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**Forecasting the balance sheet:  
Public sector net worth**

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# Forecasting the balance sheet: Public sector net worth

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## Abstract

*Public sector net worth (PSNW) is the broadest balance sheet aggregate that can be produced under existing statistical accounting frameworks. Measures have been produced as part of the ONS's public sector finances since 2019 and it forms one of the broader set of metrics the Government intends to consider for the effective management of fiscal policy. This paper describes the composition of PSNW, its historic path, how it compares to other balance sheet measures, and how we have constructed our first forecasts of PSNW. It also provides illustrative projections of PSNW consistent with our October 2021 forecast.*

We would like to thank colleagues from the Debt Management Office, HM Treasury, the Office for National Statistics and the Office for Budget Responsibility for their invaluable assistance and advice in preparing this paper.



# 1 Why consider public sector net worth?

## Fiscal policy has traditionally focused on the stock of debt

1.1 Fiscal analysis and policymaking in the UK and elsewhere have traditionally concentrated on flows of revenue, spending, and the balance between them (borrowing or the deficit). To the extent that stocks enter the discussion it is typically in the form of the stock of debt. This can be seen in the UK government's choice of fiscal rules over the past quarter of a century, which has typically included relatively comprehensive measures for the fiscal balance including the overall balance (total revenue *less* total spending), the structural balance (the overall balance adjusted for the effects of the economic cycle), and the current balance (total revenue *less* current spending). However, the stock measures that have featured in these rules have encompassed only the relatively limited range of debt liabilities (principally gilts) and liquid financial assets (such as foreign exchange reserves) captured in public sector net debt (PSND), which we expect to reach nearly £2.4 trillion (98.2 per cent of GDP) in the wake of the coronavirus pandemic by the end of 2021-22. International discussion of debt stocks is typically focused on the even narrower measure of general government gross debt, which excludes all assets and non-debt liabilities as well as the public corporations sector.

1.2 As a relatively narrow measure of the public sector balance sheet, PSND provides an incomplete picture of the overall health of the public finances. In particular, it excludes the £820 billion (37 per cent of GDP) in less liquid financial assets held by the public sector such as its growing portfolio of £89 billion (4.0 per cent of GDP) in student loans and £417 billion (19 per cent of GDP) in equities, largely held by pension funds but also including its remaining stake in NatWest and newly acquired stake in OneWeb. It also ignores the £1.3 trillion (61 per cent of GDP) in non-financial assets, including the government's substantial array of land, buildings, and infrastructure assets. Finally, it ignores the £1.8 trillion (81 per cent of GDP) in non-debt liabilities, in particular the government's substantial pension obligations to serving and retired public servants.<sup>1</sup>

## Limited balance sheet coverage leads to 'fiscal illusions'

1.3 The limited balance sheet coverage of PSND gives rise to 'fiscal illusions' – situations where accounting metrics like PSND do not reflect the true fiscal implications of a transaction – that can distort marginal fiscal decisions. The government's student loan programme provides

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<sup>1</sup> Figures in this paragraph all refer to the position as of the end of 2020-21.

perhaps the clearest example of the cost of taking only a limited view of the government balance sheet.<sup>2</sup>

- 1.4 The sale to the private sector of tranches of those loans provided an illustration of the dangers of taking only a partial view of the public sector balance sheet. That is because the sales of these concessional loans reduced PSND by the total amount of cash raised from the sale, making it appear as though these sales improved the long-run sustainability of the public finances. However, because the loans were typically sold below their accounting value, these transactions actually reduced, rather than increased, the overall net worth of the public sector. This fiscal illusion was partly addressed when the difference between the sale proceeds and the retention value of the loans began to be recorded as public spending at the point of the sale. So, while PSND would still fall due to the proceeds of a sale, the deficit would rise by the extent of this spending. In response, the government cancelled the remainder of its multi-year student loan sales programme.<sup>3</sup>
- 1.5 Taking only a limited view of the public sector balance sheet can result in errors of omission as well as commission. On the asset side of the balance sheet:
- The diversion of funds from investment to current spending in health, education, and criminal justice, overlaid by ‘boom-bust’ cycles in capital investment, has contributed to the accumulation of maintenance backlogs in schools, hospitals, and prisons.<sup>4</sup>
  - As the Treasury acknowledged in its review of the subject, the lack of attention paid to the government’s stock of intangible assets such as data, patents, and other intellectual property, estimates of whose worth vary from £34 billion to £150 billion, provides a further example of an asset which was ‘out of sight’ and therefore ‘out of mind’ for the purposes of financial decision-making in government.<sup>5</sup>
- 1.6 On the liability side of the balance sheet, the government’s comparatively large stock of unfunded pension liabilities places growing obligations on future taxpayers but is not captured in traditional measures of government debt.<sup>6</sup>
- 1.7 Finally, at the frontiers of accounting practice, in his Government-commissioned review of the economics of biodiversity, Professor Partha Dasgupta highlighted the dangers of failing to value and account for the depletion or impairment of the natural assets on which our economies and lives depend.<sup>7</sup>
- 1.8 It is, though, worth noting that even the most comprehensive measures of the public sector balance sheet leave opportunities for policy decisions to be influenced by accounting metrics. In particular, the boundary between the public and private sectors can influence

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<sup>2</sup> For a fuller discussion, including the greater fiscal illusions in respect of public sector net borrowing under previous accounting treatments, see Ebdon J., and Waite R., *OBR Working Paper No.12: Student loans and fiscal illusions*, July 2018.

<sup>3</sup> HM Treasury, *Review of the student loan sale programme, Budget 2020*, March 2020.

<sup>4</sup> Institute for Government, *Performance tracker 2019*, and National Audit Office, *Capital funding for schools*, February 2017.

<sup>5</sup> HM Treasury, *Getting smart about intellectual property and other intangibles in the public sector: Budget 2018*, October 2018.

<sup>6</sup> National Audit Office, *Public service pensions*, March 2021.

<sup>7</sup> HM Treasury, *The economics of biodiversity: the Dasgupta review*, February 2021.

decisions. This was most clearly demonstrated when housing associations were classified to the public sector and the government responded by relaxing regulations by an amount that was precisely calibrated to ensure that they would be classified back to the private sector.<sup>8</sup> In addition, the boundary between actual liabilities (that are recognised on the balance sheet) and contingent liabilities (that are typically not recognised until they crystallise) makes the regulation or guaranteeing of private sector activity a more fiscally attractive option than extending public support directly through subsidies, tax reliefs, or direct lending.

## The public sector balance sheet has expanded dramatically in recent years

1.9 Recent developments in the macroeconomic and policy landscape have also underscored the benefits of taking a more comprehensive view of the public sector balance sheet than just the debt and liquid financial assets included in PSND. The public sector's balance sheet has ballooned in both size and complexity in recent years. In addition to those impacts captured by PSND this has included:

- Following the **2007-08 financial crisis**, interventions in the financial sector including loans and equity injections directly increased both sides of the government's balance sheet, increasing its assets and liabilities by around £380 billion and £650 billion (24 and 41 per cent of GDP) respectively between 2007-08 and 2009-10. The Bank of England's programmes of **quantitative easing and funding schemes** financed by the issuance of Bank reserves expanded the Bank's own reserve liabilities six-fold from £24 billion (15 per cent of GDP) to £153 billion (96 per cent of GDP) between 2007-08 and 2009-10.
- The subsequent ramping up of **infrastructure investment**, financed by an increase in borrowing, has engendered a greater focus on the performance of the fixed assets being created by that investment. Public sector net investment is set to rise from an average of 1.9 per cent of GDP in the five years to 2018-19 to an average of 2.7 per cent of GDP in our latest forecast for the five years to 2026-27.<sup>9</sup> To maximise the economic and social return from public investment, the government established a National Infrastructure Commission in 2015 to advise on infrastructure priorities, and published a *National Infrastructure Strategy* in November 2020. It also established a new UK Infrastructure Bank in April 2021 to provide financing to help tackle climate change and to support local and regional economic growth (filling the gap left by the UK no longer having access to the European Investment Bank after Brexit).<sup>10</sup>
- The **coronavirus pandemic** saw a further expansion of the public sector balance sheet, this time through £21 billion (1 per cent of GDP) in expected losses on Government guarantees on commercial bank loans,<sup>11</sup> and, at a smaller scale, via £1.1 billion in

<sup>8</sup> As discussed in our November 2017 *Economic and fiscal outlook*.

<sup>9</sup> Note that of this around 2.2 per cent is net investment in capital assets with the remainder largely covering the write off of student loans. See Box 4.1 of our March 2020 *Economic and fiscal outlook*.

<sup>10</sup> See Box 3.6 of our March 2021 *Economic and fiscal outlook*.

<sup>11</sup> The guarantees extended by the under the Coronavirus Business Interruption Loan Scheme, the Coronavirus Large Business Interruption Loan Scheme, the Bounce Back Loan Scheme and the Recovery Loan Scheme have all been classified as 'standardised guarantees' by the ONS meaning that expected losses are recognised on the balance sheet when the guarantees are extended.

lending to and equity stakes in start-ups. The pandemic also saw a further expansion in quantitative easing, taking it from 20 per cent of GDP on the eve of the pandemic in March 2019 to 38 per cent of GDP by the end of August 2021.

- 1.10 The publication by the Office for National Statistics (ONS) of timely and high frequency statistics on public sector net worth (PSNW<sup>12</sup>) starting in June 2019 has opened up the possibility of our forecasting net worth in our biannual *Economic and fiscal outlook (EFO)*. This will complement the suite of fiscal stock aggregates that we currently forecast including, from least to most comprehensive: general government gross debt (GGGD); PSND excluding the Bank of England (PSND ex BoE), PSND, and public sector net financial liabilities (PSNFL). To these, a PSNW forecast will add the government's holdings of non-financial assets, a full coverage of public-private partnerships, and unfunded pension liabilities. It provides the most comprehensive picture of the evolution of the public sector balance sheet and so aids the assessment of fiscal sustainability.

## This paper explains how those forecasts are constructed

- 1.11 We have included our first forecasts of PSNW in the October 2021 *EFO*. To support these forecasts, this working paper:
- explains what PSNW is;
  - considers the historical evolution of PSNW;
  - discusses how it differs from other balance sheet measures; and
  - explains how we have constructed our forecast for PSNW and presents the illustrative projections consistent with our October 2021 forecast.

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<sup>12</sup> Currently as supplementary statistics alongside the public sector finances bulletin.



