

## Building plans put to work





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This report looks at the relationship between two key Stats NZ construction information releases and what they tell us about building activity in New Zealand. We examine how building consents flow into building activity over time, and look particularly at construction in Auckland and Canterbury.

Stats NZ has two regular information releases that are directly related to construction:

- [Building consents issued](#) – monthly
- [Value of building work put in place](#) – quarterly.

The building consents release gives you information about the types and values of building consents across New Zealand.

Building consents include work on new buildings, and alterations and additions to existing buildings. Alterations can include recladding leaky buildings, and earthquake strengthening. Stats NZ's **building consents data excludes demolitions and work valued under \$5,000.**

The 'value of building work put in place' release estimates the dollar value and volume of construction work undertaken each quarter, also known as building activity.

## How do we get the data?

Data for issued building consents is provided by all territorial authorities. Stats NZ collates and analyses the data for publication each month.

Stats NZ gets data about building activity on high value and complex building projects via a quarterly postal survey. In the December 2016 quarter, about 2,500 building projects were included in the survey. This is supplemented with estimates modelled from building consents.

## What is the relationship between building consents and building activity?

Building consents reflect an intention to build, while building activity starts after the consent is issued. Over 95 percent of consented building work is constructed.

Stats NZ does not forecast building activity, but we know that as both the number and value of consents increase and decrease, building activity will follow a similar pattern over time.

The building activity value differs from the building consent value for the same period, mostly due to the time lag in completing the work. For typical residential buildings, two-thirds of the building activity value is completed within six months, and most within 12 months of the consent. Multi-dwelling consents, such as apartments and retirement village units, generally take longer to complete than stand-alone houses.

The building activity value is also higher, on average, than the building consent value, even though the consent value includes GST while activity does not. For new dwellings, building activity value is, on average, only slightly higher than the consent value. But for residential alterations and additions, building activity value may be around 30 percent higher than the consent value.

For non-residential building activity, the time taken varies by building type, ranging from a few months for relatively simple buildings such as farm and storage buildings, to over two years for

complex projects such as hospitals, factories, and prisons. The building activity value for new non-residential buildings is usually closer to the consent value than is the case for alterations and additions.

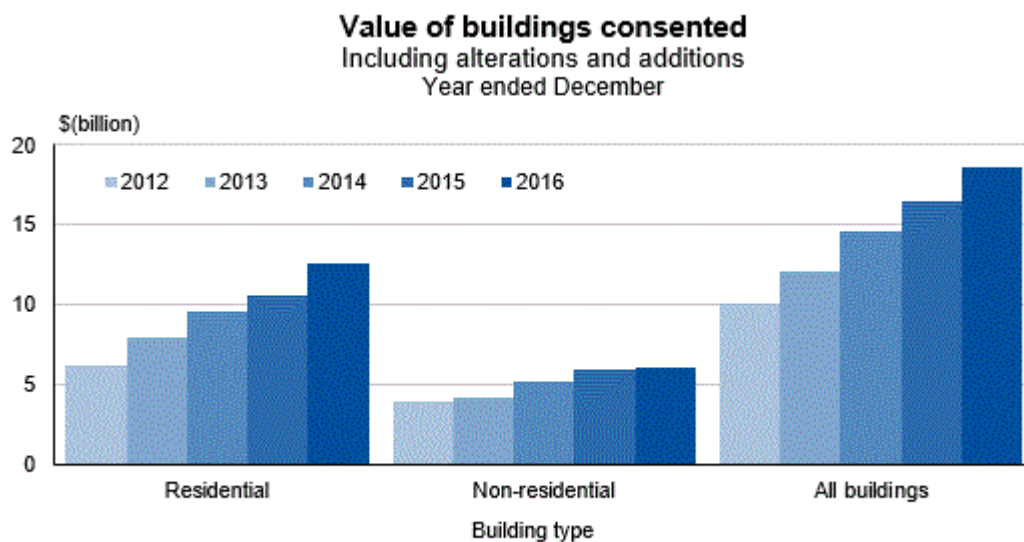
Work on residential buildings accounts for over 60 percent of total building activity value – the remainder is non-residential. And within residential building activity, over 80 percent of the value is for work on new dwellings.

