards: International Financial Reporting Standards (IFRS) adapted for the public sector in the case of WGA and the IMF's Government Finances Statistics Manual 2014 (GFSM 2014) in the case of public sector finance (PSF) statistics. In general, both standards call for the recognition of assets at market value – calculated either based on prevailing market prices for non-specialised assets (such as office buildings) or replacement cost for specialised assets specific to the public sector (such as prisons). The application of IFRS standards to the valuation of assets in WGA is audited by the independent National Audit Office (NAO) in its annual certification while the valuation of assets in PSF is undertaken by the independent ONS.

Given the likely reliance on PSF statistics for assessing the government's performance against any PSNW-based target, a further degree of assurance could be sought by requesting an external evaluation of the UK's application of GFSM2014 standards in PSF statistics by the IMF, in particular as regards balance

<sup>35</sup> HM Treasury, The Green Book: appraisal and evaluation in central government, March 2019.

<sup>36</sup> <https://www.nic.org.uk>

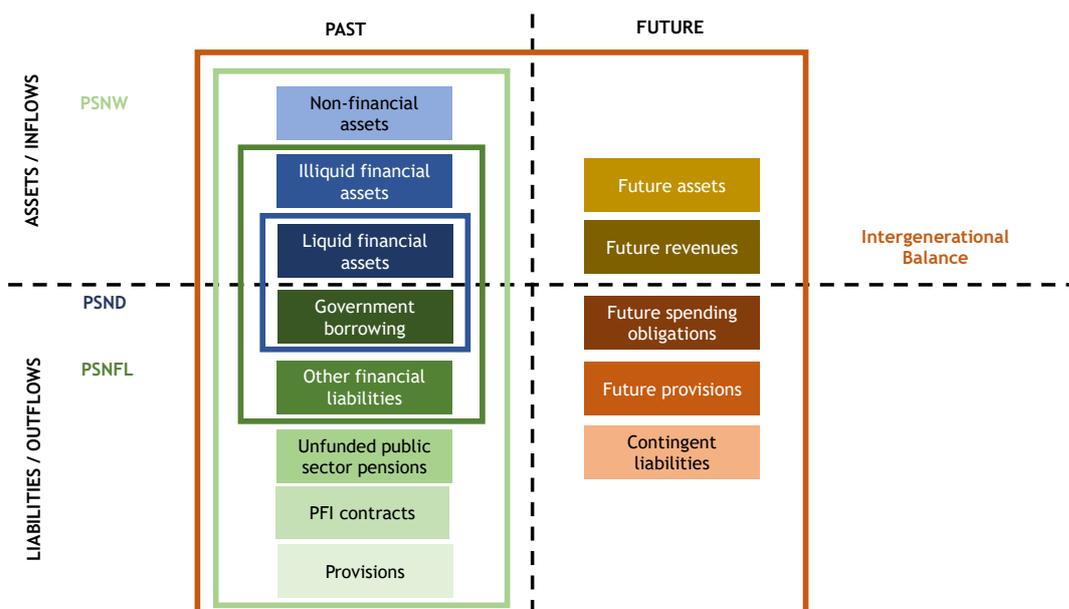
sheet items not covered by regular methodological visits by Eurostat.<sup>37</sup> These periodic methodological visits could be timed to coincide with those of Eurostat or take place alongside the IMF’s annual Article IV surveillance

mission. A report on the UK’s application of GFSM 2014 standards, including in the area of balance sheet valuations, could be included as an appendix to the published Eurostat methodological or IMF Article IV report.

### Targeting the intergenerational balance

A still more ambitious and comprehensive approach to balance-sheet targeting in the public sector would be to commit to maintaining or improving the intergenerational fiscal balance. As illustrated in Figure 6, such a target would incorporate not only the whole balance sheet of current assets and liabilities reflected in PSNW, but also the present value of future taxes and future spending obligations. Such a target would respond to a long-standing critique of the application of private-sector accounting standards to the public sector which is that the resulting balance sheets ignore the government’s single most important asset (the power to tax) and single most important liabilities (the cost of aging for the health and social security systems). Such an approach would be most analogous to measures of the equity value of listed companies in the private sector which reflect the present value of their expected future profits/losses.

