Office for National Statistics

Public sector finances QMI

Quality and Methodology Information for the UK public sector finances and government deficit and debt under the Maastricht Treaty, detailing the strengths and limitations of the data, methods used, and data uses and users.

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Geographic coverage	UK
Last revised	6 December 2021

2 . About this report

2.1 What is a Quality and Methodology Information report?

This quality and methodology report contains information on the quality characteristics of the data (including the five European Statistical System dimensions of quality) as well as the methods used to create it.

The information in this report will help you to:

- understand the strengths and limitations of the data
- learn about existing uses and users of the data
- reduce the risk of misusing the data
- decide suitable uses for the data
- understand the methods used to create the data

2.2 What do I need to know about public sector finances to use this report?

Public sector net borrowing excluding public sector banks (PSNB ex) measures the gap between revenue and total spending. Public sector net borrowing is often referred to by commentators as “the deficit”.

The public sector net cash requirement (PSNCR) represents the cash needed to be raised from the financial markets over a period of time to finance the government’s activities. This can be close to the deficit for the same period but there are some transactions, for example, loans to the private sector, which need to be financed but do not contribute to the deficit. It is also close but not identical to the changes in the level of net debt between two points in time.

Public sector net debt excluding public sector banks (PSND ex) represents the amount of money the public sector owes to private sector organisations including overseas institutions, largely as a result of issuing gilts and Treasury Bills, less the amount of cash and other short-term assets it holds.

While borrowing (or the deficit) represents the difference between total spending and receipts over a period of time, debt represents the total amount of money owed at a point in time. The debt has been built up by successive government administrations over many years. When the government borrows (that is, runs a deficit), this normally adds to the debt total. So, reducing the deficit is not the same as reducing the debt.

If you would like to know more about the relationship between debt and deficit, please refer to our article The debt and deficit of the UK public sector explained.

2.3 Frequently asked questions

Borrowing is measured on an accrual basis. What does that mean?

Under the accrual basis of accounting, transactions are fully recorded at the point in time where the economic activity occurs, not when the cash is paid. So, for example, if you buy a house on an accrual basis, the purchase of the house is recorded on the day the contract is signed (and you occur the mortgage liability), whereas on a cash basis, you would record the 360 mortgage payments over the life of a 30-year mortgage.

Is monthly data volatile?

A financial year is an accounting period of 12 months running from 1 April one year to 31 March the following year. For example, the financial year ending March 2016 comprises the months from April 2015 to March 2016.

Due to the volatility of the monthly data, the cumulative financial year-to-date borrowing figures provide a better indication of the position of the public finances than the individual months.

Do we adjust our figures for inflation?

All monetary values in the public sector finances (PSF) bulletin are expressed in terms of “current prices, that is, they represent the price in the period to which the expenditure or revenue relates and are not adjusted for inflation.

Do we seasonally adjust our data?

We do not adjust our data to reflect calendar effects. All monetary values in the PSF bulletin are not seasonally adjusted. We recommend you use year-on-year comparisons (be it cumulative financial year-to-date or figures from individual months from different years) rather than making month-to-previous-month comparisons.

Why do we compare our numbers to gross domestic product?

In order to compare data over long time periods, to aid international comparisons and provide an indication of a country’s ability to service borrowing and debt, commentators often discuss changes over time to fiscal aggregates in terms of gross domestic product (GDP) ratios. GDP represents the value of all the goods and services currently produced by the UK economy in a period of time.

Which “version” of GDP do we use in public sector fiscal ratio statistics?

The GDP values we use to create our monthly ratios are based on, but are not equal to, those published quarterly by Office for National Statistics (ONS).

An article, The use of GDP in public sector fiscal ratio statistics, explains that for debt to-GDP ratio figures reported in the monthly public sector finances, a 12-month GDP total centred on the current month is used, and when expressing the equivalent borrowing ratio the total GDP for the preceding 12 months is used.

As a consequence of using a centred GDP estimate, our estimates include a degree of official forecast data produced by the Office for Budget Responsibility (OBR) and are subject to revision when the OBR updates its estimates (usually in March and November each year).

For the final quarter (January to March) of each financial year, there are data available for the current budget deficit, net investment and net borrowing. For this time period, there are no data yet available for GDP. To enable us to publish estimates of these figures as ratios of GDP, the GDP denominator is estimated based on forecasts produced by the OBR.

This estimate of GDP will be used in the March, April and May publications and revised in the June publication when the published value of GDP becomes available.

How is the debt interest paid by the government affected by movements in the level of Retail Prices Index?

Index-linked gilts, a form of government bond, are aligned to the Retail Prices Index (RPI). When the RPI rises, the value of index-linked gilts also rises. If the RPI should fall, the value would also fall. In this way, the returns to the investor from holding index-linked gilts are maintained in real terms – as measured by the RPI.

Taking £100 as the unit price for a gilt, an index-linked gilt will pay more than £100 at redemption if the RPI increases over the life of the gilt. Similarly, if the RPI increases over the life of the gilt each coupon payment (regular payments made whilst in possession of the gilt) will be higher than the previous one; while if the RPI were to decrease, a coupon payment could be lower than the previous one.

Both the uplift on coupon payments and the uplift on the redemption value are recorded as debt interest paid on an accruals basis by the government, so month-on-month there can be sizeable movements in payable government debt interest as a result of movements in the RPI.

While any RPI uplift will impact on accrued expenditure (as used in the calculation of borrowing), it will not be wholly and immediately reflected in the central government net-cash requirement. These movements are reflected in the government's liabilities, which will be realised as the existing stock of index-linked gilts is redeemed.

