

## 4. ICAEW: public sector liabilities in the Whole of Government Accounts

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### Key findings

**The Whole of Government Accounts reflect the financial consequences of decisions made by successive governments, in particular in the increasing level of liabilities being recorded.**

Total liabilities of £3.6 trillion (191% of GDP) were reported at 31 March 2015, almost two-and-a-half times the narrower measure of public sector net debt reported in the National Accounts of £1.5 trillion (or 83% of GDP).

**The effectiveness of the Whole of Government Accounts as a tool to support good public financial management would be improved by a better commentary and by more timely preparation.**

The Whole of Government Accounts are a world-leading development in public sector financial reporting, but progress is needed to reduce the 14 months taken to produce them and to improve narrative disclosures to the standards expected of listed companies.

**The focus on reducing the 'near cash' fiscal deficit measure in the National Accounts risks less attention being given to controlling costs incurred that will be settled in the longer term.**

The 38% reduction in the fiscal deficit over the five years to 2014–15 was not matched by the 19% reduction in accounting deficit over the same period, a significant divergence from the government narrative about the public finances.

**After debt, the most significant liabilities are for public sector pension entitlements. Decisions made to provide defined benefit pensions to employees have exposed the public sector to significant economic and demographic risks, in particular to unanticipated increases in longevity.**

Public sector unfunded pension liabilities amounted to £1.4 trillion at 31 March 2015, up by £354 billion since 2010. Local authority and other funded pension scheme liabilities of £377 billion were supported by investments of £257 billion, with investment growth offsetting most of the increase in liabilities since 2010.

**Better information is needed to allow decision-makers to choose between spending today and increasing long-term liabilities, such as deciding whether to invest in addressing medical failures versus the cost of clinical negligence claims.**

Liabilities for nuclear decommissioning, clinical negligence and the Pension Protection Fund continue to rise, with long-term liabilities up to £175 billion at 31 March 2015. These are obligations to pay cash in the future, reducing the amount available in future for other priorities.

## 4.1 Introduction

Decisions have consequences.

Many of those consequences are financial.

For example, billions of pounds are needed to decommission nuclear facilities as a consequence of decisions made by governments from the 1950s onwards. Decisions made by successive governments to borrow to fund cash spending have resulted in the build-up of substantial debts. And growing levels of pension obligations have arisen as a consequence of decisions to offer defined benefit pensions to public sector employees.

The Whole of Government Accounts (WGA) provide a way of reporting on the financial consequences of decisions, in particular by reporting on the assets created or the liabilities incurred each financial year by public bodies across the UK. This chapter focuses

on the latter, the £3.6 trillion of accumulated public sector liabilities (equivalent to 191% of one year's GDP) reported in the 2014–15 WGA and the decisions that have led to them.

Table 4.1 provides an illustration of how different decisions can affect cash flows and the consequent impact on liabilities reported in the balance sheet.

Section 4.2 provides more information on the WGA and the liabilities included in the balance sheet, including how they differ from the more commonly referred to public sector net debt. It also comments on the differences between the fiscal and accounting deficits and how these have driven a deterioration in the government's financial position as reported in the WGA over the five years to 31 March 2015.

Financial liabilities and how they are managed are dealt with in Chapter 9 and so Section 4.3 examines in more detail the most significant long-term liability after debt – the obligation to pay pensions to current and former public sector employees who are members of public service pension schemes. It analyses the build-up of pension obligations, explains how they are valued for accounting purposes, examines the future profile of pension payments and discusses what this means for future policymaking. The effect of discounting on the measurement of pension obligations is analysed and the merits of funded versus unfunded pension plans are discussed.

**Table 4.1. Decisions and financial consequences**

Decision	Cash flow	Balance sheet
Provide a new public service	Immediate cash payments	More debt
Raise taxes	Immediate cash receipts	Less debt
Provide an unfunded defined benefit pension to employees	Future cash payments	Pension liability (with exposure to economic and demographic factors)
Provide a funded defined contribution pension to employees	Immediate cash payments	More debt
Spend more in tackling medical failures	Immediate cash payments Lower future cash payments	More debt Reduced clinical negligence liability
Build a new nuclear power plant	Cash payments for construction Future cash inflows from generating electricity	New asset and more debt Nuclear decommissioning liability
Issue a guarantee	Risk of a future cash outflow	New contingent liability

Section 4.4 looks at some other long-term liabilities, including nuclear decommissioning obligations, clinical negligence claims and the Pension Protection Fund. It also considers contractual and other commitments not recorded as liabilities in the balance sheet, such as to pay for services under Private Finance Initiative (PFI) contracts, and contingent liabilities that might be payable in certain circumstances.

Section 4.5 concludes.

#### **Box 4.1. The Whole of Government Accounts and the National Accounts**

The WGA are integrated financial statements (i.e. accounts that balance). They are prepared in accordance with International Financial Reporting Standards (IFRS), a set of accruals-based financial accounting standards issued by the International Accounting Standards Board (IASB). In the UK, the government's Financial Reporting Advisory Board (FRAB) has made some specific adaptations for public sector use.

The latest WGA covered the government's financial year ended 31 March 2015. They were published on 26 May 2016, 14 months after the balance sheet date, and incorporated the financial results of some 6,000 bodies across central government, the devolved administrations and local government.

Together with an associated commentary and explanatory notes, they provide a more comprehensive picture of the government's financial performance and position than that available through traditional fiscal reporting in the National Accounts. This is because the WGA capture a wider range of financial transactions than are reflected in the National Accounts, including charges for obligations incurred today that will be settled in the future.

The framework used by the Office for National Statistics (ONS) for the presentation and measurement of economic activities including the public sector finances is known as the National Accounts. It is derived from the European System of National and Regional Accounts (ESA), which in turn is derived from the UN System of National Accounts. The current version, ESA10, was implemented in the UK in 2014, replacing ESA95.

The public finance numbers reported within the National Accounts are based on resource accounting, a hybrid between fully accruals-based and cash accounting approaches. This takes some account of assets and liabilities in calculating the 'near cash' fiscal deficit (public sector net borrowing), but then reverses those items to get back to a 'cash' number for public sector net debt.

#### Box 4.2. What is a liability?

A liability is a legal or similar obligation to pay cash or deliver value in the future that arises as a consequence of a current or past event.

Liabilities include amounts owed to specific individuals or organisations at a specific date, such as debt owed to financial institutions and investors, amounts owed to a supplier for goods or services that have been received, or amounts owed to employees for their pension entitlements. They also include other obligations incurred as a consequence of past events, such as the requirement to pay for the cost of decommissioning nuclear plants and deal with nuclear waste.

Not all expected future payments are recognised as liabilities in the balance sheet. For example, the state pension and welfare benefits are not considered to be liabilities as there is no unavoidable or contractual commitment to pay them: they are future policy choices. Certain other types of commitments such as committed grants or obligations to pay for future services under PFI contracts are also excluded.

Some liabilities may not be sufficiently certain to recognise in the balance sheet – for example, legal claims where there is a possibility that a payment may have to be made or a guarantee that will only be triggered in certain circumstances. These are known as contingent liabilities and are disclosed in the notes to the financial statements.

To clarify the differences, consider the construction of a new bridge:

- a plan for a new bridge is announced: this is a **promise** to construct the bridge;
- planning permission is obtained, money is allocated in the Budget and a formal announcement is made: this is a **commitment** to construct the bridge;
- contracts are signed: this is a **contractual commitment** – a legal obligation to deliver cash to the bridge builder for a future event;
- the bridge is built: this is a **liability** – a legal obligation to deliver cash to the bridge builder as a result of a past event; and
- a legal claim is received from a local resident, which could be, but is not likely to be, successful: this is a **contingent liability** – a potential legal obligation to pay the claimant as a consequence of a past event.

## 4.2 The Whole of Government Accounts and total liabilities

### Whole of Government Accounts 2014–15

The 2014–15 WGA were published in May 2016, some 14 months after the end of the financial year to which they relate. This was 2 months longer than the 12 months it took to prepare the 2013–14 WGA, partly because of delays in the preparation of the financial

statements for the Department for Education, which has struggled to handle the transfer of schools from local authority control to central government academy status.

Although similar in scale and complexity to the financial reporting processes of major multinational listed companies, the time taken to prepare and audit the WGA is substantially longer than the two to three months typical in the private sector.

The timing of publication, very close to the EU referendum, meant that the WGA received little comment at the time, despite reporting a £262 billion deterioration in the government's financial position, from opening net liabilities of £1,841 billion at 1 April 2014 to closing net liabilities of £2,103 billion at 31 March 2015.

