

Quarterly Acquisitions and Disposals of Capital Assets Survey QMI

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1 . Methodology background

National Statistic	No
Survey name	Quarterly Acquisitions and Disposals of Capital Assets Survey
Frequency	Quarterly
How compiled	Sample based survey
Geographic coverage	UK
Sample size	Approx. 27,000
Last revised	22 August 2014

2 . Updated 22 February 2017

Please note that since the publication of this Quality and Methodology Information (QMI) there have been several updates to the release, which will in due course be incorporated into a revised QMI. Whilst the current QMI is based on the European System of Accounts 1995: ESA 1995 and the United Nations, System of National Accounts 1993: SNA 1993, updates largely coincide with the more recent European System of Accounts 2010: ESA 2010 and the United Nations, System of National Accounts 2008: SNA 2008.

For example, to reflect changes made to fixed asset categories in ESA and SNA, from 2015 the Quarterly Survey of Capital Expenditure (QCPX) has been redesigned and is now known as the [Quarterly Acquisitions and Disposals of Capital Assets Survey \(QCAS\)](#). Changes to the survey include additional questions and question breakdowns, which have led to an increase in the number of form types. Further information about these changes can be found in the articles [Changes to the Annual Business Survey, the Quarterly Survey of Capital Expenditure and the Survey into Business Spending on Capital Items in 2015](#) and [Annual improvements to gross fixed capital formation source data for Blue Book 2017](#) (Section 3).

In recent quarters the sample size has also been reduced by 10%; sample rotation has increased from 5 to 9 quarters and businesses not yet in production or with less than 20 employees are no longer forced into the sample.

3 . Executive summary

The [Quarterly Survey of Capital Expenditure \(QCPX\)](#) collects expenditure data (value of acquisitions and proceeds from disposals) on produced assets used in production (gross fixed capital formation (GFCF)).

It is a short-term (quarterly) indicator of investment. It has a sample size of 27,000 per quarter. It requests information from private businesses whose employment is greater than 19. [QCPX](#) is the main source of data in Office for National Statistics's (ONS's) quarterly [Business investment release](#) and in the GFCF component of the expenditure measure of [gross domestic product \(GDP\)](#).

The [QCPX](#) began in 1955. It became a statutory survey in 1991 following the [Pickford Review of Government Economic Statistics](#) (November 1988). Since the Pickford review, a number of changes have been made to the survey; namely a new sample design, the reorganisation of the work area responsible for conducting the survey, the introduction of new technology for data collection and analysis and the publication of results at 2-digit industrial level of the UK Standard Industrial Classification 2003: SIC 2003.

Since the third quarter (July to September) of 1994, sample selection has been from the [Inter-Departmental Business Register \(IDBR\)](#). Extraction of mineral oil and natural gas was included in the sample for the first time in the second quarter of 2004, following the cessation of the survey by the then [Department for Business Innovation and Skills \(BIS\)](#). During 2006, as part of the [Gershon efficiency savings](#), the sample size was reduced from 32,000 to approximately 27,000. The reduction in sample size was introduced to reduce the burden placed upon businesses and to save on validation and compliance costs incurred by ONS. Further changes were implemented in 2011 when, as part of a European requirement, an update to [UK Standard Industrial Classification 2007: SIC 2007](#) was made.

The survey results feed into the quarterly estimates of GFCF, which forms part of the expenditure component of [GDP](#). The survey results contribute approximately 80% to the business investment estimates, which are published quarterly in the [Business investment release](#). The main users of data from the QCPX are:

- national accounts
- Eurostat, who compile European-wide GFCF aggregates
- government departments including Department for Business, Energy and Industrial Strategy (BEIS), HM Treasury and the Bank of England
- industry analysts requiring estimates of capital investment by UK businesses This report contains the following sections:
 - Output quality
 - About the output
 - How the output is created
 - Validation and quality assurance
 - Concepts and definitions
 - Other information, relating to quality trade-offs and user needs
 - Sources for further information or advice

Output quality

This report provides a range of information that describes the quality of the output 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 . About the output

Relevance

The [Quarterly Capital Expenditure Survey \(QCPX\)](#) collects data on the acquisitions and disposals of capital assets from the private sector, across the whole UK economy. Capital assets are defined as assets that are used repeatedly to facilitate production or provision of services, for more than one year.