The RPI applied to index-linked gilts is typically lagged by three months (though some older gilts have an eight-month lag). As a result of this lag, the amount central government spends on interest on its outstanding debt is typically low in March compared with the rest of the year. In January, prices are typically discounted (for example, due to January sales), so depressing the RPI and decreasing the uplift on index-linked gilts in March, three months later.

Time series of central government debt interest and the index-linked gilt capital uplift are available in Tables PSA6B and REC3, which accompany each release, or by searching directly by series identifier.

3 . Quality summary

3.1 Important points

- In the UK, the public sector consists of five six sub-sectors: central government, local government, public non-financial corporations, public sector pensions, the Bank of England and public financial corporations (or public sector banks).

- Due to the volatility of the monthly data, the cumulative financial year-to-date borrowing figures provide a better indication of the position of the public finances than the individual months.

- Each public sector finances (PSF) bulletin contains the first estimate of public sector borrowing for the most recent period and it is likely to be revised in later months as more data become available.

- All monetary values are expressed in terms of “current prices”, that is, they represent the price in the period to which the expenditure or revenue relates and are not adjusted for inflation.

- All monetary values in the PSF bulletin are not seasonally adjusted; we recommend you use year-on-year comparisons (be it cumulative financial year-to-date or figures from individual months in different years) rather than making month-on-previous month comparisons.

3.2 What is the public sector?

This section outlines the six sub-sectors that make up the UK public sector.

Central government

Central government oversees the nation's finance, commerce, national defence, foreign affairs and laws. In the UK, central government consists of 25 ministerial departments (such as HM Treasury and Department for Education), 20 non-ministerial departments (such as HM Revenue and Customs and UK Statistics Authority), along with many government executive agencies (such as Driver Vehicle Licencing Agency).

Local government

Local government is responsible for a range of public services for people and businesses in defined geographical areas. These include social care, many schools, housing and waste collection.

Public corporations

An institution is classified as a public corporation where it behaves like a commercial body but is controlled by central government, local government or other public corporations. Examples of public corporations include Channel 4 and the Civil Aviation Authority.

Public sector pensions

Within the public sector-funded pension schemes subsector, we record all the assets and liabilities of public sector pension funds along with those of the Pension Protection Fund.

Many public sector employee pensions are not held in ring-fenced funds but are paid directly from government revenue. These are known as unfunded pension schemes and the international rules we use do not recognise any liability for pensions within unfunded schemes.

To provide as much transparency around the public finances as possible we began (from June 2019) to publish public sector finance statistics based on the International Monetary Fund's government finance statistics framework, which supports the inclusion of these liabilities.

Bank of England

The Bank of England (BoE) is the central bank for the UK. It has a wide range of responsibilities, similar to those of most central banks around the world. It acts as the government's bank and the lender of last resort. It issues currency and, most importantly, it oversees monetary policy.

Public sector banks

During the global financial crisis in 2007, the UK government made a number of financial interventions to add stability to the banking sector. Due to these interventions, the government became the major shareholder in several UK banks, effectively nationalising them. We have published a timeline of UK government interventions in the financial sector from 2007 to 2016. As at July 2018, only the NatWest Group, previously known as the Royal Bank of Scotland Group remains classified to the public sector, with Lloyds Banks PLC returning to the private sector in March 2014.

3.3 Overview of public sector finances statistical bulletin

Public sector finance (PSF) statistics for the UK are compiled and published monthly in the Public sector finances statistical bulletin, which aims to provide users with an indication of the current state of the UK's fiscal position.

PSF statistics are published jointly by Office for National Statistics (ONS) and HM Treasury (HMT). Details of each organisation's responsibilities and accountabilities (PDF, 154KB) are available.

The statistics in the PSF bulletin are designated as UK National Statistics, which signifies that they are produced, managed and disseminated in accordance with the Code of Practice for Statistics.

The UK Statistics Authority has a statutory duty to assess (and periodically reassess) all designated National Statistics against its Code of Practice. The Authority published an assessment report for the PSF bulletin in October 2015.

All statistical aggregates published in the bulletin are defined using national accounts concepts and rules.

ONS produces the UK National Accounts on an internationally comparable basis, in accordance with the System of National Accounts 2008: SNA 2008 and the European System of Accounts 2010: ESA 2010.

The SNA and ESA guidelines are updated periodically and since 2014 we have compiled PSF data with reference to the most recent guidance, ESA 2010, which is supplemented by the Manual on Government Deficit and Debt (MGDD). These European texts are consistent with the United Nations System of National Accounts: SNA 2008, used across the world.

3.4 What are our main measures?

Unless otherwise stated, the figures quoted in the public sector finances bulletin exclude public sector banks (referred to as "ex" measures), as the reported position of debt (and to a lesser extent borrowing) would be distorted by the inclusion of such institutions. This is because government does not need to borrow to fund the debt of public sector banks, nor would surpluses achieved by these institutions be passed on to government, other than through any dividends paid as a result of government equity holdings.

The main fiscal measures reported each month in the bulletin are summarised in this section.

Public sector current budget deficit (PSCB ex)

The public sector current budget deficit (PSCB ex) is the amount by which current expenditure and depreciation on capital assets together exceed current receipts. In simple terms, it can be thought of as the borrowing required to fund the day-to-day activities of the public sector. PSCB ex does not include any spending relating to net investment, such as that on infrastructure.

For periods in which receipts exceed current expenditure and depreciation combined, there is a PSCB surplus rather than a deficit. The deficit or surplus is calculated on an accruals basis in accordance with ESA 2010. This means transactions are fully recorded at the point in time where the economic activity occurs, not when the cash is paid.

