

Statistical bulletin

Business investment in the UK: Oct to Dec 2016 provisional results

Investment trends by businesses, contains capital expenditure estimates at current prices, constant prices and seasonally adjusted.



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Next release:
31 March 2017

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1 . Main points

- Gross fixed capital formation (GFCF), in volume terms, was unchanged at £78.0 billion, in Quarter 4 (Oct to Dec) 2016, when compared with Quarter 3 (July to Sept) 2016.
- Between Quarter 3 2016 and Quarter 4 2016, business investment, in volume terms, was estimated to have decreased by 1.0%, from £44.0 billion to £43.5 billion.
- Between Quarter 4 2015 and Quarter 4 2016, GFCF was estimated to have increased by 0.9%, from £77.3 billion to £78.0 billion.
- Business investment was estimated to have decreased by 0.9% between Quarter 4 2015 and Quarter 4 2016, from £43.9 billion to £43.5 billion.
- Between 2015 and 2016, GFCF was estimated to have increased by 0.5%, an increase of £1.4 billion.
- Business investment was estimated to have decreased by 1.5% between 2015 and 2016, a decrease of £2.7 billion.
- In line with the National Accounts Revisions Policy, the earliest period being revised in this release is Quarter 1 (Jan to Mar) 2016.

2 . Future changes

Purchased software

Following a quality review it has been identified that the methodology used to estimate elements of purchased software within gross fixed capital formation (GFCF) has led to some double-counting from 1997 onwards. When this issue is amended in the Blue Book 2017 it will reduce the level of GFCF across the period by around 1.1% per year. The average impact on quarter-on-quarter GFCF growth is negative 0.02% and the average impact on quarter-on-quarter GDP growth is 0.00%.

Blue Book 2017

We have recently published an article, [annual improvements to gross fixed capital formation source data for Blue Book 2017](#). This article was published on 16 February 2017 describing the changes that will be introduced in the September business investment release consistent with Blue Book 2017. The changes include updates to source data and methodology improvements.

3 . What's changed in this release

This is the first release using the improved gross fixed capital formation (GFCF) estimation system, redeveloped in line with the 5-year strategy for the [UK National Accounts, 2015 to 2020](#) published in July 2015 and recommendations from the Bean Review. This has resulted in some methodological changes to the new GFCF system, including improved deflation and seasonal adjustment methodology.

Further information on the methods changes introduced in the new GFCF estimation system can be found in an article: [Changes to the Gross Fixed Capital Formation methodology and processing](#).

A data impact assessment of the new GFCF system for the periods Quarter 1 (Jan to Mar) 2016 to Quarter 3 (July to Sept) 2016 can be found in an accompanying article: [gross fixed capital formation \(GFCF\) new system deployment and data impact assessment](#).

4 . Things you need to know 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. These include investments in:

- transport
- information and communication technology (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)
- 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. Business investment is not an internationally recognised concept and therefore it should not be used to make international comparisons.

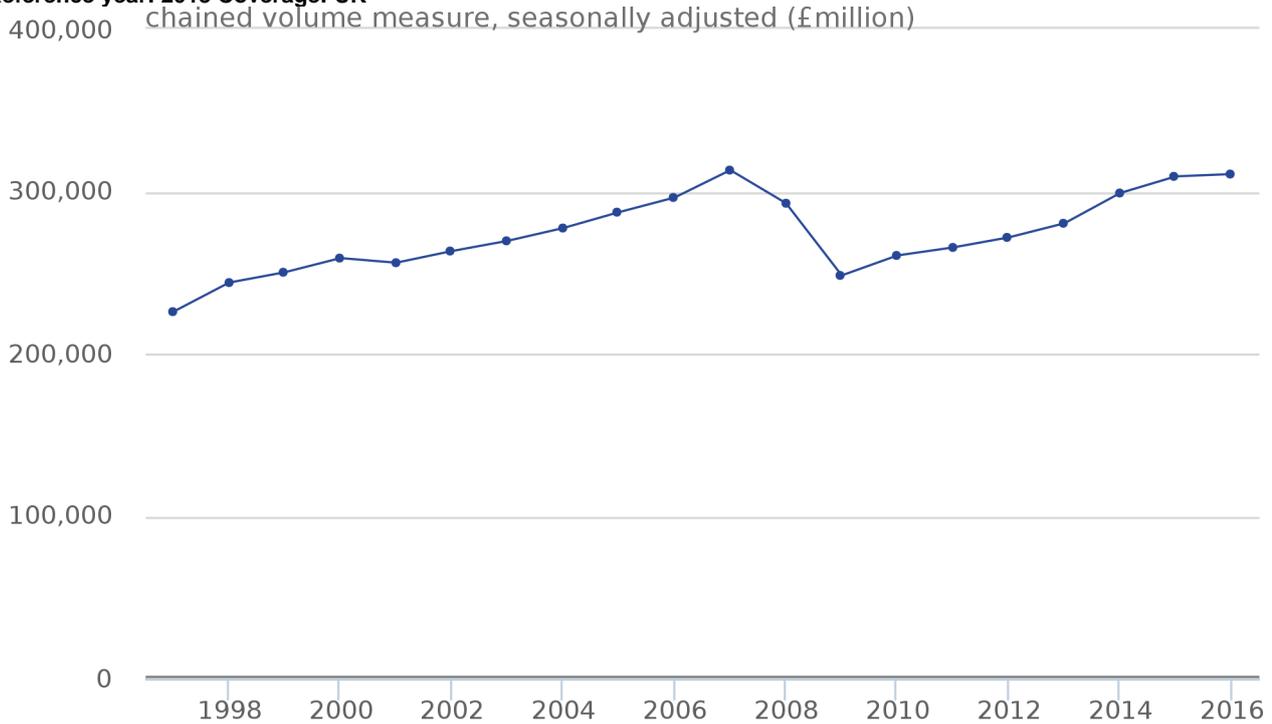
All investment data referred to in this bulletin are estimates of seasonally adjusted chained volume measures.

5 . Gross fixed capital formation and business investment

Figure 1 shows that the annual level of gross fixed capital formation (GFCF) increased in 2016 to £310.6 billion (0.5%) compared with 2015. This is the smallest increase since 2009 when GFCF fell by 15.2%.