FIGURE 6: **Bringing the future into the present**  
Intergenerational Balance vs. Conventional Balance Sheet Metrics



SOURCE: Office for Budget Responsibility (2018) *Fiscal Sustainability Report* and author

<sup>37</sup> As noted in HM Treasury’s report on Managing Fiscal Risks 2017, it is assumed that the UK will remain a member of the European Statistical System (ESS) even after leaving the EU (as is the case with non-EU European countries including Iceland, Liechtenstein, Norway, and Switzerland) and its fiscal statistics will continue to follow European System of Accounts 2010 (ESA 2010) methodology for most non-balance sheet-related elements of PSF.

The concept of the intertemporal balance has been used by both international organisations and national governments to assess both fiscal sustainability and intergenerational fairness. The IMF's October 2018 Fiscal Monitor used intertemporal balance sheets to examine the sustainability of alternative strategies for utilising the more than 400 per cent of GDP that Norway has saved in its sovereign wealth fund. It also used this comprehensive framework to analyse whether Indonesia's plans to embark upon a tax-financed upgrade to public infrastructure could help improve the long-run net worth of the public sector, taking account of both the distorting impact of the taxes as well as the spillover benefits of the resulting investment for the economy and future tax revenues. In New Zealand, the Treasury's new biennial *Investment Statement* published in March 2018<sup>38</sup> includes a "comprehensive balance sheet" which adds to its conventional balance sheet an estimate of the future spending and revenue based on the projections included in its most recent *Statement on the Long-term Fiscal Position*.<sup>39</sup> Doing so turns the country's healthy conventional net worth position of 117 per cent of GDP into a negative intertemporal net worth position of -161 per cent of GDP due to the impact of an aging society on both future spending and tax receipts.

The concept of intergenerational balance also features in fiscal analysis in the UK. The UK government has published long-term fiscal projections since 2002. Early editions of HM Treasury's *Long-term Public Finances Report* included a set of generational accounts looking at the net lifetime tax transfers faced by successive generations of new-borns.<sup>40</sup> Differences in size of this transfer over time provided an estimate of the intergenerational fairness of current policy settings. Since 2011, the OBR's biennial *Fiscal Sustainability Report (FSR)* has included a different measure of intergenerational fairness - the intertemporal budget gap which is the difference between the discounted present value of all future government receipts and all future government spending over an infinite time horizon.<sup>41</sup> This gap is expressed in terms of the immediate and permanent change in the primary balance needed to eliminate the difference between the two. In its latest 2018 edition of the FSR, the OBR estimated this gap to be 8.6 per cent of GDP, 1.6 per cent of GDP larger than in 2017 due mainly to the unfunded increase in NHS spending announced in June of that year.

Estimates of comprehensive net worth, intergenerational balance, and intertemporal budget gaps have therefore existed for some time and are increasingly being used to inform fiscal policy debates and decision-making. Given the complex projections required to calculate them and the relative infrequency of data used therein (e.g. the ONS's long-run population projections are only updated once every two years), it is

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<sup>38</sup> New Zealand Treasury, 2018 Investment Statement: Investing for Wellbeing, March 2018.

<sup>39</sup> New Zealand, 2016 Statement on New Zealand's Long-term Fiscal Position, November 2016.

<sup>40</sup> These estimates were removed from the report in the late 2000s. HM Treasury, Long-term public finances report: An analysis of fiscal sustainability, December 2005.

<sup>41</sup> OBR (2018), Fiscal sustainability report, July 2018.

unlikely that such indicators could be used for real-time tracking of fiscal performance. However, they could provide a useful indicator of the impact of government policy over the course of a Parliament on intergenerational fairness and the long-term sustainability of the fiscal position.

