

Statistical bulletin

Business investment in the UK: January to March 2015 revised results

Estimates of short-term indicators of investment in non-financial assets; business investment and asset and sector breakdowns of total gross fixed capital formation.



Contact:
Alison McCrae
gcf@ons.gsi.gov.uk
+44 (0)1633 455250

Release date:
30 June 2015

Next release:
28 August 2015

Table of contents

1. [Main points](#)
2. [About this release](#)
3. [Changes to the Quarterly Survey of Capital Expenditure and other methodological information](#)
4. [Adjustments, revisions and response rates](#)
5. [Economic background](#)
6. [Gross fixed capital formation and business investment](#)
7. [Where to find more of our data](#)
8. [Background notes](#)

1 . Main points

- The estimates in this release are short-term indicators of investment in assets, such as dwellings, transport equipment, machinery, buildings and intangible assets. This release covers not only business investment, but asset breakdowns of total gross fixed capital formation (GFCF), of which business investment is one component
- All investment data referred to in this bulletin are estimates of seasonally adjusted chained volume measures. The earliest period being revised in this release is Q1 2014
- In Quarter 1 2015, GFCF was estimated to have increased by £1.5 billion (2.0%) to £76.1 billion compared with the previous quarter. This is the highest level which has been recorded for this series since it began in Quarter 1 1997
- In Quarter 1 2015, business investment was estimated to have increased by £0.9 billion (2.0%) to £46.5 billion compared with the previous quarter
- In Quarter 1 2015, GFCF was estimated to have increased by 5.0% compared with Q1 2014
- In Quarter 1 2015, business investment increased by 5.7% compared with Q1 2014
- Changes have been made to the Quarterly Survey of Capital Expenditure for Q1 2015. Clearer instructions have led contributors to indicate some historic misreporting in the asset breakdown. Adjustments have therefore been included to keep the asset series consistent with the asset split of the previous survey
- The incorporation of the new interim construction price deflators has led to upward revisions to the levels of GFCF from Quarter 1 of 2014

2 . About this release

The estimates in this release are short-term indicators of investment in non-financial assets in the UK, such as dwellings, transport equipment, machinery, buildings and intellectual property products. This release covers not only business investment, but asset and sector breakdowns of total gross fixed capital formation (GFCF), of which business investment is one component.

Business investment is net investment by private and public corporations in transport, information, technology and communications (ICT) equipment, other machinery and equipment, cultivated assets, intellectual property products (IPP, which includes investment in software, research and development, artistic originals and mineral exploration), and buildings and other structures. It does not include investment by central or local government, investment in dwellings or the costs associated with the transfer of non-produced assets (such as land). A full sector and asset hierarchy can be found in the background notes. It should be noted that business investment is not an internationally recognised concept and therefore it should not be used to make international comparisons.

All investment data referred to in this bulletin are estimates of seasonally adjusted chained volume measures.

3 . Changes to the Quarterly Survey of Capital Expenditure and other methodological information

Changes to the Quarterly Survey of Capital Expenditure in Q1 2015

As described in the Business Investment, Q4 2014 Revised Results bulletin and the article [Changes to the Annual Business Survey, the Quarterly Survey of Capital Expenditure and the Survey into Business Spending on Capital Items, in 2015 \(114.3 Kb Pdf\)](#), we have migrated to the Quarterly Acquisitions and Disposals of Capital Assets Survey (QCAS) from the Quarterly Survey of Capital Expenditure (CAPEX) in this release. The main reasons for the changes to the survey are to move to the updated European System of Accounts (ESA) 2010 manual, the international guidance for national accounts.

Several presentational issues have been addressed but the main changes to the survey are:

1. new questions have been added to improve the quality of our estimates and to meet the latest European legislation requirements (ESA 2010)
2. the lower limit of £500 for the value of reported assets has been removed, so all relevant assets (even those below businesses' Asset Register threshold) should be reported
3. small tools used in production have been included within the definition of GFCF
4. improvements have been made to the questionnaire's layout with new sections and headings, designed to make completing the questionnaire easier

The data from the new questions will not be included in estimates of GFCF and its components until 2017, when 2 years of data will be available for quality assurance.

Further methodological information including upcoming changes for Blue Book 2015

Estimates in this release have been compiled under ESA 2010 concepts and definitions, in compliance with the UK's legal obligations in producing the National Accounts. Articles are available describing the methodology used to estimate GFCF and the impact of the changes implemented for ESA10 in September 2014.

Several articles explaining the changes that will be implemented in the UK National Accounts (Blue Book) 2015, (to be published in October 2015), were published on 19 May 2015. These articles describe changes related to ongoing work to meet ESA 1995 requirements. The changes that impact GFCF and its components are spending on repairs and maintenance of dwellings and exhaustiveness. A comprehensive list of all published articles relating to [changes to the UK National Accounts \(Blue Book\)](#) can be found on our website. This list will be updated as new articles are published.