## Building activity volume

The value of building activity includes inflation, so hides real changes over time. To exclude the effects of price changes, building activity volume expresses the value in September 1999 quarter prices. The value is deflated using the capital goods price index for residential construction or non-residential construction, as applicable. The price indexes are at the national level only so we are unable to calculate regional building activity volume.

## Building consents value

In the December 2016 year, the value of consents for all buildings was \$18.6 billion, up 13 percent from 2015. This comprises \$12.5 billion for residential buildings (up 19 percent) and \$6.0 billion for non-residential buildings (up 1.7 percent).

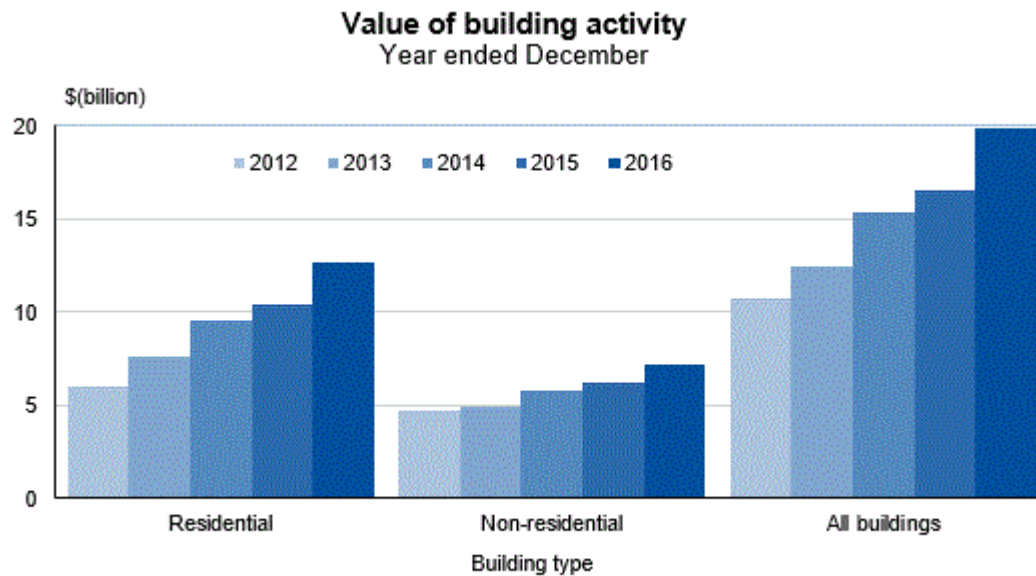


Source: Stats NZ

## Building activity value

The value of building activity has been increasing for over five years.

In the December 2016 year, the value of work on all buildings was \$19.9 billion, up 20 percent from 2015. This includes \$12.6 billion for residential buildings (up 22 percent) and \$7.2 billion for non-residential buildings (up 17 percent).



Source: Stats NZ

## Consent stages for large building projects

Most large projects have several building consent stages issued over time. Stage descriptions include site works, foundations, piling and in-ground services, building superstructure, external envelope / cladding, and fit-out.

We count the additional value for each consent stage, but only count the floor area once, using the building site address to link the project stages.

