

# Profitability of UK companies QMI

Quality and Methodology Information for Profitability of UK companies: data strengths and limitations, methods, and data uses and users.

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Release date:  
11 December 2024

Next release:  
To be announced

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# 1 . Output information

- National Statistic: yes
- Frequency: annual
- How compiled: third party, internal data and economic indicators
- Geographic coverage: UK including UK continental shelf

## 2 . About this Quality and Methodology Information report

This report is part of a rolling programme of quality reports produced by the Office for National Statistics (ONS) to accompany statistical outputs. [Quality and Methodology Information reports](#) are overview notes that pull together important qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output.

[The Profitability of UK companies statistical bulletin](#) provides estimates of the gross and net rates of return, gross operating surplus and net operating surplus of UK private non-financial corporations (PNFCs). Data are available back to 1997 on a [Standard Industrial Classification 2007: SIC 2007](#) basis since the implementation of the new classification within the UK National Accounts in October 2011. Further details can be found in under Comparability and coherence in [Section 5: Methods used to produce the profitability data](#).

The main data source is annual data from [HM Revenue and Customs](#) (HMRC).

This report contains the following sections:

- Quality summary
- Quality characteristics of the profitability data
- Methods used to produce the profitability data
- Other information

## 3 . Quality summary

This report provides a range of information that describes the quality of the data and details any points that should be noted when using the output.

We have developed [Guidelines for Measuring Statistical Quality](#); these are based upon the five European Statistical System (ESS) Quality Dimensions. This report addresses the quality dimensions and important quality characteristics, which are:

- relevance
- timeliness and punctuality
- comparability and coherence
- accuracy
- output quality trade-offs
- assessment of user needs and perceptions
- accessibility and clarity

More information is provided about these quality dimensions in the following sections.

## 4 . Quality characteristics of the profitability data

### Relevance

(The degree to which statistical outputs meet users' needs.)

The user feedback survey included in the [Profitability of UK companies Quarter 1 2012](#) statistical bulletin showed that users were broadly happy with the content and compilation of the bulletin and support from the team.

Respondents indicated that they used the bulletin for monitoring the economy, writing briefings and including in their own reports. We have regular contact with HM Revenue and Customs (HMRC) regarding the quality of trading profits data to ensure it is fit for these purposes.

A known gap in our ability to satisfy users' expectations is that we cannot provide sector detail below the level of manufacturing, services and UK continental shelf companies. Any further breakdowns using current data sources would not yield robust or reliable estimates on a quarterly basis.

### Timeliness and punctuality

Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the gap between planned and actual publication dates.

For more details on related releases, the [GOV.UK release calendar](#) provides 12 months' advanced notice of release dates. If there are any changes 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](#).

Estimates of gross operating surplus (GOS) of UK private non-financial corporations (PNFCs) are produced twice per quarter as part of the quarterly national accounts process. A provisional estimate is produced for the first quarterly estimate of GDP. This forms part of the estimate of "gross operating surplus of corporations" published in the [first quarterly estimate of GDP](#).

A revised estimate of GOS of UK PNFCs is produced for the [Quarterly national accounts \(QNA\)](#). This second estimate incorporates updated or revised data for a more complete picture in line with the [National Accounts Revisions Policy](#). Additional quality checks are made at this stage to ensure that the data are consistent with QNA and the [UK Economic Accounts](#).

This revised estimate forms the basis of the [Profitability of UK companies statistical bulletin](#). See [Section 5: Methods used to produce the profitability data](#) for further information on the content of Profitability of UK companies.

## Concepts and definitions

(Concepts and definitions describe the legislation governing the output and a description of the classifications used in the output.)

The [Profitability of UK companies](#) release is compliant with the [Code of Practice for Statistics](#) and legislation relating to the release is contained within the [Statistics and Registration Service Act 2007](#).

The international standard for estimates used in national accounts is the [European System of Accounts 2010: ESA 2010](#) (PDF, 6.56MB), published in close co-operation with Eurostat, the Organisation for Economic Co-operation and Development (OECD), the United Nations and the World Bank. The [Standard Industrial Classification: SIC 2007](#) is used for classifications in the Profitability of UK companies release.

## 5 . Methods used to produce the profitability data

The [Profitability of UK companies statistical bulletin](#) provides estimates of the gross and net rates of return, gross operating surplus and net operating surplus of private non-financial corporations (PNFCs).