The 2014–15 WGA can be summarised as shown in Table 4.2.

Liabilities in the balance sheet exceeded assets by £2,103 billion at 31 March 2015. These net liabilities were balanced by an equal and opposite amount of negative equity, comprising accumulated accounting deficits and other equity reserves.

This represents a negative 'investment' by the British public in the UK public sector, equivalent to approximately £75,000 for each UK household at 31 March 2015, with total liabilities of approximately £130,000 exceeding assets of approximately £55,000 per household.

**Table 4.2. Summarised Whole of Government Accounts 2014–15, £ billion**

<b>Revenue and expenditure</b>	<b>£ billion</b>	<b>Balance sheet</b>	<b>£ billion</b>
Revenue	659	Total assets	1,455
Expenditure	(811)	<b>Total liabilities</b>	<b>(3,558)</b>
<b>Accounting deficit for the year</b>	<b>(152)</b>	<b>Net liabilities</b>	<b>(2,103)</b>
<b>Cash flows</b>	<b>£ billion</b>	<b>Change in financial position</b>	<b>£ billion</b>
Operating cash outflow	(11)	Accounting deficit for the year	(152)
Investing cash outflow	(53)	Actuarial revaluation	(135)
Interest and similar outflows	(27)	Asset revaluations	27
<b>Financing cash inflow</b>	<b>91</b>	Other movements	(2)
Change in cash balances	0	<b>Change in financial position</b>	<b>(262)</b>

Note: In this table, positive numbers are used for revenue, other gains, cash inflows and assets, while (bracketed) negative numbers are used for expenditure, losses, cash outflows and liabilities.

Source: HM Treasury, *Whole of Government Accounts 2014–15*. These, and those for earlier years, can be downloaded from <http://www.gov.uk/government/collections/whole-of-government-accounts>.

The change in financial position during the year principally arises from the combination of expenditure exceeding revenue and an actuarial revaluation that increased pension scheme liabilities. The former is discussed in more detail below, while the latter is dealt with in Section 4.3.

### Accounting deficit

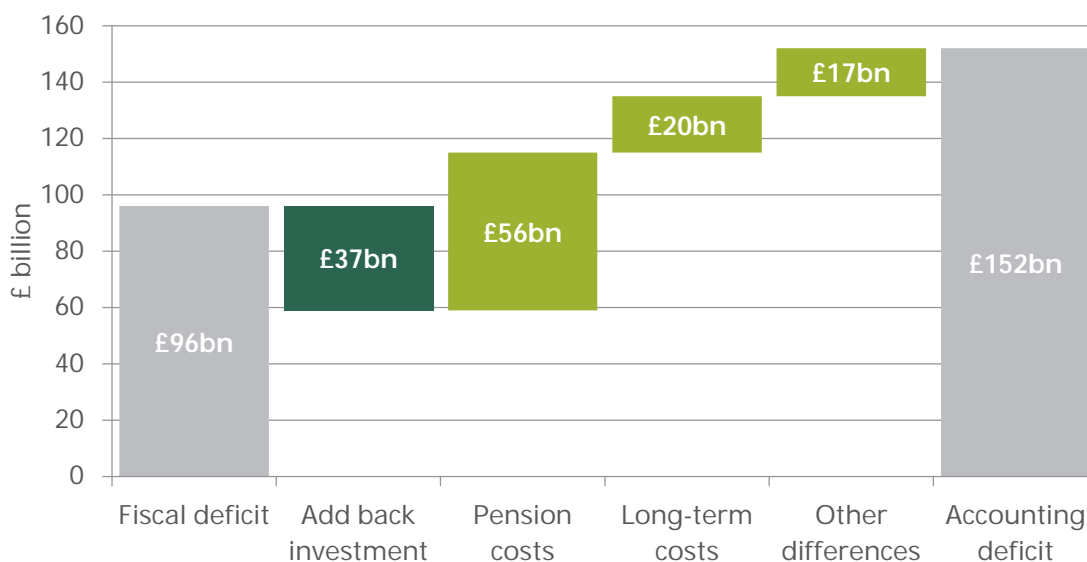
Revenue and expenditure reported in the WGA differ from the amounts reported for public sector receipts and total managed expenditure in the National Accounts. Hence the accounting deficit reported in the WGA is different from the fiscal deficit reported in the National Accounts.

The main differences between the accounting and fiscal measures arise because certain costs included in the WGA are not included in the National Accounts, resulting in an accounting deficit that is significantly larger than the fiscal deficit.

The fiscal deficit is also known as public sector net borrowing.<sup>1</sup> It was £96 billion in 2014–15 and as a ‘near cash’ measure was closer to the £91 billion financing cash inflow than to the accounting deficit of £152 billion in the WGA.

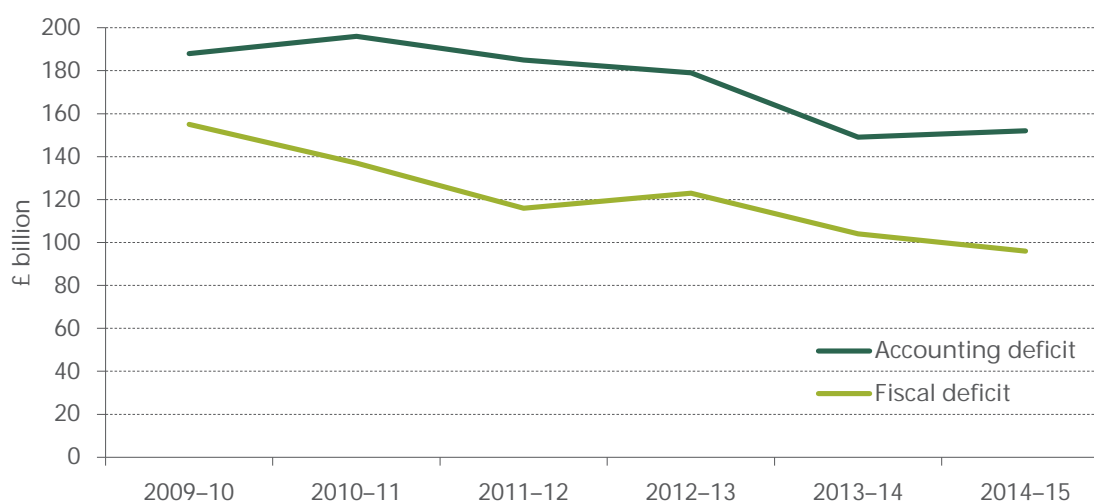
Figure 4.1 illustrates the differences between the fiscal deficit and the accounting deficit. After adding back net investment, which in the WGA is treated as an addition of assets rather than a cost, the principal differences relate to the costs of providing pensions to public sector employees and to other long-term costs that have been incurred but will be settled in the future.

**Figure 4.1. Fiscal deficit versus accounting deficit 2014–15, £ billion**



Source: HM Treasury, Whole of Government Accounts 2014–15, updated for changes in the reported fiscal deficit.

<sup>1</sup> Public sector net borrowing is an ‘accruals’ government accounting measure. It is different from the amount of net cash borrowed by the government because it takes account of short-term assets and liabilities.

**Figure 4.2. Accounting and fiscal deficits 2009–10 to 2014–15, £ billion**

Note: Accounting deficits exclude one-off gains and losses in 2009–10 and 2010–11.

Source: OBR, Public Finances Databank, November 2016; HM Treasury, Whole of Government Accounts 2014–15 and 2013–14.

On average, accounting deficits have been £172 billion over the five years to 2014–15, some £57 billion more each year than the average fiscal deficits of £115 billion over the same period.

These differences have actually increased over the last five years. As a result, the fiscal deficit has reduced since 2009–10 by 38% as the government has implemented austerity measures to control cash spending whereas accounting deficits have fallen by a shallower 19%, as shown in Figure 4.2.

The smaller reduction in the accounting deficit is indicative of how policies have been targeted at reducing spending and increasing taxes captured by the narrower National Accounts measures of debt and deficit. They have not had a similar impact on other expenditure and especially long-term liabilities, which have actually grown significantly.

Although this may be partly due to longer-term costs being less easy to control than short-term spending, there is a significant risk that the exclusion of these costs from deficit reduction targets has itself caused these items to receive less attention than they otherwise would have done, even if over time they may be more significant to the government's financial position.

### Narrative disclosures

Financial statements such as the WGA are normally accompanied by narrative disclosures that put the numbers into context.

