

Article

Wider measures of public sector net debt: December 2017

An update to previous wider measures of government debt articles, to support the release of the latest supplementary information on contingent liabilities and other potential obligations outside the public sector finances reporting framework.

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Release date:
21 December 2017

Next release:
To be announced

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1 . Executive summary

This article updates an article previously published in December 2015. That article in turn updated one of our previously published articles, which discussed some of the different measures of public sector debt. It compares the coverage and composition of different measures of public sector and general government debt available from the UK National Accounts and public sector finances. It then goes on to discuss wider contingent liabilities and obligations, which are not included within the national accounts framework but are published separately by us or within HM Treasury's Whole of Government Accounts or the Office for Budget Responsibility's Fiscal Sustainability Reports.

2 . Introduction

Public sector net debt, as published in the monthly public sector finances, is an important measure providing information on the fiscal position of the UK government . The measure is used within fiscal targets, monitoring and forecasting. However, public sector net debt only provides a partial picture of the public sector balance sheet as it does not take account of all financial liabilities or all financial assets.

This article briefly highlights some of the other measures of debt and/or financial liabilities that are available, comparing the different measures in terms of coverage and composition. The article is meant as an introduction to the subject, signposting users to other more detailed documents.

We have published a range of articles on wider measures of public sector debt including [Wider measures of public sector debt, 2015](#), [Wider measures of Public Sector Debt, July 2010](#), [Wider measures of Public Sector Debt, September 2010 update](#) and [Wider measures of Public Sector Debt, December 2011](#). This article is an update to the [2015 article on wider measures of public sector debt](#), supplementing the information found in the public sector finances statistical bulletin and in the national accounts with information on wider public sector obligations and contingent liabilities, which are outside of the national accounts framework.

The article is structured as follows:

- a comparison of different measures of public sector and government debt
- more information on the different debt measures we publish
- an introduction to wider measures of debt outside of the UK National Accounts and public sector finances, which includes information on:
 - pensions
 - Public Private Partnership (PPP) schemes
 - other contingencies, provisions and guarantees

Published alongside this article is a set of five tables, which provide summary information on:

- government guarantees
- off-balance sheet Public Private Partnerships (PPPs)
- non-performing loans
- liabilities of government-controlled units not part of general government
- participation of government in the capital of corporations

These tables are required to be published annually by all EU Member States in accordance with Article 14 of the European Commission directive EC2011_85. This directive forms part of a wider set of legislation, known as the “six-pack”, which aims to promote credible, effective and transparent budgetary frameworks within the EU Member States. This is the fourth time that we have published these tables.

3 . Measures of debt

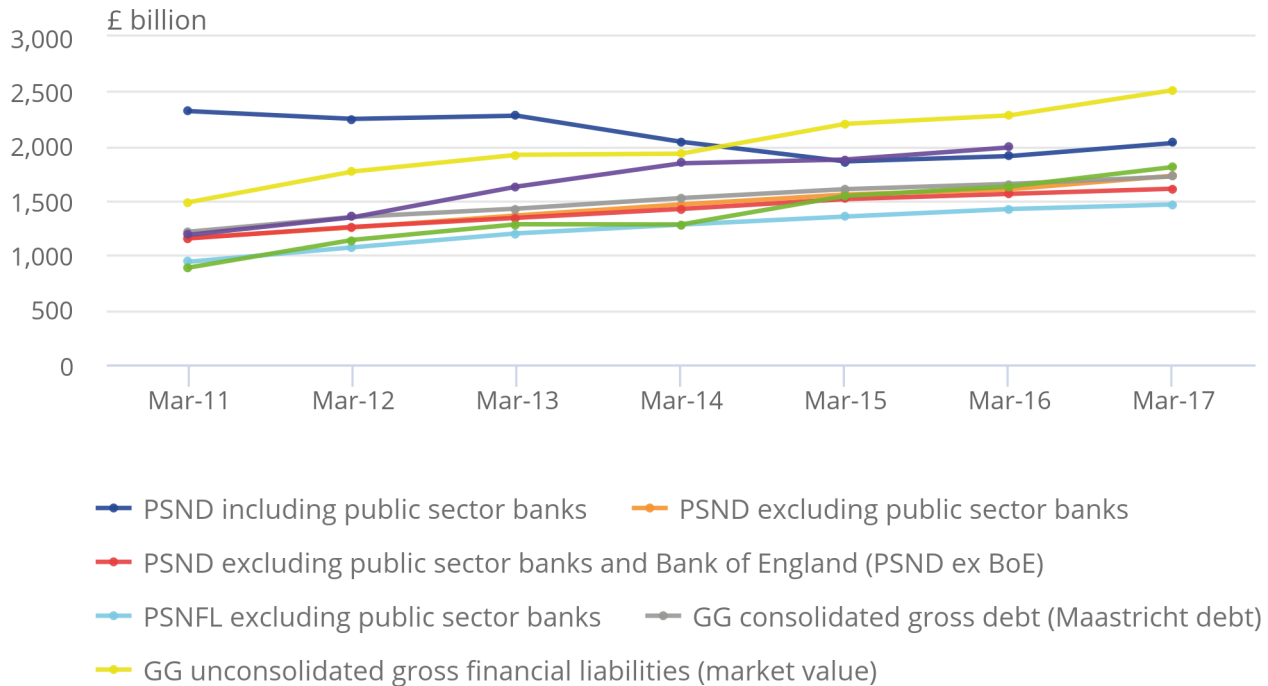
Figure 1 presents a comparison of some of the different measures of public sector and general government debt over the period March 2011 to March 2017.