Gross trading profits (GTP) include only that part of a company's income arising from trading activities in the UK. It does not include income from investments or other means, such as earnings, from abroad. GTP are calculated before payments of dividends, interest and tax.

### Data sources for GTP

HM Revenue and Customs (HMRC) collects annual information on company profits as part of the tax collection process. It collects in excess of 98% of all industrial and commercial businesses' data via their statutory tax returns. These data provide us with an annual benchmark for company profits, after which we apply a growth figure to estimate subsequent quarters.

We receive HMRC trading profits data with a lag of approximately two years because of the time given to companies to report profits and for returns to be processed. This is administrative data and not directly collected for the calculation of profitability. As a result, we apply various adjustments to bring it in line with national accounts concepts.

### Calculating quarterly profits estimates

For the Office for National Statistics (ONS) to produce more timely quarterly profits estimates, it looks at contextual data from other gross domestic product (GDP) sources as well as data from wider industry to inform a growth figure and balancing process. These include:

- the [Index of Services](#) and [Index of Production](#)
- anecdotal information taken from Bank of England's [Agent summary of business conditions](#)
- [Profit warnings](#) reported issued by corporations.
- the [Purchasing Managers' Index](#)
- company accounts data

### Use of other government departments and National Grid data in compiling UK continental shelf (UKCS) estimates

Data for UKCS businesses are supplemented by oil and gas output, sales and prices data obtained from [Department for Energy Security and Net Zero](#) and the [National Grid](#). The data obtained are used to determine total income (total sales multiplied by price) and total expenses. Estimates of UKCS operating surplus are then calculated by deduction of total expenses from total income.

## Other data sourced from the ONS

We publish estimates collected via the [Quarterly Acquisitions and Disposals of Capital Assets Survey](#) and the [Quarterly Stocks Survey](#). Capital expenditure data are combined with public sector data for the [Business investment](#) publication. Other source material includes:

- appreciation of North Sea oil stocks
- PNFCs inventory holding gains
- work in progress within the services industries
- gross fixed capital formation (GFCF) associated with computer software, mineral exploration, entertainment, literature and artistic originals, agricultural assets and UK continental shelf (UKCS) exploration expenditure
- book values of PNFCs, UKCS, manufacturing and services industries
- consumption of fixed capital
- gross and net capital stock values for PNFCs, UKCS, manufacturing and services sectors
- PNFCs self-employment income
- PNFCs self-employed (quasi), manufacturing and services rental income

## Compilation of estimates presented in Profitability of UK companies

The numerator for estimates of rates of return is gross operating surplus (GOS). The denominator for estimates is capital employed. This means that rates of return presented are ratios of operating surpluses compared with capital employed, expressed as percentages. These ratios measure the accounting rates of return achieved in a particular year from total capital employed.

The rates of return are on the basis of current replacement cost and relate to UK operations of PNFCs. The net rate of return uses capital estimates net of capital consumption, which is more widely used than the gross rate of return. Rates of return are published for quarters and for years.

Gross operating surplus of PNFCs are gross trading profits, plus income from rental of buildings less inventory holding gains, both of which are supplied by the ONS.

Capital employed and capital consumption data come from the [Capital stock and capital consumption](#) release.

Estimates of company investment are added together for all assets that will still be in use (based on estimates of the asset's life length) to give "gross capital stock" or capital employed. Depreciation is calculated by assuming that the asset loses an equal amount of value each year and is worth zero at the end of its life. "Net capital stock" is calculated from gross capital stock by removing depreciation.

In the derived net rates of return, estimates of net operating surplus are net of consumption of fixed capital (depreciation). Consumption of fixed capital is derived from capital stock and covers the depreciation of fixed assets over their service lives. Estimates of net capital are net of accumulated capital consumption; that is, they are a measure of the written-down replacement costs of fixed assets.

## Validation and quality assurance

### Accuracy

(The degree of closeness between an estimate and the true value.)

Quality assurance procedures are in place to check, understand and explain movements in the data. This allows informed quality adjustments to be made and checks that the published series are being correctly calculated.

Quality checks are carried out throughout the process of producing the profitability rates of return. The final profitability estimates are independently reviewed by the Deputy Director responsible for sign off of the statistical bulletin and final dataset and approval is given for the estimates to be published.