[Changes to National Accounts: Gross fixed Capital Formation and Business Investment – Quarter 1 \(January to March\) 2015 \(196.6 Kb Pdf\)](#) 30 June 2015

[Impact of Blue Book 2015 changes on Current Price Gross Domestic Product Estimates, 1997 to 2010](#) 12 June 2015

[Interim solution for construction output price indices, Quarter 1 \(January to March\) 2015](#) 12 June 2015

[Impact of ESA 1995 Changes on Current Price Gross National Income Estimates, 2002 to 2010](#) 19 May 2015

[Methodological improvements to National Accounts for Blue Book 2015: Exhaustiveness \(225.9 Kb Pdf\)](#) 19 May 2015

[Methodological improvements to National Accounts for Blue Book 2015: Vehicle Registration Tax, Treatment of Roads, and Spending on Repairs and Maintenance of Dwellings \(294.7 Kb Pdf\)](#) 19 May 2015

[Changes to National Accounts for Blue Book 2015: the deflation of investment in software \(522.5 Kb Word document\)](#) 26 Mar 2015

[Investment - impact analysis of changes to the estimation of gross fixed capital formation and business investment for Blue Book 2014 \(918.4 Kb Pdf\)](#) 30 Sept 2014

[Changes to the Annual Business Survey, the Quarterly Survey of Capital Expenditure and the Survey into Business Spending on Capital Items, in 2015 \(114.3 Kb Pdf\)](#) 22 Aug 2014

[Gross Fixed Capital Formation and Business Investment – Impact of ESA10 Changes on Volume Measures \(195.6 Kb Pdf\)](#) 30 June 2014

[How Construction Price Indices are Used in Construction Statistics and Gross Fixed Capital Formation \(80.7 Kb Pdf\)](#) 19 June 2014

[Construction price indices: improvements](#) 19 June 2014

[Measuring and capitalising research & development in the UK National Accounts \(349.1 Kb Pdf\)](#) 10 June 2014

[Implementation framework for Research and Development in the United Kingdom National Accounts \(206.7 Kb Pdf\)](#) 10 June 2014

[Impact of ESA10 changes on current price GDP estimates](#) 10 June 2014

[Transition to ESA10: capitalising government spending on military weapons \(179 Kb Pdf\)](#) 10 June 2014

[Gross Fixed Capital Formation \(Investment\) - Changes for Blue Book 2014 \(excluding ESA10\) \(157.8 Kb Pdf\)](#) 29 May 2014

[Impact of ESA95 changes on current price GDP estimates](#) 29 May 2014

[Revised methodology and sources as a result of addressing Gross National Income reservations \(105.1 Kb Pdf\)](#) 29 May 2014

Notes for Changes to the Quarterly Survey of Capital Expenditure and other methodological information

1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)

4 . Adjustments, revisions and response rates

Adjustments

As a result of the changes to the survey and the timing of Easter, response has been lower than expected at 83%, when compared with an average of 92% when revised data were previously published.

Large capital expenditure tends to be reported later in the data collection period than smaller expenditure. This means that larger expenditures are often included in the revised (month 3) results, but are not reported in time for the provisional (month 2) results, leading to a tendency towards upwards revisions in the later estimates for business investment and Gross fixed Capital Formation (GFCF). Following investigation of the impact of this effect, from Q3 2013, a bias adjustment was introduced to GFCF and its components in the provisional estimate.

A bias adjustment of £0.4 billion for Q1 2015 has been included in this release, a reduction from £1.5bn in the provisional estimate. This is for later returns of larger capital items and the lower survey response rate. This adjustment will be removed when the survey response rates improve. Users should note that the bias adjustment is a best estimate of the Quarterly Acquisitions and Disposals of Capital Assets Survey (QCAS) and the estimate may still be revised either up or down. Therefore, GFCF and business investment will be subject to further revision. The bias adjustment is intended to reduce the average size of revisions over time. It is not possible to ascertain the direction of any such revisions.

In improving the survey through clearer instructions, contributors have indicated that there has been some historic misreporting in the asset breakdown. Adjustments have therefore been included to keep the asset series continuous. In the provisional Quarter 1 (January to March) 2015 Business Investment release, we stated that it would be completing further work into the asset breakdown, as initial feedback from some respondents indicated that they had been misreporting their asset breakdown and were correcting this on the new questionnaire, as it provided clearer completion instructions. We have now further analysed the impact of this feedback on the higher response and made some adjustments to the assets in the current price series in Q1 2015 to make them consistent with the asset split of the previous survey. Survey responses indicated that some respondents in the past were reporting new construction work (NCW) as other capital equipment (OCE). With the clearer notes on the Q1 2015 forms they were now reporting more in new construction work at the expense of other capital equipment. Therefore we have included quality adjustments on asset buildings (negative £1.5bn) and Other Machinery (positive £1.5bn). These adjustments will be reviewed as the survey response increases.

Forecast data

In this release, estimates of investment in research and development and artistic originals have been forecast.

Revisions

The periods revised in this release are Q1 2014 to Q1 2015.

Revisions in this release include revisions to source data and the incorporation of new interim construction deflators. The current price (not seasonally adjusted) data set is mainly revised by revisions to the source data. The chained volume measure (seasonally adjusted) are mainly revised due to the new construction deflators. These new construction price indices have resulted in revisions to the volume of investment in dwellings and other buildings and structure which have increased the level total gross fixed capital formation and business investment. Further analysis and explanation can be found in Changes to National Accounts: Gross fixed Capital Formation and Business Investment – Quarter 1 (January to March) 2015.

Survey response rates

Table 1 presents the revised (month 3) response rates for the QCAS. The estimates in this release are based on the Q1 2015 month 3 (revised) survey results.