Public sector net borrowing (PSNB ex)

Public sector net borrowing (PSNB ex) includes spending relating to net investments, such as that on infrastructure, as well as the day-to-day spending as reported in PSCB ex.

PSNB ex represents the amount by which total spending (both current expenditure and net investment) exceeds total receipts (including net capital transfers). Many commentators refer to the level of PSNB ex as simply "the deficit". As with PSCB ex, measurement of PSNB ex is on an accruals basis.

Public sector net debt (PSND ex)

Public sector net debt (PSND ex) comprises the level of accumulated public sector financial liabilities (in the form of loans, debt securities, deposit holdings and currency) less its liquid financial assets (mainly foreign exchange reserves and cash deposits), with both measured at face or nominal value. Many commentators refer to the level of public sector net debt as "the national debt".

Public sector net debt is often presented as a percentage of gross domestic product (GDP), which makes comparisons over time and with different countries more meaningful. Debt accumulates over time, with each successive deficit usually adding to the net debt.

In the 2021 Autumn Budget and Spending Review, the government published its Charter for Budget Responsibility: autumn 2021 update, which cites public sector net debt excluding the Bank of England (PSND ex BoE) – removing the liquid assets and liabilities held on the BoE's balance sheet from PSND ex – as a key measure.

Public sector net cash requirement (PSNCR ex)

The public sector net cash requirement (PSNCR ex) is a cash measure closely related to PSNB ex (an accrued measure). It represents the amount of cash needed by the public sector to meets its financial obligations.

Public sector net cash requirement predates the current ESA and national accounts accruals-based public finances statistics. Before the adoption of public sector net borrowing as the government's main deficit aggregate, the public sector net cash requirement was known as the borrowing requirement.

Public sector net financial liabilities (PSNFL ex)

Public sector net financial liabilities excluding public sector banks (PSNFL ex) is a comprehensive measure of the public sector balance sheet, capturing a wider range of financial assets and liabilities than recorded in PSND ex.

PSNFL ex is very similar to the national accounts concept of public sector net financial worth (PSNFW), albeit that they are expressed with opposite signs. The notable difference between the two aggregates is that, in PSNFL ex, the deposit, loan and debt security liabilities are recorded at face value, whereas in PSNFW these assets and liabilities are recorded at market value.

3.5 Uses and users of the public sector finances data

Public sector finances (PSF) statistics and related data on government finances are vital inputs to the policy and forecasting work of HM Treasury (HMT) and the Bank of England (BoE), as well as the official forecasts produced by the Office for Budget Responsibility (OBR). In particular, the main fiscal aggregates outlined above are used by HMT and OBR to monitor progress against fiscal forecasts and provide the baseline for the OBR's forecast.

The Debt Management Office (DMO) is both a supplier of data inputs and a user of public sector finances statistics. Its responsibilities include debt and cash management for the UK government, lending to local authorities and managing certain public sector funds. It monitors the fiscal measures presented in the PSF bulletin, principally CGNCR, to inform its decisions relating to debt and cash management.

Prior to the end of the transition period following the UK's exit from the EU on 31 January 2020, the UK supplied the European Commission with a sub-set of public sector finances statistics (covering central and local government only), used to monitor performance against the Maastricht Treaty and the Stability and Growth Pact through the excessive deficit procedure (EDP). The rules governing the new relationship between the EU and UK took effect on 1 January 2021, after which the UK stopped supplying Eurostat with EDP data.

Several of the datasets previously supplied to the European Commission are now supplied directly to international bodies such as the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD), which assess the performance of national economies and make policy recommendations to foster global growth and economic stability.

Through research and feedback, we have identified a broad range of additional users and uses of public sector finances statistics. Examples include:

- UK-based research and analytical organisations such as: the Institute for Fiscal Studies (IFS) and the National Institute for Economic and Social Research (NIESR), which use the data as input into their assessments of economic performance and sustainability; and the House of Commons Library, which provides impartial information and research services for Members of Parliament and their staff in support of their parliamentary duties

- members of the general public, who may use the (headline) statistics to assess UK fiscal performance and the implications for their own well-being and investment decisions

- commercial analysis and research bodies, such as CEIC Data Co. Limited, FactSet and Timetric, who analyse data on behalf of their clients

- news-focused media organisations, such as Thomson Reuters, Bloomberg, the Economist and the national newspapers, which use the statistics and associated commentary to deliver headlines and underlying narratives

- rating agencies such as Standard and Poor’s, Moody’s and Fitch, which issue credit ratings for the debt of governments and both private and public corporations; additionally, they utilise public sector finances statistics in risk analysis to provide investment advice to clients

- academics, who use data primarily for economic and financial analyses, which typically underpin articles for academic journals or other publications

3.6 Coverage

The statistics presented in the monthly public sector finance statistical bulletin cover the entire UK. This section outlines our main data sources and coverage by sub-sector.

Central government

Monthly data are collected from government departments (such as HM Treasury and HM Revenue and Customs), along with government executive agencies (such as Driver Vehicle Licencing Agency and Bank of England). Some taxes such as Landfill and Stamp Duty (on land and property) have been partially devolved. In these cases the Scottish taxes are reported by HM Treasury, while the Welsh components are directly sourced from Welsh Revenue Authority.

Local government

Detailed annual returns of expenditure and income for England are compiled by local government bodies and collected by the Department for Levelling Up, Housing and Communities (DLUHC). Data for the devolved administrations are sourced directly from Scottish Government and Welsh Government, with summary data compiled for Northern Ireland.

Public corporations

Data for many public corporations are sourced from HM Treasury’s (HMT) Whole of Government Accounts (WGA). Data for any public corporations that are not included in WGA are extracted from the audited data presented in the corporation’s annual reports.