Guidance is provided by in-house economists regarding economic performance in the relevant sectors. This forms an additional quality check and any inconsistencies are investigated with possible reasons provided to users in the statistical bulletin.

Estimates for the most recent quarters are provisional and subject to revision in the light of updated source information. Revisions are made in-line with the [National Accounts Revisions Policy](#). Revisions are consistent with the most recent [Quarterly national accounts](#) and may result from new or late data being received. Further details on the [National Accounts Revisions Policy](#) can be found in the following Comparability and coherence section.

### Non-sampling error

Estimates for the most recent quarters are provisional and, as usual, are subject to revisions in the light of updated source information consistent with the National Accounts Revisions Policy. Recent quarters are estimated using various economic indicators rather than a survey, and as such may be subject to more significant revisions than prior estimates.

### Comparability and coherence

(Comparability is the degree to which data can be compared over time and domain, for example, geographic level. Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar.)

Data revisions are made in accordance with the National Accounts Revisions Policy and any methodological or conceptual changes are made to back data in accordance with this policy to ensure data comparability over time. Estimates are produced in accordance with guidelines set out in the [European System of Accounts 2010: ESA 2010 manual](#) (PDF, 6.56MB).

Comparable time series data for this release are available back to 1997 on the new [Standard Industrial Classification \(SIC\) 2007](#) industrial classification basis. However, the seasonally adjusted current price annual series for [gross operating surplus of PNFCs](#) (PDF, 2.45MB) (national accounts series identifier CAER) is available back to 1948 on a comparable basis as part of the QNA dataset.

Gross operating surplus for PNFCs becomes coherent with other sectors of the economy, and with the output and expenditure approaches to GDP in the long-term through the use of a [Supply and Use](#) framework. This enables differences between the estimates of supply and use of specific products to be investigated and the accounts adjusted to ensure a balance. These alignment adjustments are made to the quarterly series and sum to zero annually. The gross operating surplus used in the Profitability of UK companies excludes the quarterly alignment adjustments (national accounts series identifier DMUQ) applied to non-UK continental shelf businesses' gross trading profits, as published in the QNA.

## 6 . Other information

## Assessment of user needs and perceptions

(The processes for finding out about users and uses, and their views on the statistical products.)

User engagement was carried out several years ago. There are plans to conduct another round of user engagement ahead of the next publication in 2024. Users of Profitability of UK Companies data with questions or feedback are also encouraged to [email the profitability inbox](#).

## Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the release details, illustrations and accompanying advice.) Our recommended format for accessible content is a combination of HTML webpages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. In some instances other software may be used, or may be available on request. Available formats for content published on our website but not produced by us, or referenced on our website but stored elsewhere, may vary. For further information please refer to the contact details at the beginning of this report.

For information regarding conditions of access to data, please refer to the following links:

- [terms and conditions](#) (for data on the website)
- [copyright and reuse of published data](#)
- [pre-release access \(ended from 1 July 2017\)](#)
- [accessibility](#)
- access to microdata via the [Virtual Microdata Laboratory](#)

In addition to this Quality and Methodology Information, basic quality information relevant to each release is available in the Measuring the data section of the [Profitability of UK companies statistical bulletin](#).

## Data sources and quality assessment

This section lists the data sources used to calculate gross operating surplus of private non-financial corporations (PNFC GOS) and profitability of UK companies. Throughout summer 2024, data sources were assessed against a range of criteria including working relationships with the providers, responsibility for and awareness of quality and documentation for new and existing staff member's understanding.

Data are divided into three categories:

- Primary data sources used to compile PNFC GOS
- Data used to make adjustments to administrative source data
- Data sources used for the quality assurance and triangulation of Quarterly Profitability and GOS data

A 2024 internal review was undertaken to assess the methodology behind the Profitability of UK companies and PNFC GOS considering any recent changes to tax policy and found no issues conceptually. Despite this, some data sources vary in quality and timeliness leading to uncertainty in estimates. These are addressed where applicable for each category.