Table 1: Response rates for Quarterly Survey of Capital Expenditure

UK, quarter 1 (Jan to Mar) 2014 to quarter 1 (Jan to Mar) 2015

At month 2 (Provisional)		At month 3 (Revised)	
Period	Survey response rates / %	Period	Survey response rates / %
2014 Q1	76.2 2014 Q1		90.7
2014 Q2	79.5 2014 Q2		91.3
2014 Q3	78.7 2014 Q3		91.7
2014 Q4	80.1 2014 Q4		94.4
2015 Q1	67.3 2015 Q1		83.3

Notes for adjustments, revisions and response rates

1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)

5 . Economic background

Business investment grew by 2.0% in Q1 2015, an increase from 0.3% growth in the previous quarter. Business Investment grew by 5.7% in Q1 2015 compared to the corresponding quarter of the previous year. GFCF also grew robustly by 2.0% in Q1 2015. The strength of business investment is consistent with external business confidence indicators.

On the quarter, by asset class GFCF was driven by transport. In Q1 2015, transport equipment grew by 21.0% and the other main driver of growth was dwellings which grew by 3.2% on the quarter. By sector, GFCF was driven by dwellings – both public and private – that grew by 2.1% and 3.2% respectively. The strength of investment in dwellings is reflected in the [construction output data](#) which show that construction output grew by 1.5% in the year to April 2015.

Latest quarter on corresponding quarter of the previous year shows the drivers of growth by asset class were dwellings which increased by 9.7% and transport equipment which grew by 24.8%. By sector, the main drivers of growth were dwellings, both public and private, whereas general government exerted downward pressure on GFCF.

Although investment growth has eased since the first half of 2014, GFCF remains strong. One factor that may be supporting investment is business confidence. The British Chambers of Commerce Quarterly Economic Survey shows that business confidence for services and manufacturing remains high despite easing in recent quarters. The [Bank of England's Inflation Report for May](#) noted that financial conditions remain supportive of business investment, as low interest rates and low yields on corporate bonds are likely to have made the return on capital spending more attractive.

Notes for Economic background

1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)

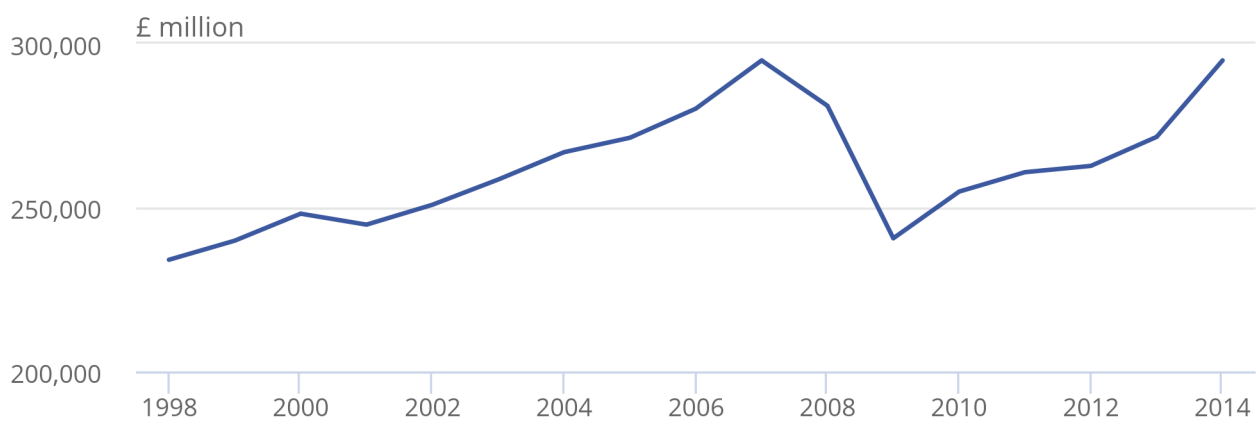
6 . Gross fixed capital formation and business investment

Figure 1: Annual gross fixed capital formation chained volume measures

Reference year: 2011 Coverage: UK

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Reference year: 2011 Coverage: UK



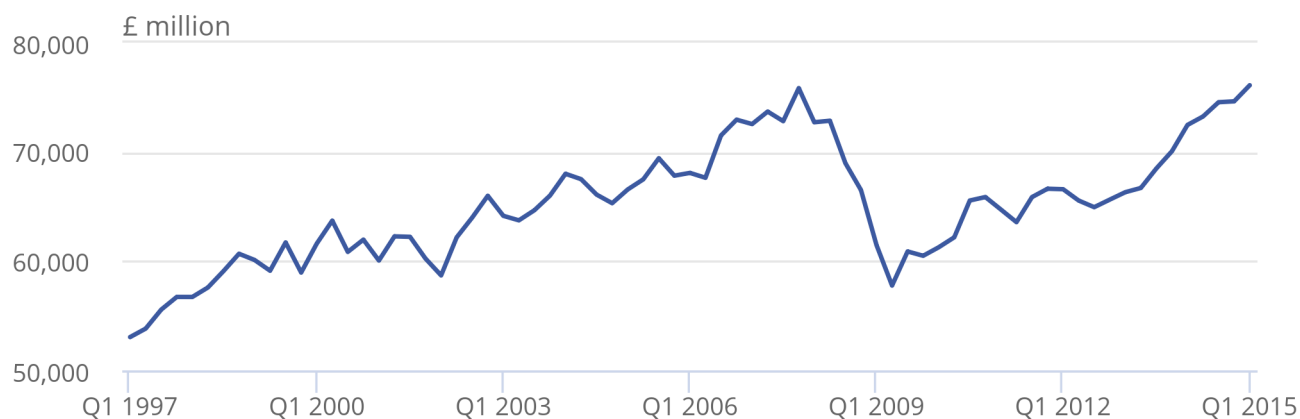
Source: Quarterly Acquisitions and Disposals of Capital Assets Survey - Office for National Statistics