The survey asks for information on the value of acquisitions and disposals of capital items during a given quarter. Acquisitions are defined as the money spent on assets and disposals as the proceeds from the sale of any assets. The survey does not cover; banking and other various financial institutions, higher education establishments nor new building work related to dwellings and land.

These data are obtained by [national accounts](#) from other sources.

The main information collected is broken down into six main types of assets:

- new construction work (excluding land and existing buildings and dwellings)
- vehicles
- other capital equipment (including plant, machinery, fixtures and fittings)
- computer software
- computer hardware
- exploration expenditure

The data are used in the estimation of gross fixed capital formation (GFCF) and business investment of [gross domestic product \(GDP\)](#). Data supplied from this survey make up around 80% of the value of data presented in the Office for National Statistics (ONS) [Business investment release](#) and around 50% of the total value of GFCF. The availability of quarterly data means that meaningful aggregates can be created, which then go on to be used by policy-makers within government and the [Bank of England](#). The data are also used in the compilation of annual current price [input-output supply and use tables](#). [Her Majesty's Treasury \(HMT\)](#), [Bank of England](#) and [Eurostat](#) all make use of the results of the survey.

These data are obtained by [national accounts](#) from other sources.

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.)

The QCPX survey produces three sets of results per quarter (3-month period). Provisional estimates of the current quarter are delivered to [national accounts](#) 5 to 6 weeks after the end of the quarter. Revisions to the current quarter and late revisions of the previous quarter are delivered 8 to 9 weeks after the end of the quarter.

The provisional data are published in the [Business investment release](#) about 8 weeks after the end of the quarter. This publication is released in conjunction with the publication of the second estimate of GDP. The revised [Business investment release](#) (containing estimates of the previous quarter's late results in addition to the current quarter's revised results) is published roughly 12 weeks after the end of the quarter, alongside the [UK quarterly national accounts release](#).

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 Official Statistics](#).

5 . How the output is created

The Quarterly Capital Expenditure Survey (QCPX) has a sample size of approximately 27,000 UK businesses. The [Inter-Departmental Business Register \(IDBR\)](#) is used as the sampling frame from which a stratified random sample is drawn. The strata are defined by UK Standard Industrial Classification 2007: SIC 2007 at 2-digit class level for most industries and by employment size; (20 to 49, 50 to 99, 100 to 299 and 300 and over) of businesses covered. Businesses with over 299 employees are permanently included in the sample. Those with between 20 and 299 employees are sampled on a rotating basis and those with less than 20 employees are not sampled. In addition to the sampled survey, businesses with fewer than 20 employees who undertake large (more than £5 million) capital spending reported in the press are included in the estimates (known as specials).

Results of the QCPX are weighted using combined ratio estimation and then aggregated at industry level. Capital expenditure of the additional businesses with employment less than 20 is given a weight of one. Current price and chained volume measures are derived from the weighted survey results. Both non-seasonally adjusted and seasonally adjusted series are available in the related publications. Atypical or extreme values are treated as outliers. The chained volume estimates are derived by taking the current estimates and adjusting to remove the impact of price changes using [Producer Price Indices](#).

Data collection

The QCPX collects capital expenditure for various industry groups by asset. It measures the amount businesses are spending on capital items each quarter. The survey also collects exploration data from the oil and gas industry.

Capital expenditure is more difficult to measure than many other variables in sample surveys. There are two reasons for this. Firstly, the nature of capital expenditure can be erratic, going from small to large values between time periods. This makes validation difficult. Imputation for non-responders is also more difficult as a lack of regular pattern makes prediction less reliable. Secondly, significant capital expenditure can be undertaken by new businesses before they start normal trading. Important examples of this would include new plants set up in the UK by overseas businesses as well as new special project vehicles established to run [Private Finance Initiatives \(PFI\)](#).

Two types of questionnaire are sent to businesses (Table 1).