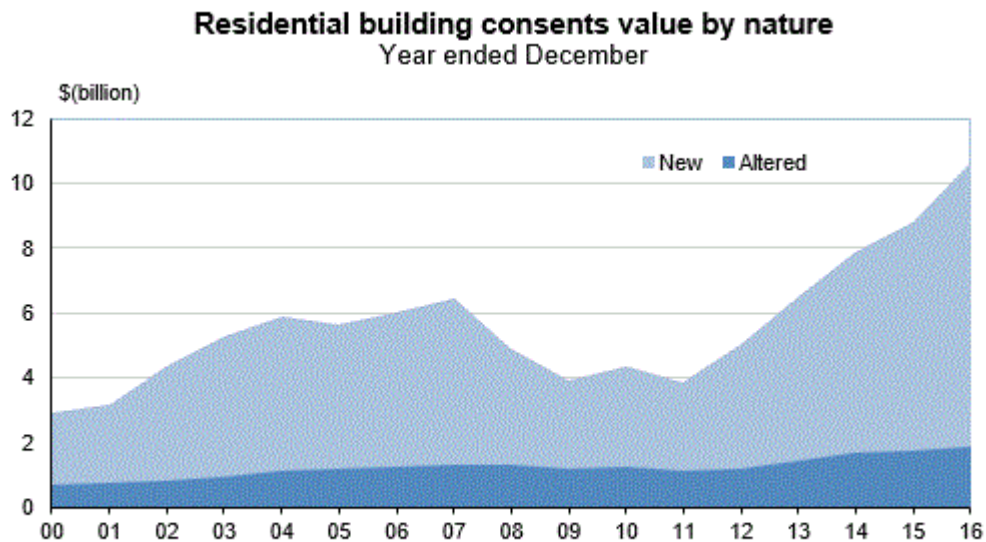
For residential buildings, such as apartments, we count the number of new dwellings once, at the stage which we expect to be the greatest value, usually the fit-out. This means that for apartments there may be consent value but no new dwellings or floor area in monthly data. Longer term data, ideally annual, gives better estimates for the average value and floor area of apartments.

Retirement villages include both residential and non-residential buildings. The residential retirement village units are the apartments, villas, or other dwellings that residents own, often **with a 'licence to occupy'**. The non-residential buildings include shared dining and communal areas, along with any healthcare facilities and care beds.

We classify prisons, hostels, boarding houses, hotels, motels, and other accommodation buildings as non-residential buildings.

## Residential building consents

In the December 2016 year, the value of residential building consents was \$12.5 billion, up \$2.0 billion (19 percent) from the previous year. In recent years over 80 percent of the value has been for new dwellings, and the remainder for alterations and additions to existing buildings.



Source: Stats NZ

## New dwelling consents

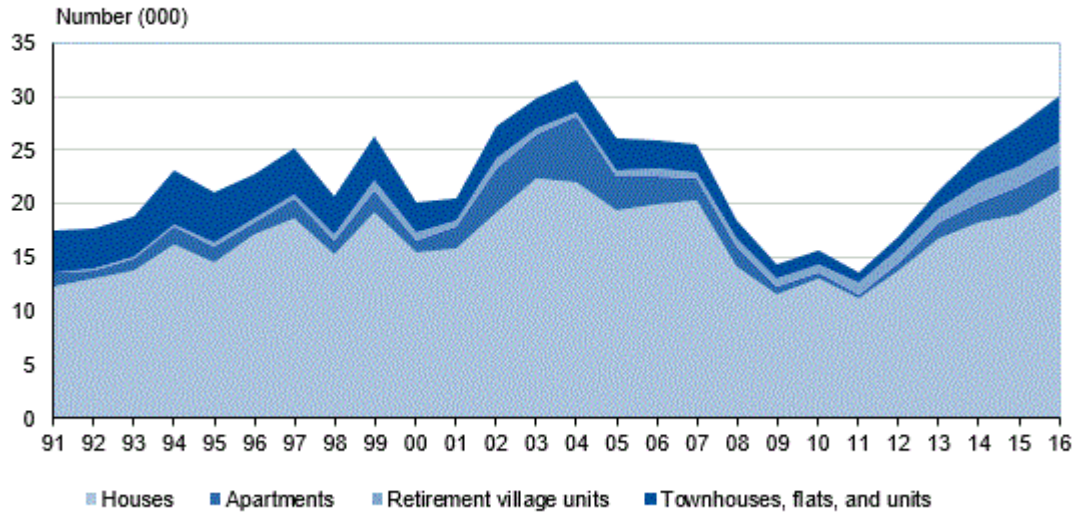
In the December 2016 year, the number of new dwellings consented reached levels not seen since 2003/04. The number has more than doubled since the low point in 2011. However, it is still well below the peak of the early 1970s.

There were 30,066 new dwellings consented in 2016, up 2,934 (11 percent) from 27,132 in 2015. This is the fifth consecutive year of double-digit growth. More recently, the trend for new dwellings decreased 15 percent in the five months to January 2017.

In recent years, 70–80 percent of all new dwellings consented were houses. The other dwelling types (and proportion in 2016) are:

- townhouses, flats, units, and other dwellings – 4,401 (15 percent) in 2016
- apartments – 2,403 (8.0 percent) in 2016
- retirement village units – 1,952 (6.5 percent) in 2016.