Figure 2: Quarterly gross fixed capital formation chained volume measures

Reference year: 2011 Seasonal adjustment: seasonally adjusted Coverage: UK

Figure 2: Quarterly gross fixed capital formation chained volume measures

Reference year: 2011 Seasonal adjustment: seasonally adjusted Coverage: UK



Source: Quarterly Acquisitions and Disposals of Capital Assets Survey - Office for National Statistics

Notes:

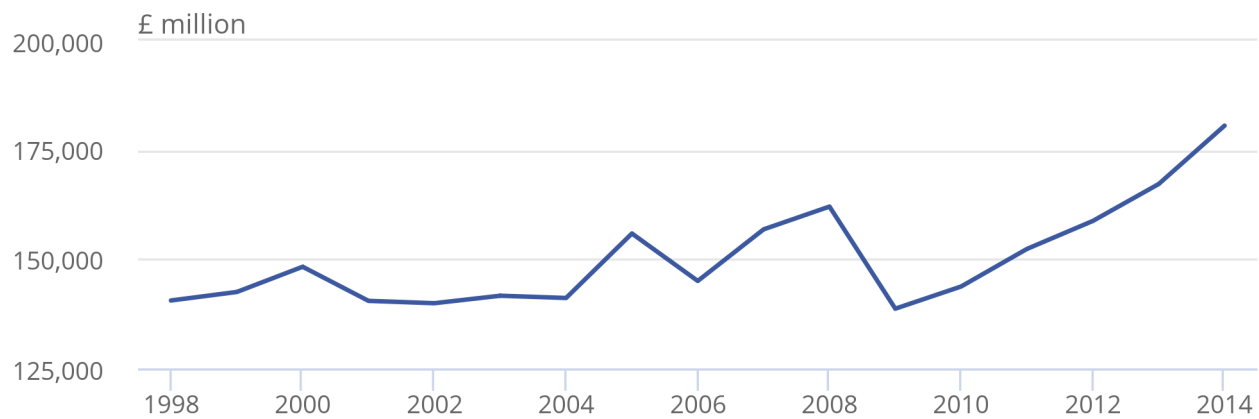
1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)

Figure 3: Annual business investment chained volume measures

Reference year: 2011 Coverage: UK

Figure 3: Annual business investment chained volume measures

Reference year: 2011 Coverage: UK



Source: Quarterly Acquisitions and Disposals of Capital Assets Survey - Office for National Statistics

Figure 4: Quarterly business investment chained volume measures

Reference year: 2011 Seasonal adjustment: seasonally adjusted Coverage: UK

Figure 4: Quarterly business investment chained volume measures

Reference year: 2011 Seasonal adjustment: seasonally adjusted Coverage: UK



Source: Quarterly Acquisitions and Disposals of Capital Assets Survey - Office for National Statistics

Notes:

1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)

Figure 4 shows a large spike in business investment Q2 2005. This is due to the transfer of British Nuclear Fuels Ltd (BNFL). In April 2005, nuclear reactors were transferred from BNFL to the Nuclear Decommissioning Authority (NDA). BNFL is classified as a public corporation in National Accounts, while the NDA is a central government body. The business investment series includes investment by public corporations but not government spending, with the positive spike therefore reflecting the £15.6 billion transfer. More information on the transfer of BNFL can be found in the background notes under section '3. Further information on "methodology"'.

Summary tables

Total gross fixed capital formation increased by an estimated £1.5 billion (2.0%) in Q1 2015 compared with the previous quarter. In Q1 2015, business investment also saw an increase of 2.0%, rising by an estimated £0.9 billion. Private sector dwellings increased by £0.5bn in Q1 2015.

Table 2a: Total gross fixed capital formation by institutional sector

UK, quarter 1 (Jan to Mar) 2015

	% change		£ million	
	Most recent quarter on previous quarter	Most recent quarter on a year earlier	Most recent level **	Level change from previous quarter
Gross fixed capital formation	2.0	5.0	76,099	1,471
Business investment	2.0	5.7	46,470	897
General government	1.2	-4.1	9,991	121
Public corporations dwellings	2.1	7.5	887	18
Public corporations cost of ownership transfer on non-produced assets	1.9	-1.8	-110	-2
Private sector dwellings	3.2	9.6	15,275	474
Private sector cost of ownership transfer on non-produced assets	-1.0	4.5	3,586	-37

Source: Office for National Statistics

Notes:

1. ** Series may not sum to totals due to rounding

In Q1 2015, transport equipment saw the largest level increase rising by an estimated £0.6 billion (21.0%), the highest level since Q4 2010. Dwellings saw the second highest level increase of an estimated £0.5 billion (3.2%). These increases were partially offset by a decrease in other buildings and structures and transfer costs of an estimated £0.2 billion (0.9%). All assets showed positive growth of at least 1.0% compared with the same quarter of the previous year.