## Targeting the balance sheet: Is it (net) worth it?

There is a growing gulf between the way politicians talk about and make fiscal policy and the indicators used to judge their fiscal performance. Politicians on all sides of the political debate talk about tax or debt-financed expenditure as investments in growth-enhancing physical, human, or social capital which, they assert, should pay for itself in the long-run. However, the current suite of fiscal aggregates and traditional set of fiscal rules do not provide a basis for judging the credibility of these commitments. This growing gap between stated fiscal aims and measured fiscal reality risks degrading the political salience of fiscal rules on the one hand and allowing politicians to evade fiscal accountability on the other.

Targeting the balance sheet, in either its financial, comprehensive, or intergenerational form, provides a means of setting fiscal objectives that capture the whole of what is being promised and hold politicians to account for its delivery. It also provides a more complete account of the costs and benefits of the financial transactions which play an increasingly important role in meeting the government's macro and microeconomic policy goals.

Targeting the balance sheet as one of the next set of fiscal rules does not imply that more traditional measures of fiscal performance should not feature in the suite of fiscal rules. Stock measures help to provide a long-term anchor for fiscal decision-making, but most successful fiscal frameworks combine stock measures (e.g. debt limits) with flow measures (e.g. targets for the overall, structural, or current balance) which are consistent with the desired stock position. The flow corollary of PSNFL would be public sector net borrowing (PSNB) which nets out all transactions in financial assets and liabilities. The flow corollary of PSNW would be the operating or current balance which nets out all transactions in assets and liabilities. If the government was concerned about its ability to access capital markets, then a limit on PSND could also be retained. Whereas, if the government was concerned about the burden that servicing its debts places on current and future taxpayers, then a limit on the government's debt interest-to-revenue ratio could be included in the suite of fiscal targets. A future Resolution Foundation paper will provide more detailed proposals for the next generation of fiscal rules.

Adopting any of the three balance sheet objectives will require some effort to improve the timeliness, reliability, and usefulness of the underlying data. Public sector net financial liabilities (PSNFL) is already a UK official statistic published on a quarterly basis but will need to be estimated monthly. PSNW was published as an experimental statistic for the first time in June 2019 and there is an active programme of work to provide more comprehensive and reliable estimates later this year. Estimates of intertemporal or intergenerational balance are analytically intensive, make use of data which are updated infrequently, and are subject to a much greater degree of forecast judgement. However, measured over a sufficiently long time-horizon such as a five-year Parliament, they could be used to hold government to account for their promises to improve long-run fiscal sustainability, intergenerational fairness, or overall public value.

The OBR would also need to be in a position to provide semi-annual forecasts of these indicators in the *EFO* to provide a basis for the government's budget policy decisions and the evaluation of the government's performance against its fiscal targets. The OBR has already provided a disaggregated forecast of PSNFL and its components since October 2018. It is relatively straightforward to forecast the remaining assets (i.e. non-financial assets such as land, building, and equipment) and liabilities (i.e. non-financial liabilities such as public sector pensions and PFI) needed to do the same for PSNW. In fact, up until November 2010 the Treasury and then the OBR included 5-year forecasts of PSNW in their semi-annual Budget and Pre-Budget Reports.<sup>42</sup> The *FSR*'s biennial estimates of intertemporal budget gap would need to be published more frequently if intergenerational fairness were to be made an explicit policy objective of Government.

However, the marginal administrative costs associated with improving the frequency and quality of balance sheet data and forecasts would be dwarfed by the benefits of having a more informed and rigorous discussion of the alternative fiscal strategies currently being posited on both sides of the political spectrum. The parties that espoused them would be required to demonstrate, rather than simply assert, how their policies would enhance public value. And they would be incentivised to actively manage public assets and liabilities to safeguard that value. Given the scale of public sector balance sheets, with assets of over £2 trillion and liabilities over £4 trillion, the modest effort need to achieve this is almost certainly worth it.

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<sup>42</sup> Office for Budget Responsibility (2010), *Economic and Fiscal Outlook* November 2010.

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