As from the end of August 2020, all housing associations within devolved administrations have been classified to the private sector and therefore not included within the Public Corporations sector, from the point they were classified as not being on Public Corporation balance sheet.

Bank of England

Data covering the regular activities of the Bank of England are largely sourced from their published annual reports, though data covering deposits and the Exchange Equalisation Account (holding the country's reserves of foreign currencies, gold, and special drawing rights (SDR) held at the International Monetary Fund) are supplied directly by the Bank.

Bank of England supplies us with data to enable us to measure the activity of The Bank of England Asset Purchase Facility Fund, including the Term Funding Scheme.

Public-funded pension schemes

Data covering public-funded pension schemes and the pension protection fund are largely derived from published annual reports. These data are adjusted to transfer them onto a statistical basis, which specifically affects the discount rate used to value the liabilities, and supplemented with the data from an ONS survey of pension schemes.

Public sector banks

Bank of England supply us with both balance sheet and profit and loss account data covering the public sector banks (now only the NatWest Group) to enable us to estimate their net borrowing, net cash requirement and net debt.

3.7 Strengths and limitations of public sector finance data

Availability of data – time series for main measures

Generally the dataset underlying the calculation of public sector net borrowing is only available as a monthly time series from April 1997 to date as a part of Public sector finances tables 1 to 10: Appendix A.

Data prior to April 1997 are available in our supplementary data release Public sector finances borrowing by sub-sector. These time series are available as a quarterly time series back to 1946.

Data prior to April 1997 are not regularly updated and are sourced from historic data files. Where unavailable, some sub-components are estimated to complete the matrix presentation.

Public sector net debt is available as a monthly time series from March 1993 to date. Prior to March 1993, we only estimate net debt annually as at the March of each year, extending back to March 1975. Again, data prior to April 1997 are not regularly updated and are sourced from historic data files.

In their Public sector finances databank, the Office for Budget Responsibility (OBR) publish historic data estimates, though these data should only be used as a broad historical estimate of public sector net debt as its definitions may not be consistent with the current ESA 2010 definitions.

Availability of data – published detail underlying the main measures

A breakdown of central government net borrowing is provided in Table PSA6B of the monthly bulletin. Further, Table PSA6D provides a breakdown of receipts, PSA6E provides a breakdown of current expenditure and PSA6F provides a breakdown of net investment (capital expenditure).

Each month the public sector statistical bulletin provides a breakdown of public sector income (including the major taxes) in Public sector current receipts: Appendix D.

We currently provide a breakdown of expenditure, through ESA Table 11: General government annual expenditure . These data are broken down by function using the Classification of Functions of Government (COFOG), for central government, local government and general government. Eurostat have published a note Glossary: Classification of the functions of government (COFOG) explaining the definitions and codes associated with these tables.

4 . Quality characteristics of the public sector finances data

4.1 Accuracy and reliability

In publishing monthly estimates, it is necessary that a range of different types of data sources are used. A summary of the different sources used and the implications this has for data revisions is provided in the report Sources summary and their timing. This section considers the data quality of each of the five sub-sectors making up the public sector.

Central government

Central government expenditure data is reported via the Online System for Central Accounting and Reporting (OSCAR) system. Data generally go through various stages of refinement during the current financial year and beyond. Typically, this evolution comprises four stages. Adjustments to the data may be made during any stage, resulting in revisions to estimates previously published in the Public sector finances (PSF) bulletin.

Stage one

Each month, departments submit to OSCAR a monthly profile of spending for the current financial year. This includes estimates of actual spend for completed months (outturn) and forecasts for future months. In subsequent data supplies, departments can provide updated estimates for any month, which tends to lead to frequent and sometimes significant revisions to the estimates published in the bulletin.

Some departments are more likely to revise their data than others. This may be due to a department falling into either of the following categories:

- an arrears reporter: some departments report their expenditure in arrears; the latest data reported in the bulletin through the year are not an estimate of actual spending but rather a forecast

- subject to non-standard reporting arrangements: some bodies, whose data are amalgamated into departmental OSCAR returns, provide updated data on a quarterly rather than monthly basis; these are typically arms-length bodies associated with departments, such as NHS Trusts and Foundation Trusts (whose data are subsumed within the Department of Health and Social Care’s return)

Stage two

Following the completion of the financial year, in July, HM Treasury’s (HMT’s) annual Public spending statistics are published. These are based on most departments’ audited resource accounts and so departments update their full-year expenditure estimates (but not their monthly profile) for this publication.

Stage three

The full-year estimates are updated for the autumn update of HMT’s Public spending statistics. Additionally, there may also be revisions due to:

- departments who missed the July deadline for the initial Public spending statistics publication

- new data, changes or corrections that weren’t reflected in the July update

- methodology updates

Stage four

In the February following the end of the financial year, the winter update of HMT’s Public spending statistics is published. Usually, this will incorporate the finalised, audited accounts of the devolved administrations along with those of any outstanding departments, including outturn data for academies.

A number of “national accounts” adjustments are made to the OSCAR data. These adjustments may be made for several possible reasons including the following:

- conceptual framework differences

- error corrections

- different approaches to the estimation of depreciation

The most significant revisions generally occur within stages one and two. Revisions resulting from updates at stages three and four are often not material.

Local government

Most local government data are annual, relating to financial years (April to March). Detailed annual returns of expenditure and income are compiled by local government bodies and collected by the Department for Levelling Up, Housing and Communities (DLUHC), Scottish Government and Welsh Government. Summary data are compiled for Northern Ireland.