Table 2b: Total gross fixed capital formation by asset

UK, quarter 1 (Jan to Mar) 2015

	% change		£ million	
	Most recent quarter on previous quarter	Most recent quarter on a year earlier	Most recent level **	Level change from previous quarter
Gross fixed capital formation	2.0	5.0	76,099	1,471
Transport equipment	21.0	24.8	3,625	629
ICT equipment and other machinery and equipment	2.2	3.7	16,667	362
Dwellings	3.2	9.7	16,161	498
Other buildings and structures and transfer costs	-0.9	3.2	22,973	-212
Intellectual property products	1.2	1.0	16,673	194

Source: Office for National Statistics

Notes:

1. ** Series may not sum to totals due to rounding

Notes for Gross fixed capital formation and business investment

1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)

7 . Where to find more of our data

[Gross fixed capital formation by detailed industry and asset \(245.5 Kb Excel sheet\)](#) Detailed annual breakdown of gross fixed capital formation in current prices, chained volume measures, non-seasonally adjusted and seasonally adjusted for 1997 to 2014. Consistent with the UK Annual National Accounts (Blue Book) 2014.

[UK National Accounts \(Blue Book\) Chapter 9 \(113.5 Kb Excel sheet\)](#) Gross fixed capital formation by institutional sectors and assets, in current prices, chained volume measures, non-seasonally adjusted and seasonally adjusted. Annually from 1987 to 2014, total gross fixed capital formation data is available back to 1948. Quarterly from Q1 1997 to Q4 2014.

[Business investment by industry and asset](#) Detailed breakdown of business investment by industry and asset, in current prices, chained volume measures, non-seasonally adjusted and seasonally adjusted. Annually for 1997 to 2014 and quarterly for Q1 1997 to Q4 2014.

[UK Economic Accounts](#) Gross fixed capital formation by institutional sector in current prices, not seasonally adjusted and seasonally adjusted annually for 1997 to 2014 and quarterly for Q1 1997 to Q4 2014.

ONS also publishes additional analyses of gross fixed capital formation, business investment, and the Quarterly Survey of Capital Expenditure, which have been created in response to ad hoc user requests. These are available to download free from our website. Below is a list of the most recent ad hoc requests, enquiries about ad hoc requests may be made to gcf@ons.gsi.gov.uk.

Note: all datasets below have been updated from Q1 1997 to be consistent with the UK Annual National Accounts (Blue Book) 2014.

[Research and development price index for gross fixed capital formation \(33 Kb Excel sheet\)](#) This time series is derived from the Research and Development dataset and is based on actual current price values up to and including 2012, all subsequent periods have been forecasted using X-13-ARIMA-SEATS, a seasonal adjustment model. The base year for this analysis is 2005. This price index (deflator) is calculated using a weighted labour, capital and material prices and excludes a productivity adjustment. Data has been extracted from the Q4 2014 dataset.

[Regional gross fixed capital formation, 2000-2012 \(110 Kb Excel sheet\)](#) Regional gross fixed capital formation by industry sector at NUTS1 and NUTS2 regional breakdown levels. The [Nomenclature of Units for Territorial Statistics](#) (NUTS) was created by the European Office for Statistics (Eurostat) as a single hierarchical classification of spatial units used for statistical production across the European Union (EU). NUTS1 consists of Wales, Scotland, Northern Ireland and nine English regions. NUTS2 consists of 37 areas which are mainly groups of counties and unitary authorities. Annually from 2000 to 2012.

[Gross fixed capital formation quarterly weapons analysis \(183 Kb Excel sheet\)](#)

Quarterly GFCF data relating to spending on weapons systems. Q1 1997 to Q1 2015. Consistent with Business Investment Q1 2015 Provisional Results.

[Private sector investment in computer hardware \(38 Kb Excel sheet\)](#)

A time series of investment in computer hardware by the private sector broken down by industry; current price, not seasonally adjusted. Q1 1997 to Q1 2015. Consistent with Business Investment Q1 2015 Provisional Results.

[Total business investment and general government data excluding British Nuclear Fuels \(BNFL\) in 2005 Q2 \(56 Kb Excel sheet\)](#) Gross fixed capital formation estimates for total Business Investment and General Government, excluding British Nuclear Fuels (BNFL) in Q2 2005; current price, chained volume measure, seasonally adjusted, not seasonally adjusted. Q1 1997 – Q1 2015. Consistent with Business Investment – Q1 2015 Provisional Results.

[Quarterly capital expenditure and survey populations by employment size bands \(33.5 Kb Excel sheet\)](#) Estimates from the Quarterly Survey of Capital Expenditure broken down by employment size bands for manufacturing and non-manufacturing industries. A breakdown of survey populations by employment size bands is also included. Current price, not seasonally adjusted. Q1 2012 to Q4 2014. Consistent with Business Investment Q4 2014 Revised Results.

[Total gross fixed capital formation industry split for purchased software, own-account software, mineral exploration and artistic originals \(1.02 Mb Excel sheet\)](#) Gross fixed capital formation estimates for total GFCF industry split for purchased software, own-account software, mineral exploration and artistic originals; current price, not seasonally adjusted. Q1 1997 to Q1 2015. Consistent with Business Investment Q1 2015 Provisional Results.

[Gross fixed capital formation asset 'private sector dwellings' broken down to its components 'dwellings new' and 'dwellings improvements' \(53.5 Kb Excel sheet\)](#) Gross fixed capital formation estimates for private sector new dwellings and private sector new dwellings and private sector improvements to dwellings; current price, chained volume measure, seasonally adjusted. Q1 1997 to Q1 2015. Consistent with Business Investment Q1 2015 Provisional Results.