Figure 1: Annual levels of gross fixed capital formation, chained volume measure, 1997 to 2016

Reference year: 2013 Coverage: UK



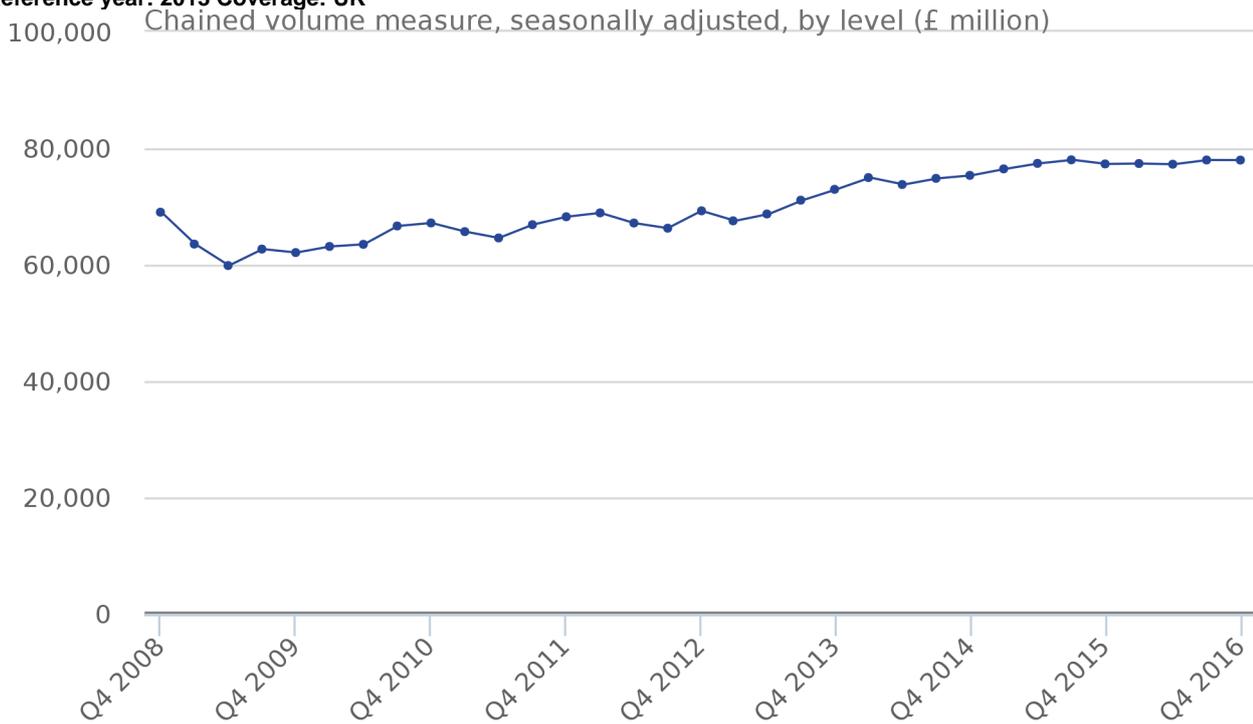
Source: Office for National Statistics

Figure 2 shows that in Quarter 4 (Oct to Dec) 2016, GFCF remained at £78.0 billion when compared with Quarter 3 (July to Sept) 2016. Compared with the same quarter a year ago, GFCF increased by £0.7 billion (0.9%) higher than Quarter 4 2015. The increase has been driven by an increase in general government and private sector dwellings, which contributed 0.7 percentage points each to growth.

GFCF is now 1.9% above the pre-economic downturn peak of Quarter 1 (Jan to Mar) 2008 (£76.5 billion).

Figure 2: Quarterly levels of gross fixed capital formation, chained volume measure, seasonally adjusted, Quarter 4 (Oct to Dec) 2008 to Quarter 4 (Oct to Dec) 2016

Reference year: 2013 Coverage: UK



Source: Office for National Statistics

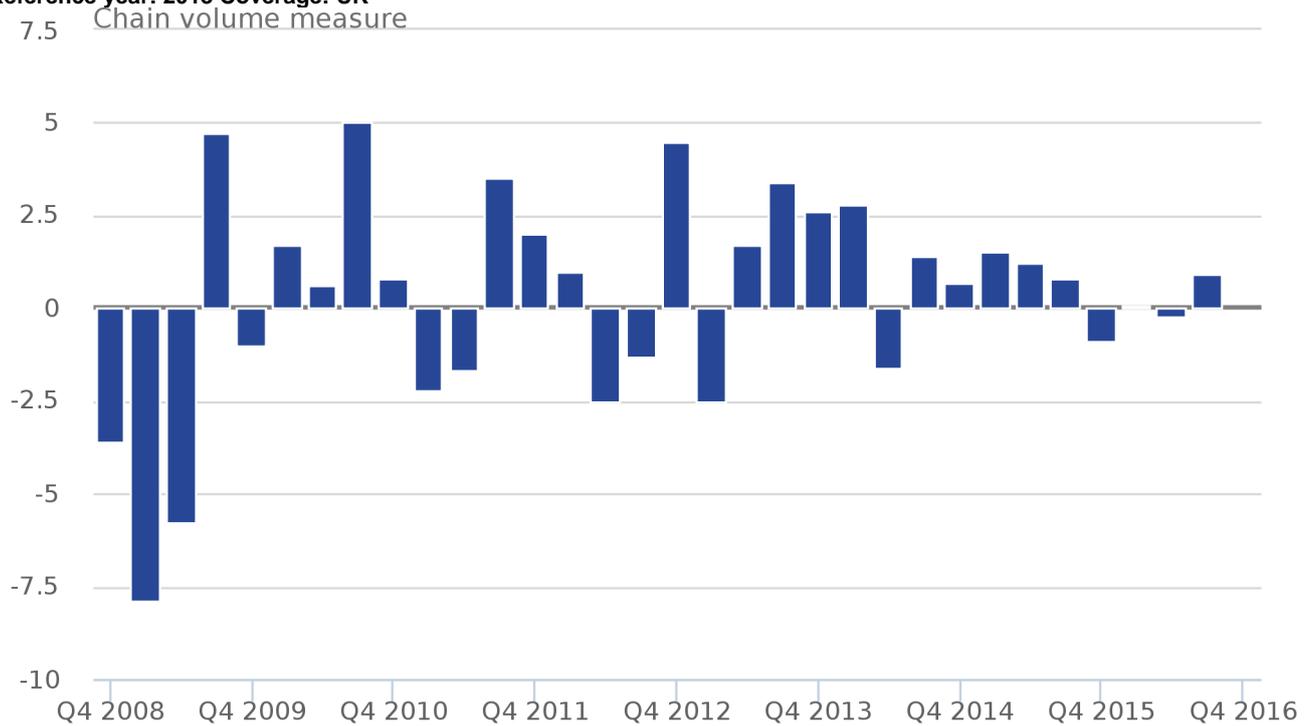
Notes:

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)
2. The data in this chart covers Quarter 4 (Oct to Dec) 2008 to Quarter 4 2016

As seen in Figure 3, quarterly growth in GFCF in 2016 has been subdued, with 0.0% growth in Quarter 4 2016. This follows an increase of 0.1% in Quarter 1 2016, a fall of 0.2% in Quarter 2 2016 and an increase of 0.3% in Quarter 3 2016.