Table 1: Questionnaire type

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padding:10px 5px;border-style:solid;border-width:1px;overflow:hidden;word-break:normal;} .tg th
{font-family:Arial, sans-serif;font-size:14px;font-weight:normal;padding:10px 5px;border-style:solid;
border-width:1px;overflow:hidden;word-break:normal;}
```

Questionnaire types	Capex breakdown requested
1 Standard Industrial Classification SIC 0600 only (extraction of crude petroleum and natural gas industry).	New construction work Vehicles Other capital equipment Computer software Computer hardware Exploration expenditure
2 All other SICs.	New construction work Vehicles Other capital equipment Computer software Computer hardware

If businesses have no capital expenditure during the quarter they are given the option of replying using telephone data entry (TDE). Questionnaires sent to Northern Ireland businesses are the same, but without the TDE option.

The [QCPX](#) questionnaires ask for the amount of acquisitions and disposals by asset type incurred during the quarter. Capital assets (or fixed assets) are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly, or continuously, in processes of production for more than 1 year. All businesses in the same industry, regardless of their employment size, receive the same questionnaire. They are asked to provide figures for a calendar quarter, although some provide data for slightly different periods if this is more convenient. If actual figures are not available by the return date, estimates are requested.

Coverage and sample

The [QCPX](#) measures the value of capital assets bought and sold plus work of a capital nature, broken down by asset; acquisitions and disposals of vehicles, other capital equipment, and computer hardware. Only acquisitions of new building work (excluding dwellings), other (construction) work of a capital nature and computer software are collected. Exploration expenditure is collected from the oil and gas industry (SIC 06000 - see [SIC 2007](#)). The survey sample size is approximately 27,000 UK private sector businesses, using the [IDBR](#) as the sampling frame.

The QCPX survey estimates cover UK businesses registered for Value Added Tax (VAT) and/or Pay As You Earn (PAYE) and are classified to the [SIC 2007](#) industrial categories detailed in Table 2.

Table 2: Industries covered

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Industry	SIC 2007
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Other production	01 to 09, 35 to 39
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Manufacturing	10 to 33
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Construction	41 to 43
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Distribution	45 to 47
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Services	49 to 96
----------	----------

The survey aims to cover capital expenditure for the private sector except in a few areas. Areas not covered are:

- banking and various financial institutions
- higher education establishments
- new building work related to dwellings
- land and existing buildings

These data are collected from other sources within Office for National Statistics (ONS).

Stratification of the survey is by industrial classification (a single SIC code or groups of SIC codes), employment size band and region.

The employment size bands are:

- 20 to 49
- 50 to 99
- 100 to 299
- 300 and over

All businesses in the 300 and over employment size band are permanently included in the sample (fully enumerated). The smallest businesses in terms of employment (0 to 19) are not sampled.

Businesses will remain in the sample, generally, for 5 quarters before being rotated out, to be replaced by another business.

To reduce the burden on “employment agency” type businesses, companies classified to SICs 56, 78, 80 and 81 have a different sample design. From the second quarter of 2007, all businesses with 1,000 and over employees have been selected continuously, with a rotating sample of those between 20 to 999 employees.

Using optimal [Neyman allocation](#), the sample is allocated to these strata to minimise the variance of the total capital expenditure estimation (estimation refers to the process by which an estimate for the population is obtained from sample data).

Businesses not yet in production or in the process of being developed with fewer than 20 employees and who account for a significant amount of capital expenditure, are selected in addition to the previous sample. The returns from these businesses are not weighted in the results.

Two main sources are used to identify businesses that fall into this category: the [Business Register and Employment Survey \(BRES\)](#), and [Construction News](#). These sources identify businesses, which expect to spend capital expenditure of more than £5 million on any new development project. [Private Finance Initiatives \(PFI\)](#) are sourced from a number of areas and are included in the sample in the same way as businesses not yet in production.

The top stratum consists of businesses that are always selected (1-in-1) and have an employment cut-off of 300 in all industries (with the exception of employment agency type businesses explained previously). Below this, the sample is spread across the 20 to 49, 50 to 99 and 100 to 299 employment bands using [Neyman allocation](#) to determine sample sizes (with the exception of employment agency type businesses). No businesses in the 0 to 19 employment band are selected within this sample except for businesses not yet in production or in the process of being developed (this is explained previously). To help manage the burden that surveys may place on small businesses, ONS implements the [Osmotherly guarantee](#). This limits the number of periods for which a business with fewer than 10 employees may be included. However, QCPX is exempt from the agreement as no business with fewer than 10 employees is included in the sample.

A rule of a minimum sample size of 15 in each stratum or the population size, whichever is the smaller, is applied to all strata with employment less than 300. In an attempt to reduce burden, the following is applied:

- if 15 divided by population size is between 0.5 and 0.8 then half of the strata population is sampled
- if 15 divided by population size is greater than 0.8 then all of the strata population is sampled

The general principle for resulting sampling fractions of between 0.5 and 1 (rounded down to 0.5 if less than 0.75 and up to 1 otherwise) are applied. In certain strata there may be occasions where the 5-quarter rotation is extended.

Editing and validation

Questionnaires are scanned centrally by ONS’s Survey Processing Centre with optical character recognition (OCR) used to create an image. Images are stored on the computer system, reducing paper handling, retrieval and storage. Due to confidentiality issues, the paper version is shredded and then recycled.

Responses from businesses are validated using rules built into our processing system. Once the data are placed onto the system, a series of credibility checks are applied to aid data validation.

Validation gates use information from previous responses to identify implausible data. Data that fail validation checks are reported to the editing and validation team. Staff in the validation branch examine the data that have failed validation checks and use their expertise to determine whether the business needs to be contacted to query data; or they may decide to accept the data. Any incorrect data are changed at this stage. All contact with the business is recorded to provide an audit trail for future validation purposes.

Information obtained from a business is captured in a database. This database is used to build up a history on individual contributing businesses.

Businesses that have zero capital expenditure to report can use telephone data entry (TDE). TDE is a method of data collection where the responses are made via a telephone. A series of recorded messages, will give clear instructions on how to enter the nil capital expenditure, via the keypad on the telephone. Data received are fed automatically through the survey take-on system eliminating the need to manually key and verify the data.

Weighting and estimation

The [QCPX](#) uses ratio estimation, (strata are combined in the same industry across sampled employment size bands) with [Inter-Departmental Business Register \(IDBR\)](#) employment being the auxiliary variable. The survey uses the [IDBR](#) as the sampling frame and uses business data contained therein to calculate the design and calibration weights used in the estimation. The [IDBR](#) is updated frequently to ensure that all samples taken from it are representative of all types of businesses, helping to reduce frame error.

The implementation of design and calibration weights ensures the estimates take into account the characteristics of non-selected businesses including the 0 to 19 employment stratum. Two weights are applied to the sampled strata, these are:

- design weight (“a” weight); this covers the inclusion probability of the sample, taking into account the ratio of the size of a sample to the size of the population from which the sample is selected
- calibration weight (“g” weight); this takes into account how representative a sample’s register employment is compared with the register employment of the population from which the sample is selected

Results are processed for four size bands within each industry. The 1-in-1 sample band containing the larger businesses is analysed separately. Where possible, returns for non-responding businesses in this size band are imputed by using the previous quarter’s capital expenditure values for that business.

The other three bands contain all businesses in the rotational sample. Weighting is used to compile population aggregates for this sample, including the population below the lowest cut-off, that is, businesses with fewer than 20 employees. This is calculated by using capital expenditure per head from the returned data in this size group. Figures for businesses producing significant capital expenditure that are not covered in the normal sample design, including data for businesses not yet in production or being developed, are included in the 1-in-1 sample band and are not subject to weighting.

Non-response

Imputation rules are used to estimate the value of the missing data due to non-response. Imputed values are carried forward for non-responding businesses with an employment of 300 or more by using the previous returned value received from the business.

There is no imputation in the sampled stratum, for non-responding businesses with fewer than 299 employees. Imputation is not carried out at individual reporting unit level, but industry totals are estimated using adjusted weights. This has the effect of imputing the average value of the stratum to non responding businesses.

It is not possible (due to no previously reported data) to impute values for non-responding businesses selected for the first time, in the top size bands. System constructions are therefore created based on average capital expenditure by employment. Manual constructions are used in exceptional circumstances such as business restructures.

Outliers

Outliers are defined as businesses who report atypical values of capital investment compared with other businesses in their industry and employment size band. Businesses reporting extreme or atypical key variable returns for their business size are detected automatically and treated by the one-sided Winsorisation method, [Winsorisation Outliering Methodology](#). An outlier weight is used to give the business a more appropriate weighting. This technique is used to reduce the effect of outlying values on the overall estimate. The parameters used in this process are regularly reviewed. In some circumstances, if more evidence is known, outliering may be done manually.