Figure 1: Measures of public sector and general government debt between March 2011 and March 2017, UK

End of financial years (1 April to 31 March)

Figure 1: Measures of public sector and general government debt between March 2011 and March 2017, UK

End of financial years (1 April to 31 March)



Source: Office for National Statistics, HM Treasury

Notes:

1. PSND means public sector net debt.
2. BoE means Bank of England.
3. GG means general government.
4. PSNFL means public sector net financial liabilities.
5. WGA means Whole of Government Accounts.

It can be seen in Figure 1 that between March 2011 and March 2017, all but one of the different measures of debt and/or financial liabilities rose, more or less steadily, over the period. The exception is public sector net debt including the public sector banks (PSND), which decreased by almost £500 billion between March 2011 and March 2017.

The decrease in PSND partly reflects that government sales of Lloyds Banking Group (LBG) shares led to LBG being reclassified outside the public sector from April 2014, thereby reducing PSND; and partly reflects the significant reductions in the balance sheet liabilities of Royal Bank of Scotland (RBS) and LBG (as measured under the European System of Accounts (ESA) framework) over the period.

The eight measures included in Figure 1 all represent alternative presentations of the public sector balance sheet and their sources are shown in Table 1.

Table 1: Sources for different measures of debt, UK

Measure	Title	Source
A	Public sector net debt including public sector banks (PSND)	Public sector finances, October 2017 [ONS and HM Treasury]
B	Public sector net debt excluding public sector banks (PSND ex)	
C	Public sector net debt excluding Bank of England (PSND ex BoE)	
D	Public sector net financial liabilities (PSNFL)	
E	General government consolidated gross debt, "Maastricht Debt" (GGGD)	UK government debt and deficit as reported to the European Commission, April to June 2017 [ONS]
F	General government unconsolidated total gross financial liabilities	The Blue Book 2017 (UK annual National Accounts – October 2017) [ONS]
G	General government unconsolidated financial net worth	
H	Whole of Government Accounts (WGA) public sector net liabilities	Whole of Government Accounts, year ended March 2016 [HM Treasury]

Source: Office for National Statistics

It is important to appreciate that each measure is compiled for a specific purpose and provides a perspective on the net or gross liabilities of the public sector that is relevant to that purpose. As such, the measures complement rather than contradict each other.

Our data are all compiled in accordance with the ESA framework, which is a statistical framework, but the Whole of Government Accounts data are produced in line with the accounting standards set out in the International Financial Reporting Standards (IFRS) as adapted and/or interpreted for the public sector. The two frameworks are similar but there are important differences which are discussed further in section 4.

A summary of the coverage of the eight measures is shown in Table 2.

Table 2: Composition and coverage of different measures of debt, UK

Debt measure (description given in Table 1)	A	B	C	D	E	F	G	H
Liabilities included:								
Bonds (debt securities)	Y	Y	Y	Y	Y	Y	Y	Y
Loans	Y	Y	Y	Y	Y	Y	Y	Y
Deposits and currency	Y	Y	Y	Y	Y	Y	Y	Y
Equity				Y		Y	Y	Y
Accounts payable				Y		Y	Y	Y
Derivatives				Y		Y	Y	Y
Provisions								Y
Public Service Pensions				[1]		[1]	[1]	Y
Other				[2]		[2]	[2]	
Assets included to net off liabilities:								
Liquid financial assets	Y	Y	Y	Y	Y		Y	Y
Illiquid financial assets				Y			Y	Y
Non-financial assets								Y
Coverage:								
Sector [3]	PS	PS [5]	PS [6]	PS [5]	GG	GG	GG	PS
Accounting framework [4]	ESA	ESA	ESA	ESA	ESA	ESA	ESA	IFRS

Source: Office for National Statistics

Notes:

1. Includes liabilities for funded general government employer pension schemes but not for unfunded public service employer pension schemes.
2. Includes all liabilities recognised under ESA which include liabilities related to insurance, standardised guarantees and special drawing rights.
3. PS = Public Sector; GG = General Government.
4. ESA = European System of Accounts; IFRS = International Financial Reporting Standards.
5. Excluding public sector banks.
6. Excluding public sector banks and the Bank of England.

The following sections include more detail on each of the eight measures as well as other available data and publications on the liabilities of the UK public sector.

4 . Our statistics on debt

Public sector net debt (PSND) and public sector net financial liabilities (PSNFL)

Public sector net debt is a key fiscal aggregate and important to many users as a measure of fiscal health. It is calculated as the public sector consolidated gross debt less liquid assets. Composition and derivation of PSND is given in [Wider Measures of Public Sector Debt, July 2010](#).

Estimates of public sector net debt, both including (PSND) and excluding public sector banks (PSND ex), are available monthly within the [Public sector finances statistical bulletin](#), which is published jointly by us and HM Treasury. Following consultation, the PSND ex measure was redefined in September 2014 to exclude all transaction and balance sheet positions related to public sector banks. Previously it had excluded those identified as temporary effects of the financial crisis. The “ex” measures of public sector net debt and net borrowing are important as these are the measures used by HM Treasury for fiscal planning and by the Office for Budget Responsibility (OBR) when forecasting and evaluating the fiscal plans.

Although public sector net debt has long been used as a fiscal target it does not capture all of government’s financial liabilities and assets. For this reason, the government’s 2016 Autumn Statement, in November 2016, included two new supplementary fiscal aggregates to provide additional commentary on the state of the public sector balance sheet and context for the key fiscal metric of public sector net debt. The two new supplementary fiscal aggregates were:

- public sector net debt excluding public sector banks and the Bank of England (PSND ex BoE)
- public sector net financial liabilities excluding public sector banks (PSNFL ex).

The composition of both these new supplementary fiscal aggregates was set out in [our Autumn Statement article](#) in November 2016. PSNFL ex is of particular interest as it includes all non-contingent financial liabilities and assets of the public sector.

Maastricht Treaty’s Excessive Deficit Procedure

The general government consolidated debt (or Maastricht debt) is published quarterly in our statistical bulletin, [UK government debt and deficit as reported to the European Commission](#), and monthly in the public sector finances. The debt measure is defined within the Protocol on the Excessive Deficit Procedure, annexed to the Maastricht Treaty, and related European legislation. All EU Member States are obliged to report their Maastricht Debt at least twice a year and it is used by the European Commission to monitor Member States’ levels of government debt.

It is also used widely for purposes of international comparisons.

Maastricht debt has two major differences to PSND (or PSND ex), which are:

1. Maastricht debt covers only bodies within general government while PSND includes the debt of all public sector bodies, including the Bank of England and other public corporations.
2. Maastricht debt only captures liabilities while PSND nets off some assets and is derived as financial debt liabilities less liquid assets (which are official reserve assets and other cash or cash-like assets).

Public sector liabilities and assets included in the national accounts

PSND and Maastricht debt concentrate on specific categories of liability (those relating to debt securities, loans, deposits and currency) excluding wider liabilities. However, the national accounts framework includes other non-contingent liabilities that have already been accumulated, such as liabilities relating to trade payables, derivatives and equity.

A wider measure of debt available from the national accounts is therefore the total financial liabilities (as defined by the European System of Accounts). This article presents, for comparative purposes, the general government unconsolidated total gross financial liabilities but the equivalent figure for the unconsolidated public sector (excluding Bank of England and public sector banks) is also available in the [National Accounts Blue Book](#).

A further measure of debt available in the national accounts is financial net worth, which is calculated as total financial assets less total financial liabilities. When financial net worth is negative it indicates that it is in debt (that is, the stock of financial liabilities is greater than the stock of financial assets).

Financial net worth is closely related to the supplementary fiscal aggregate, PSNFL ex. The first difference is that financial net worth follows a market valuation for all assets and liabilities, whereas in PSNFL ex government bond liabilities are recorded at face value, as is the case for PSND and Maastricht debt . The second difference is that financial net worth is unconsolidated across the general government sector, whereas PSNFL ex is a fully consolidated aggregate at the public sector level.

5 . Wider obligations and potential liabilities

Section 4 summarised our statistics on the public sector's financial position. National account s- based statistics do not include contingent or potential (but not certain) future obligations, therefore they are not included in the estimates of net worth, public sector net debt or general Maastricht debt. However, information on such matters is important in forming a broader view of the public sector's financial position.

In 2014, we published for the first time high-level estimates of the value of some contingent liabilities. The data were released as experimental statistics and covered the following five areas:

- government guarantees
- off-balance sheet Public Private Partnerships (PPPs)
- non-performing loans
- liabilities of government-controlled units not part of general government
- the participation of government in capital of corporations

As part of an annual cycle these tables have been updated and published alongside this article.

This section provides some further information and background on wider financial liabilities. More detailed information is available from [HM Treasury's Whole of Government Accounts \(WGA\)](#) and the [Office for Budget Responsibility's \(OBR\) Fiscal Sustainability Report](#).

The wider liabilities and obligations will be considered in three broad categories:

- pensions
- PPP, including Public Finance Initiative (PFI) schemes
- contingencies, provisions and guarantees

Pensions

Pension liabilities are one of the largest obligations that are not included in public sector debt statistics as reported in the UK National Accounts and public sector finances. UK public sector pension obligations include those related to:

- employment-related unfunded schemes
- employment-related funded schemes
- State Pension

Employment-related unfunded schemes

Most pension schemes offered by government, as the employer, are unfunded. "Unfunded" means that pension benefits are paid out of current income as and when they become due; such schemes are commonly known as "pay-as-you-go". They are not underpinned by a fund which generates investment income for pension payments, although it is possible for such schemes to have a ring-fenced account for liquidity purposes. They many also have a "notional fund" used for setting contributions and benefits with reference to the assets that might have accumulated had surplus contributions been invested. The largest schemes falling into this category are those for the National Health Service, for teachers , for the Civil Service, for the Armed Forces, and for the police and firefighters.

In compliance with ESA 2010, pension entitlements (stocks) of government unfunded schemes are not recorded in the core national accounts. Therefore, the associated obligations are not included in the national accounts - based measures of net debt, net worth or total financial liabilities.

By contrast, WGA does include pension liabilities for both funded and unfunded pension schemes where government is paying the pension as an employer, such as the liabilities of the Civil Service pension scheme. The liability of each unfunded public sector employer pension scheme is reproduced in Table 3 (from WGA publications).