Figure 3: Quarterly growth of gross fixed capital formation, chained volume measure, seasonally adjusted, Quarter 4 (Oct to Dec) 2008 to Quarter 4 (Oct to Dec) 2016

Reference year: 2013 Coverage: UK



Source: Office for National Statistics

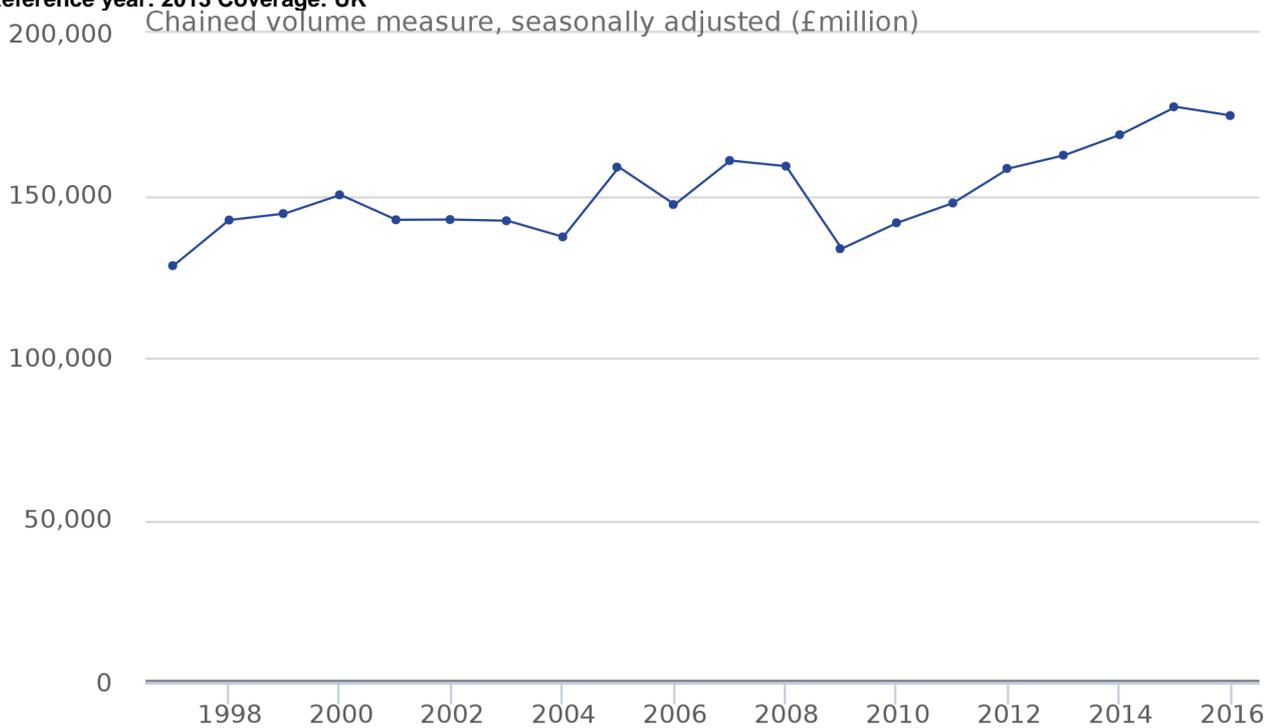
Notes:

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)
2. The data in this chart covers Quarter 4 2008 to Quarter 4 2016

The annual level of business investment (Figure 4) decreased by 1.5% to £174.5 billion in 2016, when compared with 2015. This is the first annual decrease in business investment since 2009. This decrease is mainly caused by weakness in investment in other buildings and structures and information and communication technology (ICT) equipment and other machinery and equipment.

Figure 4: Annual levels of business investment, chained volume measure, 1997 to 2016

Reference year: 2013 Coverage: UK



Source: Office for National Statistics

Notes:

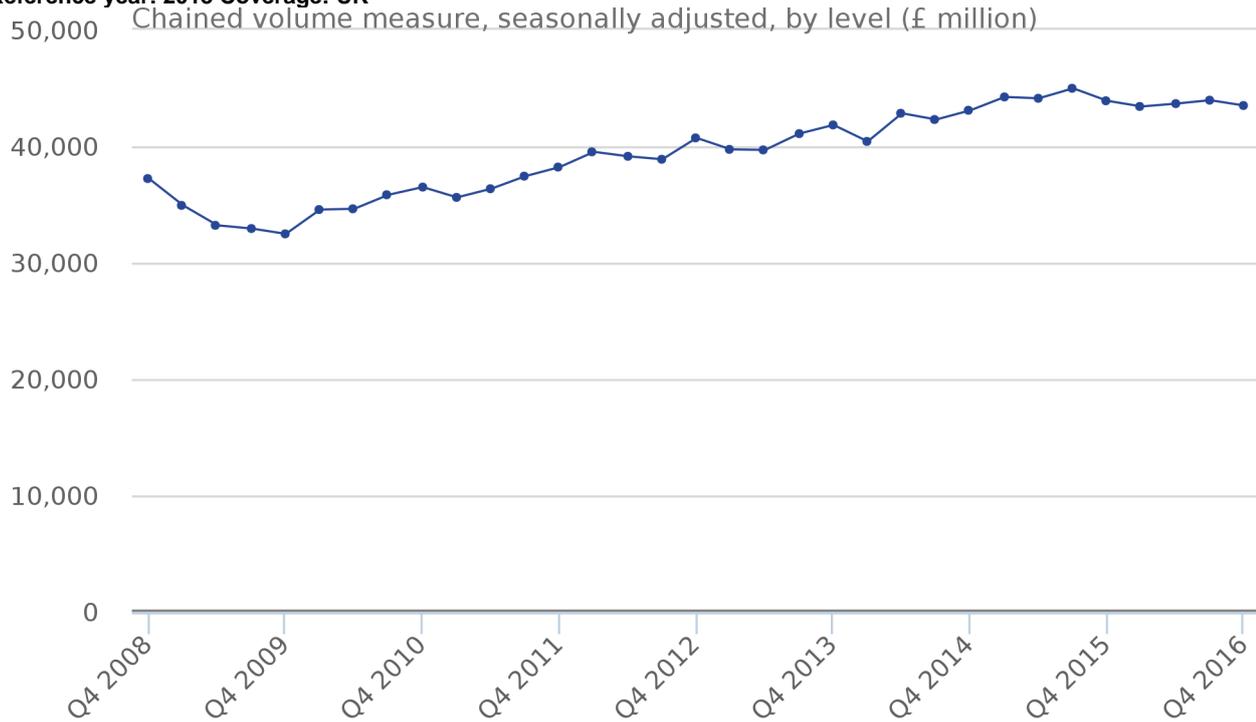
1. Q1 = Quarter 1 (January to March), Q2 = Quarter 2 (April to June), Q3 = Quarter 3 (July to September), Q4 = Quarter 4 (October to December)
2. The data in this chart covers 1997 to 2016

Business investment in Quarter 4 2016 decreased by 1.0% (Figure 5) to £43.5 billion, when compared with the previous quarter. This was mainly due to a decrease in investment in information and communication technology (ICT) equipment and other machinery and equipment and transport equipment. Business investment is now 6.3% above the pre-economic downturn peak of Quarter 1 2008 (£40.9 billion).

Business investment in Quarter 4 2016 decreased by 0.9% (£0.4 billion) when compared with the same quarter a year ago. This marks 4 consecutive periods of negative growth in business investment when compared with the same quarter a year earlier.