[Gross fixed capital formation assets new dwellings \(excluding land\) and transfer costs of non-produced assets for households and non-profit institutions serving households sectors \(53.5 Kb Excel sheet\)](#) Gross fixed capital formation data for new dwellings (excluding land) and costs associated with the transfer of non-produced assets for the households and non-profit institutions serving households sector. The series is in current price, not seasonally adjusted terms. Q1 1997 to Q4 2014. Consistent with Business Investment - Q4 2014 Revised Results.

[Capital expenditure \(Capex\) investment made by energy industries \(35 Kb Excel sheet\)](#) Total net (acquisitions less disposals) investment by industry for energy industries in current price, not seasonally adjusted terms. Quarterly from Q1 2006 to Q4 2014. Consistent with Business Investment Q4 2014 Revised Results.

[Quarterly capital expenditure estimates, by industry sector and sizeband \(139.5 Kb Excel sheet\)](#) Quarterly estimates from the Quarterly Survey of Capital Expenditure, net expenditure, current prices, not seasonally adjusted. Q1 2011 to Q4 2014. Consistent with Business Investment Q4 2014 Revised Results.

[Net investment by industry sector and asset from the quarterly survey of capital expenditure \(130 Kb Excel sheet\)](#) Quarterly estimates from the Quarterly Survey of Capital Expenditure, bench marked to the Annual Business Survey results for net investment by asset and industry sector. Current prices, not seasonally adjusted. Q1 1997 to Q4 2014. Consistent with Business Investment Q4 2014 Revised Results.

[Quarterly capital expenditure: acquisitions and disposals by industry and major asset type \(1.49 Mb Excel sheet\)](#) A time series of estimates from the Quarterly Survey of Capital Expenditure, broken down by industry, asset and acquisitions/disposals; current price not seasonally adjusted.

[Quarterly Survey of Capital Expenditure – proportion of businesses in the survey sample which were foreign subsidiaries, 2011-2015 \(30.5 Kb Excel sheet\)](#) The percentage of businesses in the Quarterly Survey of Capital Expenditure (Capex) which are foreign subsidiaries, 2011 to 2015.

Notes for where to find more of our data

1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)

8. Background notes

1. Understanding the data

Short guide to business investment

GFCF is used in the compilation of the UK National Accounts' expenditure measure of the Second Estimate of Gross Domestic Product ([GDP](#)) at month 2 and the Quarterly National Accounts (QNA) at each calendar quarter. It is an estimate of net capital expenditure by both the public and private sectors. Examples of capital expenditure include spending on machinery and plant, transport equipment, software, new dwellings and other buildings, and major improvements to existing buildings, and structures such as roads. The additional assets research and development and military weapons systems were introduced in the Q2 2014 Revised Results release, published September 2014, consistent with the European System of Accounts 2010, and with the UK Annual National Accounts (Blue Book) 2014.

Business investment estimates are a short-term indicator of net capital expenditure by businesses within the UK, at current prices and chained volume measures both seasonally and not seasonally adjusted (the definitions and explanations section has more information). Business investment is 1 component of GFCF. Business investment estimates exclude expenditure on dwellings and the costs associated with the transfer of ownership of non-produced assets, and capital expenditure by local and central government.

Interpreting the data

When making comparisons it is recommended that users focus on chained volume, seasonally adjusted, estimates as these show underlying movements rather than seasonal movements, and have the effect of changes in prices removed.

Definitions and explanations

Current price (CP)

Current prices are the actual or estimated recorded monetary value over a defined period. They show the value for each item expressed in terms of the prices of that period.

Deflation and chained volume measure (CVM)

Investment is measured across several time periods. The values measured will include both the change in the volume of investment and the effect of the change of prices over the period. Deflation is the process whereby the effect of price change is removed from a set of values.

Deflation can be done simply by dividing a current price estimate by a deflator, which measures the movement in prices. Doing this creates a constant price series. For deflators to accurately measure the movement in prices they need to accurately reflect changing investment habits. We do this by rebasing deflators.

Rebasing deflators has a significant effect on a constant price series and would cause significant revisions to the investment data. To avoid this it has been the standard to not rebase deflators annually. This, however, means the deflators are not accurately measuring price changes.

To resolve this we estimate volumes using chained volume measures, which are derived by linking together (compounding) movements in volumes; calculated using the prices of the previous financial year; and applying the movements to the current price estimates of the reference year. This allows us to remove both the effect of prices and rebasing.

Seasonally adjusted (SA)