## Primary data sources used to compile Gross Operating Surplus of Private Non-financial corporations

- HMRC Corporation trading profits data - Corporation Tax liabilities by industry sector
- HMRC Schedule A taxation records (unpublished) - Taxes on trading income from UK land
- HMRC Self-assessment tax data (unpublished) - Tax automatically deducted from wages and pensions
- Department for Energy Security and Net Zero (DESNZ) Gas and oil and oil products energy trends
- National Grid Gas data - Natural Gas Prices
- HMRC Self-assessment tax data for partnerships - all industries except 64-68 (financial corporations). Specific industry data sourced from: - Quasi corporations (unincorporated partnerships) profits data
- DEFRA - cultivated assets
- ONS Central Government Team - pensions data for GPs and dentists

Data from HMRC on trading profits, taxes on income from land and self assessment are deemed to be high quality, however limitations come from their lack of timeliness. We are provided data on a two-year lag due to the time taken for company tax returns to be completed and processed.

This means recent quarters of PNFC GOS rely on a higher degree of estimation and are subsequently revised as more complete data become available.

## **Data used to make adjustments to the administrative source data**

- Gross fixed capital formation - Machinery, cultivated assets, entertainment and artistic originals, mineral exploration, computer software, own-account construction and R&D
- Rent payable/receivable - Average farm rents paid in England under full agricultural tenancies, farm business tenancies and seasonal agreements (those of less than 12 months) and the area of land covered by these agreements.
- Interest payable on bonds and loans - Interest that companies pay on bonds and loans
- FISIM (Financial intermediation services indirectly measured) - the implicit fees charged by banks to borrowers and lenders
- Insurance premiums - Insurance pay-outs on insurable losses and claims
- Holding gains and losses - Calculated as the change in value of inventories caused by price movements. Includes work in progress, computer software and agricultural assets
- Patent Royalty data - Payments for foreign patents
- Takeover costs - Publicity, advertising and consultancy fees
- Work in progress services - Stoppages of work-in-progress in the UK during a year caused by labour disputes
- New stock issuances and transaction costs of financial assets - Issues of shares through Initial Public Offerings (IPO) or Seasoned Equity Offerings (SEO)
- International Branch Profits - Foreign branches of UK companies' profits
- Entertainment expenses - Business entertainment of clients (for example, eating, drinking or other hospitality) to discuss a particular business project or forming or maintaining a business connection
- Implicit Fees - Perceived or estimated loss in revenue. All adjustments taken out of intermediate consumption (P2) - for company accounts
- Tax Evasion & VAT fraud - Illegal mis-or non-reported income
- Balancing Adjustments - Adjustments to align with expenditure and output measures of GDP

These datasets are small in their overall impact but are important in achieving a high degree of accuracy and consistency with national accounts definitions.

ONS has no data with which to estimate patent royalties, takeover costs, or entertainment expenses for businesses on an ongoing basis. These form part of our overall calculation of profitability, but are currently assumed and unchanging, and therefore may not reliably reflect true values.

## **Data sources used for the quality assurance and triangulation of Quarterly Profitability and GOS data**

- ONS Economic Output data (GDP output) - Movements in the volume of output for the UK services industries (seasonally adjusted)
- ONS Economic Output data (GDP output) - Movements in the volume of production for UK production industries: manufacturing, mining and quarrying, energy supply, and water and waste management
- The Bank of England - Summary report compiled by the Bank of England from 12 regional agents as a result of discussions with 700+ businesses across the UK
- The British Chambers of Commerce - A survey of over 5,000 firms - (92% of whom are Small-Medium Enterprises) on business performance across different sectors
- Ernst & Young - Annual profit warning from UK-listed companies
- Trading Economics - Provides the latest reported value for the United Kingdom Manufacturing Purchase Managers Index
- HMRC Corporation tax receipts data - An incomplete, but timelier version of the corporation tax liabilities data used in the GOS calculation

The most recent quarters of PNFC GOS estimates (and therefore profitability estimates) rely on a higher degree of estimation, with the Quarterly Operating Profits survey (QOPS) used to estimate growth rates prior to 2021. Since 2021, the latest quarters rely on a combination of external, qualitative sources to derive growth rates. There is no evidence so far that this change is resulting in increased revisions. In May, following discussions with HMRC, we received estimates of corporate profits derived from more timely but less complete corporation tax receipts data. HMRC have demonstrated that these data are strongly correlated with the final corporation tax liabilities data, despite being incomplete. These profits estimates will provide us with a valuable anecdotal source to sense check quarterly growth rates and inform balancing adjustments in the short term and could become part of the calculations themselves in the future. This will reduce the quality impact of the two-year lag.

## 7 . Cite this methodology

Office for National Statistics (ONS), released 3 November 2023, ONS website, methodology, [Profitability of UK companies Quality and Methodology Information](#)