Figure 5: Quarterly levels of business investment, chained volume measure, seasonally adjusted, Quarter 4 (Oct to Dec) 2008 to Quarter 4 (Oct to Dec) 2016

Reference year: 2013 Coverage: UK



Source: Office for National Statistics

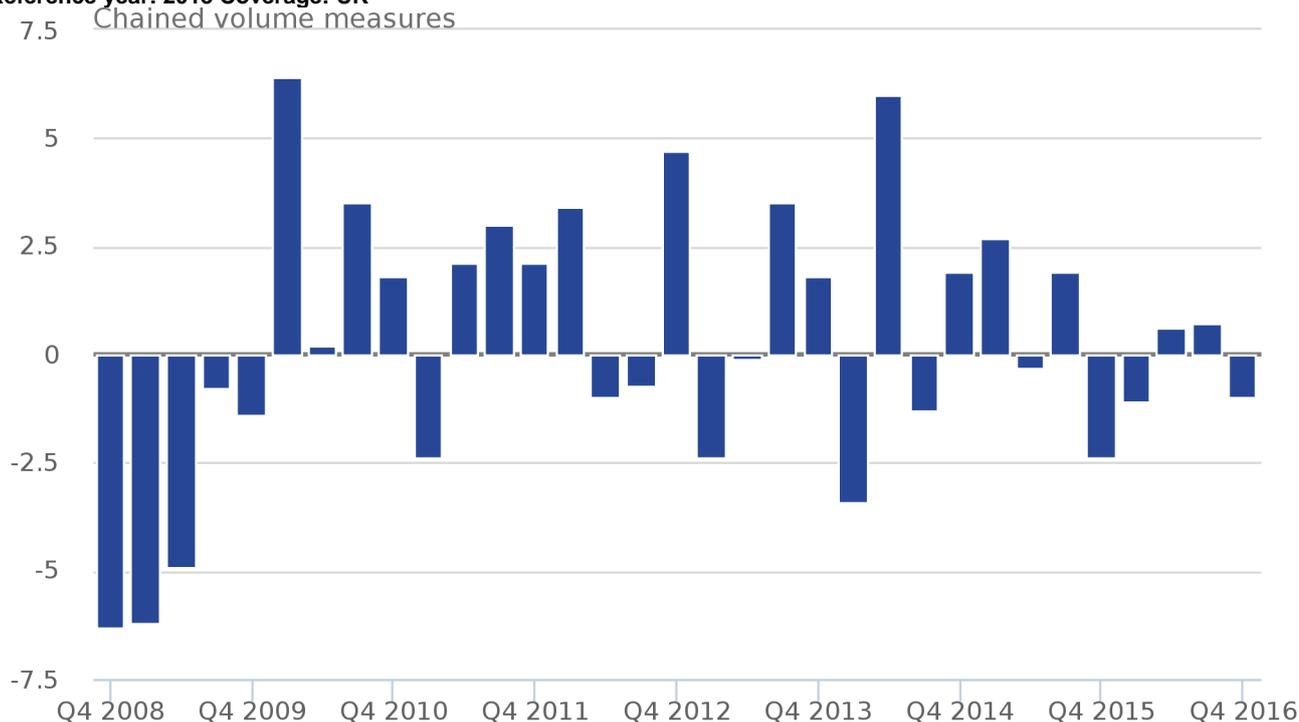
Notes:

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)
2. The data in this chart covers Quarter 4 2008 to Quarter 4 2016

As can be seen in Figure 6, business investment in 2016 has seen 2 consecutive quarters of positive growth in Quarter 2 (Apr to June) 2016 (0.6%) and Quarter 3 (July to Sept) 2016 (0.7%) and 2 quarters of more negative growth in Quarter 1 (Jan to Mar) 2016 (1.1%) and Quarter 4 (Oct to Dec) 2016 (1.0%).

Figure 6: Quarterly growth of business investment, chained volume measure, seasonally adjusted, Quarter 4 (Oct to Dec) 2008 to Quarter 4 (Oct to Dec) 2016

Reference year: 2013 Coverage: UK



Source: 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)
2. The data in this chart covers Quarter 4 2008 to Quarter 4 2016

6 . Summary tables

Table 1 shows that gross fixed capital formation (GFCF) remained at £78.0 billion in Quarter 4 (Oct to Dec) 2016 when compared with Quarter 3 (July to Sept) 2016. The largest level increase was seen in private sector dwellings, which rose by £0.3 billion (1.8%) to £16.1 billion. Increases were also seen in public corporation dwellings, which increased by £0.1 billion (15.2%) and private sector cost of ownership transfer of non-produced assets, which increased by £0.1 billion (2.2%). The largest decrease came from business investment, which fell by £0.5 billion (1.0%) when compared with Quarter 3 2016.

When compared with the same quarter a year earlier, the largest level increases in Quarter 4 2016 were seen in private sector dwellings, which increased by £0.5 billion (3.3%) and general government, which increased by £0.5 billion (4.4%). The largest decrease came from business investment, which fell by £0.4 billion (0.9%).

Table 1: Total gross fixed capital formation in the UK by institutional sector, Quarter 4 (Oct to Dec) 2016

	% change	% change	£ million	£ million	£ million
	Most recent quarter on previous quarter	Most recent quarter on same quarter a year earlier	Most recent level **	Level change from previous quarter	Level change on same quarter a year earlier
Gross fixed capital formation	0.0	0.9	77,961	-16	661
Business investment	-1.0	-0.9	43,496	-460	-407
General government	-0.7	4.4	12,189	-90	519
Public corporations dwellings	15.2	0.7	1,043	138	7
Public corporations cost of ownership transfer on non-produced assets	8.3	3.0	-169	-13	-5
Private sector dwellings	1.8	3.3	16,082	292	520
Private sector cost of ownership transfer on non-produced assets	2.2	0.5	5,320	117	27

Source: Office for National Statistics

Notes:

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

Table 2 shows that in asset terms, the largest level increase, quarter-on-quarter, in Quarter 4 2016 was in dwellings, which increased by £0.5 billion (2.7%) to £17.2 billion. Other buildings and structures and transfer costs also saw a level increase of £0.2 billion (0.9%). The largest decrease quarter-on-quarter was seen in information and communication technology (ICT) equipment and other machinery and equipment, which decreased by £0.4 billion (2.6%).

When compared with the same quarter a year earlier, transport equipment saw the largest level increase of £0.7 billion (17.6%). Dwellings also increased quarter on same quarter a year ago, having grown by £0.6 billion (3.4%).

These increases were partially offset by a decrease in information and communication technology (ICT) equipment and other machinery and equipment, which decreased by 2.4% (£0.4 billion). Other buildings and structures and transfer costs also decreased by 1.7% (£0.4 billion).