Typically this includes an overview explaining the nature and scale of operations, followed by an operating and financial review that comments on the numbers, discusses progress against strategic objectives, and addresses risks and how they are managed. A remuneration report explains pay policies, while the statement of responsibilities sets out how the financial statements have been prepared and the adequacy of financial controls designed to ensure their accuracy.



The WGA does include narrative disclosures, but unfortunately these do not meet the standard of narrative reporting that the government expects listed companies to adopt under corporate governance rules. Although there were significant improvements made in 2013–14, these were reversed in the 2014–15 WGA. The gap with best practice remains substantial.

This is a missed opportunity.

Currently, there is no single regular report that provides a comprehensive commentary on the government's fiscal strategy, its progress against short- and long-term financial objectives and what that means for the long-term sustainability of the public finances.

Some of these elements do exist in various different places. The Budget comments on progress against short-term fiscal objectives, but does not deal with the development of the public sector balance sheet reported in the WGA. Fiscal sustainability reports produced by the Office for Budget Responsibility provide projections of the future shape of the public finances, but do not deal with fiscal strategy.

Improved narrative reporting would do more than comment on the year's financial performance and position presented in the WGA. It could address the wider financial circumstances in which the public sector operates and communicate expected future financial developments. It would bring together short-term fiscal objectives with long-term fiscal strategy, while discussing how risks are managed. It would also address the government's future financing requirements, something we examine in more detail in Chapter 9.

Recent innovations in narrative reporting would also be helpful, such as viability statements that assess an organisation's financial resources and liquidity in 'stress-test' scenarios that might conceivably occur. This would be particularly relevant in the light of the financial crisis and the increased risks associated with global financial markets.

Perhaps most importantly, narrative disclosures enable organisations to set out their strategy and how they have made progress against their strategic and financial targets.

Government would benefit from using the narrative disclosures in the WGA to explain the financial consequences of the decisions it is making. This would not only improve transparency about the public finances, but it would support Parliament in being able to hold the government to account and help with improving public confidence.

### **Total liabilities**

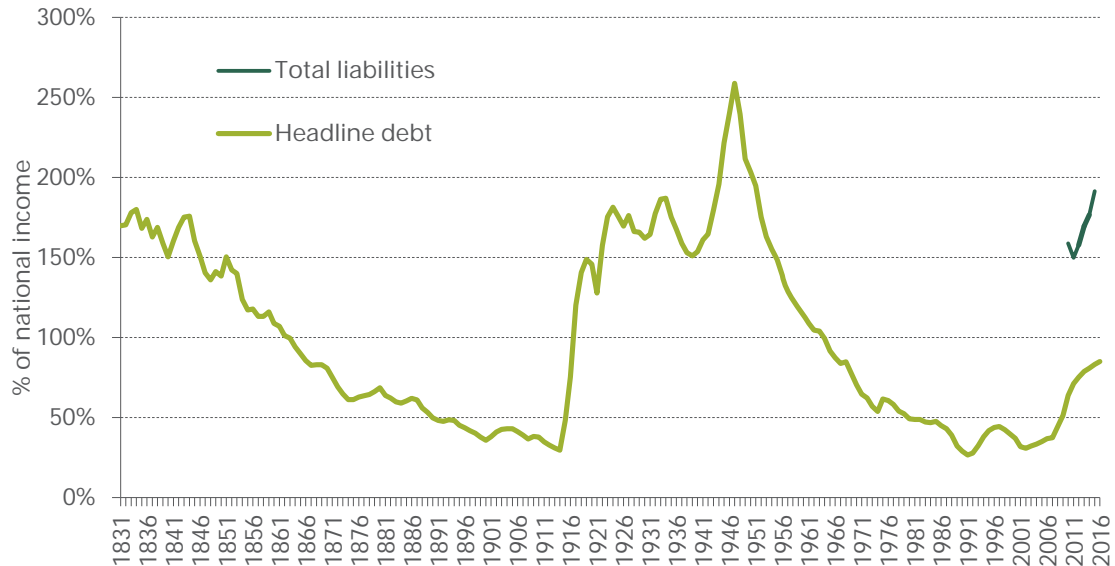
Total liabilities have grown significantly over recent decades as the consequence of decisions made by successive governments. This is illustrated by Figure 4.3, which shows headline debt as a percentage of GDP since 1831 and total liabilities as a percentage of GDP since 2010.

Although numbers for liabilities before 2010 are not available, it is likely that additional liabilities in excess of headline debt in the first half of the 20<sup>th</sup> century and earlier were significantly smaller in relation to the size of the economy than those seen today.

Since 2010, total liabilities have increased by £1,081 billion, a 43% increase over a five-year period, as shown in Figure 4.4. This compares with an increase in the size of the economy of 19% over the same period.

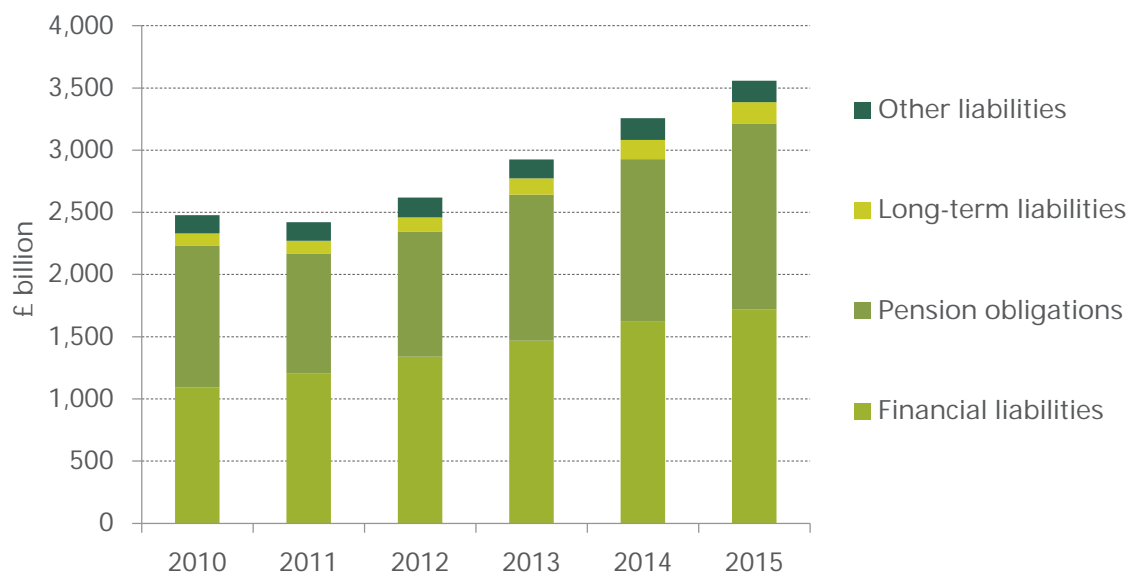
This was a consequence of accounting deficits<sup>2</sup> of £172 billion on average each year, average actuarial revaluations of £43 billion and average annual funding to invest in

**Figure 4.3. Debt and total liabilities over the last 185 years, % of GDP**



Source: Bank of England, Three Centuries of Data; HM Treasury, Whole of Government Accounts 2014–15 and 2013–14.

**Figure 4.4. Total liabilities, March 2010 to March 2015, £ billion**



Source: HM Treasury, Whole of Government Accounts 2014–15 and 2013–14.

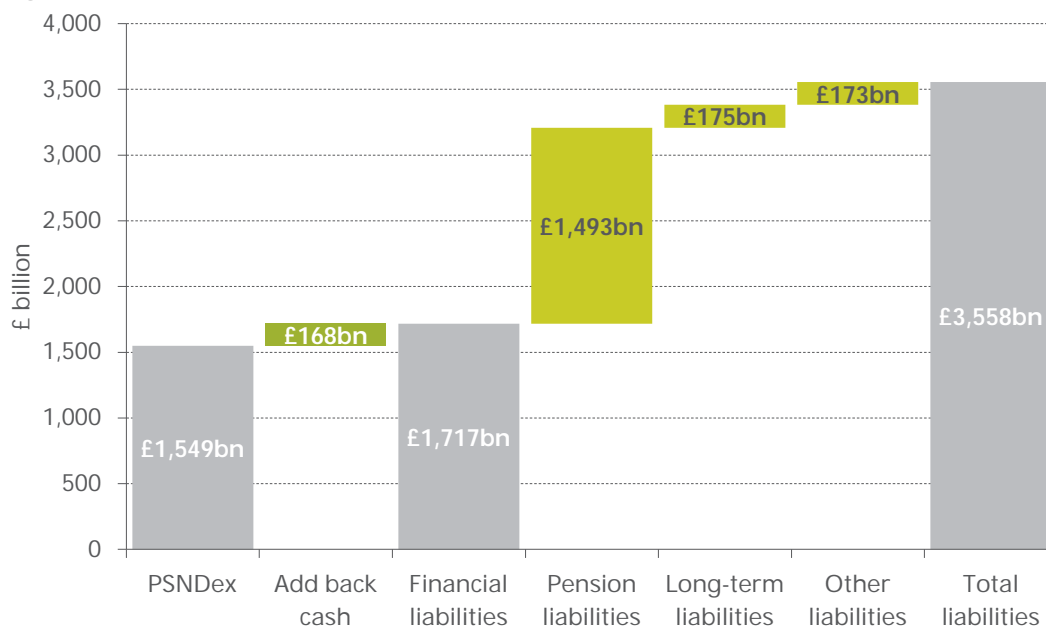
<sup>2</sup> Excluding one-off gains and losses in 2010–11.

assets of £27 billion, less a one-off reduction in pension liabilities of £126 billion in 2010–11 (see Section 4.3).

### Differences with public sector net debt

Figure 4.5 summarises how public sector net debt of £1,549 billion at 31 March 2015 differs from total liabilities of £3,558 billion at the same date.

**Figure 4.5. Public sector net debt versus total liabilities at 31 March 2015, £ billion**



Source: HM Treasury, Whole of Government Accounts 2014–15, updated for changes in reported public sector net debt.

After adding back cash and other liquid financial assets and including other financial liabilities, the most significant difference relates to liabilities for public sector pensions. This is followed by long-term liabilities and other liabilities as discussed below.

### Categorising liabilities

Liabilities in the balance sheet can be categorised as shown in Table 4.3, which compares the position at 31 March 2015 with that of five years previously. In total, liabilities have grown by substantially more than the 3.6% average increase in the size of the economy over the same period.

The largest category is financial liabilities, which are set out in Table 4.4.

Financial liabilities include government securities issued to external investors, Bank of England deposits owed to banks and other financial institutions (including quantitative easing related balances) and currency in circulation, as well as the debt of other public bodies. These are discussed in more detail in Chapter 9.

Public sector pension obligations are examined in more detail in Section 4.3. In the WGA, these are presented net of pension fund investments. This is because pension funds are ring-fenced and cannot in the normal course of events be used for any purpose other than for paying pensions.

**Table 4.3. Change in total liabilities over the five years to 31 March 2015**

	Mar 2010 (£bn)	Mar 2015 (£bn)	Increase (£bn)	Annualised increase (%)
Financial liabilities	1,094	1,717	623	9.4%
Pension liabilities	1,135	1,493	358	5.6%
Long-term liabilities	102	175	73	11.4%
Trade creditors and other liabilities	146	173	27	3.5%
<b>Total liabilities</b>	<b>2,477</b>	<b>3,558</b>	<b>1,081</b>	<b>7.5%</b>

Source: HM Treasury, *Whole of Government Accounts 2014–15*; ICAEW calculations.

**Table 4.4. Financial liabilities at 31 March 2015**

	2009–10 (£bn)	2009–10 (% of GDP)	2014–15 (£bn)	2014–15 (% of GDP)
Government securities	683	44%	1,050	56%
Bank of England deposits	206	13%	355	19%
National Savings & Investments	99	6%	125	7%
Loans and other debt	56	4%	123	7%
Bank notes in circulation	50	3%	64	3%
<b>Financial liabilities</b>	<b>1,094</b>	<b>70%</b>	<b>1,717</b>	<b>92%</b>

Note: Government securities exclude gilts owned by central government and by the Bank of England.

Source: OBR; HM Treasury, *Whole of Government Accounts 2014–15* and *2013–14*.

Long-term liabilities are discussed in more detail in Section 4.4. They include obligations to pay for nuclear decommissioning, for clinical negligence funds, pensioners helped by the Pension Protection Fund, and for other long-term or uncertain liabilities.

Other liabilities include tax refunds due, amounts payable to suppliers, accrued expenditure and payments received in advance. They also include amounts due under finance leases and PFI contracts.

### International comparisons

The UK is one of the world leaders in public sector financial reporting. It led the way with resource accounting in the 1990s and is currently the only country that prepares a set of integrated financial statements that encompass the entire public sector, including devolved administrations and local government.

**Table 4.5. Assets and liabilities by country**

Country	Scope	Date	Assets	/GDP	Liabilities	/GDP
UK	Whole public sector	31 Mar 2015	£1,455bn	79%	(£3,558bn)	(191%)
UK	Central government	31 Mar 2015	£1,316bn	71%	(£2,830bn)	(152%)
Australia	Federal government	30 Jun 2016	A\$594bn	36%	(A\$1,008bn)	(61%)
Canada	Federal government	31 Mar 2016	C\$434bn	22%	(C\$1,060bn)	(54%)
France	Central government	31 Dec 2015	€982bn	45%	(€2,097bn)	(96%)
New Zealand	Central government	30 Jun 2016	NZ\$293bn	116%	(NZ\$197bn)	(78%)

Note: UK central government excludes the Bank of England and public corporations. Australia, Canada and New Zealand include their respective central banks and national public corporations within central government.

Source: HM Treasury, Whole of Government Accounts 2014–15; Commonwealth of Australia, Consolidated Financial Statements 2015–16; Government of Canada, Annual Financial Report 2015–16; République Française, Compte général de l'État 2015; Government of New Zealand, Financial Statements 2015–16.

Other pioneers are Australia, Canada, France and New Zealand, which each prepare integrated financial statements covering their central governments (federal governments in the case of Australia and Canada), with New Zealand publishing its financial statements within three months of the end of the financial year.

Some of these countries have gone further than the UK, by using monthly or quarterly internal financial reports prepared on an integrated basis to support management of their public finances.

A number of other countries have announced plans to adopt integrated financial statements for their central governments. These include a number of EU members such as Austria, Cyprus, Portugal and Spain; South American countries such as Brazil, Chile and Peru; and Asia-Pacific nations such as China, Indonesia, Japan, Malaysia and Vietnam. Adoption is likely to take many years, so it is likely to be some time before the majority of countries start to produce integrated financial statements and wider comparisons can start to be made.

In comparing the UK with other countries, as in Table 4.5, it is important to note that there are significant structural differences, with Australia, Canada and France each having state or regional governments that deliver a substantial proportion of public services in those countries that in the UK is delivered or funded by central government.

In addition, the accounting standards used are not the same, which may result in differences in certain areas. France has adopted accruals-based International Public Sector Accounting Standards (accruals-based IPSAS), which differ in a number of areas from IFRS, while Australia prepares its financial statements under Australian Accounting

Standards, which are almost identical to IFRS. Canada and New Zealand apply their own public sector accounting standards, which are similar to but not the same as accruals-based IPSAS.

While the liabilities of France appear to be lower as a proportion than the UK's, this is because the numbers are not comparable, in particular because France does not include public sector pension obligations in its balance sheet for central government institutions. The notes to the financial statements estimate the liability to be €1,723 billion or 78% of GDP; if these were included, France's central government liabilities would increase to €3,802 billion or 174% of GDP, which is greater than the central government liabilities for the UK.

Australia, Canada and New Zealand each record pension obligations in their balance sheets at 19%, 12% and 5% of GDP for their central governments respectively. This compares with 24% of GDP for the UK civil service, armed forces and other public bodies' pension schemes within the UK central government balance sheet.

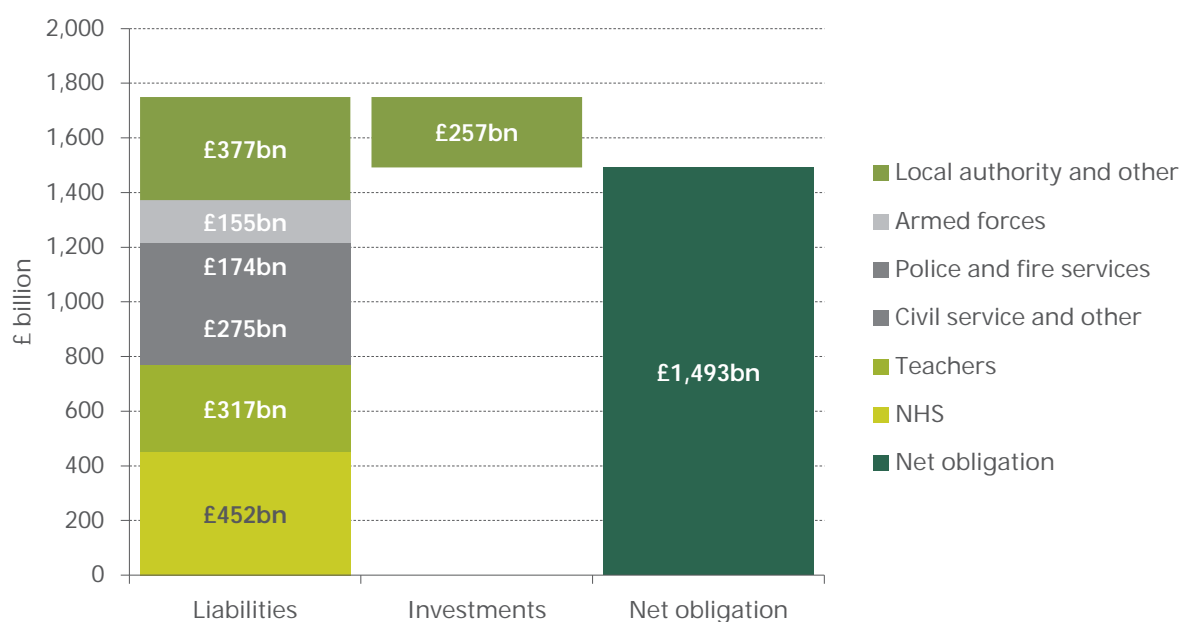
### 4.3 Pension liabilities

#### Net pension obligations at 31 March 2015

The net pension obligation reported in the WGA at 31 March 2015 was £1,493 billion, comprising unfunded schemes with gross liabilities of £1,373 billion and schemes with pension funds with gross liabilities of £377 billion less investments of £257 billion, as shown in Figure 4.6.

The net obligation for schemes with pension funds of £120 billion comprises £106 billion for local authority employees and former employees, and £14 billion for public bodies that have established funded pension arrangements, such as the Bank of England, BBC, House

Figure 4.6. Net pension obligations 2014–15, £ billion



Source: HM Treasury, Whole of Government Accounts 2014–15.

of Commons and Network Rail. It also includes liabilities for central government employees who (for various reasons) are members of local authority pension schemes.

The gross liability of £1,750 billion was equivalent to 94.1% of GDP at 31 March 2015, reducing to 80.3% of GDP when the £257 billion of investments are taken into account.

These liabilities relate to the defined benefit pension arrangements of public sector employees. They do not include state pensions or associated benefits that do not arise from contractual rights.

#### **Box 4.3. Illustrative actuarial calculation – ‘Sarah’**

To illustrate the effect of discounting, consider an employee called Sarah on a salary of £24,500 at 31 March 2015.

She has worked for the NHS for five years and is expected to retire in 20 years’ time when her salary will have reached £56,000 (assuming promotions and salary increments as well as annual increases). Reforms to public sector pensions from 1 April 2015 mean that her pension will be based on her final salary for the first five years of service and a career average for the subsequent 20 years. Her contributions are deducted from her salary and her employer has made contributions too, but these have all been spent by the government rather than invested.

Sarah expects to retire on a pension of £17,900 a year, assuming she works until the normal pension age and achieves her forecast final salary. If she lives for 25 years in retirement and has no surviving spouse, the NHS will pay her a total of approximately £588,000 for her pension.

Table 4.6 shows how, using a nominal discount rate of 4.0%, that obligation to pay Sarah’s pension in retirement is considered to be worth £167,000 in ‘today’s money’. £134,000 of that amount relates to future service and so £33,000 is recorded as a liability in the WGA, the element relating to her service in the NHS to date. Each year going forward, the NHS will accrue for the entitlement earned by Sarah that year, together with an interest charge (unwinding the discount) on the liability recorded in previous years. If everything transpires in line with the assumptions made, the liability will continue to grow to match the eventual pension payments.

In reality, the assumptions will need to change as time passes and better information becomes available. For example, if Sarah were to live an extra year, the £6,000 pension she would receive in 46 years’ time would require an additional £1,000 to be added to the liability if known about today. A change in the discount rate (from the 1.8% real rate assumed at 31 March 2015) would also have a significant effect. For example, using a real discount rate of 2.8% would reduce the value of the liability by around £8,000, while a real discount rate of 0.8% would increase it by around £11,000.

**Table 4.6. Illustrative actuarial calculation**

	<b>Accrued entitlement (£)</b>	<b>Future service (£)</b>	<b>Total (£)</b>
5 years x 1/80 accrual rate x Final salary of £56,000	<b>3,500 per year</b>	-	3,500 per year
20 years x 1/54 accrual rate x Average salary over next 20 years of £38,900	-	14,400 per year	14,400 per year
<b>Pension payable in first year of retirement (increasing subsequently by CPI of 2.2%)</b>	<b>3,500 per year</b>	14,400 per year	17,900 per year
<b>Total pension paid over 25 years of retirement (total cash payments)</b>	<b>115,000</b>	473,000	588,000
<b>Discounted value in today's money (using a nominal discount rate of 4.0%)</b>	<b>33,000</b>	134,000	167,000

Source: ICAEW calculations.

Pension obligations are calculated on an actuarial basis, taking an estimate of the pensions payable in the future based on service to date and discounting those future cash flows to arrive at a current value in today's money. An illustrative example is provided in Box 4.3.

As pension payments will extend over a number of decades, the liability calculations are very sensitive to the assumptions adopted, especially in the weighted average discount rates used. In reality, a range of potential estimates could be calculated, but for accounting purposes a single number is selected to provide a current value of the obligation at a point in time.

For the unfunded pension schemes, a weighted average real discount rate of 1.8% was used at 31 March 2015. Together with a long-term inflation assumption of 2.2%, this was equivalent to a nominal discount rate of 4.0%.

The main demographic assumption is longevity, i.e. how long employees are expected to live for in retirement, which is one of the most significant drivers of the level of pension payments. Other key assumptions include the expected annual level of salary increases over the course of a career, including promotions (4.2% at 31 March 2015), the expected likelihood of leaving before retirement age and the proportion of pensioners expected to be survived by spouses.

The funded schemes used a similar approach, with assumptions specific to each scheme concerned, including weighted average nominal discount rates at 31 March 2015 in a range from 3.0% to 4.4%.

The various economic and demographic assumptions used are based on the recommendations of the Government Actuary's Department or, in the case of some of the funded pension schemes, private sector actuaries. They use their own professional judgement in deciding on the assumptions to use, taking into account market information and the views of economic forecasters. In particular, they will have taken economic



forecasters' views and market expectations of long-term inflation of 2.0% into account in arriving at the 2.2% assumption for inflation over the period of pension payments that they used in the calculation as at 31 March 2015.

When calculating a pension liability for accounting purposes, actuaries are required to use a weighted average discount rate based on the returns available from investing in corporate bonds. This ensures the pension liabilities of different employers are prepared on a consistent basis at a point in time, irrespective of the investment strategy of each scheme or, in the case of unfunded schemes, whether there are any investments at all.

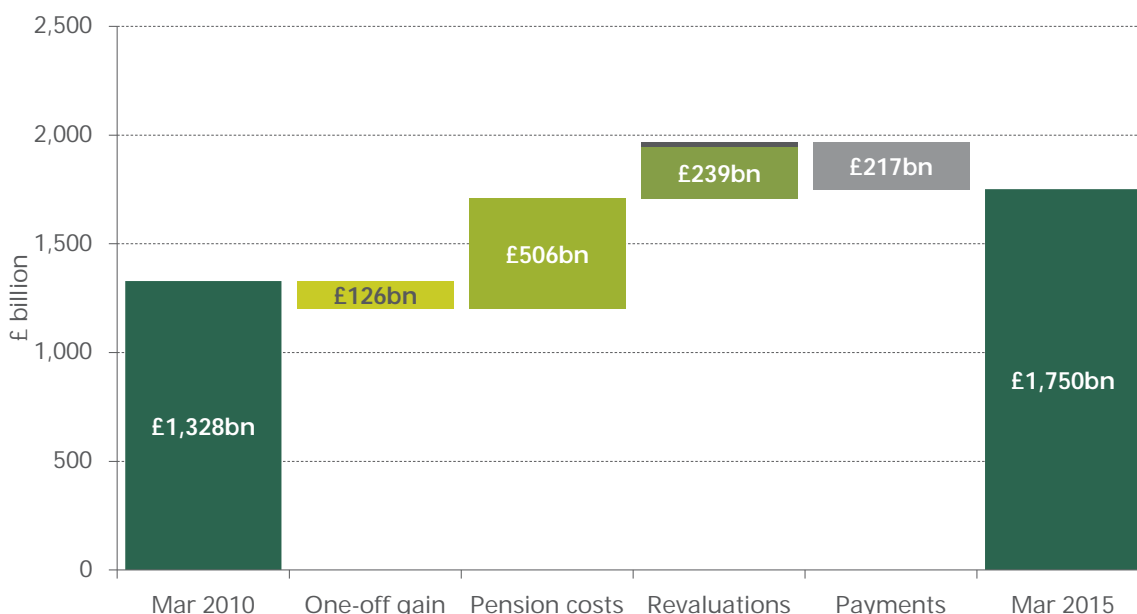
Alternative approaches would result in significantly different values for pension liabilities. Using lower 'risk-free' rates based on government bond rates would result in a significantly higher number for all the liabilities. For local authority and other pension plans with investments, rates based on expected investment returns would result in a lower number for their pension liabilities, in line with how actuaries assess the level of funding required for those schemes.

### Growth in pension liabilities

Subject to actuarial recalculations, pension liabilities are expected to grow as the combination of new pension entitlements earned and the interest on the liability (the unwinding of the discount) significantly exceeds the pensions being paid out each year.

Figure 4.7 summarises the increase in gross pension liabilities over the five years between 31 March 2010 and 31 March 2015. It highlights how the gross liability was reduced by the one-off change to pension entitlements in 2010–11 as a consequence of changing from RPI to CPI for pension increases, before increasing over the following five years as new pension entitlements of public sector employees of £39 billion a year on average and £62 billion a year in interest charges were recorded.

**Figure 4.7. Gross pension liabilities between 2010 and 2015, £ billion (nominal)**



Source: HM Treasury, Whole of Government Accounts 2010–11 through 2014–15.

Recalculations of the pension liability by the actuaries each year resulted in increases in the liability totalling £239 billion, while £20 billion was also added for pension schemes reclassified into the public sector during the period (including, for example, Network Rail).

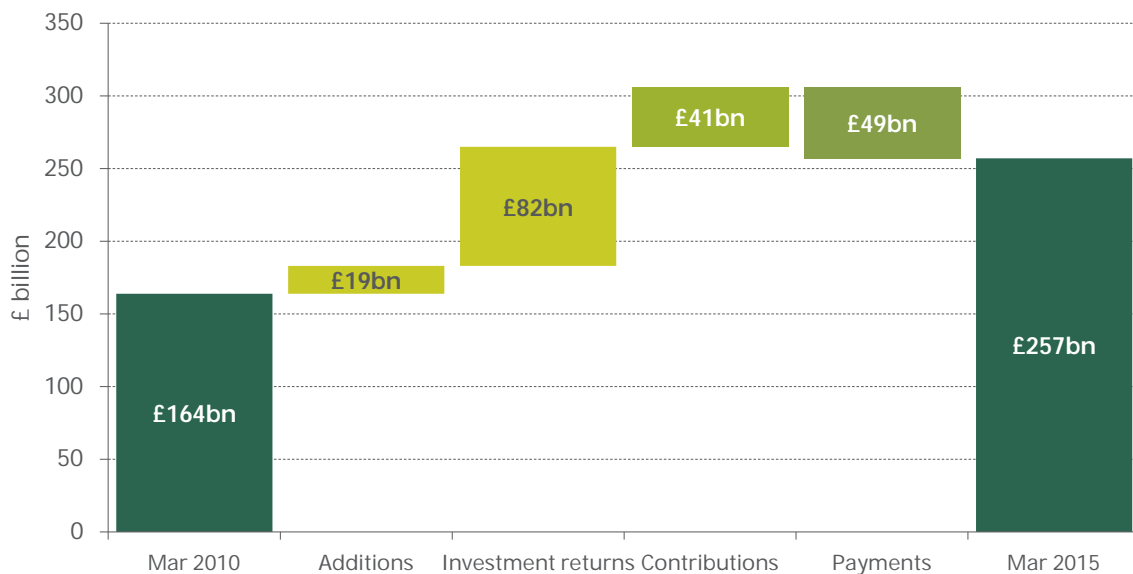
The disclosures in WGA do not make it clear how much of the £239 billion relates to changes in the discount rate as opposed to changes in other assumptions such as longevity, so it is not possible to isolate how much the liability might change for different discount rates. This is something that ideally should be included in improved narrative disclosures.

The liability was reduced as pensions were paid over the five years amounting to £217 billion, or £43 billion a year on average.

The overall increase in the gross liabilities over this five-year period was £422 billion, of which £325 billion related to unfunded pension schemes and £97 billion to funded pension schemes.<sup>3</sup>

The latter was offset by gains in the values of investments as shown in Figure 4.8, which meant that the net liabilities of local authority and other funded schemes at 31 March 2015 were just £4 billion higher than they were five years previously.

**Figure 4.8. Market values of pension fund investments between 2010 and 2015, £ billion**



Note: Additions are for schemes reclassified into the public sector. Assets exclude £29 billion in investments cashed in by the government in 2012–13 when it converted the legacy Royal Mail pension scheme into an unfunded scheme.

Source: HM Treasury, Whole of Government Accounts 2010–11 through 2014–15.

<sup>3</sup> Net movement in unfunded pension liabilities was £354 billion, comprising £325 billion increase in liabilities and £29 billion from cashing in Royal Mail pension scheme investments, which as a consequence became an unfunded scheme.

## Risks related to public sector pensions

Public sector pensions entail two principal sets of risks to the government.

First, by offering defined benefit pension arrangements, the government has exposed itself to significant economic and demographic risks, which can significantly affect the eventual cash payments that will be paid out in the future. Perhaps most significantly, increasing longevity has been a major factor in driving higher costs for defined benefit pension arrangements in both the public and private sectors.

This contrasts with defined contribution pension arrangements, where risks sit with individual employees and employers have much greater certainty about the financial cost.

For example, the Commonwealth of Australia has recently closed its defined benefit pension schemes to new members and is now offering funded defined contribution pension arrangements to federal employees, with a minimum employer contribution of 15.4%. As a consequence, the Australian federal government will gradually reduce its exposures to defined benefit pension arrangements over the next few decades.

The second set of risks relate to the choice of investment strategy to fund the pensions in payment.

For central government's unfunded schemes, it has chosen a 'pay as you go' approach, which means it is reliant on tax revenues growing sufficiently to provide the cash necessary to pay for the pensions when they are due.

This contrasts with local authorities and other public bodies with funded pension schemes, which have chosen to invest now to provide the funds needed to pay pensions in the future rather than (in effect) use that money to reduce debt. As investment returns are expected to be greater than the cost of debt, this should save money over the long term, but at the risk of having to increase payments into the schemes should investment performance disappoint.

To illustrate this, local authority and other funded pension schemes have benefited from investment returns of £82 billion over the last five years, which is substantially greater than the £20 billion or so of debt interest that would have been saved had those schemes switched to a 'pay as you go' approach at the start of that period.

## Pension reforms

There have been two major changes to the pension arrangements of public sector employees in recent years. These include measures adopted to cut the generosity and therefore improve the affordability of pensions, including the implementation of recommendations made by the Hutton Review.<sup>4</sup>

First, there was a cut in the amount payable to pensioners, by indexing increases in pensions and pension entitlements to CPI instead of RPI. This was announced in June 2010 and implemented from April 2011. It had the result of reducing the value of existing

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<sup>4</sup> The Hutton Review changes are discussed in J. Cribb and C. Emmerson, 'New public service pensions remain relatively generous despite cuts', IFS Observation, March 2015, <https://www.ifs.org.uk/publications/7680>.

pension entitlements by an estimated £126 billion, in addition to reducing the value of future entitlements earned thereafter.

Recommendations from the Hutton Review were implemented for the majority of public sector employees on 1 April 2015. These included linking the normal pension age to the state pension age for many employees (which is scheduled to increase over time), changing from final salary to career average pension as the basis for the calculation of pensions payable, and increasing the pension contributions required from employees.

Of these, increasing the normal pension age and increasing pension contributions (a cut in take-home pay for the individuals concerned) are the main changes that will reduce the cost of pensions to the government. However, the switch from final salary to career average pensions from 1 April 2015 for the majority of public sector employees does not save money, as there has been an offsetting increase in accrual rates.