The most detailed returns are collected from local authorities at two stages for any given financial year: budget and outturn. Revisions to data are expected between these stages because plans and priorities change, and because some items of receipts and spending are unpredictable. Outturn data collected for England and Scotland are released in two phases; provisional and final outturn. This can lead to some minor updates due to changes at the final auditing stage.

For England, Scotland and Wales, data for the current financial year are based on local government budgets.

In recent years, planned expenditure initially reported in local authority budgets has systematically been higher than the final outturn expenditure reported in the audited accounts. We therefore include adjustments to reduce the amounts reported at the budget stage. Each monthly public sector finance bulletin contains the latest over /underspend adjustments applied to our local government dataset.

Public corporations

Data for financial years for most public corporations are sourced from HM Treasury's (HMT) Whole of Government Accounts (WGA). Data for any public corporations that are not included in WGA are extracted from the public corporation's annual reports.

Bank of England

Data covering many of the regular activities of the Bank of England (BoE) are largely sourced from their published annual reports, hence recent data are best estimates and liable to revision. For example, in June 2018, BoE published their Annual Report and Accounts covering the period 1 March 2017 to 28 February 2018. These data replaced previous estimates and were used to inform forecasts of future data.

Data covering deposits and the Exchange Equalisation Account are supplied directly by the Bank on a monthly basis and are subject to little or no revision.

Public sector banks

Bank of England supply us with both balance sheet and profit and loss account data covering the public sector banks. These data are supplied to us twice a year; data provided to us around February covers January to June of the previous year with data covering July to December being supplied around August. These data are supplied to us on a national accounts basis and so will not be directly comparable to those published by the banks themselves. Further, to avoid disclosure, these data are smoothed across the six months they represent.

4.2 Output quality

Are our figures likely to change over time?

Each PSF bulletin contains the first estimate of public sector borrowing for the most recent period and is likely to be revised in later months as more data become available.

The data for the latest month of every release contain some forecast data. The initial outturn estimates for the early months of the financial year, particularly April, contain more forecast data than other months, as profiles of tax receipts, along with departmental and local government spending are still provisional. This means that the data for these months are typically more prone to revision than other months and can be subject to sizeable revisions in later months.

In addition to those that stem from updated data sources, revisions can also result from methodology changes. An example of the latter is the changes that were due to the introduction of improved methodology for the recording of Corporation Tax, Bank Corporation Tax Surcharge receipts and Bank Levy implemented in the PSF estimates released in February 2017.

Appendix F: Revisions to the first reported estimate of financial-year-end public sector net borrowing (excluding public sector banks) by sub-sector; summarises revisions to the first estimate of public sector borrowing (excluding public sector banks) by sub-sector for the last six financial years. Revisions are shown at 6 and 12 months after year end.

We have published an article, Public Sector Finances – Sources summary and their timing (PDF, 22KB), which provides a brief summary of the different sources used and the implications of using those data in the monthly PSF statistical bulletin.

What is our revisions policy?

The PSF statistical bulletin aims to present the most up-to-date information available for all time periods in its fiscal measures. It employs an open revisions policy, in that revisions as a result of improved data or new methodology are included at the earliest opportunity and applied for all time periods (post March 1997) affected.

The Public sector finances revision policy provides information of when users should expect to see methodological and data-related revisions.

Our Monthly statistics on the public sector finances: a methodological guide explains the data sources and data quality issues used to produce the published monthly estimates for the central government, local government and public corporations sectors. It provides examples of how the data from these sources evolve over time.

Do classification decisions cause revisions?

Classification decisions applied retrospectively or large events affecting the public sector finances are described and the impact included in the PSFbulletin. This allows users to assess the impact of changes in the datasets beyond data revisions.

Do errors cause revisions?

It is important to note that revisions do not occur as a result of errors; errors lead to corrections and are identified as such when they occur. Any changes in data due to errors are reported and corrected at the earliest opportunity.

In cases where an error is significant enough to impact on the messages laid out in the monthly statistical bulletin (such as miscalculations) or to cause confusion to users (such as mislabeled tables or graphs) we would re-publish the corrected data as soon as it is available and issue a correction notice.

4.3 Coherence and comparability

Comparability with other publications of tax data

This section discusses the differences in the presentation and reported values of tax receipts between Office for National Statistics (ONS) and HM Revenue and Customs (HMRC) publications, with the focus on the three of the largest tax headings: Value Added Tax (VAT), Corporation Tax and Income Tax.

The public sector finances are produced in accordance with the standards set out in the European System of Accounts 2010: ESA 2010. This is important to consider when comparing statistics in public sector finances with HMRC Tax Receipts and National Insurance contributions for the UK.

ESA 2010 guidance states that all transactions recorded in the national accounts should be on an accruals basis, that is, allocated to the period in which the underlying economic activity takes place. This timing is generally easy to identify with expenditure as this is managed on an accruals basis by government departments; however, this timing can be more difficult to identify with tax revenue. As such, in the UK public sector finances, in line with ESA 2010 guidance on recording, accruals are estimated using time-adjusted cash data from HMRC's administrative systems. Often, this time-adjustment attempts to account for the payment schedules in place and the timing of cash receipts.

HMRC's Tax Receipts and National Insurance contributions for the UK publication is based only on the timing of cash receipts and not "time-adjusted cash" as in the headline public sector finances statistics. Cash receipts for some of the same taxes are published in table PSA7D in the monthly public sector finances statistical bulletin.

In some instances, cash receipts are used as a proxy for accruals data and therefore no time-adjustment takes place.

Value added Tax (VAT)

Often thought of as a sales tax, VAT is charged on most goods and services that VAT-registered businesses provide in the UK (Home VAT).