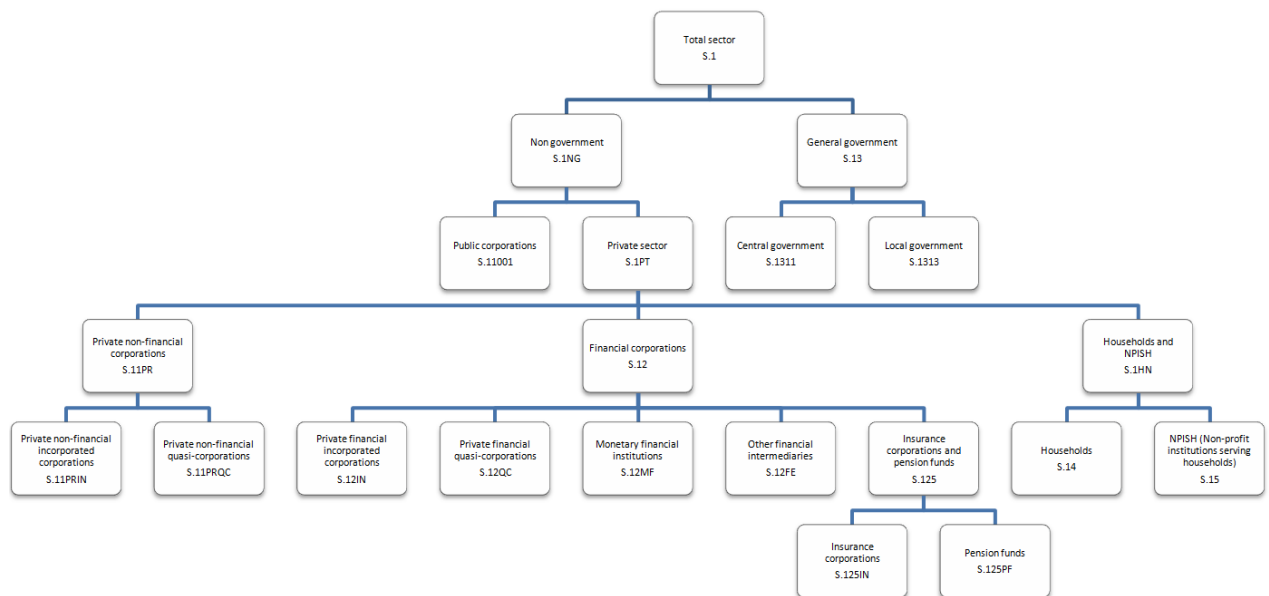
Seasonal adjustment aids interpretation by removing effects associated with the time of the year or the arrangement of the calendar, which could obscure movements of interest.

Asset and sector hierarchies

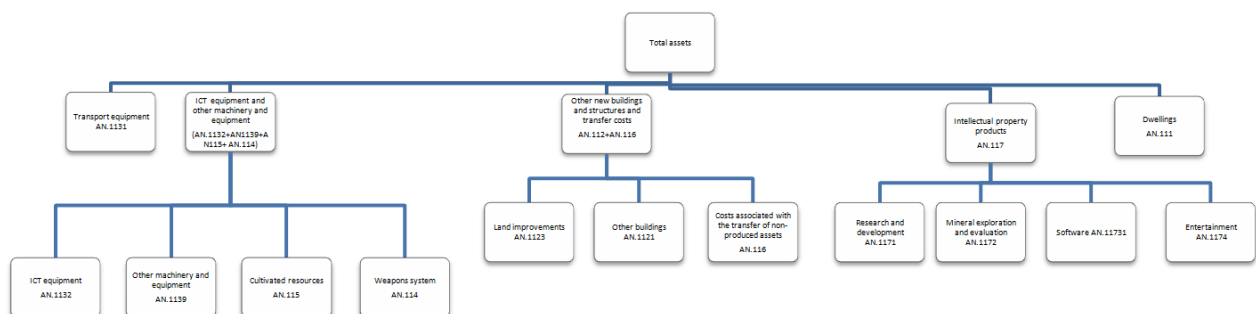
The diagrams show the institutional and sector hierarchies for GFCF, as set out by the European System of Accounts 2010. The asset hierarchy for business investment is also set out. Business investment is not an internationally defined concept, and the UK's estimates cannot be compared with those of other countries due to definitional differences.

Institutional sector hierarchy

Business investment is solely non-government, S.1NG

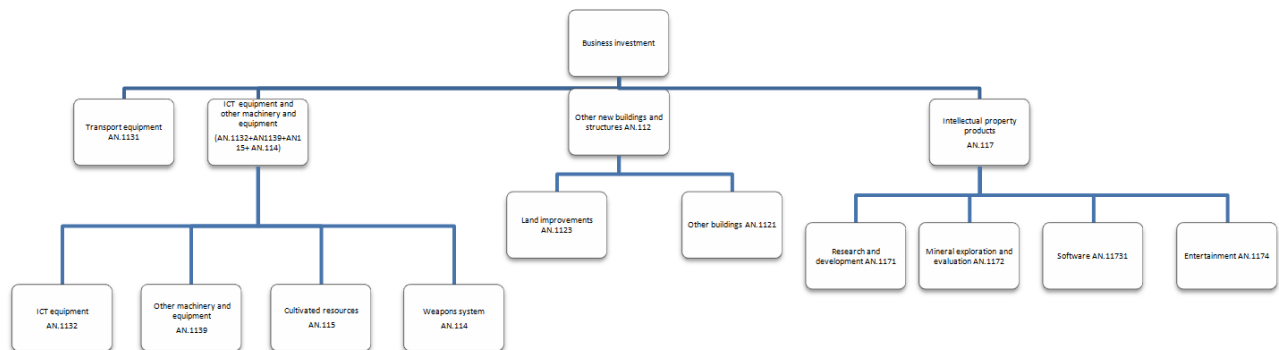


Gross fixed capital formation asset hierarchy



Business investment by asset

Business investment is not an international definition, and international comparisons are not possible



Use of the data

Estimates from this release are used by ONS in the [compilation of the UK National Accounts](#), and by the Bank of England and Her Majesty's Treasury to monitor economic performance and inform monetary and fiscal policy decisions. Business investment is also used by other government departments, such as the Department for Business, Innovation and Skills. In addition, these estimates are frequently used by the business, education and research communities, the media and the general public.

2. Methods

Details of the business investment methodology are published in the [Quality and Methodology Information \(128.9 Kb Pdf\)](#). This report describes the intended uses of the estimates presented in this publication, their general quality and the methods used to produce them.