Table 2: Total gross fixed capital formation in the UK by asset, Quarter 4 (Oct to Dec) 2016

	% change	% change	£ million	£ million	£ million
	Most recent quarter on previous quarter	Most recent quarter on same quarter a year earlier	Most recent level **	Level change from previous quarter	Level change on same quarter a year earlier
Gross fixed capital formation	0.0	0.9	77,961	-16	661
Transport equipment	-3.7	17.6	4,767	-183	713
ICT equipment and other machinery and equipment	-2.6	-2.4	14,427	-392	-361
Dwellings	2.7	3.4	17,209	459	561
Other buildings and structures and transfer costs	0.9	-1.7	24,702	218	-415
Intellectual property products	-0.7	1.0	16,856	-118	163

Source: Office for National Statistics

Notes:

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

7 . Revisions to gross fixed capital formation (GFCF) and business investment

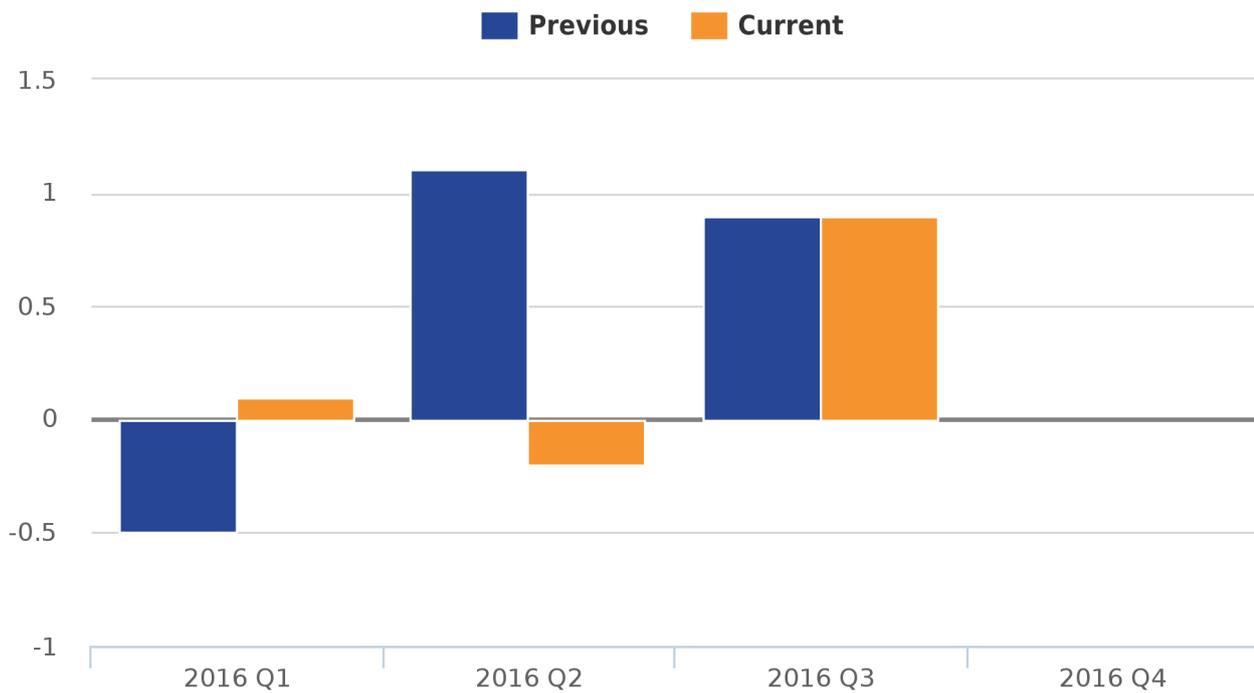
Data in this release have been revised from Quarter 1 (Jan to Mar) 2016 to Quarter 3 (July to Sept) 2016 in line with the National Accounts Revisions Policy.

As highlighted in section 3, this is the first release using the new GFCF estimation system, redeveloped in line with the 5-year strategy for the [UK National Accounts, 2015 to 2020](#) published in July 2015 and recommendations from the Bean Review. This has resulted in some methodological changes to the new GFCF system, including improved deflation and seasonal adjustment methodology. A data impact assessment of the new GFCF system can be found in an accompanying article: [gross fixed capital formation \(GFCF\) new system deployment and data impact assessment](#).

Other reasons for revisions in this release are updated source data and revised seasonal adjustment. Figure 7 shows current GFCF quarterly growth throughout 2016 compared with that published in the Quarter 3 (July to Sept) 2016 revised release.

Figure 7: Quarterly gross fixed capital formation (GFCF) growth compared with previously published GFCF growth, chained volume measure, seasonally adjusted, Quarter 1 (Jan to Mar) 2016 to Quarter 4 (Oct to Dec) 2016

Reference year: 2013 Coverage: UK



Source: Office for National Statistics

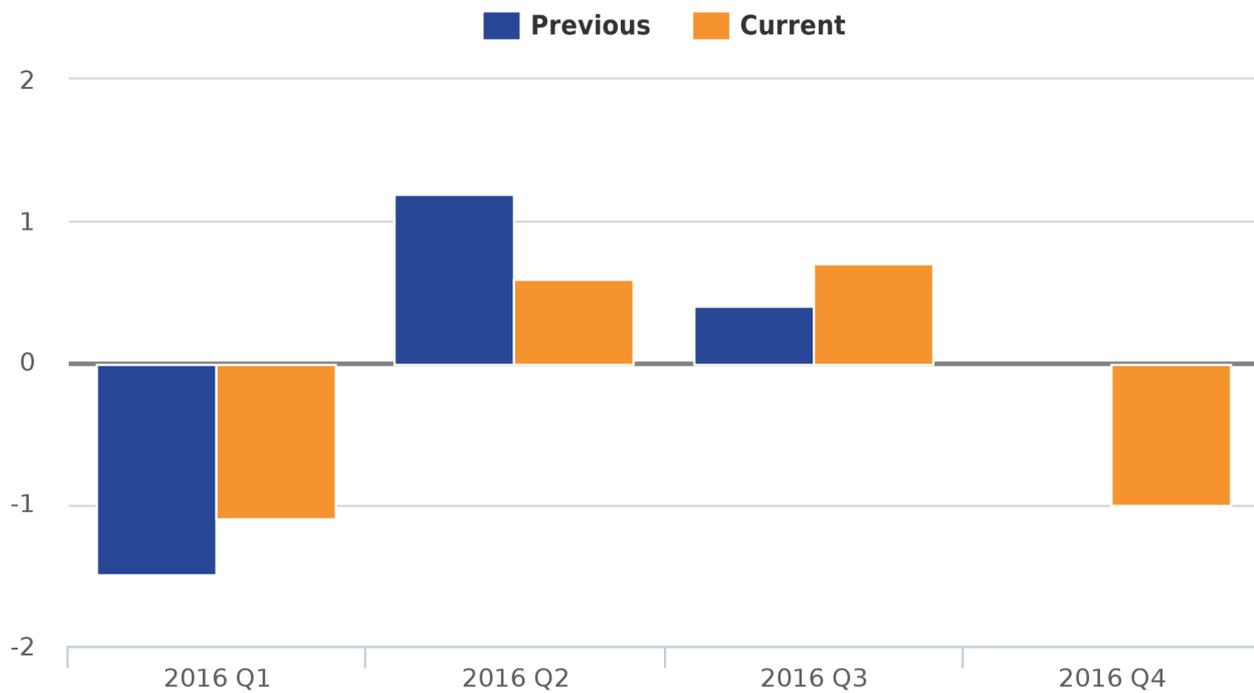
Notes:

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)
2. The data in this chart covers Quarter 4 2008 to Quarter 4 2016

Business investment revisions are shown in Figure 8. The largest revision is in Quarter 2 2016, which has been revised down from 1.2% to 0.6%. This downward revision is mainly due to decreases seen in Quarter 2 2016 in transport equipment and other buildings and structures.

Figure 8: Quarterly business investment growth compared with previously published business investment growth, chained volume measure, seasonally adjusted, Quarter 1 (Jan to Mar) 2016 to Quarter 4 (Oct to Dec) 2016

Reference year: 2013 Coverage: UK



Source: 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)
2. The data in this chart covers Quarter 4 2008 to Quarter 4 2016

8 . Economic background

Gross fixed capital formation (GFCF) is provisionally estimated to have grown by 0.9% between Quarter 4 (Oct to Dec) 2015 and Quarter 4 2016, following a broadly unchanged year from Quarter 3 (July to Sept) 2015 to Quarter 3 2016. For the calendar year of 2016, GFCF was estimated to have grown by 0.5%, the lowest rate of growth for a calendar year since 2009. Total GFCF growth has been consistently slowing since 2014. Quarter on same quarter a year ago growth averaged 6.8% in 2014; fell to 3.5% in 2015 then fell further to 0.5% for 2016. Quarter-on-quarter growth for GFCF remained broadly unchanged also, with no change being seen from Quarter 3 2016 to Quarter 4 2016.

On a sector basis, the increase in GFCF quarter on same quarter a year ago was mainly driven by general government and investment in private sector dwellings; each contributed 0.7 percentage points to overall growth. This was partially offset by a fall in business investment in the same period, which contributed negative 0.5 percentage points. Business investment is estimated to have fallen by 1.0% between Quarter 3 2016 and Quarter 4 2016. An important factor to consider when looking at business investment is the availability or supply of credit. In the most recent [Bank of England Credit Conditions Review](#), the supply of lending to firms was found to have remained above normal levels. However, survey data suggested that corporate demand for credit continued to soften, mirroring a trend seen in Quarter 3 2016.

On an asset basis, the quarter on same quarter a year ago increase in GFCF was mainly driven by transport equipment and dwellings, which contributed 0.9 and 0.7 percentage points to growth respectively. Other buildings, structures and transfer costs contributed negative 0.5 percentage points to growth, as did ICT equipment and other machinery and equipment.

Quarter 4 2016 marks 2 full quarters since the UK voted to leave the European Union. The Bank of England has upgraded its forecasts for business investment and gross domestic product (GDP) in light of stronger than expected economic performance since the result. The Monetary Policy Committee (MPC) cites one of the main reasons for this as the increased confidence in the global economy in the immediate future (particularly in the United States). However, the MPC does predict business investment to be lower in 3 years time than the projected level prior to the referendum.

Developments in the housing market can also be an important indicator of investment and wider activity in the economy. The construction sector grew by 0.2% in Quarter 4 2016 when compared with Quarter 3 2016, contributing to annual growth of 1.5% in 2016 ([Construction output in Great Britain: Dec 2016 and Oct to Dec 2016](#)). This is mainly driven by an increase in new housing work. Average [house prices](#) in the UK have increased by 7.2% in the year to December 2016, continuing the strong growth seen since the end of 2013. However, annual growth has been weaker in the second half of 2016 compared with the first half of the year.

9 . Where to find more of our data

We also publish [additional analyses](#) of GFCF, business investment and the Quarterly Acquisitions and Disposals of Capital Assets Survey, which have been created in response to user requests. For enquiries about user-requested data email gcf@ons.gsi.gov.uk.

10 . Adjustments and response rates

Adjustments

Large capital expenditure tends to be reported later in the data collection period than smaller capital 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 Quarter 3 (July to Sept) 2013, in the revised estimate a bias adjustment was introduced to GFCF and its components.

A bias adjustment of £0.8 billion has been included in the provisional (month 2) release for Quarter 4 (Oct to Dec) 2016. This adjustment will be reassessed in line with previous revisions and will be updated when Quarter 4 2016 is next revised in the Quarter 4 2016 revised release.

In order to try and improve the quality of the response from our data suppliers, clearer instructions were added to the Quarterly Survey of Capital Expenditure. These updates are outlined in the provisional Quarter 1 (Jan to Mar) 2015 Business investment release. Feedback from some respondents indicated that they had been misreporting their asset breakdown and were correcting this on the new questionnaire. We found that some respondents were reporting new construction work as other capital equipment (OCE). From Quarter 1 2015, respondents to the survey are now reporting more in new construction work at the expense of other capital equipment. To remain consistent with the previous data, we have made some adjustments to the assets in the current price series in Quarter 1 2015 to Quarter 4 2016. These adjustments are shown in Table 3.

Table 3: Adjustments made to buildings and other machinery to account for improved survey information, Quarter 1 (Jan to Mar) 2015 to Quarter 4 (Oct to Dec) 2016, UK

Period	Adjustment to buildings (£ billion)	Adjustment to machinery (£ billion)
Q1 2015	-1.5	1.5
Q2 2015	-2.1	2.1
Q3 2015	-1.9	1.9
Q4 2015	-1.9	1.9
Q1 2016	-1.9	1.9
Q2 2016	-1.9	1.9
Q3 2016	-2.1	2.1
Q4 2016	-2.2	2.2

Source: Office for National Statistics

Notes:

1. Q1 is Quarter 1 (Jan to Mar)
2. Q2 is Quarter 2 (Apr to June)
3. Q3 is Quarter 3 (July to Sept)
4. Q4 is Quarter 4 (Oct to Dec)

Survey response rates

Table 4 presents the provisional (month 2) and revised (month 3) response rates for the Quarterly Acquisitions and Disposals of Capital Assets Survey (QCAS). The estimates in this release are based on the Quarter 4 2016 month 2 (provisional) survey results.

Table 4: UK response rates for quarterly acquisitions and disposals of capital assets survey at time of publication, Quarter 4 (Oct to Dec) 2015 to Quarter 4 (Oct to Dec) 2016

At month 2 (provisional)			At month 3 (revised)		
Period	Survey response rates / %		Period	Survey response rates / %	
2015	Q4	68.6	2015	Q4	89.8
2016	Q1	69.2	2016	Q1	89.4
	Q2	71.4		Q2	89.1
	Q3	72.8		Q3	83.5
	Q4	68.5			

Source: Office for National Statistics

Notes:

1. Q1 is Quarter 1 (Jan to Mar)
2. Q2 is Quarter 2 (Apr to June)
3. Q3 is Quarter 3 (July to Sept)
4. Q4 is Quarter 4 (Oct to Dec)

11 . Quality and methodology

The [Business investment Quality and Methodology Information document](#) contains important information on:

- the strengths and limitations of the data
- the quality of the output, including the accuracy of the data and how it compares with related data
- uses and users
- how the output was created

The changes signposted in this bulletin (see Background Notes – Sections 4 and 5) have not yet been reflected in either the [Quality Survey of Capital Expenditure QMI](#) or the [Business Investment QMI](#), but changes will be incorporated into revised QMIs in the future.

12. Background notes

1. Understanding the data

Short guide to business investment

Gross fixed capital formation (GFCF) is used in the compilation of the UK National Accounts' expenditure approach to the measurement of GDP in 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 plant and machinery, 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 [Quarter 2 \(Apr to June\) 2014 revised results release](#), published November 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. Business investment is one 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 you 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.

Use of the data

Estimates from this release are used by the Office for National Statistics (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 to inform monetary and fiscal policy decisions. Business investment is also used by other government departments, such as the Department for Business, Energy and Industrial Strategy. In addition, these estimates are frequently used by the business, education and research communities, the media and the general public.