6 . Validation and quality assurance

Accuracy

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

The survey obtains its sample from the [Inter-Departmental Business Register \(IDBR\)](#). The sample is periodically reviewed and optimised, particularly when methodological changes are implemented. Targeted survey response rates are set at 67% by number of questionnaires at the provisional stage, 80% at the revised stage and 85% at the late stage. Businesses are sent reminder letters to encourage response and are also contacted by telephone to achieve the response targets. Enforcement action (under the Statistics of Trade Act) is taken against persistent non-responders to the survey.

Estimates from this survey are subject to various sources of error. Total error consists of two elements, the sampling error and the non-sampling error.

Sampling error

This occurs because estimates are based on a sample rather than a census. The results obtained for any single sample may, by chance, vary from the true values of the population but the variation would be expected to be zero on average over a number of repeats of the survey. Sampling error is minimised for the Quarterly Capital Expenditure Survey (QCPX) through the use of a stratified random sample, which is reviewed and refined periodically. Sampling error is continually monitored with standard errors and coefficients of variation (CV) calculated for each output question asked.

The standard error gives an indication of the magnitude of the sampling error:

- we expect 95% of our estimates for a variable to be within two standard errors of the true unknown value for the population; the closer the standard error to zero, the more accurate the estimate
- the coefficient of variation is the standard error of a variable divided by the survey estimate, and it is used to compare the relative precision across surveys or variables; the closer the coefficient of variation is to zero, the more accurate the estimate in percentage terms

Non-sampling error

Non-sampling errors are not easy to quantify and include errors of coverage, measurement, processing and non-response. Response rates give an indication of the likely impact of non-response error on the estimates (for example, non-response bias). Examples of non-sampling errors include:

- different approaches as to what businesses classify as capital and expenditure
- different ways businesses record stage payments for larger capital goods
- joint venture businesses which, due to low register employment, may not be in scope of the QCPX, but may have large capital spend
- inconsistency in the way businesses classify allocate capital spend to asset types

Reliability

Accuracy of the data can be affected by response rates to the survey. If a lower response rate than normal is achieved, then there is a decrease in the information base of the estimate in the short-term, and this may possibly lead to an increased chance of revisions in subsequent estimates.

Assessing the difference between the first published estimate [Business investment release](#) and the final revised figure provides an indication of reliability. The survey revises the current and the previous quarter; taking on late responses and businesses that may have revised their own data.

Response rates for the current quarter and earlier periods are published in the [Business investment release](#) and reflect the response rates at the time of publication.

7 . Coherence and comparability

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

The Quarterly Capital Expenditure Survey (QCPX) and the [UK National Accounts](#) are designed in accordance with [Eurostat](#) regulations [European System of Accounts 1995: ESA 1995](#) being consistent with the United Nations, System of National Accounts 1993: SNA 1993, which has been adopted by statistical offices throughout the European Union member states. An important aspect of this is the use of Standard Industrial Classification: SIC 2007, which is consistent with the European Union's [NACE REV.2 system of industrial classification](#).

QCPX, [Annual Business Survey](#) and [Survey into Business Spending on Capital Items](#) all collect data on acquisition and disposal of capital assets (capital expenditure).

[ABS](#) - this annual survey collects data on capital expenditure on produced assets used in production (gross fixed capital formation, GFCF) and on non-produced assets such as land. The estimates of capital expenditure [published by ABS](#) include both these concepts, and also include expenditure on existing buildings. The ABS has a large sample size (Great Britain 62,000 per year, Northern Ireland 11,000 per year) and includes both private- and public-owned businesses of all sizes.

As an annual survey, respondents are likely to provide results from their audited accounts, although not always for a calendar year (more detail on the data periods represented in ABS releases is available in the [ABS Technical Report](#)). ABS can provide detailed industry breakdowns, but only relatively high level assets breakdowns compared with QCPX and Survey into Business Spending on Capital Items. It is used in the validation of the other two surveys. Capital expenditure data from the ABS is published in its own right and is the main data source for the UK's legal requirement to provide information under the structural business statistics requirements of Eurostat.

Survey into Business Spending on Capital Items - this annual survey provides detailed information on the products that are sub-components of the assets. As the survey is very detailed, to reduce respondent burden, the sample size is smaller than the other two surveys (2,500 per year) and it includes both private- and public-owned businesses whose employment is greater than 99. The product breakdowns are used to produce asset-level price indices from product-level prices and to decompose the assets into products for balancing supply and use across the economy.

8 . Concepts and definitions

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

The statutory basis of the Quarterly Capital Expenditure Survey (QCPX) in Great Britain is the Statistics of Trade Act 1947 and in Northern Ireland, it is the Statistics of Trade and Employment (Northern Ireland) Order 1988. The survey is carried out under section 1 of the Statistics of Trade Act. If a business does not respond, penalties may be incurred in accordance with section 4 of the Act. The purpose and coverage of the Northern Ireland Act is the same as Great Britain and again, businesses are approached on a statutory basis.

The survey sample allocation is defined in accordance with Divisions 01 to 96 of the Standard Industrial Classification: SIC 2007. The main areas excluded are:

- financial activities (groups 65 & 65)
- public administration and defence (group 84)
- higher education (group 85.4)

Statistical disclosure

Statistical disclosure control methodology is applied to the QCPX data. This ensures that information attributable to an individual or individual organisation is not identifiable in any published outputs. [The Code of Practice for Official Statistics](#) and specifically the Principle on Confidentiality sets out practices for how individual data are protected from disclosure. The Principle includes the statement that Office for National Statistics (ONS) outputs should, "ensure that official statistics do not reveal the identity of an individual or organisation or any private information relating to them, taking into account other relevant sources of information". More information can be found on the [statistical disclosure control](#) page.

9 . Other information

(Trade-offs are the extent to which different dimensions of quality are balanced against each other.)

There is a trade-off between timeliness and the response rate of the survey. When the provisional estimates are published, the response rate is lower than for the later estimates. The provisional estimates are therefore timelier than the later estimates, but will have a higher uncertainty due to the lower response rate.

Assessment of user needs and perceptions

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

All issues relating to the survey are addressed at quarterly Pause and Review meetings held with users and data suppliers. There is also an annual Survey Improvement Plan (SIP), where more fundamental issues, such as methodology, sampling and questionnaire designed are reviewed.

In the past there was a requirement to review the survey every 3 years (Triennial Review) whereby users of data and a sample of respondents would be contacted to evaluate every aspect of the survey. The most recent [Quarterly Capital Expenditure Triennial Review](#) was conducted in March 2011.

In addition quarterly group meetings are held with Bank of England, HM Treasury, Department for Business, Energy and Industrial Strategy and Office for Budget Responsibility to address any questions on gross capital fixed formation (GFCF), including on QCPX if relevant. Feedback from users is welcomed at the GFCF email: GCF@ons.gsi.gov.uk.

Future changes to Quarterly Survey of Capital Expenditure (QCPX)

From the first quarter of 2015, the QCPX underwent several developments aimed to improve the quality of the estimates that feed into the GFCF estimates and to bring the collected variables in line with the latest [European System of Accounts 2010: ESA 2010](#).

The drivers for change came from several sources as outlined in Table 3.

Table 3: Reasons for changes to the Quarterly Survey of Capital Expenditure from Quarter 1 (Jan to Mar) 2015

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padding:10px 5px;border-style:solid;border-width:1px;overflow:hidden;word-break:normal;} .tg th
{font-family:Arial, sans-serif;font-size:14px;font-weight:normal;padding:10px 5px;border-style:solid;
border-width:1px;overflow:hidden;word-break:normal;} .tg .tg-yw4l{vertical-align:top}
```

Change	Source
Capturing investment in small tools	ESA 2010
Capturing investment in transfer fees of sportsmen and sportswomen	ESA 2010
Additional breakdown of currently collected assets into new sub-classes (for example, computer software into “purchased” and “developed in-house”)	ESA 2010
Change of survey title from “Quarterly Survey of Capital Expenditure (CAPEX)” to “Quarterly Acquisitions and Disposals of Capital Assets Survey (QCAS)”	ONS standards
Review imputation method for non-responders to remove the necessity for adjusting GFCF Users estimates for non-response bias	
Review sample design to improve the accuracy of estimates	ONS standards
Review sample design to reduce the instances of oversampling (that is, businesses staying in the sample longer than expected)	Business responders

10 . Sources for further information or advice

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 web pages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. Our website also offers users the option to download the narrative and tables in PDF format. 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.

Useful pages include:

- [Business investment release](#)
- [Quarterly national accounts release](#)
- User-requested datasets (capital expenditure and GFCF data sets not published in official releases).

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 quality and methodology section of the relevant [Business investment statistical bulletin](#).