Cash VAT data

In PSF, to provide the most accurate measure of the Central Government Net Cash requirement, an important aggregate for many users, particularly those involved in the gilt market, we measure VAT receipts as they are paid into the Treasury's Consolidated Fund. Typically, there are timing differences between the cash receipts paid over to the Consolidated Fund and when these receipts register with HMRC.

Time-adjusted VAT data

Both ONS and HMRC calculate their estimate of time-adjusted VAT receipts in any single month as the average of the following three months' forecast of cash receipts – such that January's time-adjusted VAT would be estimated as the average forecast of cash receipts for the following February, March and April. This assumption is made as a result of the three-month accounting period for most VAT traders, with the majority of receipts received for the accounting period by the end of the next month.

As with any forecasts, there will be uncertainty around these figures and they will be subject to revision each month. In addition, timing and trading effects from large traders can often result in large year-on-year differences in cash receipts, which also affect the forecast for future months. As a result of this methodology, caution should always be advised when interpreting estimates of accruals for the latest months.

ONS adds on components of the VAT refunds received by central government to the time-adjusted cash data to calculate the total accrued VAT series used in the estimation of central government net borrowing and published in table PSA6B in the monthly public sector finances statistical bulletin.

Corporation Tax

Simply put, Corporation Tax is tax levied on limited companies' profits.

Cash Corporation Tax data

In addition to the Total Corporation Tax series published in [HMRC Tax Receipts and National Insurance contributions for the UK], ONS add Bank Surcharge and Diverted Profits Tax to the Corporation Tax series published in table PSA7D in the [monthly public sector finances statistical bulletin].

Time-adjusted Corporation Tax data

The methodology for time adjusting Corporation Tax is outlined in the ONS publication [Improvements to accruals methodology for Corporation Tax, Bank Corporation Tax Surcharge and the Bank Levy: 2017].

While both HMRC and ONS follow a consistent methodology for time adjusting Corporation Tax, again, ONS present their Corporation Tax time series as an aggregate of the underlying Corporation Tax, Bank Surcharge and Diverted Profits Tax.

The impact of the super-deduction capital allowance on Corporation Tax receipts

In March 2021, the government announced a new 130% first-year capital allowance for qualifying plant and machinery assets and a 50% first-year allowance for qualifying special rate assets, running between 1 April 2021 until 31 March 2023.

Under the [super-deduction] capital allowance, for every pound a company invests in qualifying new plant and machinery assets, their taxes are cut by up to 25 pence. These assets include solar panels, computer equipment, vehicles, tools, office furniture, electric vehicle charge points and heavy machinery.

In their [Economic and fiscal outlook - October 2021], the OBR expects this scheme to reduce Corporation Tax receipts by £9.3 billion in the financial year ending March 2021.

Income Tax

Income Tax is a tax you pay on your earnings and most other incomes, including the profits you make if you are self-employed.

Cash Income Tax data

HMRC's measure of Income Tax published in [HMRC Tax Receipts and National Insurance contributions for the UK] is primarily an aggregate of Pay As You Earn (PAYE), Self Assessed Income Tax, along with other smaller Income Tax components. To this, ONS add Capital Gains Tax to create its equivalent Income Tax series published in table PSA7D of the [monthly public sector finances statistical bulletin].

Time-adjusted Income Tax data

Of the components of Income Tax outlined previously, ONS currently has agreed methodology in place to time adjust PAYE. We are currently investigating suitable methodologies to time adjust the other components of Income Tax, though currently no deadline is in place for its implementation.

Time-adjusted PAYE is the sum of the cash for both current year liabilities and previous year liabilities. As with any forecasts, there will be uncertainty around these figures and they will be subject to revision each month. As a result of this methodology, caution should always be advised when interpreting estimates of accruals for the latest months.

These series are published individually in table PSA6D and in aggregate in table PSA6B in the [monthly public sector finances statistical bulletin].

Comparability with UK National Accounts data

The PSF statistical bulletin aims to present the most up-to-date information available for all time periods in its fiscal measures. Consequently, the data presented in the PSF bulletin may sometimes be inconsistent with that published in the national accounts. Typically, these differences are the result of the inclusion of revised data in the PSF statistical bulletin that are not incorporated into national accounts estimates until a later date, in accordance with national accounts' more restrictive revisions policy.

The extended Blue Book revisions policy allows for significant historical periods to be revised within national accounts. At this time, an alignment process is undertaken to ensure that quarterly data presented in the PSF statistical bulletin and quarterly national accounts estimates published for institutional sectors or sub-sectors (such as central government and local government) are consistent and coherent.

On 29 June 2018, we published the latest in a series of articles explaining the differences between public sector net borrowing estimates published in the public sector finances and those in the national accounts. The article forms a part of a regular series of articles published annually alongside the Blue Book publication.

4.4 Concepts

All statistical aggregates published in the public sector finance bulletin are defined using national accounts concepts and rules.

ONS produces the UK National Accounts on an internationally comparable basis, in accordance with the System of National Accounts 2008: SNA 2008 and the European System of Accounts 2010: ESA 2010. The SNA and ESA guidelines are updated periodically and since 2014 we have compiled PSF data with reference to the most recent guidance, ESA 2010, which is supplemented by the Manual on Government Deficit and Debt (MGDD).

These European texts are consistent with the United Nations System of National Accounts: SNA 2008.

The methods, classification and terminology used in PSF are detailed in Monthly statistics on the public sector finances: a methodological guide.

4.5 Accessibility and clarity

Publication policy

The PSF statistical bulletin is available (generally) at 7:00am on the 15th working day of each month, while the UK government debt and deficit statistical bulletin is available at 9:30am on or around the last Friday of each quarter (January, April, July and October). The dates of all releases are specified in the release calendar andare available to view and download, without charge.