Composition of the data

Estimates of GFCF and business investment are produced twice each quarter: an early provisional estimate in month 2 and revised estimates in month 3. The largest component of the estimates is collected via the Quarterly Acquisitions and Disposals of Capital Assets Survey (QCAS). This survey collects data on the acquisition and disposal of capital assets from the manufacturing, other production, construction, distribution and other services sectors. Other main sources for GFCF include data returned by local and central government and public corporations, data on construction, data on new dwellings and improvements to dwellings, and artistic originals. GFCF by local and central government, investment in new dwellings and the costs associated with the transfer of non-produced assets (primarily costs associated with the transfer of land and existing buildings) are excluded from the business investment estimates, but included in total GFCF. The acquisition and disposal of land and existing buildings, including dwellings, is excluded from both the business investment and GFCF estimates.

More information about the Quarterly Survey of Capital Expenditure can be found in the [‘Summary Quality Report for Quarterly Capital Expenditure Inquiry’ \(287.8 Kb Pdf\)](#).

3. Further information on methodology

Further information about the UK National Accounts and the programme of continuous improvement can be found at:

[National Accounts methodology and articles](#)

[Continuous Improvement of Gross Domestic Product: Sources, Methods and Communication](#)

British Nuclear Fuels Ltd (BNFL)

In April 2005 nuclear reactors were transferred from British Nuclear Fuels Ltd (BNFL) to the Nuclear Decommissioning Authority (NDA). BNFL is classified as a public corporation in National Accounts and the NDA as a central government body. The capital formation estimates in this release reflect this transfer from the public corporations manufacturing category. The value of the transfer was negative £15.6 billion. The negative value reflects the fact that the reactors are at the end of their productive lives and have large decommissioning and clean-up liabilities. This shows up as a prominent trough in Q2 2005 in the general government series, and a complementary peak in Q2 2005 of the business investment series, which includes investment by public corporations (except dwellings and transfer costs). A more detailed explanation about the transfer can be found in the [December 2006 Business Investment release \(414.3 Kb Pdf\)](#).

Aircraft imports

On 1 January 2011 a change was made to the zero-rating of VAT on qualifying aircraft. More information on this can be found on the [HMRC website](#). This may have contributed to the high level of aircraft imports for Q4 2010 and the low level of aircraft imports for Q1 2011.

4. Other relevant sources of data

International business investment comparisons are not available on a like-for-like basis, as the compilation of European statistics on business investment differs from the data provided within this release. However European estimates of business investment provided by Eurostat, the European statistical office can be found on the [Eurostat website](#).

Business investment in the United Kingdom accounts for over half of total gross fixed capital formation (GFCF).

The [GSS Business Statistics – interactive user guide](#) is an interactive tool to help you find what business and economic statistics are available, and choose the right data for your needs. ONS publishes the following statistical releases, which provide complementary information on UK business and economic performance:

- [Profitability of UK Companies](#) - quarterly data on capital employed by Private Non-Financial Corporation's (PNFCs). Contains annual, net and gross rates of return (expressed as percentages) on capital used by PNFCs
- [Quarterly National Accounts](#) - includes UK data on GFCF and changes in inventories
- [UK Economic Accounts](#) - quarterly detailed estimates of national product, income and expenditure, UK sector accounts and UK balance of payments, including data on GFCF
- [UK National Accounts - the Blue Book](#) - annual publication of the UK National Accounts, including data on GFCF
- [Retail Sales](#) - monthly estimate of UK retail sales
- [UK Manufacturers' Sales by Product \(PRODCOM\)](#) - annual output by manufacturers
- [Labour Market Statistics](#) - monthly data on employment, unemployment, economic inactivity, claimant count, average earnings, labour productivity, vacancies and labour disputes
- [Business Demography](#) – annual statistics on UK business births, deaths and survival

5. Feedback

ONS welcomes your feedback on the business investment release and data. Further enquiries about business investment can be addressed to the business investment team at gcf@ons.gsi.gov.uk, or, to engage in discussion about business investment, and to share information with other users or producers of financial and economic statistics, visit the Financial and Economic Statistics User Group on the Royal Statistical Society's [StatsUserNet](#) discussion forum.

6. Publication policy

Details of the policy governing the release of new data are available from the [Statistics Authority](#) or from the Media Relations Office email: media.relations@ons.gsi.gov.uk. A [list of the names \(40.3 Kb Pdf\)](#) of those given pre-publication access to the contents of this bulletin is also available.

7. Accessing data

The business investment statistical bulletin conforms to the standards set out in the UK Statistics Authority Code of Practice.

Time series used in this bulletin and time series datasets carry unique identifiers for ease of use. More information on these identifiers is available in the article published on 25 August 2011, '[New series identifiers for GDP\(O\), IoS and IoP and GCF' \(35.4 Kb Pdf\)](#).

8. Code of Practice for Official Statistics:

National Statistics are produced to high professional standards set out in the [Code of Practice for Official Statistics](#). They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference. © Crown copyright 2015.

9. Next publication:

Friday 28 August 2015.

Issued by:

Office for National Statistics
Government Buildings
Cardiff Road
Newport
NP10 8XG

Media contact:

Media Relations Office +44 (0) 845 6041858 Emergency on-call +44 (0)7867 906553 Email press.office@ons.gsi.gov.uk

Contact us:

Tel +44 (0)845 601 3034 Email info@ons.gsi.gov.uk [Website](#) [Twitter](#)

10. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk