

Value of Building Work Put in Place: December 2012 quarter

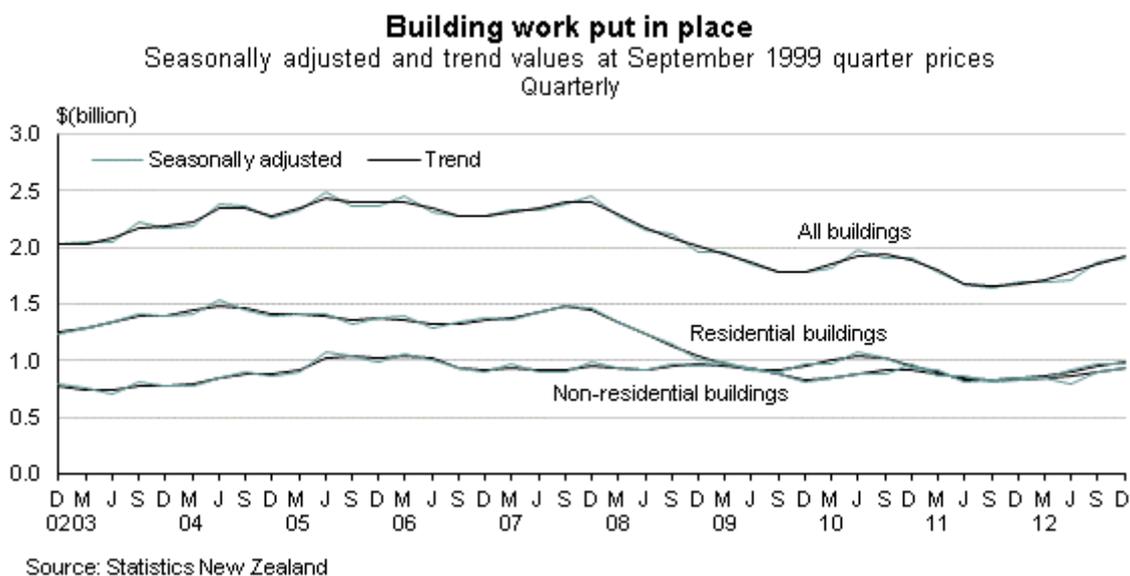
Embargoed until 10:45am – 06 March 2013

Key facts

For the December 2012 quarter, after price changes and seasonal variations are removed:

- All building activity increased 1.8 percent.
- Residential building activity increased 0.7 percent.
- Non-residential building activity increased 3.0 percent.
- Canterbury and the rest of New Zealand had comparable growth in activity values.

The trend for overall building activity continues to show strong growth during 2012.



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Commentary

- Continued increase in building activity
- Residential building activity increases following two busy quarters
- Non-residential building activity increases again
- Moderate growth for Canterbury's post-earthquake rebuild

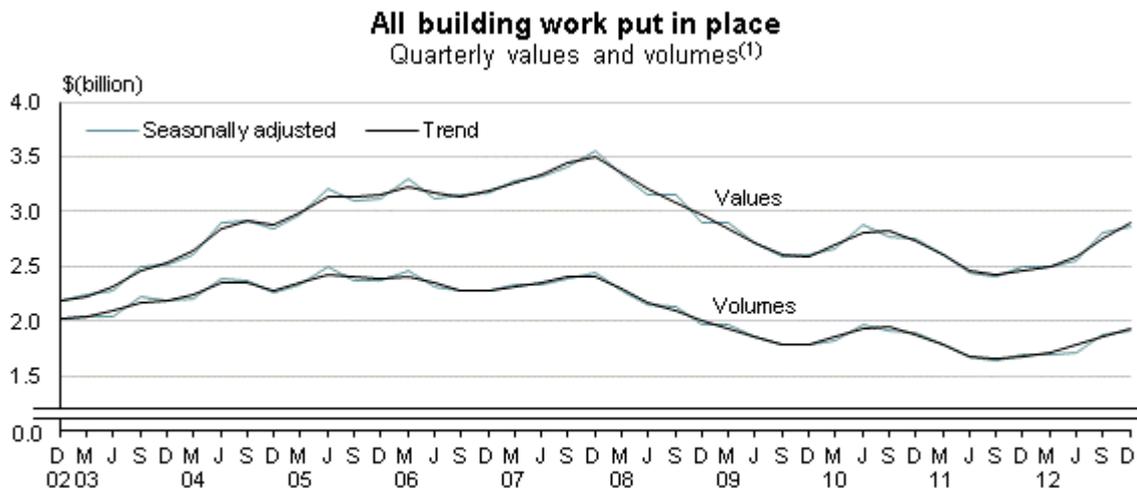
All figures refer to seasonally adjusted volumes (values with price changes and seasonal variations removed) unless otherwise specified.

Continued increase in building activity

Volume

Building activity increased 1.8 percent in the December 2012 quarter. This follows an increase of 9.8 percent in the September 2012 quarter, which was the largest percentage increase in 10 years.

The trend for overall building activity continues to show strong growth, rising 16 percent since the low point of the September 2011 quarter. This figure may be revised when data for future quarters is compiled.



1. Volumes are calculated as values at September 1999 quarter prices.

Source: Statistics New Zealand

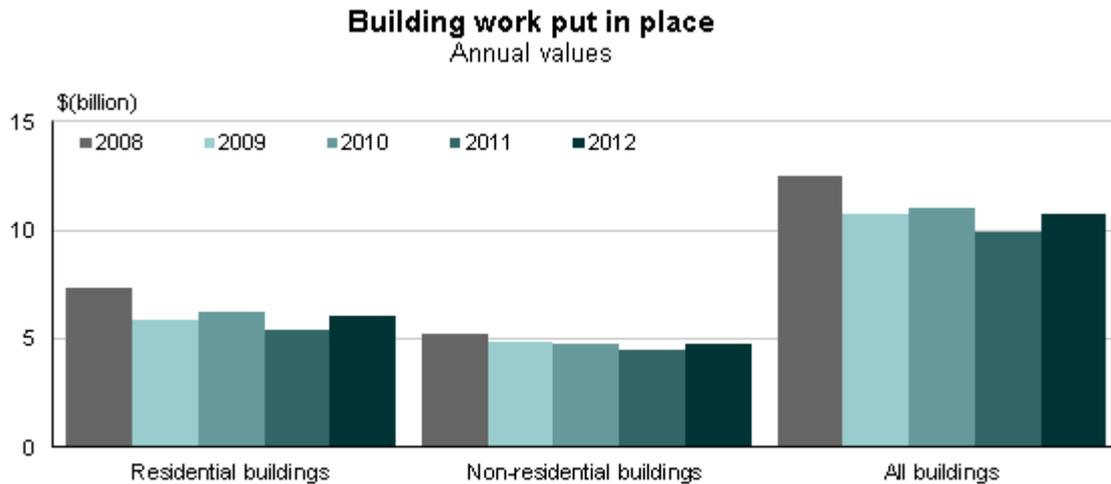
Value

In current prices, the seasonally adjusted value of all building work increased 2.1 percent in the December 2012 quarter. Residential work increased 1.4 percent, and non-residential work increased 3.1 percent.

Canterbury building activity increased 1.5 percent in the December 2012 quarter, compared with 1.3 percent for the rest of New Zealand. In the September 2012 quarter, Canterbury building activity surged 30 percent, while the rest of New Zealand had a 5.0 percent increase.

In the 2012 year, compared with the 2011 year, the unadjusted value of all building work rose 8.3 percent, to \$10,759 million. The contribution from residential building work rose from 54 percent to 56 percent.

Building consent values (unadjusted) were up 18 percent in the 2012 year, compared with the 2011 year, and this continued to flow through into building activity. Building consents are often used as an early indicator of building activity.



Source: Statistics New Zealand

Residential building activity increases following two busy quarters

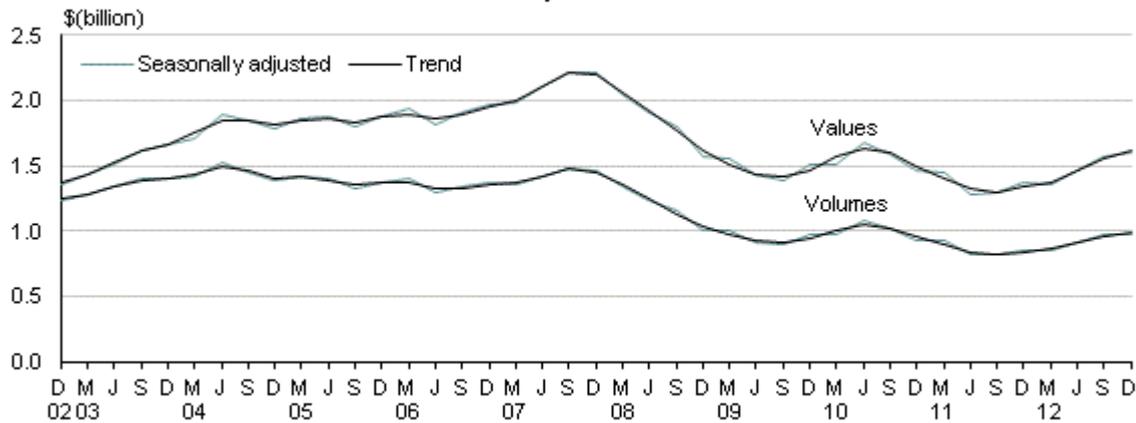
Volume

The volume of residential building activity increased 0.7 percent in the December 2012 quarter. This follows large increases of 6.5 percent in the September 2012 quarter and 7.7 percent in the June 2012 quarter.

The trend has risen 20 percent during the latest five quarters, after falling to an 18-year low in the September 2011 quarter.

Residential building work put in place

Quarterly values and volumes⁽¹⁾



1. Volumes are calculated as values at September 1999 quarter prices.

Source: Statistics New Zealand

Value

The seasonally adjusted value of residential building work, in current prices, increased 1.4 percent in the December 2012 quarter. This follows large increases of 7.2 percent in the September 2012 quarter and 8.4 percent in the June 2012 quarter.

In the 2012 year, compared with the 2011 year, the unadjusted value of residential building work rose 12 percent, to \$6,027 million.

The contributors to this rise were:

- new dwellings, up \$626 million (15 percent)
- alterations, additions, and out-buildings, up \$8 million (0.6 percent).

Non-residential building activity increases again

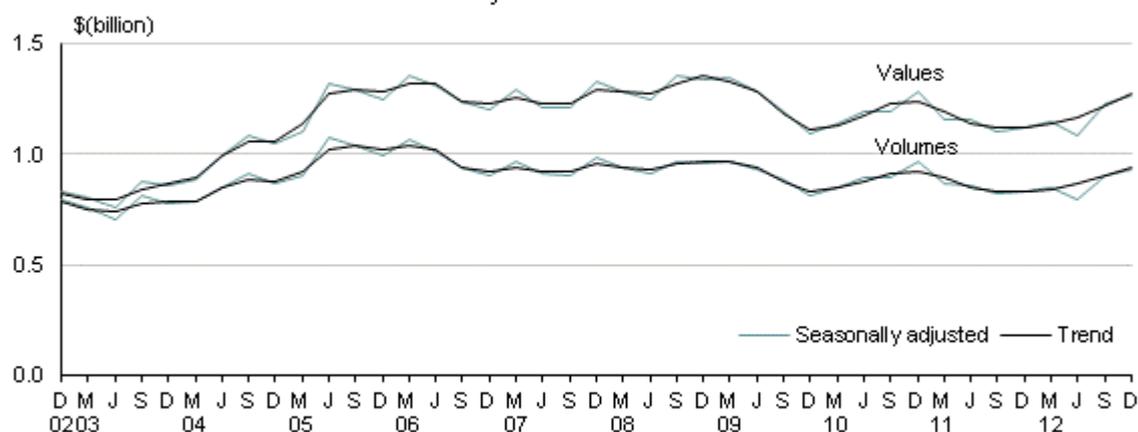
Volume

The volume of non-residential building activity increased 3.0 percent in the December 2012 quarter. This follows a rise of 14 percent in the previous quarter.

The trend rose 13 percent during 2012. This figure may be revised when data for future quarters is compiled.

Non-residential building work put in place

Quarterly values and volumes⁽¹⁾



1. Volumes are calculated as values at September 1999 quarter prices.

Source: Statistics New Zealand

Value

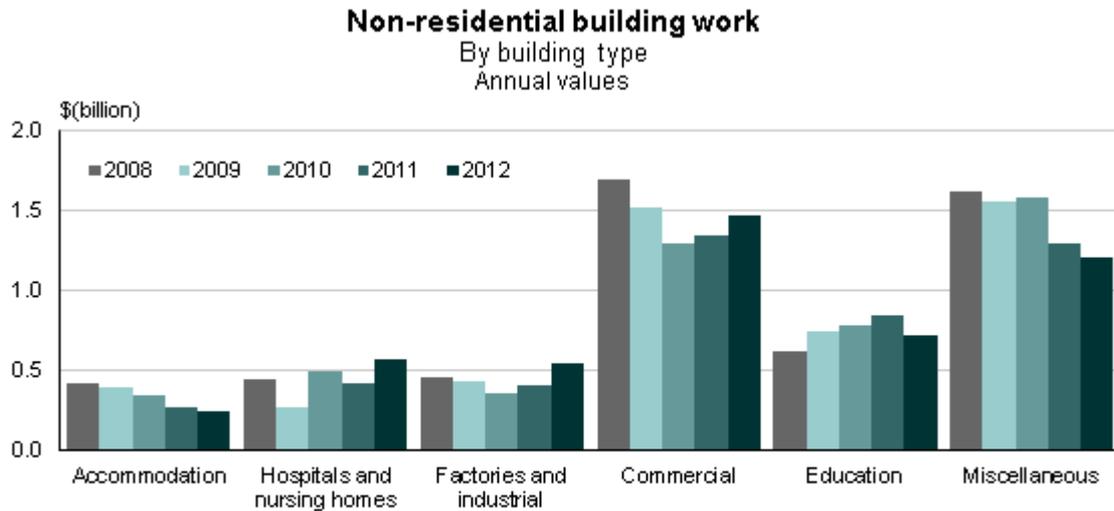
The seasonally adjusted value of non-residential building work, in current prices, increased 3.1 percent in the December 2012 quarter. This follows a rise of 14 percent in the September 2012 quarter.

In the 2012 year, compared with the 2011 year, the unadjusted value of non-residential building work rose 4.2 percent, to \$4,732 million.

The contributors to this rise were:

- hospitals and nursing homes, up \$148 million (36 percent)
- factories and industrial buildings, up \$141 million (35 percent)
- commercial buildings, up \$125 million (9.3 percent).

The largest annual decrease was for education buildings, down \$124 million (15 percent).



Source: Statistics New Zealand

Moderate growth for Canterbury's post-earthquake rebuild

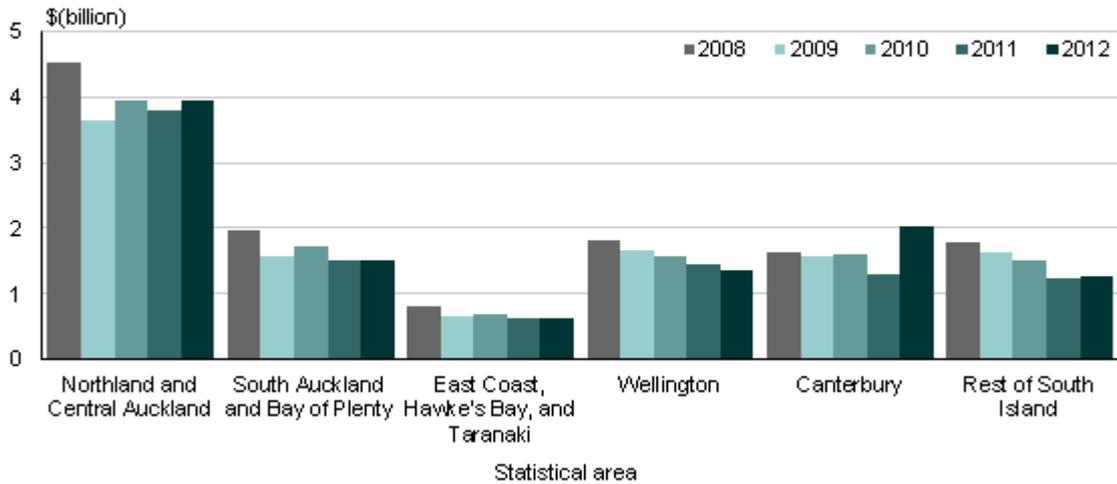
Seasonally adjusted values for Canterbury, in the December 2012 quarter (compared with the September 2012 quarter) were:

- all building activity – up 1.5 percent
- residential building activity – up 1.7 percent
- non-residential building activity – up 1.2 percent.

The latest movements follow large increases in earthquake-related building activity in recent quarters.

This survey is designed for accuracy at the national level, meaning that indicators of regional building activity may be less reliable. The sample error, for the December 2012 quarter, is 2.8 percent at the national level for all building activity, while for Canterbury it is 9.0 percent.

All building work put in place
By statistical area
Annual values



Source: Statistics New Zealand

Earthquake-related building consents in Canterbury totalled \$156 million in the December 2012 quarter, down from \$164 million in the September 2012 quarter. The latest value includes \$84 million for non-residential building consents, and \$70 million for residential building consents. The residential consents include 118 new dwellings, compared with 119 in the previous quarter.

Building consents are often used as an early indicator of building activity. *Building Consents Issued: February 2013* will be published on 28 March 2013.

Value of Building Work Put in Place data is obtained mostly from a postal survey of builders, owners, and others who have been granted building consents. For further information, see the 'Definitions' section.

For more detailed data on the value of building work put in place, see the Excel tables in the 'Downloads' box.

Definitions

About the value of building work put in place

These quarterly releases provide estimates of the value and volume of work put in place on construction jobs in New Zealand. The value of building work includes residential building work and non-residential building work, which are summed to give all building work. Non-building construction work, such as roads and bridges, is excluded.

The value of building work put in place measures activity in the construction sector, and complements building consents issued information (which represents the intention to build).

More definitions

Accommodation buildings: includes hostels, boarding houses, prisons, workers' quarters, hotels, motels, and motor camp buildings.

Commercial buildings: includes shops, restaurants, taverns, offices, and administration buildings.

Miscellaneous buildings: includes social, cultural, religious, recreational, storage, and farm buildings.

New buildings: includes conversions. For example, if a hotel is converted to apartments, the value of work is classified to new dwellings. Values for new building work may sometimes include the cost of demolishing or removing the previous buildings.

New dwellings: includes houses, flats, and apartments.

Non-residential buildings: includes work on new buildings, plus alterations and additions to existing buildings. There are six categories:

- accommodation buildings
- hospitals and nursing homes
- factories and industrial buildings
- commercial buildings
- education buildings
- miscellaneous buildings.

Out-buildings: includes garages, glasshouses, and sheds on residential sections.

Residential buildings: includes new dwellings and domestic outbuildings, plus alterations and additions to existing buildings.

Values: dollar values for building work put in place. Calculated at current prices.

Volumes: values with price changes removed. Calculated at September 1999 quarter prices.

Related links

Upcoming releases

Value of Building Work Put in Place: March 2013 quarter will be released on 5 June 2013.

[Subscribe to information releases](#), including this one, by completing the online subscription form.

[The release calendar](#) lists all our upcoming releases by date of release.

Past releases

[Value of Building Work Put in Place](#) has links to past releases.

Related movements

Movements in related releases for the December 2012 quarter compared with the September 2012 quarter were as follows:

Capital goods price index

Residential building construction prices rose 0.5 percent and non-residential building construction prices rose 0.3 percent.

Quarterly Employment Survey

The number of full-time equivalent employees (FTEs) in the construction industry rose 2.6 percent.

Building consents issued

The number of approved new dwellings rose 7.5 percent (seasonally adjusted). Consent figures measure the intention to build.

Data quality

Period-specific information

This section contains information about data that has changed since the previous release.

- [Sample errors](#)
- [Non-sample errors](#)
- [Non-response imputation](#)
- [Low-value consents](#)

General information

This section contains information about data that does not change between releases.

- [Data source](#)
- [Survey design](#)
- [Consistency with other periods](#)
- [Interpreting the data](#)
- [Comparison with building consent statistics](#)
- [More information](#)

Period-specific information

Sample errors

Estimates for the value of building work put in place are derived mainly from a sample survey and are therefore subject to sample errors.

Sample errors for the December 2012 quarter	
	Percentage of total value of work put in place
Residential buildings	3.8
Non-residential buildings	4.2
All buildings	2.8

Sample errors quantify the variability that occurs by chance because a sample rather than an entire population is surveyed. The sample errors above indicate that there is a 95 percent probability that the true value of work put in place this quarter is the published estimate, within plus or minus the sample error.

Non-sample errors

These errors are variable across quarters and cannot be quantified. They can occur when data on building consent and survey forms is incomplete or incorrect or when it is incorrectly delivered, interpreted, or classified. Editing procedures aim to minimise their impact.

Non-response imputation

For building projects where no survey response is received, Statistics NZ imputes values for work put in place, based on responses for comparable projects.

Non-response values imputed for the December 2012 quarter			
	Imputed value \$(million)	Percentage of category value	Percentage of all buildings value
Residential buildings	268	16.2	9.0
Non-residential buildings	128	9.7	4.3
All buildings	396	13.3	13.3

Low-value consents

These are residential building consents valued from \$5,000 up to \$45,000, and non-residential building consents valued from \$5,000 up to \$80,000. For these consents, it is assumed that:

- the consent value represents the value of work put in place
- consented work will be done during the month following issuing of the consent.

Low-value jobs are therefore valued directly from consents (after a one-month lag), rather than by postal survey. The following table shows the values included for the December 2012 quarter.

Low-value consents included for the December 2012 quarter			
	Low-value consents \$(million)	Percentage of category value	Percentage of all buildings value
Residential buildings	72	4.3	2.4
Non-residential buildings	56	4.2	1.9
All buildings	127	4.3	4.3

General information

Data source

Values for building work put in place are obtained each quarter by a postal survey of builders or consent applicants. The survey is based on building consents data and is called the Quarterly Building Activity Survey (QBAS).

Survey design

Building consents are grouped each month into four value ranges for residential buildings, and four value ranges for non-residential buildings, as follows:

- Highest-value range – for all residential or non-residential consents, builders or consent applicants are surveyed to obtain quarterly values for building work put in place.
- Second- and third-value ranges – a sample of builders or consent applicants is surveyed and the quarterly values collected are rated up, to represent both surveyed and non-surveyed building work.
- Lowest value range – the consent values are used to represent the quarterly value of building work put in place.

Surveyed building jobs that are not completed at the end of the quarter are surveyed again in following quarters until the work is finished.

The rating up of sampled values and calculation of sampling error are complex and depend on factors that differ for each value range and month of selection. For further information, contact

info@stats.govt.nz or Statistical Methods, Statistics New Zealand, Private Bag 4741, Christchurch.

Consistency with other periods

Year	Change in coverage
1989	From September 1989, building work is excluded if its consent value is below \$5,000. This excluded work is estimated as being less than 1 percent of published values.
1993	From January 1993, the building consents system replaced the less extensive building permits system. This may have affected the consistency of the time series to some extent.
1996	From the September 1996 quarter, consent values for multi-purpose buildings are coded to one or more of the most appropriate building types. Multi-purpose buildings were previously added to miscellaneous buildings.

Interpreting the data

Constant price series (volumes)

Current values include both a quantity and price component, whereas constant price series (volumes) have had the effect of price changes removed. Removal of price change (deflation) leaves just the volume (or quantity) component, enabling comparisons across different time periods without the distortion caused by price inflation (or deflation).

Quarterly values for residential building work and non-residential building work are separately deflated by the residential buildings and non-residential buildings sub-indexes from the capital goods price index. The deflated quarterly values are expressed at a constant pricing level, using September 1999 quarter prices. Deflated values for all building activity are calculated as the sum of the deflated values for residential and non-residential building activity.

Price deflation is done before seasonal adjustment and estimation of trend values.

Seasonally adjusted series

Seasonal adjustment removes the estimated impact of regular seasonal events, such as summer holidays and pre-Christmas purchasing, from statistical series. This makes figures for adjacent periods more comparable.

The seasonally adjusted series are recalculated quarterly when each new quarter's data becomes available. Figures are therefore subject to revision, with the largest changes normally occurring in the latest quarters.

The X-12-ARIMA seasonal adjustment program, developed at the U.S. Census Bureau, is used to produce the seasonally adjusted and trend estimates.

See Seasonal adjustment in Statistics New Zealand for more information.

Trend series

Trend calculation removes the estimated impact of regular seasonal events and irregular short-term variation from statistical series. This reveals turning points and the underlying direction of movement over time.

The trend series are recalculated quarterly when each new quarter's data becomes available. Figures are therefore subject to revision, with the largest changes normally occurring in the latest quarters. Revisions can be large if values are initially treated as outliers but are later found to be part of the underlying trend.

The X-12-ARIMA seasonal adjustment program is used to produce the seasonally adjusted and trend estimates. Irregular short-term variation is removed by smoothing the seasonally adjusted series using optimal weighted moving averages.

Comparison with building consent statistics

Building consent statistics provide an indication of upcoming building activity, but comparisons may be affected by variable timing and valuation differences, particularly following the Canterbury earthquakes.

More information

[Information about the Building Work Put in Place](#) is available on our website.

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Tables

The following tables are available in Excel format from the 'Downloads' box. If you have problems viewing the files, see [opening files and PDFs](#).

1. Value of building work put in place, unadjusted values
2. Value of building work put in place, seasonally adjusted and trend values
3. Value of building work put in place, constant price values at September 1999 quarter prices
4. Related series

Access more data on Infoshare

Use [Infoshare](#) to access time-series data specific to your needs. For this release, select the following category and group from the Infoshare homepage:

Subject category: **Industry Sectors**

Group: **Building Activity Survey - BAS**