2. 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.

A full list of sector codes, for example S.11001 = public corporations, is available in the datasets.

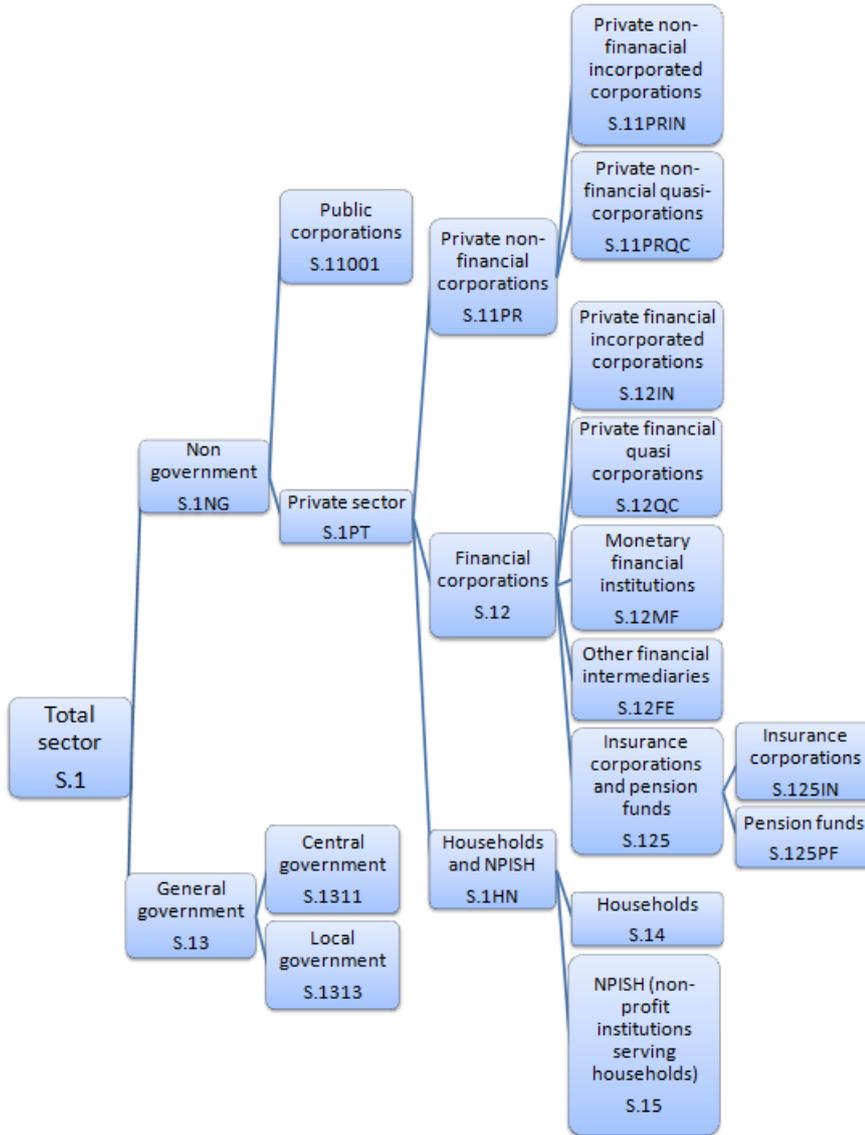
3. Guide to published assets

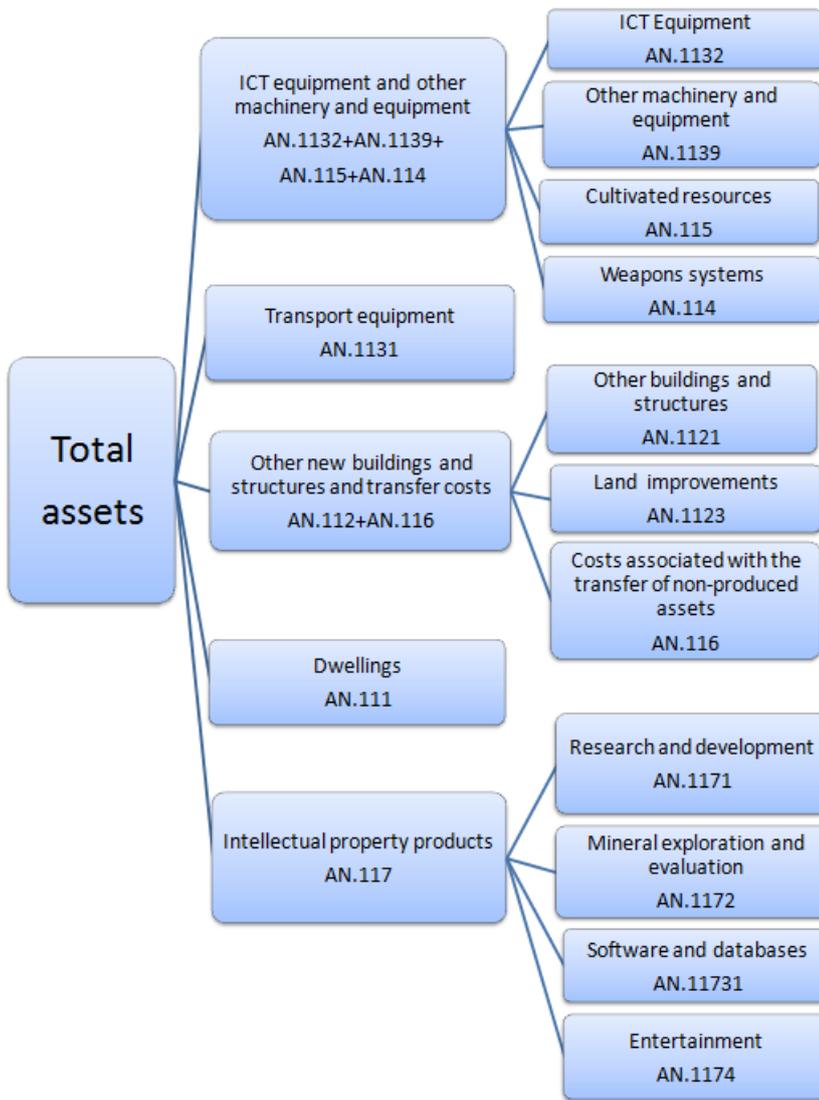
Published Asset	Includes	Definition	Examples (N.B. not exhaustive)
Dwellings	Dwellings	Dwellings are buildings, or designated parts of buildings, that are used entirely or primarily as residences, including any associated structures, such as garages, and all permanent fixtures customarily installed in residences	Houses, mobile homes and caravans. However, it should be noted that dwellings does not include prisons, boarding schools or hospitals
Transport	Transport equipment	Transport equipment consists of any equipment used to move people and objects.	Motor vehicles, trailers, ships, trains, trams, aircraft, aircraft, motorcycles, and bicycles
Intellectual property products (IPP)	Research and development	This is the value of expenditure on creative work to increase the stock of knowledge, which developers can market or use for their own benefit when producing goods and services.	Development of software programs or design for a new aircraft
	Mineral exploration	This is the value of expenditure on exploration for petroleum and natural gas and for non-petroleum deposit and the subsequent evaluation of the discoveries made.	License and acquisition costs, appraisal costs, costs of test drilling and boring
	Software and Databases	Software consists of computer programs and supporting systems for both systems and application software	Packages such as Microsoft Office and VLC Media Player
	Entertainment	This consists of the original films, recordings, manuscripts, tapes, etc on which drama performances, radio, television programmes, sporting events and etc are recorded and embodied.	Films, tapes, recordings, radio and television programmes and books
Other buildings and structures and transfer	Other buildings	Other buildings are buildings that are not dwellings, industrial buildings, commercial buildings, educational buildings and health buildings.	Schools, hospitals, prisons, religious, sport, amusement and community buildings
	Transfer costs	Transfer costs, sometimes known as cost of ownership transfer, are the costs associated with buying or selling an asset	Transportation costs, legal fees and stamp duty.
Information and communication technology equipment (ICT) and other machinery and equipment	ICT	This mainly consists of computer hardware and telecommunications equipment such as computers and mobile phones	Computers, laptops, mobile phones and gaming consoles
	Other machinery and equipment including weapons	Other machinery and equipment consists of all equipment and machinery that is for general or special use. General use machinery includes engines, turbines, ovens, etc. Special use machinery includes machinery for mining, domestic appliances, agricultural equipment, etc	Typically large electronic equipment (e.g. equipment used in the production of goods and services)
	Cultivated	Cultivated assets are livestock for breeding (including fish and poultry)	Livestock not for slaughter, orchards, vineyards, dairy draught