Table 3: Unfunded pension liability by scheme as reported in whole government accounts, UK

	£ billion					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Unfunded schemes (gross)						
Teachers (UK)	222.8	233.3	258.5	288.1	316.9	311.9
NHS (UK)	292.3	282.6	325.1	391.6	452.2	443.8
Civil Service	145.0	155.1	176.5	193.2	214.8	205.8
Armed Forces	100.6	105.6	118.1	129.6	154.6	145.2
Police	93.8	101.6	118.0	123.0	145.2	130.3
Fire	19.8	21.1	22.9	25.5	28.9	26.0
Other unfunded	19.9	20.0	53.2	54.8	60.5	57.4
Total	894.2	919.3	1,072.3	1,205.8	1,373.1	1,320.4

Source: Whole of Government Accounts (WGA)

Notes:

1. Financial years April 1 to March 31.

Employment-related funded schemes

Funded schemes have an identifiable, segregated fund with contributions paid in to build up the assets of the fund, and with the assets used to fund benefit payments. In the national accounts, pension funds are considered autonomous financial corporations. As such, they are classified outside the general government sector. In most cases such a financial corporation will be administering pensions (often from multiple employers, both private and public sector) accepting the responsibility for any shortfall in the funds in return for the right to keep any excess funds. In such a case, the financial corporation will be both the administrator and the manager. No liability is then borne by government.

In some cases, however, government is recognised to bear the ultimate liability for the provision of pension benefits and is treated as a pension manager. The financial corporation only performs the role of the pension administrator, an agent that undertakes the day-to-day administration of the scheme. In the national accounts, both the assets of the fund held to meet future pension liabilities, and the liabilities themselves are not part of the government sector; however, the liability for any underfunding rests with government and is included on the government balance sheet. National accounts include the liability for any such scheme's deficit in the calculation of general government net worth and total financial liabilities but exclude it from the calculation of public sector net debt and general government gross debt (Maastricht debt).

As with unfunded schemes, funded schemes provided by government as the employer are included in WGA total government liabilities. The net liabilities (assets minus liabilities) of funded schemes are reproduced in Table 4 (from WGA publications). It should be noted that the valuation approach to liabilities of funded pension schemes differs between WGA, which follows business accounting standards, and national accounts, which follows statistical accounting rules. Therefore, the liabilities shown in Table 4 are not the same as those recorded in the national accounts or public sector finances.

Table 4: Funded pension liability by scheme as reported in whole government accounts, UK

	£ billion					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Funded schemes (net)						
Local government	57.7	78.4	90.5	85.6	106.5	92.0
Other funded	9.1	10.1	8.8	10.5	13.7	12.3
Total	66.8	88.5	99.3	96.1	120.2	104.3

Source: Whole of Government Accounts (WGA)

Notes:

1. Financial years April 1 to March 31.

State Pension

The State Pension (basic and additional state pensions) is a social security benefit provided to retirees subject to them meeting the qualifying criteria. In this regard, state pensions are fundamentally different from the forms of public sector pensions underpinned by the employment relationship.

The State Pension is an unfunded benefit. Consequently, the pension liabilities are considered potential future obligations and are not recorded in the UK National Accounts or public sector finances. As with other similarly uncertain liabilities, the liability relating to state pensions is not included in the estimates of net worth, public sector net debt or general government debt.

As with national accounts, the State Pension is not included in the WGA measure of public sector net liabilities.

Supplementary table on pensions

In Blue Book 2014, we introduced substantial improvements to the recording of pensions. These improvements reflected the requirements of ESA 2010, which superseded the previous ESA 95 guidance. We have continued to improve the data sources and methods used to compile pensions data and, in September 2017, the public sector finances release incorporated improvements to funded public sector employee pension schemes. [The improvements were described in a dedicated article](#). We have since stated that [we plan to introduce these same improvements](#) in national accounts in Blue Book 2018.

The national accounts and public sector finances statistics only capture a subset of all transactions and stocks related to public sector pensions. Of particular note is that in compliance with ESA 2010, the stocks of liabilities associated with unfunded pension schemes are not recorded on the public sector balance sheet. Estimates of such unfunded liabilities are nonetheless available in a single table, in the form of the Supplementary Table for Accrued-to-Date Pension Entitlements in Social Insurance. Currently, we have only published this [table for 2010](#) on an experimental basis, but in 2018 we plan to publish the revised and updated table for the period 2010 to 2015.

PPPs and PFIs

Public Private Partnerships (PPPs) are operated or funded through a partnership between the public sector and the private sector. Private Finance Initiatives (PFIs) are the most common type of PPPs used in the UK. PFI contracts involve private sector bodies providing public sector infrastructure and/or services. Judgments must be made about which entity (public or private) accounts for the associated assets and finance lease liabilities.

[Wider Measures of Public Sector Debt, July 2010](#) described the history, and challenges, of PPP and PFI reporting. In national accounts, a PPP is recorded off the government balance sheet only where the non-government partner bears most of the risks (which include construction, demand, availability, financing and guarantees) and is entitled to receive almost all the current benefits from the assets. The rules are complex, but where a PPP is classified as “off-balance sheet” there is no debt liability recorded in the government balance sheet and so no direct impact on UK National Accounts and public sector finances debt measures. Although the government will be making regular payments to the partner and as with any other expenditure, these payments will require government financing and so will indirectly impact future debt levels.

Where a PPP is classified as “on-balance sheet”, the capital costs of the scheme will be recognised as a financial (imputed) loan liability (known as a finance lease) for government and this liability will increase public sector net debt. The regular payments made by government over the lifetime of the PPP cover service, interest payments and capital costs.

The finance lease liability represents the government liability for future capital payments and so it is reduced with each capital payment made.

As at March 2017, the UK National Accounts and public sector finances debt measures included approximately £6 billion in finance lease liabilities relating to on-balance sheet PPPs. By contrast there were estimated to be approximately £30 billion in off-balance sheet PPP liabilities at the same point in time.

The WGA also includes some PFI contracts as on-balance sheet and others off-balance sheet, but in making this distinction the International Financial Reporting Standards accounting guidance focuses on which party is judged to have effective control over the scheme. The result of this is that nearly all PFI contracts are included in the WGA as on-balance sheet.

Contingencies, provisions and guarantees

A provision is an assessment of future expenditure arising from past events. Under ESA 2010, national accounts does not usually record the creation or movement in provisions but it does record any associated expenditure in the period in which it occurs. UK National Accounts and public sector finances generally treat most provisions as contingent liabilities and do not include them in measures of debt.

The WGA records provisions in the balance sheet and so includes them in its measure of the public sector net liabilities. The major public sector provisions are related to nuclear decommissioning and claims for alleged clinical negligence. Other provisions include a wide range of provisions across all parts of the public sector. These include provisions in relation to: injury benefits, medical costs, criminal injuries compensation, legal costs, compulsory purchases, claims in respect of structural damage and diminution of value of properties affected by transport schemes, and compensation for termination of employment.

Table 5 reproduces provisions and charges recorded in the WGA.

Table 5: Provisions for liabilities and charges as reported in whole government accounts, UK

						£ billion
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Nuclear decommissioning	60.9	64.3	69.9	77.4	82.9	181.7
Clinical negligence	17.5	19.4	23.6	26.6	29.3	57.6
Other types of provisions	29.7	29.6	37.5	50.6	63.1	66.2
Total	108.1	113.3	131.0	154.6	175.3	305.5

Source: Whole of Government Accounts (WGA)

Notes:

1. Financial years April 1 to March 31.

The tables published alongside this article provide further supplementary information on government guarantees and non-performing loans.

More widely, the WGA includes information on a range of contingent obligations and guarantees which are not included in the statement of financial position (so not included in the WGA liabilities figure). These are not included in the balance sheet because they are associated with events that are considered possible but not sufficiently probable (or unquantifiable) to be included in the balance sheet. More information on these and other potential obligations is provided in the [Whole of Government accounts publications](#) and [OBR's Financial Sustainability Reports](#).

6 . Conclusions

As discussed in earlier versions of this article, public sector obligations fall into a spectrum ranging from clearly measurable and time-bound liabilities through to remote and unquantifiable contingent obligations. The former will generally be included within balance sheets; the latter rarely. Where a specific obligation falls on this spectrum it is often strongly debated and views change over time.

This article has presented a range of measures already published across a range of sources – UK National Accounts, public sector finances, Whole of Government Accounts (WGA) – and prepared on various bases and assumptions. As cautioned in previous articles, care should be taken when aggregating or comparing such different data sources and the data provided by this article should be used in this context.