## 2 What is public sector net worth?

2.1 Having explained why taking a more comprehensive view of the balance sheet is advantageous from the perspective of fiscal transparency and sustainability, this chapter describes what public sector net worth measures. In simple terms, PSNW is defined as all assets minus all liabilities held by any public sector body and is the broadest balance sheet aggregate that can be produced under existing statistical accounting frameworks.<sup>13</sup> As such, PSNW represents the most comprehensive measure of the economic value of all that the government owns and owes. But like any financial measure, it has its advantages and disadvantages as a summary of the overall ‘health’ of the public finances. This section explains how PSNW is constructed, including the range of assets and liabilities included, the time frame of activities captured, the valuation of those assets and liabilities, sector coverage, and the statistical standards used. The construction of PSNW is then compared to other summary measures of the public sector balance sheet.

### Assets, liabilities, and net worth

2.2 Like corporate balance sheets, public sector balance sheets are comprised of assets and liabilities. Though there are some important differences, the principles underpinning the recognition and accounting for these stocks is broadly similar across corporate and public sector financial reporting frameworks. The statistical manuals recognise a **liability** where one party has an obligation, under specific circumstances, to provide funds or other resources to another party at some point in the future. The same manuals recognise an economic **asset** as a store of value from which the economic owner derives a benefit or series of benefits from owning that store of value and accepts any risks associated with it. These assets can be **financial** in nature (such as a bond, loan, or equity share), in which case the financial value of the owner’s claim is usually reflected as a corresponding liability in the counterpart’s accounts. Or they can be **non-financial** in nature (such as land, buildings, or machinery), which also generate a stream of benefits but for which there is no financial counterparty or corresponding liability. **Net worth** is the difference between total assets and total liabilities at the end of the reporting period.

### Assets and liabilities recognised in PSNW

2.3 The **financial assets and liabilities** held by government and recognised in PSNW are divided into eight types in the National Accounts:

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<sup>13</sup> The statistical and accounting standards that define the array of assets and liabilities that should be recognised in government balance sheets are, themselves, constantly evolving. For example, Box 3.1 of our 2021 *Fiscal risks report* discussed recent efforts on the part of UK and international standard-setters to improve the accounting for natural assets such as global climate and local ecosystems.

- **Monetary gold and special drawing rights (SDRs)** are typically held in the reserve assets of monetary authorities (usually central banks). Monetary gold is the very pure gold bullion that is usually in the form of bars and is the only financial asset with no counterparty liability. 'Special drawing rights' are a form of international reserve asset created by the IMF and issued to all its members. Gold and SDRs are a small component of the UK public sector's assets and liabilities.
- **Currency and deposits** include currency in the form of the notes and coins issued and authorised by the monetary authorities and the deposit contracts between financial institutions such as banks and savers. Deposits form a significant part of UK public sector liabilities, in particular from the reserves issued by the Bank of England as a by-product of quantitative easing, and to a lesser extent the liabilities of National Savings & Investments (NS&I), the government's retail savings institution.
- **Debt securities** are tradable debt instruments that typically pay a known sum at a fixed date and often also pay a series of regular interest payments. They are the main vehicle used for financing central government in the UK in the form of gilts (government bonds with a maturity of more than one year) and Treasury bills (zero coupon bonds with a maturity of less than one year).
- **Loans** are often structured in similar ways to debt securities except that they are not easily tradable. Loans represent the second largest source of financial assets for the public sector, notably in the form of student loans.
- **Equity** gives a claim on the residual value of a corporation. This is the largest type of financial asset on the public sector's balance sheet, in particular from the holdings of funded pension schemes, but also the government's remaining stake in NatWest.
- **Insurance, pension and standardised guarantee schemes** are estimates of liabilities for future claims on insurance funds, future pension payments and future calls on standardised guarantee schemes. Public sector pension liabilities are particularly large.
- **Financial derivatives and employee stock options** are assets whose value is linked to another asset or index. They are not significant for the public sector.
- **Other accounts receivable/payable** arise where there is a timing difference between an economic transaction and the associated payment. They therefore typically consist of bills yet to be paid by government and taxes yet to be paid to government.

**2.4 Non-financial assets** recognised in PSNW consist of all economic assets not classed as financial assets. The benefit that the owner may derive from these assets often comes from using the asset in the production of goods and services (as in the case of machinery or an office building) or in the form of rental income (if the asset is at the disposal of other users). Non-financial assets are in turn divided into two categories:

- **Produced assets** are split into three subsets based on their role in production: **fixed assets**, such as buildings, roads, machinery, weapons systems and intellectual property products, which are used continuously or repeatedly for more than one year; **inventories**, which will either be used in production in a future period or disposed of later; and finally **valuables**, which are not used during production but rather are held as a store of value, such as paintings or jewellery.
- **Non-produced assets** can be natural assets, such as land, mineral reserves or radio spectra, where ownership can be exercised and which can bring economic benefits. Or they can be societal constructs such as contracts, leases, licenses and permits.

2.5 As can be seen above, the range of natural assets recognised in PSNW (and other statistical balance sheet aggregates) is rather narrow. It excludes all natural assets where ownership cannot be established such as air, the oceans, unexploited plants and animals, and so on. That is, it does not include a host of environmental assets that contribute greatly to wellbeing and are essential for sustainability (and indeed our very existence).

2.6 Nor does PSNW record the accumulation or depletion of human or social capital. These concepts measure the capacity of people to engage in work, study or other activities, and the rules and institutions that affect the way people interact. In an advanced economy, most government activity aims to increase or preserve either human or social capital. In order to address these shortcomings some frameworks for assessing wellbeing, such as New Zealand's 'four capitals' framework, aim to take account of all assets.<sup>14</sup>

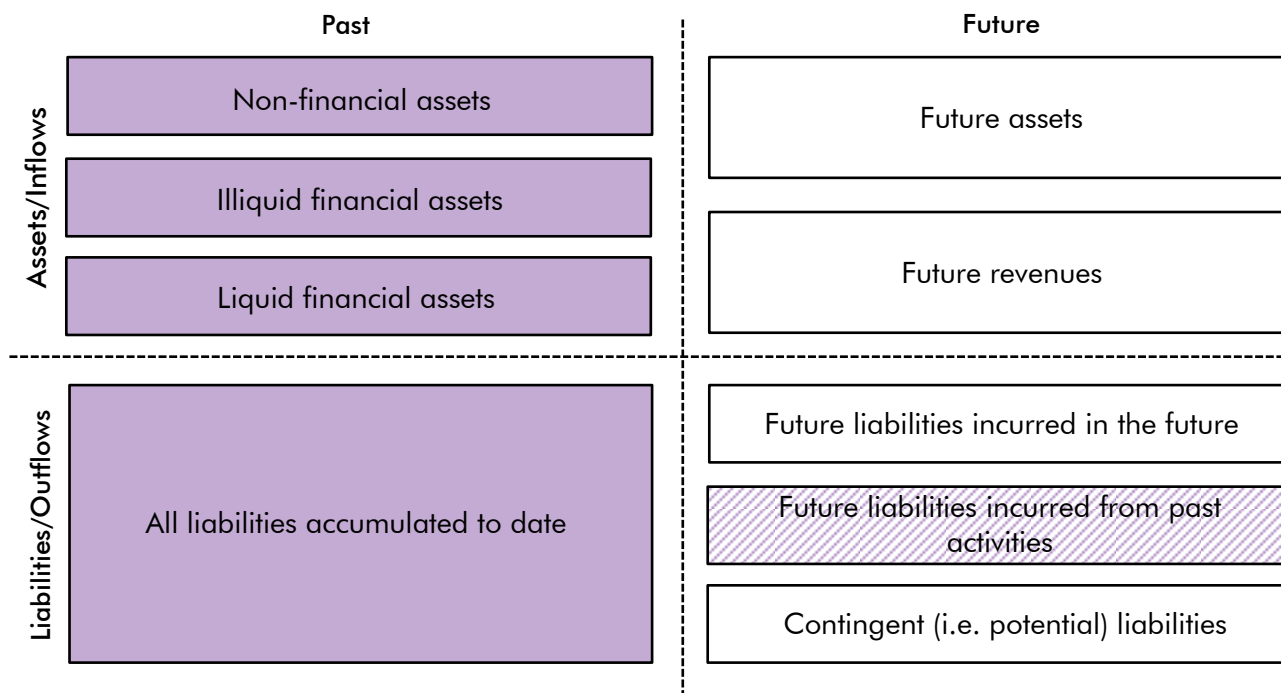
## The time frame and institutions captured by PSNW

2.7 In line with other statistical aggregates, PSNW is largely backward looking. It therefore represents the sum of all the inflows and outflows of assets and liabilities that have occurred to date. For a few areas it also includes a partial estimate of the future consequences of past activity, such as past pension commitments that have yet to be paid to the beneficiary, or the probable crystallisation of contingent liabilities, such as some forms of guarantee and expected student loan write-offs. But there is no recognition of assets and liabilities relating to future activity. For this reason, unlike private corporations, governments often operate with significantly negative net worth. They are able to do this because one of their most important assets is the power to tax future generations to pay for their current liabilities. However, this power is not recognised as an 'economic asset' under any accounting standards. Unlike private corporations, governments also have other future obligations that are not recognised as 'economic liabilities' under established accounting standards. These include the political reality that governments will continue to provide security, education, healthcare, pensions, and other benefits and services to their citizens in future. But these *de facto* obligations are subject to change and are not sufficiently well defined to constitute a 'financial obligation'. This is why our analysis of long-term fiscal sustainability ultimately focuses on long-term projections of revenue and spending.

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<sup>14</sup> New Zealand Government, *Wellbeing Budget 2021*, May 2021.

Figure 2.1: The time frame captured by public sector net worth



## Valuing assets and liabilities

2.8 How an asset or liability is valued can change the way it is interpreted and therefore how it can be used. Valuation options in statistical manuals often differ to those in commercial accounting and there are numerous examples of where the same asset or liability has been valued differently in public sector finances statistics (which utilise the National Accounts statistical framework) and the Whole of Government Accounts (WGA, which use the commercial IFRS accounting standards adapted for the public sector).