Advance notice of any major forthcoming changes in methodology, or any special factors that should be considered when interpreting the data, are announced within the statistical bulletins.

Our recommended format for accessible content is a combination of HTML web pages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. In addition, our website also offers users the option to download the narrative in PDF format.

There is more information regarding conditions of access to data in:

- terms and conditions
- accessibility

4.6 Timeliness and punctuality

The PSF statistical bulletin is compiled between the 1st and 13th working day of each month and generally published 15 working days after the end of the reference month. When the 15th working day is a Monday, publication is delayed until the Tuesday.

The UK government debt and deficit statistical bulletin is published quarterly (generally on 17 April, July, October and January).

For more details on related releases, the GOV.UK release calendar is available online and provides 12 months' advance notice of release dates. In the unlikely event of a change to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time, as set out in the Code of Practice for Statistics.

5 . The impact of the coronavirus (COVID-19) pandemic

In total, more than 50 schemes have been announced by the UK government and the devolved administrations to support individuals and businesses during the coronavirus (COVID-19) pandemic. In our series of Recent and upcoming changes to public sector finance statistics articles we have discussed the largest of the coronavirus schemes by implementation status within the public sector finances.

Exceptional adjustments applied to tax data

The Office for National Statistics (ONS) and HM Treasury have been working with both HM Revenue and Customs (HMRC) and the OBR to determine whether there is enough information to make exceptional adjustments that estimate the effects of the coronavirus pandemic.

Where data are available, we have adjusted the recording of accrued tax receipts (on a national accounts basis). These exceptional adjustments, and their underlying assumptions, will be revisited as more information becomes available.

Notably adjustments have been made to the accruals recording of Pay As You Earn (PAYE) Income Tax, value-added tax (VAT), Corporation Tax, air passenger duty and alcohol duties to account for the disparity between the delayed cash payments to HMRC and the economic activity they represent under our established methodology.

Further details of the methods used to estimate the effect of coronavirus on receipts were provided in Section 12 of Public sector finances, UK: March 2021.

Job support schemes

The Coronavirus Job Retention Scheme (CJRS) and Self-Employment Income Support Scheme (SEISS) were open from March 2020 (April 2020 in the case of SEISS) to September 2021, with a provisional estimated combined cost of £97 billion.

Although both schemes have closed, small amounts on a cash basis will continue to be recorded when any late payments and refunds occur. Given that SEISS is recorded on a cash basis, we will see further payments or refunds contributing to central government borrowing beyond September 2021. However, because CJRS is recorded on an accrued basis, any CJRS payments or refunds after September will be reflected as revised estimates for the period to which they relate.

6 . Methods used to produce the public sector finance data

6.1. How do we collect the data?

A large amount of administrative data are provided on spreadsheets by our suppliers, while a small amount of data are taken from published sources.

Data suppliers are responsible for ensuring that the data are of appropriate quality for their own purposes and Office for National Statistics (ONS) has assured itself that these data meet the necessary legal requirements for robust data on public sector finances.

6.2 How do we quality assure our source data?

On 20 June 2017, the UK Statistics Authority published a letter confirming the designation of the monthly Public sector finances bulletin as a National Statistic. This letter completes the 2015 assessment of public sector finances .

In order to meet the requirements of this assessment we published an article, Quality assurance of administrative data used in the UK public sector finances. This article provides an assessment of the administrative data sources used in the compilation of the public sector finances statistics in accordance with the UK Statistics Authority's Administrative Data Quality Assurance Toolkit. The toolkit focuses on four areas of practice associated with data quality:

- operational context and administrative data collection
- communication with data supply partners
- quality assurance (QA) principles, standards and checks by data suppliers and internal or external audit in the data assurance process
- producers' QA investigations and documentation

In conjunction with these four practice areas, the Administrative Data Toolkit encourages consideration of potential issues associated with data, which may affect the quality of the statistics, as well as the nature of the public interest served by the statistics.

Through our assessment we identified common quality assurance practices amongst our data suppliers:

- suppliers generally have quality assurance procedures in place where raw data are taken from administrative systems, during editing and manipulation stages, as well as prior to sending to the PSF team or publication
- quality assurance procedures include validation checks such as those related to data changes, revisions, growth rates and checking for plausibility
- data are often signed off by senior management prior to sending to the PSF team or publication
- where suppliers publish their own data, quality assurance information is generally published alongside
- revisions policies exist
- most data suppliers are subject to some form of external auditing, but also have their own internal audit procedures

Quality assurance carried out by the PSF compiler team after receiving data from suppliers falls into the following areas:

- data are checked for completeness, that is, we have received what we require
- data are analysed by magnitude of revisions and growth rates in both monetary terms and percentages of the prior value – this is completed over several iterations for supplied data and during processing; any anomalies are queried with suppliers
- quality-assured data and a draft bulletin are sent to senior staff and main internal (within ONS and HM Treasury) data suppliers for sign-off

The full findings and conclusions of the exercise are documented.

Following this exercise, the team made several changes to quality assurance procedures and introduced methodological improvements, which have enhanced the quality of PSF statistics.

6.3 How do we compile our data?

The public sector data set is primarily compiled within Excel. Our workbooks adhere to the best practice guidelines issued by ONS and are stored in protected databases. Any printed matter is stored in a safe prior to publication and disposed of by secure means after release.