Source: Office for National Statistics

Institutional sector hierarchy

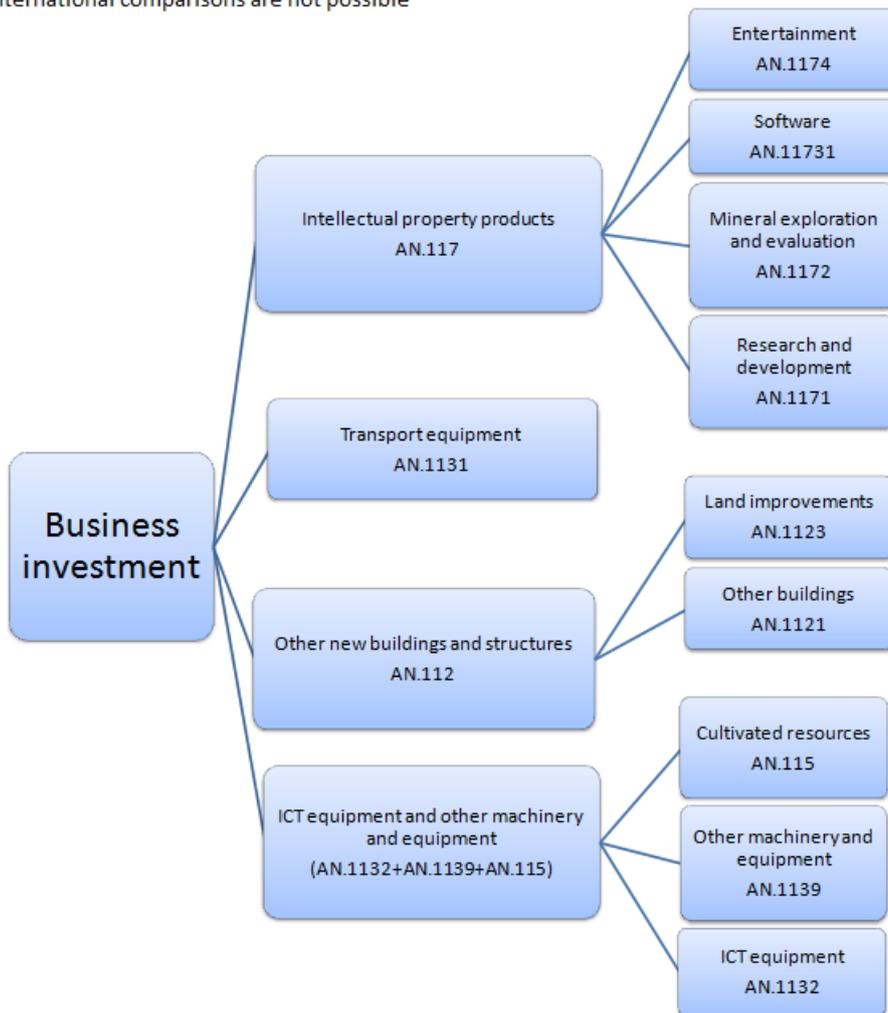
Business investment is solely non-government, S.1NG





Business investment by asset

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



4. Changes to the Quarterly Acquisitions and Disposals of Capital Assets Survey in Quarter 3 (July to Sept) 2016

Following [a consultation on changes to ONS products](#), completed in February 2016, in our response we stated that we would be reducing the sample size of the Quarterly Acquisitions and Disposals of Capital Assets Survey (QCAS) by 10%. This reduction was implemented in the Quarter 3 (July to Sept) 2016 provisional release so that the survey sample size is now 24,500, compared with 27,000 previously. The sample reduction has been managed to ensure that it does not affect the quality of our estimates. We will continue to monitor the effect of the sample reduction.

5. Changes to the Quarterly Survey of Capital Expenditure in Quarter 1 (Jan to Mar) 2015

In Quarter 1 (Jan to Mar) 2015, we moved to the Quarterly Acquisitions and Disposals of Capital Assets Survey (QCAS) from the Quarterly Survey of Capital Expenditure (CAPEX). This is outlined in the Business investment, Quarter 4 (Oct to Dec) 2014 revised results bulletin and in [Changes to the Annual Business Survey, the Quarterly Survey of Capital Expenditure and the Survey into Business Spending on Capital Items, in 2015](#) (published 22 August 2014). The main reason was to move to the updated European System of Accounts (ESA) 2010 manual which provides international guidance for national accounts.

The main changes to the survey are:

- adding new questions to improve the quality of our estimates and to meet the latest European legislation requirements (ESA 2010)
- removing the lower limit of £500 for the value of reported assets, so all relevant assets (even those below businesses' Asset Register threshold) can be reported

- including small tools used in production in the definition of GFCF
- improving the questionnaire's layout (including new sections and headings), 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 there will be 2 years of data available for quality assurance.

6. 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 Quarter 2 (Apr to June) 2005 in the general government series and a complementary peak in Quarter 2 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](#).

7. 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 UK 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.

We publish 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 corporations (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

8. Introduction of theme days

From January 2017 we are improving the way we publish economic statistics, with related data grouped together under new "theme" days. This will increase the coherence of our data releases and involve minor changes to the timing of certain publications. For more information see [Changes to publication schedule for economic statistics](#).

9. Feedback

We welcome your feedback on the business investment release and data. Please contact gcf@ons.gsi.gov.uk. You can also engage in discussion about business investment, and, share information with other users or producers of financial and economic statistics by visiting the Financial and Economic Statistics User Group on the Royal Statistical Society's [StatsUserNet](#) discussion forum.

10. Accessing data

To see a time series of the data please use the [time series datasets](#) on our website.