2.9 In the outturn measure of PSNW, the ONS follows statistical accounting guidance for valuation. All assets and liabilities are recorded at sterling values using one of the following methods:

- **Market values** are obtained at any given juncture by reference to prevailing market prices. Monetary gold and SDRs, equity, and financial derivatives and employee stock options are all recorded at market values.
- The **nominal value** is how much the debtor owes the creditor at any given moment. It therefore includes any accrued but unpaid interest as well as the principal owed. Currency and deposits, loans, and accounts receivable/payable are all recorded at nominal values.
- The **present value** is the discounted value of expected future payments and is used for insurance, pensions, and standardised guarantees.

- The **replacement value** is used for produced non-financial assets. It is an estimate of how much it would cost to replace the asset in its current condition.
- **Land** is valued by the difference between the value of the land and accompanying structures minus a separate valuation of those structures.

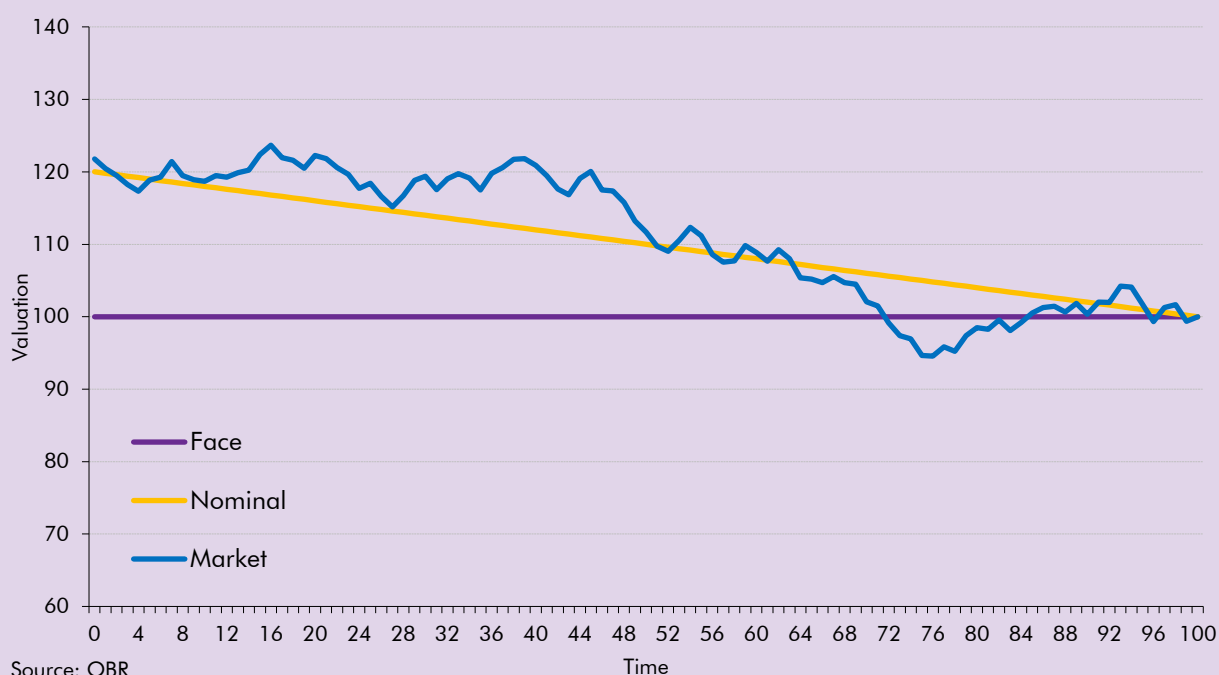
2.10 Debt securities are mostly recorded at their market value in the National Accounts, but the ONS produces estimates under three different valuation approaches in its net worth statistics: market, nominal and face value. The latter is also known as the redemption value and is the amount owed at the point when a bond is redeemed. This valuation method is used for recording gilt liabilities in PSND.

### Box 2.1: Different approaches to valuing gilt liabilities

In its calculation of net worth using the IMF's Government Finance Statistics Manual 2014, the ONS values the government's gilt liabilities using three methodologies: market value, nominal value and face value. Market values reflect prevailing market prices, which for gilts move in the opposite direction to interest rates – i.e. when market interest rates fall, gilt prices rise and the market value of outstanding debt is therefore higher. Nominal values reflect the market price at the point of issuance and converge smoothly to the face value at the point of redemption. And the face value is constant throughout the lifetime of the gilt at the amount paid at redemption.

Chart A provides a stylised example of how these three values vary over the lifetime of a gilt – a process that will be underway for each of the dozens of individual gilts in issue at any point in time. It is based on a conventional gilt (i.e. not an index-linked gilt) that is sold at a premium to the face value, as has been typical in recent years. It shows how market and nominal values are equal when a gilt is sold, while all three measures are equal at redemption. Face values of conventional gilts are unchanged over time (in contrast to index-linked gilts, for which the redemption value usually rises over time as the RPI index increases). Nominal values converge smoothly to the face value at redemption, while market values follow an uneven path to that same end point as market interest rates and the market price of each gilt varies.

Chart A: Illustrative paths for different gilt valuations



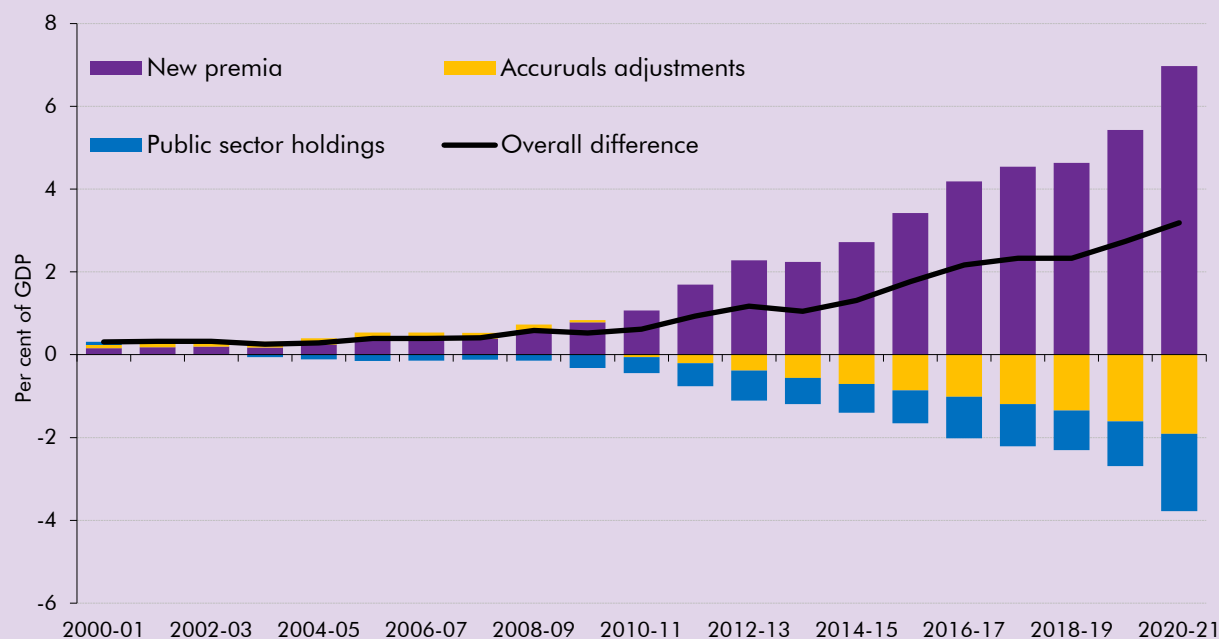
The merits and drawbacks of these different approaches to valuing gilt liabilities depend on what the measure is being used for. If financial assets are bought and sold at market prices, assets of equal value are exchanged. We might therefore desire our balance sheet aggregates to reflect this by remaining unchanged as a result of financing activities. Both market and nominal valuations achieve this at issuance and at redemption as the liability incurred at issuance equals the cash asset received, and vice versa at redemption. From the creditor's point of view, especially if they wish to trade their asset, a market valuation may make most sense for the period between those two points. But from the government's view, as the debtor who will repay the liability at redemption, nominal values may be preferred. Market values would only be most appropriate for government if there was a reasonable likelihood of gilts being redeemed early, which is extremely rare in the UK.

Using face values causes balance sheet aggregates to alter by the value of any premia or discounts at the point of issuance that mean more or less cash is received for the gilt than the value at which it is recorded. Face values are therefore undesirable for measurement of the balance sheet. Notwithstanding this, when setting the valuation methodology for debt securities under the Excessive Debt Procedure, the EU opted for a face valuation by stating "*the nominal value is considered equivalent to the face value of liabilities*" and the ONS has adopted this valuation methodology for PSND.

In practice the choice between face and nominal values had little effect prior to the financial crisis, because the difference between them was small. But as Chart B shows, the large-scale issuance of gilts at often large premia to face value (especially for index-linked gilts, which have a floor on the real coupon but where market real yields are negative) has led to increasing differences in the values for new issuance. This is only partly offset by the decreasing value of nominal stock via accruals adjustments (the accounting process through which the nominal value

converges on the face value by the point of redemption), while purchases of gilts by the APF under quantitative easing and by other parts of the public sector at prevailing market prices have also reduced overall exposure to the private sector. At the end of 2020-21 the nominal value of the gilt stock was 3.2 per cent of GDP higher than the face value.

Chart B: The difference between face and nominal gilt values



Source: ONS, OBR

2.11 The current PSNW statistics produced by the ONS are compliant with the IMF’s *Government finance statistics manual 2014* (GFSM 2014) whereas other public sector finance statistics are based on the *European system of accounts 2010* (ESA10). The ONS is developing an ESA10-consistent PSNW<sup>15</sup> with narrower coverage than the GFSM-based PSNW as it will exclude the liabilities of unfunded pension schemes and a full accounting for public-private partnerships. As it is the breadth of PSNW that makes it useful for sustainability analysis, we are likely to continue to use the GFSM measure. As discussed in Box 2.1, of the various gilt valuations we will mostly use the nominal value for our main PSNW forecast.

2.12 Currently, the ONS’s estimates of PSNW follow the institutional coverage of the public sector that excludes public sector banks (currently only NatWest Group). We will forecast on this basis to ensure comparability with other fiscal metrics, including PSNB, PSND, and PSNFL.

## Comparison with other balance sheet aggregates

2.13 As shown in Figure 2.2, PSNW is at the more comprehensive end of the spectrum of balance sheet aggregates across these areas of coverage and definition, which include:

<sup>15</sup> ONS, *Wider measures of the public sector balance sheet: public sector net worth*, June 2021.

- **General government gross debt (GGGD)** as recorded in the UK public finances is defined under the EU's Excessive Deficit Procedure and is the narrowest headline balance sheet measure. Its institutional coverage includes central government, local governments, and social security institutions, but excludes public corporations. Its balance sheet coverage includes debt liabilities in the form of currency and deposits, debt securities and loans, which are often referred to as 'Maastricht debt liabilities'. These liabilities include the government's main contractual liabilities to financial market participants. GGGD is available on a comparable basis for most countries (for example, the IMF reported GGGD for 192 countries in its most recent *World Economic Outlook*) and is therefore often the most useful metric for international comparisons of governments' financial positions.
- **Public sector net debt (PSND)** includes the same liabilities as GGGD but also includes a UK-specific definition of 'liquid assets'. These are mainly currency and deposits but also include commercial paper and the assets of the government's sterling and foreign currency cash management programmes. Including these liquid assets gives some measure of the resources government could readily use to cover its liabilities. This and all other 'public sector' measures have a wider institutional coverage than GGGD by including public corporations as well as the general government. It is the balance sheet metric that has featured in the Government's fiscal rules for a quarter of a century, including the latest announced in the October 2021 Budget.
- **Public sector net financial liabilities (PSNFL)** has wider balance sheet coverage than PSND and incorporates all financial assets and liabilities that are recognised in economic statistics (described in paragraph 2.3 above). It is therefore a summary measure of the government's financial balance sheet, but it does not include non-financial assets or the liabilities associated with unfunded pension schemes or off-balance sheet private finance initiative (PFI) contracts. It was first published by the ONS in 2016, and now features in the broader set of indicators that the Treasury monitors (see Chapter 4 of our October 2021 *EFO*).
- **Public sector net worth (PSNW)** therefore expands further on PSNFL by also including non-financial assets. It is produced consistent with GFSM 2014 and includes both funded and unfunded pensions plus a full coverage of public-private partnerships. The breadth of coverage means it gives a good account of all the liabilities that the public sector has entered into to date and the total value of the assets acquired. It was first published by the ONS in 2019, and also now features in the broader set of indicators monitored by the Treasury.
- **Whole of government accounts (WGA) net liabilities** represent the broadest summary balance sheet measure and include all assets and liabilities recognised under IFRS. Their coverage of the balance sheet is broadly similar to the statistical measure of PSNW, but also includes a wider range of provisions (funds that are set aside to pay for a liability in the future where the amount or timing is unknown). However, WGA net liabilities are produced with a relatively long delay of over a year and only restate the previous year's accounts for definitional changes, meaning they have no consistent



time series. This makes WGA net financial liabilities difficult to use for fiscal surveillance, forecasting, and policymaking purposes compared to more frequent, timely, and consistent statistical measures of the balance sheet. They are, however, a useful source of additional information – for example, they always recorded student loans in a meaningful way that recognised their concessional nature, in contrast to all statistical measures of the balance sheet prior to methodological changes in 2018. WGA were first produced for the 2009-10 financial year and published in 2013.<sup>16</sup>

Figure 2.2: Comparison of public sector balance sheet aggregates

	General government gross debt (GGGD)	Public sector net debt (PSND)	Public sector net financial liabilities (PSNFL)	Public sector net worth (PSNW)	WGA Net liabilities
<b>Assets</b>				Non-financial assets	Non-financial assets
			Illiquid financial assets <sup>2</sup>	Illiquid financial assets	Illiquid financial assets
		Liquid financial assets	Liquid financial assets	Liquid financial assets	Liquid financial assets
<b>Liabilities</b>	Government debt <sup>1</sup>	Government debt	Government debt	Government debt	Government debt
			Other liabilities	Other liabilities	Other liabilities
				Unfunded public sector pensions <sup>3</sup>	Unfunded public sector pensions
				PFI contracts <sup>4</sup>	PFI contracts
					Provisions

Notes:

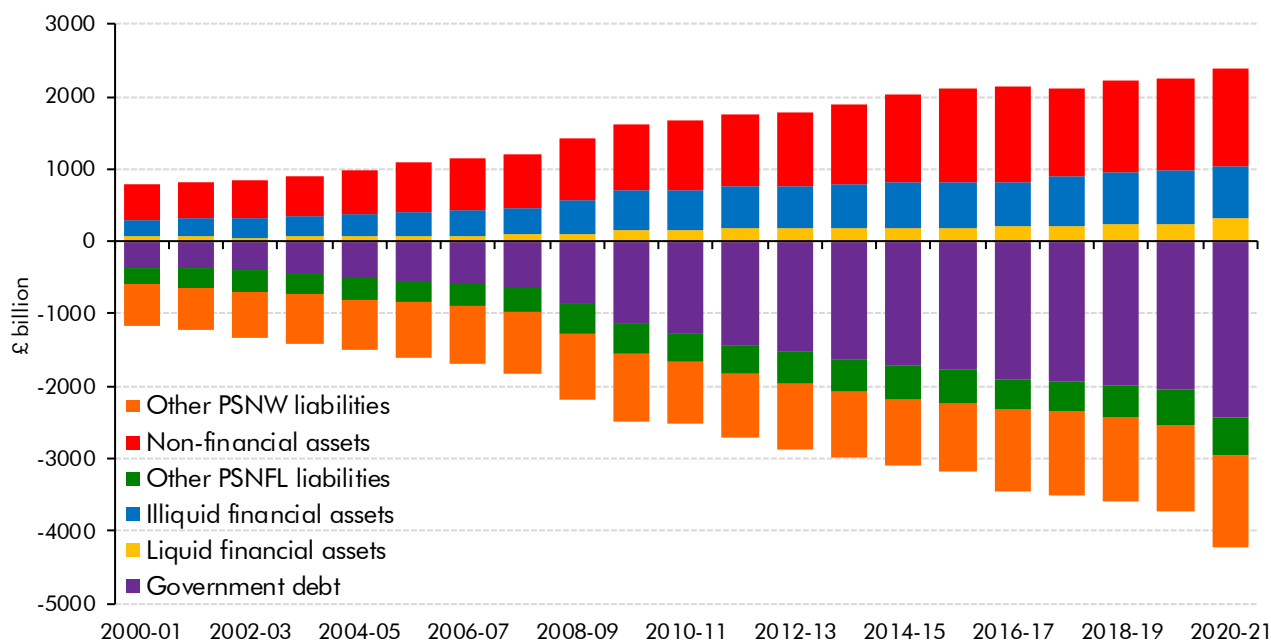
- 1. Includes cash, debt securities and loans.
- 2. Includes funded public sector pensions.
- 3. Included in GFSM 2014 net financial liabilities and net worth but not ESA10.
- 4. Contracts in addition to those already included under ESA10.

2.14 Chart 2.1 shows the values associated with each of the stocks described in Figure 2.2. It shows that the PSND balance sheet is very asymmetric, containing a large share of total public sector liabilities (debt liabilities), but only the relatively small amount of financial assets that are deemed to be liquid. PSNFL increases liabilities, largely due to funded

<sup>16</sup> HM Treasury, *Whole of Government Accounts, 2009 to 2010*, July 2013

pensions, but adds more on the asset side, with equity and loan assets making up the bulk. PSNW then adds the considerable liabilities associated with unfunded pensions schemes and the large stock of non-financial assets to complete the balance sheet.

Chart 2.1: Components of public sector balance sheet aggregates



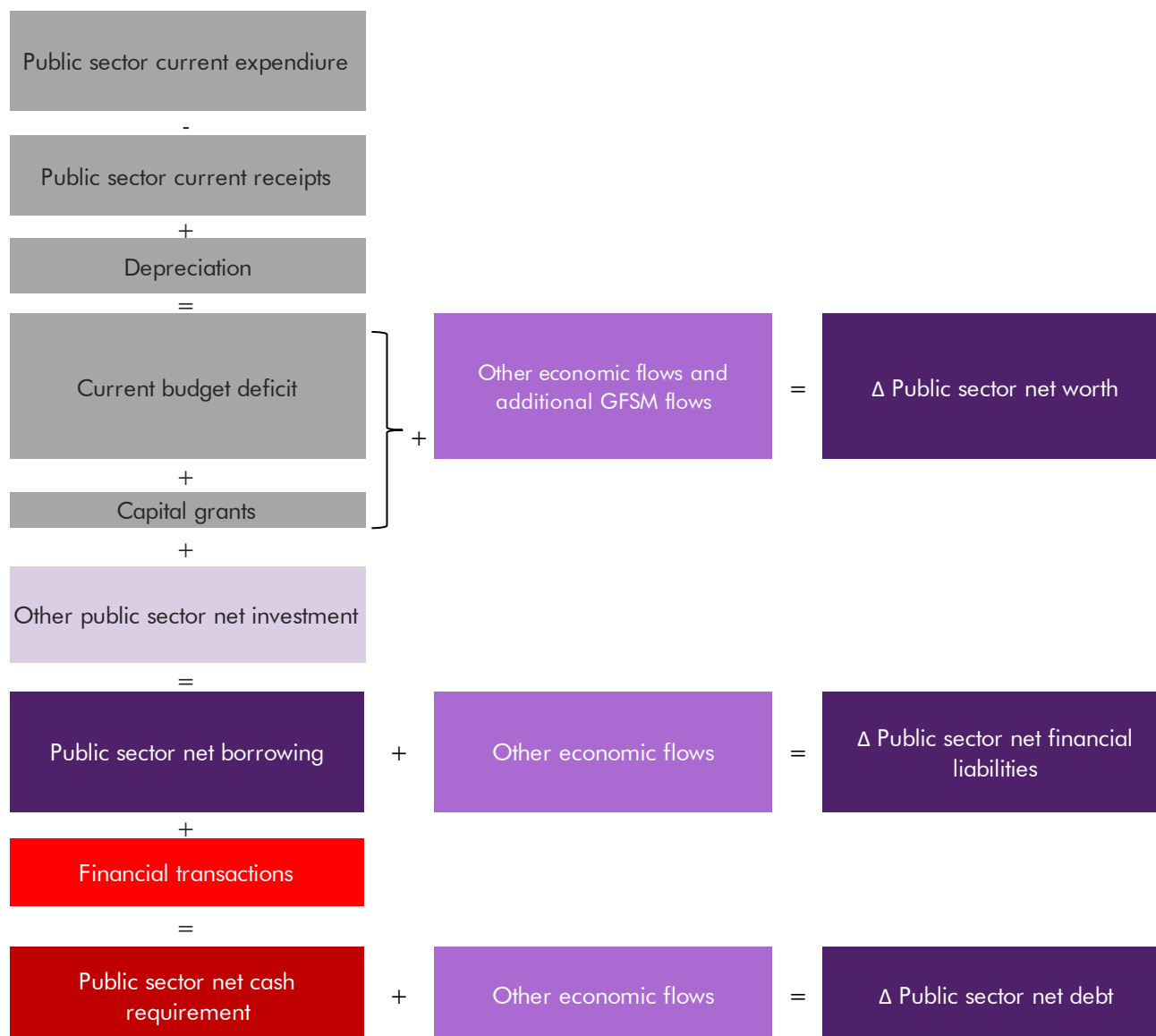
Source: OBR

## Integrated accounting for stocks and flows

- 2.15** A key benefit of taking a comprehensive view of the public sector balance sheet is the opportunity that it provides for fully integrated accounting of stocks and flows. The change in the level of an individual balance sheet item, say foreign exchange assets, can be described as a combination of transactions in that item plus other changes. These other changes may have arisen due to changes in the price of the asset, due to changes in exchange rates used to convert that price to sterling, or due to statistical changes such as reclassifications. Collectively these other changes are known as 'other economic flows'.
- 2.16** Just as the change in the level of an individual balance sheet item can be expressed as the sum of transactions and other economic flows, the change in the level of a balance sheet aggregate can be expressed as the sum of a flow aggregate and other economic flows. The relevant flow aggregate for PSND is the public sector net cash requirement (the cash deficit or PSNCR) while for PSNFL it is public sector net borrowing (the accrued deficit or PSNB).
- 2.17** For PSNW, the relationship is more complex. The closest flow aggregate is the current budget balance (the accrued deficit less net investment spending), but the presentation of the current budget means that net capital grants need to be added back for it to be consistent with changes in PSNW. This is because, unlike other elements of net investment, net capital grants do not give rise to any asset for the public sector but rather for the private sector entities that receive them. Additionally, as the current budget is compiled according to

ESA10 while PSNW uses GFSM 2014, further adjustments need to be made to include flows related to unfunded pensions schemes and a full coverage of public-private partnerships. The relationships are shown in Figure 1.3.

Figure 2.3: The relationship between stock and flow aggregates



## 3 How has public sector net worth evolved?

3.1 Having discussed the composition of PSNW in the previous chapter, this chapter looks at how this measure has performed over the past few decades and what this tells us about the financial impact of different economic events and government decisions that took place during this period. It starts with an overview of the evolution of the government's balance sheet since the mid-1960s and then discusses the different factors that have driven changes in net worth since the turn of the century. It concludes with a comparison of UK public sector net worth with estimates for other countries.

### Historical trends in PSNW

3.2 The ONS has only produced estimates for the GFSM 2014 compliant measure of PSNW back to 1998. To look further back we can construct a broadly similar measure from data presented in the *National Balance Sheet* and the *Blue Book*. This has a narrower institutional coverage, covers fewer assets and liabilities, and uses market values for gilts, but the broad picture should be consistent. Chart 3.1 shows this measure of PSNW since the mid-1960s.

3.3 Net worth increased steadily from 23 per cent of GDP in the mid-1960s up to a peak of over 90 per cent in the mid-1970s. This improvement was driven by a continuation of the steady fall in government debt following the end of the Second World War coupled with the accumulation of non-financial assets by public corporations, notably through investment in new social housing. Net worth then remained broadly stable at around this level through to the early 1980s as changes in assets and liabilities broadly offset each other.

3.4 Net worth began a gradual decline over the 1980s. A steady decline in the non-financial assets of public corporations was only partially offset by a continued decline in liabilities, leaving net worth at 63 per cent of GDP by the end of the decade. The decline in non-financial assets came largely as a result of privatisations.

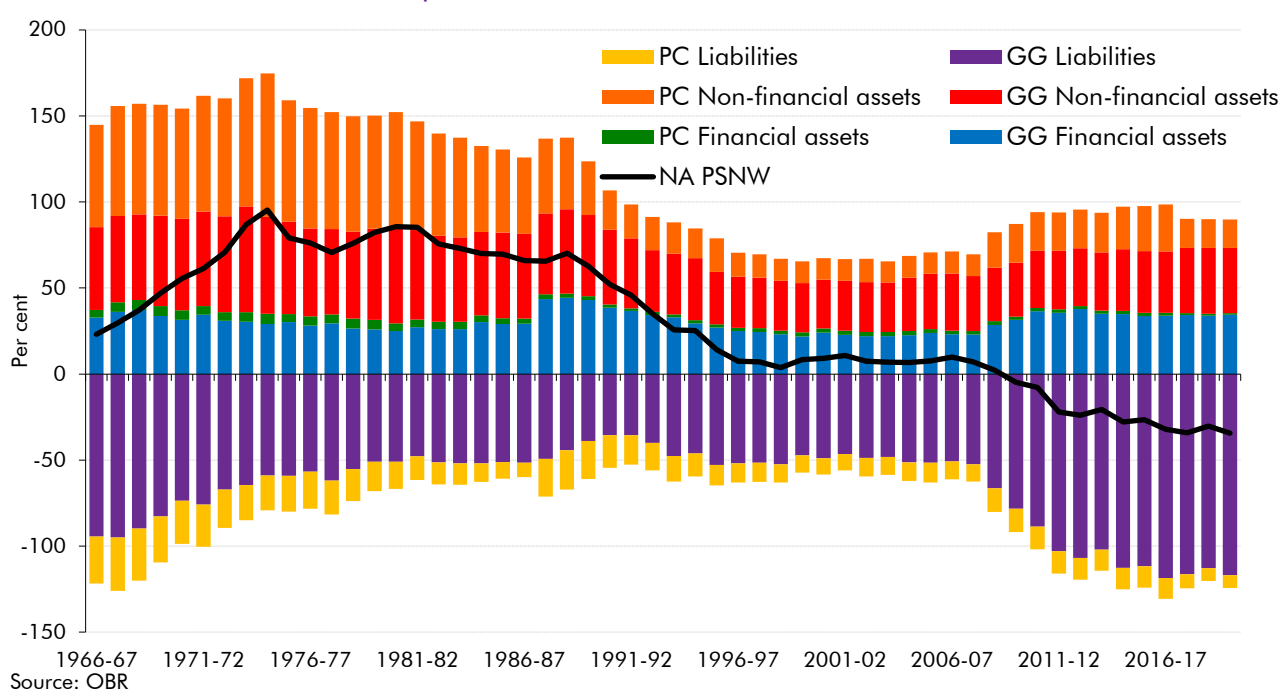
3.5 The decline in PSNW accelerated in the 1990s as liabilities stabilised but the stock of both financial and non-financial assets fell sharply as a result of further privatisations of state-owned enterprises and the transfer of social housing out of the public sector. By 1999-00 the stock of public corporation non-financial assets had fallen to 13 per cent of GDP from a peak of 83 per cent in 1974-75.

3.6 By the mid-1990s PSNW had settled at a level just above zero and remained at this level until the financial crisis, which pushed it into negative territory for the first time in 2009-10. The resulting increase in the general government deficit and the reclassification of several private financial institutions into the public sector pushed government liabilities up sharply,

more than doubling to nearly 100 per cent of GDP by 2012-13. Partially offsetting this was the increase in government financial assets, including those of the reclassified financial institutions and a temporary increase in public corporation non-financial assets due to the reclassification of housing associations into the public sector (until they were modestly deregulated and, as a result, reclassified back to the private sector).

3.7 Net worth steadily deteriorated over the 2010s until it stood at minus 34 per cent of GDP on the eve of the pandemic in 2019-20. The deterioration in net worth was driven by persistent current budget deficits and a build-up of pension liabilities.

Chart 3.1: The evolution of public sector net worth



### Contributions to changes in PSNW

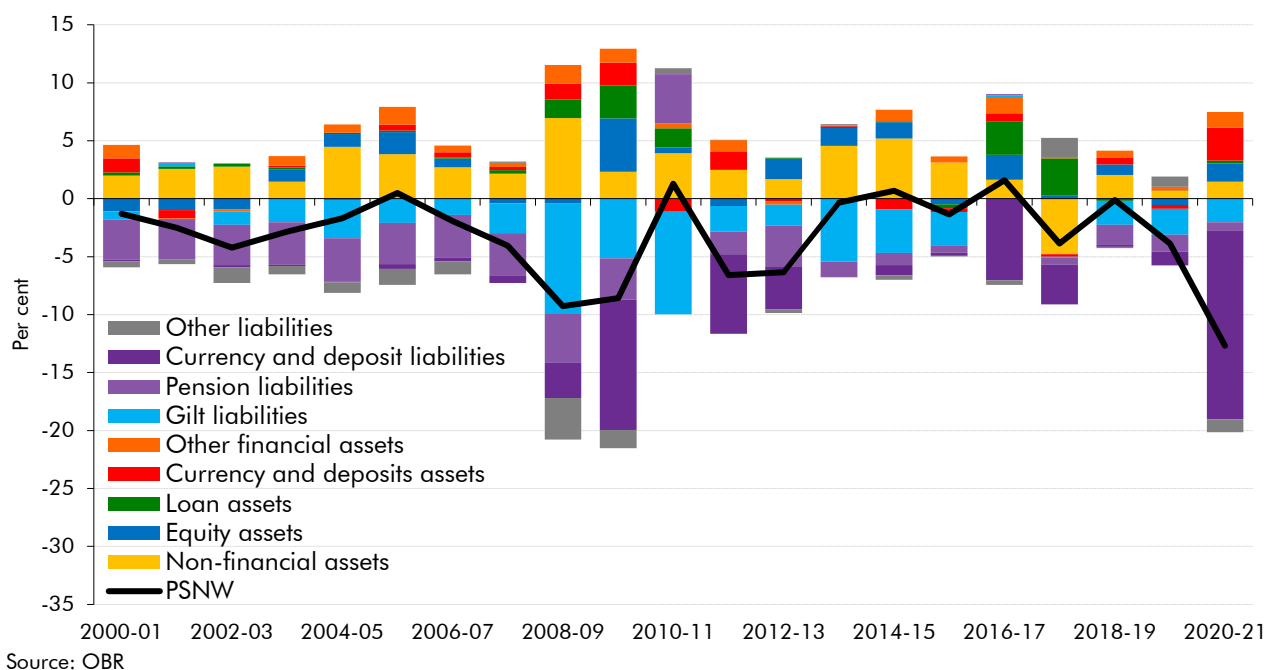
3.8 From 1999-00 onwards, it is possible to use more granular data on the instrument-by-instrument construction of the public sector balance sheet to explain the drivers of changes in PSNW. The PSNW balance sheet deteriorated in 17 of the 21 years, as can be seen in Chart 3.2, which shows the year-on-year changes in the different categories of assets and liabilities included in the public sector finances version of PSNW:

- In most years from the start of the century up to the financial crisis, liabilities expanded at around 6 per cent a year driven by an accumulation of pension liabilities and of government gilts, but this was partially offset by an increase in the value of non-financial assets. In 2005-06 this was sufficient to actually improve net worth.
- Over 2008-09 and 2009-10 PSNW deteriorated by nearly 18 per cent of GDP. Liabilities shot up by just under 42 per cent of GDP. In 2008-09, this was due to a large increase in gilts issued to finance the ballooning deficit and for financial sector interventions, while in 2009-10 gilt issuance was offset by purchases under

quantitative easing. Instead, growth in liabilities was largest in currency and deposits, reflecting both the Bank of England reserve liabilities issued to finance quantitative easing, and the recognition of the deposit liabilities of Bradford & Bingley and Northern Rock (B&B and NRAM). These two years also saw the largest increases in assets with the reclassification of housing associations in 2008-09 and of the mortgage books of B&B and NRAM in 2009-10.

- From the financial crisis to the eve of the pandemic, net worth deteriorated in most years. Growth in liabilities was driven by increases in gilts in most years except where there were further increases in quantitative easing, with the notable exception of 2010-11, which saw a large reduction in pension liabilities following the policy to index increases by CPI rather than RPI, thereby lowering future growth in payments. The asset side grew strongly in 2013-14 and 2014-15 due to increases in the value of non-financial assets, and in 2016-17 and 2017-18 due to the Bank of England's Term Funding Scheme's loan assets. Non-financial assets decreased markedly in 2017-18 as housing associations were reclassified back to the private sector.
- Net worth deteriorated by 12.7 per cent of GDP in 2020-21, the biggest fall this century. Despite the record deficit, the annual liability growth, at 20.2 per cent of GDP, was slightly lower than during the financial crisis but, in contrast to those years, assets did not rise strongly. Also of note is how the increase in liabilities is dominated by deposits rather than gilts, reflecting the large increase in quantitative easing.

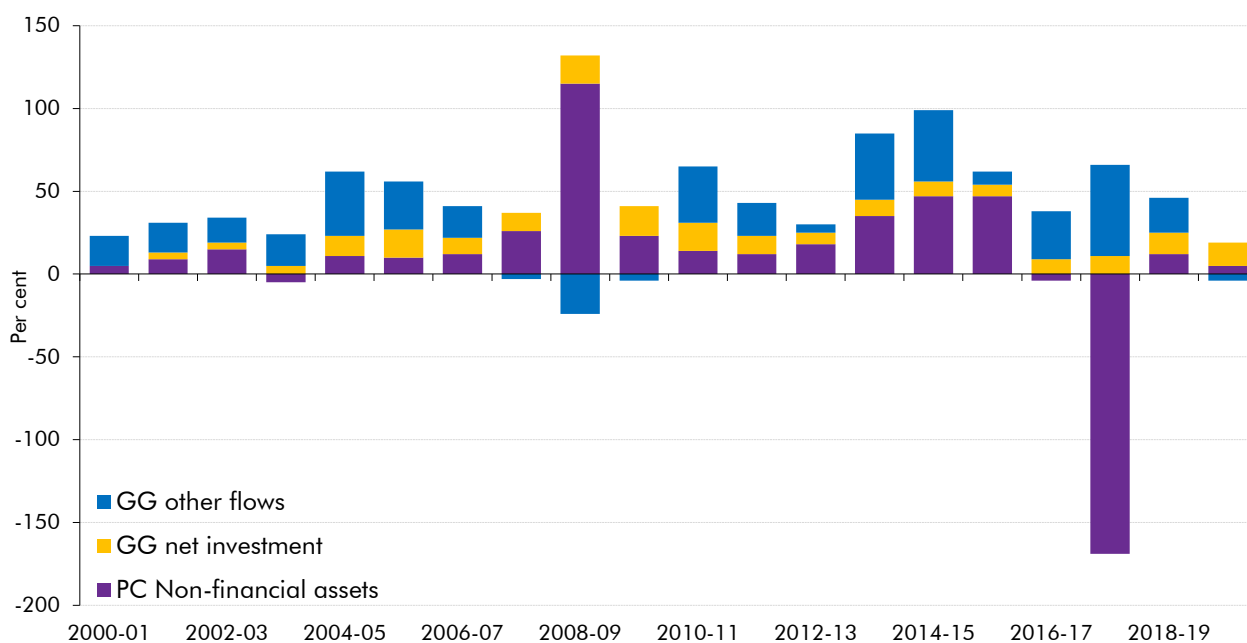
Chart 3.2: Changes in PSNW by assets and liabilities



3.9 On the asset side, it is the change in non-financial assets that is the most significant driver of developments in net worth. Chart 3.3 breaks these changes down further. Changes in the level of public corporation assets reflect the classification of housing associations into and

then out of the public sector. General government changes are split into net investment (the purchase or creation of new assets) and other flows (which largely represent changes in the price of existing assets). In most years it is these price changes that dominate.

Chart 3.3: Year-on-year changes in the value of non-financial assets



Source: OBR

### Classification changes

3.10 One reason for changes in the balance sheet is movements of institutional units into and out of the public sector. These reclassifications can expand or contract the public sector balance sheet, usually without accompanying transactions (unless the government has intervened in some way prompting the reclassification, as with the banks during the financial crisis). Given the nature of reclassifications, they can have different impacts on different public sector balance sheet measures.

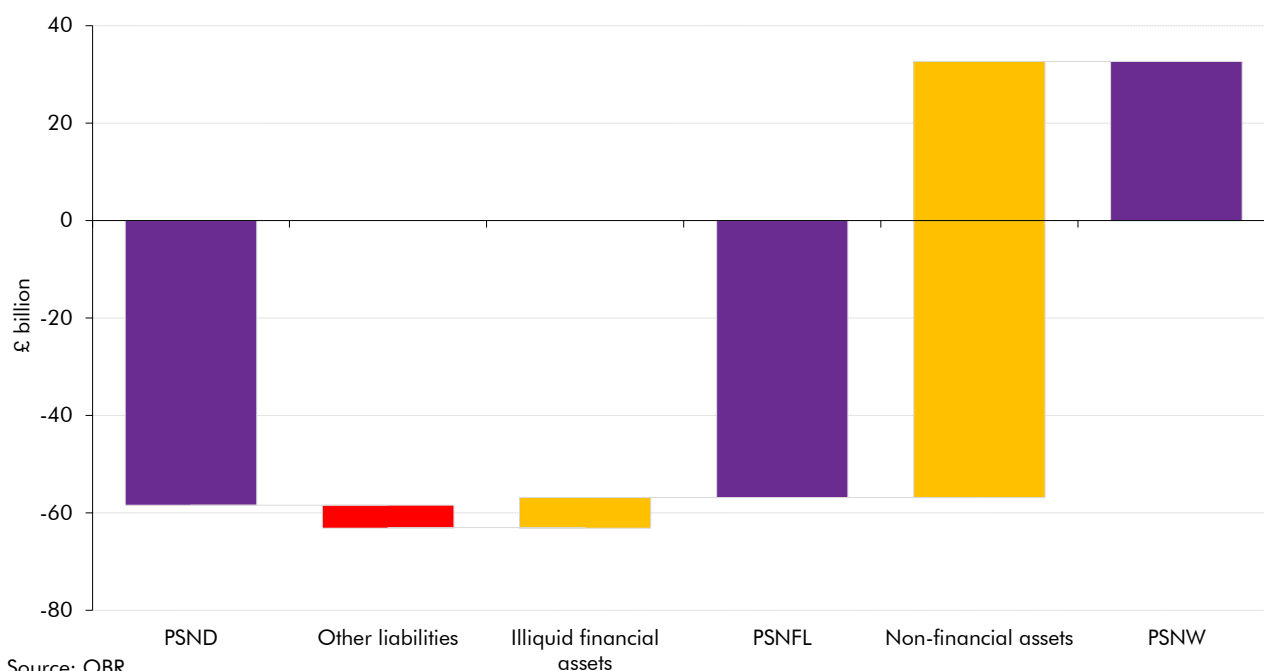
3.11 To illustrate this, Chart 3.4 shows estimates of the impact of the reclassification of housing associations into the public sector on the various balance sheet metrics, using the 2015 global accounts of English housing associations.<sup>17</sup> PSND deteriorates by £58.4 billion reflecting the loan financing of housing associations. Under PSNFL the inclusion of £4.7 billion in other liabilities and £6.3 billion in illiquid financial assets means it deteriorates by £56.8 billion. But when the £89.5 billion stock of housing assets is included, PSNW improves by £32.7 billion.

3.12 When the government relaxed regulation of housing associations in 2017, it stated that *“The only reason these regulations have been introduced is to seek ONS to reclassify housing associations to the private sector. In preparing these regulations, we have ensured that these*

<sup>17</sup> Regulator of social housing, 2015 global accounts of housing providers, February 2016

only go as far as we have to, to reclassify housing associations.”<sup>18</sup> Had the headline balance sheet metric at the time been PSNW, the incentives facing policymakers would have acted in the opposite direction.

Chart 3.4: Impact of the classification of housing associations on different balance sheet aggregates



## International comparisons of public sector net worth

**3.13** Comparing ourselves internationally, the UK has the lowest public sector net worth of all countries for which data are available. Because most countries’ fiscal statistics continue to focus on gross debt as the principal stock variable, cross-country data on net worth are available for only 38 countries – in most cases courtesy of the Fiscal Transparency Evaluations (FTEs) conducted by the IMF, which include surveys of the wider public sector balance sheet.<sup>19</sup> Among 24 advanced economies for which data are available, estimates of net worth average 29 per cent of GDP, with public sector assets broadly balancing out liabilities (at least before the pandemic). However, the situation varies greatly across advanced economies, and much more so than for debt alone. Norway boasts the highest net worth of over 400 per cent of GDP, courtesy of the over 300 per cent of GDP in financial assets in its sovereign wealth fund and a further 150 per cent of GDP in oil and gas reserves still under the ground, far outweighing its 140 per cent of GDP in liabilities.<sup>20</sup> The UK has the lowest net worth of minus 125 per cent of GDP, courtesy of our relative dearth of fixed or financial assets (less than 100 per cent of GDP), high level of debt

<sup>18</sup> House of Lords Secondary Legislation Scrutiny Committee, 6th Report of Session 2017-19, October 2017.

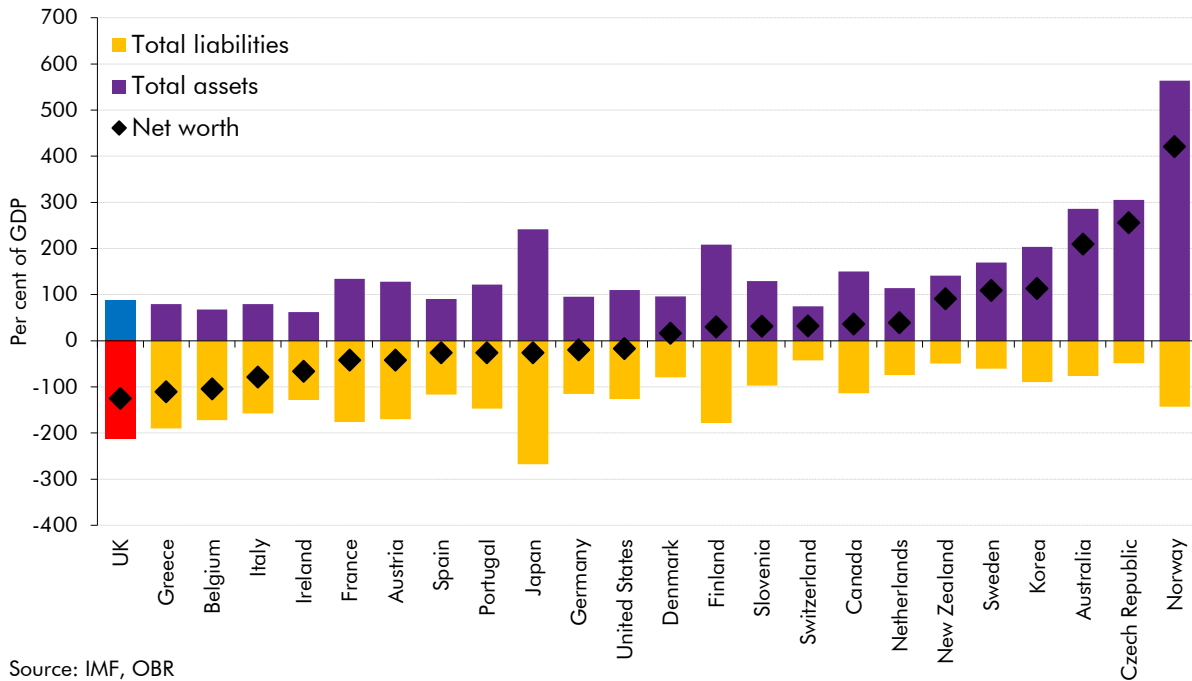
<sup>19</sup> Note that these are experimental estimates based on the data collected at the time of the evaluation and which differ in institutional coverage.

<sup>20</sup> IMF, *Counting the oil money and the elderly: Norway’s public sector balance sheet*, August 2018.



liabilities (over 100 per cent of GDP), and unusually large unfunded public sector pension liabilities (50 per cent of GDP).<sup>21</sup>

Chart 3.5: International comparison of net worth



Source: IMF, OBR

<sup>21</sup> IMF, *United Kingdom fiscal transparency evaluation*, November 2016.

# 4 How does PSNW fare as a measure of fiscal sustainability?

## Measuring fiscal sustainability

- 4.1 The OBR's legal duty is to "examine and report on the sustainability of the public finances". Fiscal sustainability is the ability of the government to meet its current and future obligations and formally satisfy its 'intertemporal budget constraint'. Satisfying this formal condition requires that, over an infinite time horizon, the government raises enough revenue to cover all its non-interest spending and also to service its debt obligations. This requirement is normally expressed in stock rather than flow terms, namely that the present value of future government receipts should be equal to or greater than the sum of outstanding government debt plus the present value of all future government spending. But its infinite time horizon means that this definition of fiscal sustainability is not very useful for policymakers. Instead, policymakers tend to produce long-term fiscal projections on current policy and assess the gap between them and a desired position for the balance sheet.
- 4.2 Our *Fiscal sustainability reports (FSRs)* set out the framework we use for analysing fiscal sustainability, which divides the government's assets and liabilities into two broad areas:
- Those arising from **past government activity**. Past government activity also creates some reasonably certain future financial flows, for example gilts issued to private creditors and contractually agreed public service pension commitments for work already performed. The government's past activity also creates 'contingent liabilities', where there is a non-zero but less than 50 per cent probability that it will face some cost in the future, such as making good a loan guarantee.
  - Those arising from **future government activity**. Future government activity is likely to continue to involve further expenditures on salaries, goods and services, transfer payments, and investment in assets. It will also involve receipt of future revenues, mostly from taxation. Governments may also sell, or rent, assets. This may include assets it has not had to pay to accumulate, for example access to the electromagnetic spectrum that it has been able to sell via auctions.
- 4.3 To date, our *FSRs* have taken a 'flow-based' approach to evaluating fiscal sustainability that attempts to capture both of these dimensions. They do so by constructing 50-year projections of total revenue, expenditure, borrowing, and debt based on a range of demographic, economic and fiscal assumptions. A summary measure of the 'fiscal gap' is generated by estimating how large a permanent spending cut or tax increase would be needed to bring PSND below a particular level (in our most recent *FSR*, this was the level of debt at the end of our last pre-pandemic forecast) by the end of the 50-year projection

horizon. In our 2020 FSR we estimated that a fiscal tightening of 2 to 4 per cent of GDP would be required each decade to bring PSND below 75 per cent of GDP by 2069-70.

- 4.4 Given the more comprehensive balance sheet coverage of PSNW, it should allow for a more sophisticated analysis of the future evolution of all public sector assets and liabilities, including alternative assumptions regarding future returns or costs. It would also provide a more complete presentation of the consequences of transactions in financial and non-financial assets for fiscal sustainability. For example, the sale of a non-financial asset such as social housing is presented as an improvement in PSND equal to the full cash proceeds of the sale, but leaves PSNW unchanged if it is sold at its replacement value or worsened if it is sold below that value. The effect on PSNW would therefore provide a more meaningful representation of how fiscal sustainability had been affected by the sale itself, although the true effect on sustainability would also need to reflect whether the sale changed the extent to which social housing was subsidised by government, since these cumulative payments would be likely to exceed the value of the asset when considered over sufficiently long periods.
- 4.5 Taking a broader view of the public sector's balance sheet does not, necessarily, change the picture of the government's fiscal sustainability, but it does allow us to incorporate more information into our analysis of it. As with other aggregates, the usefulness of PSNW is to an extent limited by the quality of data and measurement, which is a particularly acute issue for non-financial assets and public service pension liabilities. This means that changes in the level of PSNW need to be examined carefully to determine whether they represent a genuine change in fiscal sustainability or are an artefact of the measurement or valuation process. We address some of these issue in the following sections.

## Non-financial assets

- 4.6 Governments usually hold non-financial assets for use and tend to regard only a few non-financial assets as disposable.<sup>22</sup> The overall impact of these assets on fiscal sustainability depends on several factors:
- **Direct financial return.** A variety of assets deliver a direct financial return, ranging from railway and tube lines (in the form of fares) to social housing (in the form of rents, albeit subsidised ones) and leisure centres (in the form of user fees).
  - **Indirect financial return.** Many assets also support economic activity and so increase future tax revenues. This would include transport systems, health and education, and also the assets that underpin a peaceful and stable economy – police and fire services, the military, the judicial and regulatory systems, and so on.
  - **Acquisition and maintenance costs.** It costs money to build or acquire an asset, and this gives rise to debt interest costs. And maintaining the asset will require future expenditure to keep it in working order.

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<sup>22</sup> IMF, *Another look at Government's balance sheets: the role of non-financial assets*, May 2013.

- 4.7 Assets may, in addition, give rise to some social value and therefore increase overall welfare, but this is a separate issue to whether they increase fiscal sustainability. For example, it is possible to undermine fiscal sustainability via excessive spending on socially valuable assets that cannot be supported by available revenues and thus put liabilities on an unsustainable path.
- 4.8 Statistical manuals call for non-financial assets to be recognised at their ‘replacement value’ – that is the cost of replacing the asset in its current condition. This does not take account of the factors that determine how an asset contributes to fiscal sustainability. The use of replacement cost also means that changes in the value of an asset can be a misleading guide to the economic return on the asset. The replacement value of the rail network will rise if either the price of land increases or the cost of building railways increases. But it is unlikely that the government can take advantage of the higher land price by selling it, while a rise in building costs simply means the government will be obliged to spend more in future. So, in neither case can fiscal sustainability be said to have genuinely improved.

### Funded and unfunded pensions

- 4.9 Pension liabilities represent the present value of future obligations arising from past activities: a decades-long commitment to an uncertain level of spending. The liabilities are determined by a host of actuarial assumptions including in respect of demographics, future earnings growth and inflation, and are discounted to obtain a present value. Relatively small changes to these assumptions can produce very large changes in the liability level. The government revalues these schemes only periodically, adding to the uncertainty of the liability and increasing the chance of large revisions.
- 4.10 In the WGA, changes in the level of pension liabilities driven by discount rate changes are usually the single largest moving part. This volatility is less of an issue in the ONS’s estimates as they use a discount rate determined by Eurostat that changes infrequently. This does, however, mean that the discount rate may not be appropriate for the UK.
- 4.11 These issues mean that the long-term projections of income and expenditure associated with the public service pension schemes that are presented in our *FSRs* provide a more meaningful way of understanding how their effect on fiscal sustainability is evolving. As well as avoiding the need for discount rates, they also take into account future spending due to *future* activity. Our latest projections show net expenditure on public service pensions to be on a gently declining path, with costs that are dwarfed by those of the state pension.

### Gilt valuation

- 4.12 As discussed in Box 2.1, we consider nominal valuation to be the best representation of the actual liabilities of the government for sustainability analysis and so we will concentrate on this measure in our PSNW forecasts. In particular, it removes the fiscal illusion present in PSND where issuing debt at a premium makes the government’s balance sheet appear stronger. This happens because the government receives more in cash proceeds than the face value of the gilt liability recorded, reducing PSND. When recorded at nominal value, the liability includes this additional money received and is amortised over the life of the gilt.

## 5 How do we forecast PSNW?

### The broad approach

- 5.1 This chapter discusses how we constructed our first forecast of PSNW in the October 2021 *EFO*. There are two broad approaches to forecasting stock variables like PSNW. A top-down 'flow-based' approach starts from the latest outturn value for PSNW and then uses forecasts of the relevant flow aggregates (the current balance, net capital grants, and 'other economic flows') to estimate the overall change in PSNW from one period to the next. By contrast, a bottom-up 'stock-based' approach starts from the latest outturn value of each of the major groups of assets and liabilities and forecasts the change in their values from one period to the next.
- 5.2 We have chosen a stock-based approach to forecasting the additional elements of PSNW not recognised in other aggregates, as it provides a more interesting and disaggregated picture of the evolution of the balance sheet. It can also be constructed using our existing forecast for the government's financial balance sheet as summarised by public sector net financial liabilities (PSNFL), which we have published since our November 2016 *EFO*.
- 5.3 Under this approach, elaborated below, constructing PSNW requires us to:
- produce an estimate of PSNFL;
  - add non-financial assets;
  - add unfunded pensions;
  - add PFI; and
  - revalue gilts.

### Building PSNW from PSNFL

#### PSNFL

- 5.4 Our PSNFL forecast uses a flows-based approach that relies on the fact that PSNFL is in broad terms the stock equivalent of public sector net borrowing (PSNB), so we use this relationship to forecast yearly changes in PSNFL and its components. Starting from the latest outturn year and our forecast of PSNB, we forecast changes in PSNFL from:
- Changes in the prices or sterling values of assets and liabilities, including the official reserves, equity and funded pension schemes.

- Adjustments for gilts to measure them at face value.
- Any changes resulting from classification changes.

5.5 These steps having provided the level of PSNFL for each forecast year, we then decompose the changes in PSNFL into changes in the stocks of individual financial assets and liabilities. In many cases we already forecast these for other areas of our forecast, such as in the financing assumptions for our PSND forecast or funded pensions for our public corporations forecast. We attribute these changes to the relevant categories of assets and liabilities in PSNFL.

Table 5.1: October 2021 forecast of PSNFL

	£ billion						
	Outturn	Forecast					
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
<b>PSNFL</b>	<b>1,902</b>	<b>2,061</b>	<b>2,124</b>	<b>2,168</b>	<b>2,190</b>	<b>2,217</b>	<b>2,243</b>
Change		158	64	44	22	27	25
of which:		0	0	0	0	0	0
PSNB		183	83	62	46	46	44
Valuation changes		-25	-19	-18	-24	-20	-19
of which		0	0	0	0	0	0
Reserves		-2	0	0	0	0	0
Gilts		-6	-10	-11	-17	-12	-7
Equity		-15	-7	-4	-5	-5	-9
Pension funds		-2	-2	-2	-2	-2	-3

### Non-financial assets

5.6 To generate forecasts of the remainder of the asset side of the balance sheet, we need to forecast the evolution of non-financial assets, which are not included in PSNFL. We currently forecast net capital stocks as part of the process of forecasting depreciation on those assets (which is included in estimates of the current balance). We therefore already have over half of our non-financial assets forecast to which we need to add an estimate for land (whose value does not depreciate, though of course it may change for other reasons). We assume that the value of land rises in line with house prices.

### Unfunded pensions

5.7 To complete the liability side of the balance sheet, we add estimates of the liabilities of unfunded pension schemes to the forecast of funded pension scheme assets and liabilities that are already included in PSNFL. Our forecasts of unfunded pensions are projected forward using a simple model based on several assumptions:

- Cash contributions and benefit payments employed in our PSNB forecasts continue to be used in this model. We convert to accrued contributions by using the National Accounts and GFSM concept of 'imputed contributions', which has been estimated based on the historical relationship between cash contributions and benefit payments. As the discounted liability is included in the balance sheet, the flows also include

additional expenditure representing the ‘unwinding of the discount rate’, which occurs because retirement for individuals is one year nearer each year.

- We assume there are no changes to the liability arising from demographic changes or from impacts of other long-term determinants of the cost of the schemes. This is consistent with our funded pension scheme modelling.
- We use a 4 per cent discount rate, consistent with the approach taken by the ONS and the data published in its unfunded pensions tables.<sup>23</sup>
- We add estimates of the increase in liabilities due to the ‘McCloud remedy’.

## Gilt valuations

- 5.8 In line with Box 2.1 we use the nominal measure of the value of gilts. We start with the face value used for our PSND forecast and adjust for gilt premia from new auctions and the amortisation of those premia, consistent with our debt and debt interest forecasts. We then scale this adjustment by the percentage of gilts held within the public sector in line with the ONS methodology.

## Private finance initiatives (PFIs)

- 5.9 We assume the current stock of PFI liabilities is run down based on the payment profile of planned future commitments using the same data source the ONS uses for outturn.

Table 5.2: October 2021 forecast of PSNW

	£ billion						
	Outturn	Forecast					
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
<b>Public sector net worth</b>	-1,834	-2,011	-2,047	-2,059	-2,055	-2,041	-2,011
Change		-177	-36	-12	5	14	30
of which:							
Public sector net borrowing		-182	-85	-66	-49	-48	-46
PSNFL valuation		23	19	17	23	19	18
Non-financial assets		15	67	71	69	83	97
Unfunded pensions		-38	-38	-38	-39	-40	-42
Gilt valuation		3	-2	-2	-5	-4	-1
PFIs		2	1	1	2	2	1

## Illustrative projections

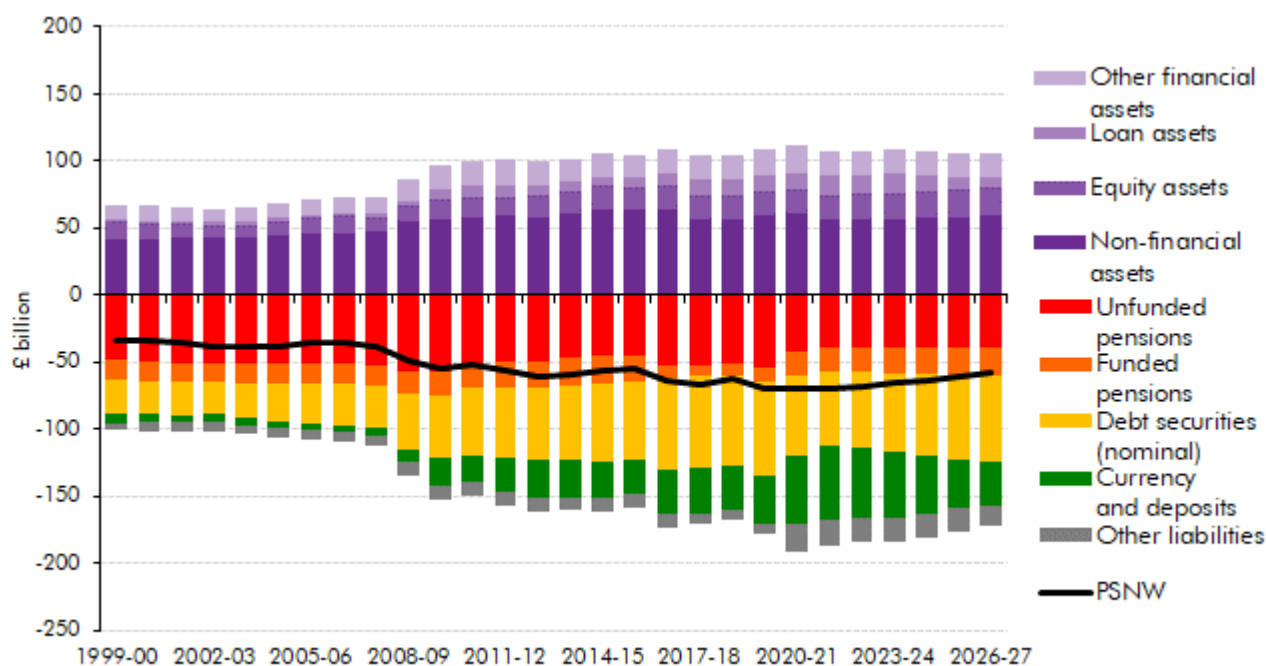
- 5.10 Our October 2021 EFO includes our first illustrative five-year projections of PSNW based on the methodology described above. The forecast shows a further expansion in the size of the government balance sheet as a result of the pandemic. This is driven by a 24 per cent of GDP increase in gross liabilities from 167 per cent of GDP in 2019-20 to 191 per cent of

<sup>23</sup> ONS, *Accrued-to-date pension entitlements in social insurance from UK national accounts table 29*, February 2021.

GDP 2020-21 and a smaller 4 per cent of GDP increase in total assets from 108 per cent of GDP to 112 per cent of GDP to in the same period.

5.11 Chart 5.1 shows how we expect the composition of the PSNW balance sheet to change. After peaking in 2021-22 at minus 83 per cent of GDP, PSNW improves by 14 per cent of GDP to minus 69 per cent of GDP in 2026-27. This is driven by a 15 per cent of GDP fall in the level of liabilities. Deposits fall sharply as the Bank of England’s balance sheet contracts with the wind down of the Term Funding Scheme (TFS) and the run-off of the Asset Purchase Facility (APF). The APF run-off leads to an increase in the volume of gilts held by the private sector, and so debt security liabilities rise. Pension liabilities remain steady with an increase in funded offset by a decline in unfunded liabilities. Overall assets change very little with a decline in loan assets from the TFS offset by small rises in other asset classes, in particular non-financial assets.

Chart 5.1: Illustrative projections of PSNW



Source: OBR

## Next steps

5.12 We will continue to improve the quality of our PSNW forecasts over time. The main areas where improvement will be sought are:

- As the ONS improves the quality of the financial balance sheet in outturn it will allow us to make more informed decisions about likely future valuation changes.<sup>24</sup>

<sup>24</sup> ONS, *Recent and forthcoming changes to public sector finance statistics*: September 2021.



- We will develop more granular models for unfunded public sector pensions.
- We will work jointly with the Treasury to better incorporate the effects of new policy announcements on PSNW (as is currently done for PSNB and PSND).