The source data are used to compile aggregate data series for which checks on consistency and accuracy are performed. These mainly focus on identifying and explaining any:

- missing data
- significant revisions
- unusual growth rates

Any anomalies are referred to and discussed with suppliers. Due to the nature of these data (for example, departmental spend and tax data), our suppliers either collect data from the total unit population or, in the case of taxes, what come in. Consequently, imputation and estimation are not appropriate. If there are any missing financial data then forecast data are used.

Compilation of the data included in UK government debt and deficit takes place in the weeks leading up to publication and largely uses the same data sources as used for the PSF bulletin. The methods applied follow guidance provided in the Manual on Government Deficit and Debt 2010 - 2022 edition, which supplements and augments the European System of Accounts 2010: ESA 2010.

Due to the level of aggregation and the fact that the data are published separately by the suppliers, disclosure is generally not an issue for PSF and UK government debt and deficit publications. If a disclosure issue does arise it is resolved and explained in a published article.

6.4 How do we quality assure our outputs?

We have developed a suite of quality assurance Excel workbooks used in the production of the public sector finances statistical bulletin.

HM Treasury, as joint producers of the publication, carry out independent quality assurance. We bring this together with our own analysis at a regular quality assurance and bulletin sign off meeting held on or around the 13th working day of the 15 day monthly production cycle.

6.5 How do we disseminate the data?

The PSF statistical bulletin is available (generally) at 7:00am on the 15th working day of each month, while the UK government debt and deficit statistical bulletin is available at 9:30am on or around the last Friday of each quarter (January, April, July and October). The dates of all releases are specified in the release calendar andare available to view and download, without charge.

At the same time the ONS publishes the monthly public sector finance bulletin, HM Treasury, in their capacity as joint producers publish a PDF download of the bulletin on their website.

The monthly statistical bulletin is presented at a press briefing on the day of release, prior to the 7:00am publication, though systems are in place to prevent these statistics being communicated outside of the briefing prior to publication.

The public sector finances team has sought to broaden its engagement by reaching new users through social media. Social media provides a tool for communicating with interested users on a monthly basis when users are most interested in the statistics.

6.6 Methodological changes

When methodological changes are introduced, every effort is made to ensure that all previous data are amended to make a directly comparable time series. Structural changes in the economy, such as privatisation and nationalisation, which lead to reclassifications inevitably lead to occasional step changes. The effects of incorporating data for NatWest group (formally Royal Bank of Scotland) and Lloyds Banking group, following their classification to the public sector, are a case in point.

7 . Definitions

This section is intended to provide you with the important terms needed to understand the public sector finances release.

Accruals and accrued recording

Financial recording based on when ownership transfers or the service is provided (sometimes different to when cash is paid).

Asset Purchase Facility Fund (APF)

An arm of the Bank of England able to purchase financial assets including government securities (gilts). The APF has earned interest, which is periodically transferred back to central government.

Cash recording

Financial recording based on when cash is paid or received. Net cash requirement is recorded on a cash basis and net debt is close to being a cash measure.

Current budget deficit

The gap between current expenditure and current receipts (having taken account of depreciation on capital assets).

Current expenditure

Spending on government activities including: social benefits, interest payments, and other government department spending (excluding spending on capital assets).

Current receipts

Income mainly from taxes (for example, Value Added Tax (VAT), Income and Corporation Taxes) but also includes interest, dividend and rent income.

ESA 1995

European System of Accounts 1995: ESA 1995 was the European framework for the production of national accounts prior to September 2014.

ESA 2010

European System of Accounts 2010: ESA 2010 is the European framework for the production of national accounts from September 2014.

Maastricht deficit

General government net borrowing as defined within the Maastricht Treaty and Stability and Growth Pact

Maastricht debt

General government gross debt as defined within the Maastricht Treaty and Stability and Growth Pact.

Net borrowing

Measures the gap between total revenue and total spending (current expenditure plus net investment). A positive value indicates borrowing while a negative value indicates a surplus.Borrowing is often referred to by commentators as "the deficit".

Net cash requirement

Represents the cash needed to be raised from the financial markets over a period to finance the government's activities. This can be close to borrowing (the deficit) for the same period; however, there are some transactions, for example, loans to the private sector, that need to be financed but do not contribute to the deficit. It is also close, but not identical, to the changes in the level of net debt between two points in time.

Net debt

A measure of how much the government owes at a point in time to private sector organisations including overseas institutions, minus the amount of cash and other short-term assets it holds. Net debt is often referred to by commentators as "the national debt".

Net investment

Spending on capital assets, for example, infrastructure projects, property and IT equipment, both as grants and by public sector bodies themselves minus capital receipts (sale of capital assets).

Public sector

In the UK, the public sector consists of six sub-sectors: central government, local government, public non-financial corporations, public sector pensions, the Bank of England (BoE) and public financial corporations (or public sector banks).

Public sector banks

Unless otherwise stated, the figures quoted in this bulletin exclude public sector banks, currently only the NatWest Group (formerly the Royal Bank of Scotland (RBS) Group).

The reported position of debt, and to a lesser extent, borrowing, would be distorted by the inclusion of NatWest Group's balance sheet (and transactions). This is because the government does not need to borrow to fund the debt of NatWest Group, nor would surpluses achieved by NatWest Group be passed on to the government, other than through any dividends paid as a result of the government equity holdings.

Public sector debt interest to revenue ratio

Represents the proportion of net interest paid (gross interest paid less interest received) by the public sector (excluding public sector banks), compared with the non-interest receipts it receives in a given period.

Public sector net financial liabilities

A comprehensive measure of the public sector balance sheet, capturing a wider range of financial assets and liabilities than recorded in public sector net debt.

Further acronyms and abbreviations are listed in the Monthly statistics on the public sector finances: a methodological guide.