This is illustrated by the example in Box 4.3 earlier, where Sarah should receive a £400 higher annual pension as a consequence of the switch to a career average arrangement with a faster accrual rate. However, future salary increases above the expected level would benefit Sarah by less than if she had been able to continue with a final salary arrangement over the next 20 years.

These changes retained existing entitlements that employees had earned up until 31 March 2015, which remain linked to final salaries, (and also did not affect the future accrual of those already close to their normal pension age) and so there is not likely to be a significant gain or loss from these changes reported when the WGA for 2015–16 are published, although increases in pension contributions should reduce the net cost recorded in future years.

## 4.4 Long-term liabilities, contingent liabilities and commitments

### Long-term liabilities

As set out in Table 4.7, long-term liabilities at 31 March 2015 were 71% higher than five years earlier, or 45% in comparison with the size of the economy.

**Table 4.7. Provisions for liabilities and charges at 31 March 2015**

	2009–10 (£bn)	2009–10 (% of GDP)	2014–15 (£bn)	2014–15 (% of GDP)
Nuclear decommissioning	57	3.7%	83	4.5%
Clinical negligence	16	1.0%	29	1.5%
Private sector pensions	9	0.6%	24	1.3%
Tax refund claims	4	0.3%	15	0.8%
Litigation and other	16	1.0%	24	1.3%
<b>Long-term liabilities</b>	<b>102</b>	<b>6.5%</b>	<b>175</b>	<b>9.4%</b>

Source: HM Treasury, Whole of Government Accounts 2014–15 and 2010–11.

Although technically described as ‘provisions for liabilities and charges’, we have chosen to describe them as long-term liabilities to avoid the confusion that the use of the word ‘provisions’ can sometimes cause. It is important to realise that there is no requirement for there to be any assets set aside to cover the payments of these liabilities and they are only provided for in the sense that a liability has been recognised in the balance sheet.

This does not mean that there cannot be any such assets – in the case of the nuclear decommissioning provision, there is an asset of £6 billion for contributions due from third parties, while the Pension Protection Fund has a net £22 billion portfolio of assets to cover its obligations, approximately £3 billion more than its liabilities of £19 billion. These are explained in more detail below.

All of the provisions are discounted to take account of the timing of the eventual payments, based on guidance issued by HM Treasury each year for all liabilities other than pensions (as discussed in Section 4.3). At 31 March 2015, the real discount rates used were -1.5% for payments due within five years, -1.0% for payments due in five to ten years and +2.2% for payments due in more than 10 years.

### **Nuclear decommissioning**

The long-term liability for nuclear decommissioning differs from most of the other long-term liabilities in that changes in the provision primarily arise from revisions of estimates rather than from newly-created liabilities.

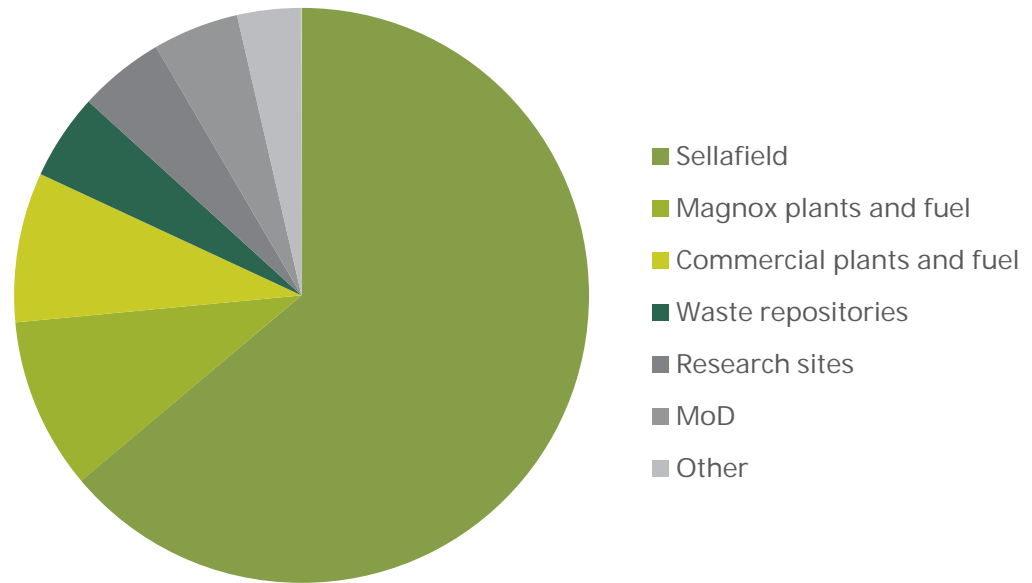
Some of the growth in this liability is because the remaining fleet of nuclear power plants add to the stockpile of nuclear waste that needs to be disposed of. This is a relatively small proportion of the overall costs as the overwhelming majority of the provision relates to the requirement to remediate historic irradiation of nuclear facilities and plants.

The programme to decommission plant and equipment on each designated nuclear licensed site and return the sites to pre-agreed end states is expected to take until 2137 to complete. As a consequence, the estimates for the costs that will be incurred over that time are subject to significant revision as new information becomes available and assumptions are updated.

As can be seen from Figure 4.9, the largest element of the nuclear decommissioning provision relates to the Sellafield site where the UK nuclear industry was developed. This was £53 billion out of the total £83 billion liability at 31 March 2015, reflecting the complexity and scale of the clean-up required for that particular site. Cash spending on nuclear decommissioning over the five years from 31 March 2015 is expected to be approximately £3.5 billion a year, rising in line with inflation.

The government established the Nuclear Decommissioning Authority (NDA) on 1 April 2005, with the responsibility for planning and delivering the majority of the clean-up effort required, remediating contamination arising from the past operation of nuclear facilities in the UK.

The NDA element of the provision has increased from £24 billion to £70 billion over the 10 years to 31 March 2015 as it has made progress in identifying the extent of the decommissioning that will be required over the next century or so.

**Figure 4.9. Nuclear decommissioning provision at 31 March 2015**

Source: HM Treasury, *Whole of Government Accounts 2013–14*, updated for changes in 2014–15.

Over the next 20 years, the NDA aims to make significant progress in decommissioning nuclear facilities and dealing with nuclear waste. This includes plans to defuel and decommission the fleet of Magnox power stations, putting them into a ‘care and maintenance’ phase, as well as confirming the location for a long-term geological disposal facility. It also aims to complete decommissioning at two research sites, make significant progress towards decommissioning Dounreay and make further progress in high hazard reduction, principally at Sellafield.

Although this work may well lead to increases in the provision as new information is obtained (in particular at Sellafield), there is an opportunity to reduce the provision if new techniques and equipment can be developed to reduce the cost of the work required.

Because of the significant uncertainties relating to the estimates for nuclear decommissioning provision, the Comptroller & Auditor General includes an ‘emphasis of matter’ in his audit report each year to highlight the uncertainty in this number.

A substantial increase in the amounts recorded for these and other long-term liabilities is expected to be seen in 2015–16, as HM Treasury has now concluded that a real discount rate of –0.8% should be applied to payments due in more than 10 years at 31 March 2016. This is a substantial change from the +2.2% real rate used at 31 March 2015 and, as a consequence, the nuclear decommissioning liability is expected to increase by around £100 billion in the forthcoming WGA for 2015–16.<sup>5</sup>

Although some volatility in the quantification of long-term liabilities recorded on a discounted basis is to be expected, this scale of change is exceptional. This is where better

<sup>5</sup> £91 billion of this increase has been reported in the Department for Energy & Climate Change Financial Statements 2015–16.

narrative reporting in the forthcoming WGA for 2015–16 could really help, in this case by explaining the rationale adopted for the selection of discount rates for use in the WGA and in departmental accounts, particularly in the case of very long-term liabilities such as those for nuclear decommissioning.

### **Clinical negligence**

The provision for clinical negligence of £29 billion is an estimate of the future costs expected to be paid out by the NHS in England, Scotland, Wales and Northern Ireland for claims relating to medical procedures carried out up to 31 March 2015.

As many claims are not paid out immediately but instead involve payments over many years, the liability includes determined claims as well as claims that are considered likely to be determined in the claimant's favour. The liability is calculated based on assessing the likely costs of each claim, discounted to current prices, and applying a probability to take account of the potential for a successful defence. It also includes an estimate for incidents that have occurred but had not been reported.

The liability does not include a further £14 billion of claims that are less likely to be successful. These are reported as a contingent liability.

The NHS Litigation Authority in England received 11,497 new clinical negligence claims and 4,806 other claims during 2014–15, which resulted in £1.6 billion in new provisions during the year in England. A small number of cerebral palsy claims make up the majority of the claims by value. Revisions to the costs of previous claims and an increase in the estimate for anticipated claims not yet received added a further £2.2 billion.

Payments during the year amounted to £1.2 billion; however, payments were expected to increase to £1.9 billion a year in 2015–16 and to an average of £2.2 billion for the four years after that, plus inflation as well as claims for subsequent years.

Until about 20 years ago, most claims were settled through one-off payments. This approach had a number of drawbacks, as sometimes the amount paid would be insufficient to pay for a lifetime of care, while on other occasions the full amount would not be needed, an unnecessary cost to the taxpayer. The current policy is to pay claims over time, benefiting claimants by assuring them that lifetime costs and damages will be covered and ensuring the NHS does not overpay in up-front settlements. This policy has therefore had the consequence of reducing the funding needed to pay out cash settlements, reducing debt at the same time as increasing the clinical negligence liability.

The £3.8 billion charge recorded by the NHS Litigation Authority in 2014–15 was equivalent to almost 4% of NHS England's net expenditure that year, a substantial cost. On 19 December 2016, the National Audit Office announced that it is undertaking a study into how clinical negligence is managed by NHS trusts. The work will look at the underlying causes of rising clinical negligence liabilities and the work of the Department of Health, the NHS Litigation Authority, NHS trusts and others to manage this cost. The scope of the study will include how past incidents are investigated, actions taken to reduce the harm that leads to clinical negligence claims as well as efforts to improve the response when things do go wrong by encouraging transparency and wider forms of redress for affected patients.

Although improving the quality of medical care is probably the most important way of reducing the cost of new claims, it might be possible to reduce the taxpayer's exposure to such through changes in financial arrangements, in particular by reducing the amounts that are paid in legal fees. One possible approach that has been discussed is the possibility of establishing 'no fault' insurance arrangements for planned medical procedures, either through private insurance or through a comprehensive public scheme as in New Zealand, with a consequent substantial saving in legal fees and court costs.

### Private sector pensions

The Financial Assistance Scheme was set up in 2004 to protect the interests of members of private sector defined benefit occupational pension plans falling into difficulty after 1997 – for example, in the event of the insolvency of the sponsoring employer. It was succeeded by the Pension Protection Fund, which addresses schemes that get into difficulty from 6 April 2005 onwards.

The Financial Assistance Scheme and the Pension Protection Fund had liabilities of £3 billion and £6 billion respectively at 31 March 2010, which had increased to £5 billion and £19 billion respectively at 31 March 2015.

The Financial Assistance Scheme's liability was supported by assets of only £0.1 billion at 31 March 2015, as £1 billion of pension fund investments were cashed in and transferred to central government. This is in contrast to the Pension Protection Fund, which retains the assets of the pension plans it rescues and generates investment growth from them to support the obligations it acquires. At 31 March 2015, it had net investments of £22 billion, £3 billion in excess of its liabilities.

These schemes are distinct from public sector pension arrangements and are accounted for under slightly different accounting rules, in particular there is no netting off of the associated assets.

The Financial Assistance Scheme covers 166,000 individuals from 1,030 plans; its liabilities are equivalent to an average of £30,000 per individual. The Pension Protection Fund has taken over responsibility for 112,000 current pensioners and 109,000 future pensioners from 799 private sector plans; the associated discounted liability of £18 billion at 31 March 2015 is equivalent to an average liability of £80,000 per individual. A further £1 billion liability is recorded for 111 plans that are considered likely to transfer to the Pension Protection Fund in the future.

As the Pension Protection Fund covers 11 million members of defined benefit pension plans throughout the UK, it has the potential to expand significantly in the event of more sponsoring employers getting into financial difficulty, a significant unquantified risk. Although designed to be funded through levies on employers, the government could be exposed in certain circumstances.

### Tax refunds and other long-term liabilities

Just over half of the £15 billion liability for tax refunds relates to repayments due on the decommissioning of oil and gas fields, while the balance relates to disputed tax refund claims that are likely to have to be settled. Both of these are expected to reduce the level of tax revenue collected over the next few years.



Other provisions of £24 billion at 31 March 2015 (1.3% of one year's GDP) included a wide range of provisions across all parts of the public sector. These included liabilities for injuries, criminal injuries compensation, legal costs, compulsory purchase compensation, pensions maladministration, claims in respect of structural damage and diminution of value of properties affected by transport schemes, as well as compensation payments for termination of employment.

### Contingent liabilities, contractual commitments and other obligations

Table 4.8 summarises potential liabilities and contractual commitments as at 31 March 2015 as disclosed in the WGA.

**Table 4.8. Disclosed obligations and commitments at 31 March 2015**

	(£bn)	(% of GDP)	
Contingent liabilities	76	4.1%	Potential liabilities
Remote contingencies	65	3.5%	Very unlikely potential liabilities
Capital commitments	42	2.3%	Contracted capital investment
Operating lease obligations	19	1.0%	Commitments to lease assets
Future services under PFI contracts	109	5.9%	Committed outsourced services
Other financial commitments	37	2.0%	Mainly IT and outsourced services

Source: HM Treasury, Whole of Government Accounts 2014–15.

Quantifiable potential liabilities, including guarantees given to support exports and infrastructure projects as well as disputed legal claims, were classified between contingent liabilities that are unlikely but possible and remote contingencies that are unlikely to have to be paid. The WGA also highlight a number of contingencies that cannot be quantified – for example, relating to government's provision of terrorism reinsurance or assurances provided over the safe operation of nuclear power plants.

Contractual commitments for goods or services to be delivered in the future, including capital purchases, rented assets (in addition to those for finance leases and PFI contracts recorded as liabilities) and for other contracts including outsourced services.

The above amounts exclude interest (or unwinding of discounts) on liabilities, including on debt, pensions and long-term liabilities, which together will cost around £100 billion a year.

## 4.5 Conclusion

*Now in its sixth year, the WGA provides an important insight into the public finances and shines a light on significant areas of government activity such as clinical negligence. We consider it a vital tool for holding the Treasury and the Government to*

*account but there is more to do to make the WGA more useful to the Government as well as to Parliament and the public.*

Public Accounts Committee, *The Government Balance Sheet*, 14 September 2016

### **Improving transparency and understanding ...**

Recent UK governments are to be congratulated on their commitment and achievements to date in implementing WGA.

The WGA are a world-leading development in public sector financial reporting, which have provided a step change in the ability of the government to understand and manage its financial position. The improved transparency provided by the WGA has also helped Parliament to scrutinise the effects of government policy better, aiding the work of the Public Accounts Committee and other parliamentary committees in holding the government to account.

However, there is much still to do. The WGA's effectiveness would be significantly improved if they were prepared sooner, closer to the three months taken by the New Zealand government and comparable private sector organisations than to the 14 months it took to prepare the 2014–15 WGA.

Narrative disclosures also need to be improved, applying at least the standards that government expects private sector organisations to comply with. These standards require the presentation of a fair, balanced and understandable assessment of financial position and prospects, measuring progress against objectives, future strategy and how risks are managed.

This was why it was disappointing that the latest WGA report took a significant step backward in terms of narrative disclosure, while the timing of publication (at the start of the campaign for the referendum over the UK's membership of the EU) meant that it passed with little press comment, despite showing a contrary position to the government's fiscal narrative.

It is therefore important that the government acts to improve the quality and timeliness of the WGA, including narrative disclosures. They have a real part to play in increasing transparency still further.

### **... helps improve decision-making**

Improved transparency is not just helpful to those holding the government to account. Perhaps most importantly, a better understanding of the financial consequences of decisions helps policymakers to make better decisions in the first place.

By reporting both assets and liabilities, the WGA provide a more comprehensive way of understanding the financial consequences of past decisions than that provided by the National Accounts. In particular, the £3.6 trillion of public sector liabilities represents money that has already been 'spent', reducing the amounts that will be available to support public services or to invest in the economy in the future.

Being able to estimate the financial consequences of a decision before it is taken can only help improve the decision-making process, while lessons can be learnt from understanding the financial consequence of decisions that have already been taken.

Decision-making could be further improved by implementing monthly or quarterly internal financial reporting on a WGA basis. This would provide more immediate feedback on the financial consequences of decisions being made across the public sector.

In his two Budgets this year, there is an opportunity for the Chancellor to develop and articulate a clearer financial strategy – going beyond the current objectives of targeting reductions in the fiscal deficit and public sector net debt as a proportion of GDP, to address how the government intends to manage its wider assets and liabilities and ensure a robust set of public finances in the future.