### New dwellings consented by type Year ended December



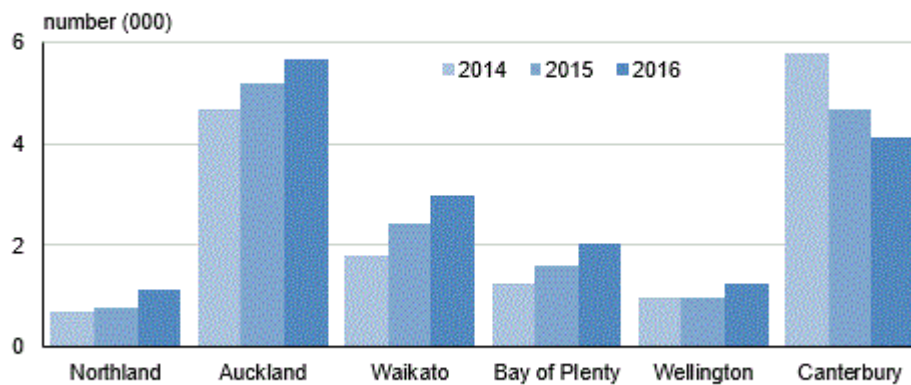
Source: Stats NZ

Most new apartments are consented in Auckland and Wellington.

## New houses

There were 21,310 new houses consented in the December 2016 year, up 12 percent on the December 2015 year. Sixty percent of all new houses were consented in Auckland, Canterbury, and Waikato.

### New houses consented by selected region Year ended December

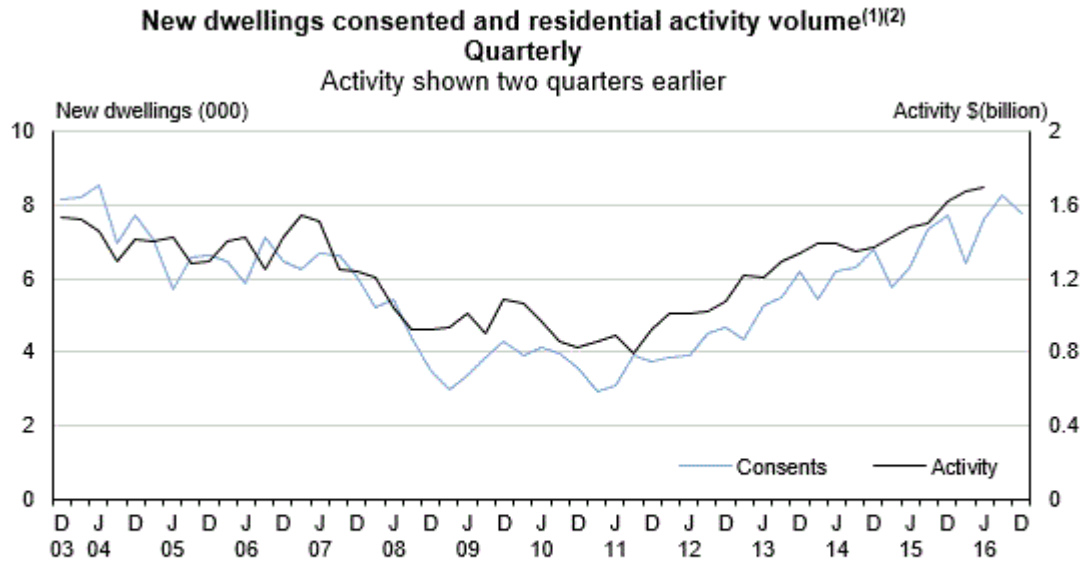


Source: Stats NZ

## Residential building activity

The value of building activity for new dwellings in the December 2016 year was \$10.5 billion. Alterations and additions were worth \$2.2 billion, making a total of \$12.6 billion.

We can compare new dwellings consented (a volume measure) to residential building activity volume.



1. Volumes are calculated as values at September 1999 quarter prices.  
 2. Includes new dwellings plus alterations and additions to existing buildings.  
 Source: Stats NZ

Residential building activity is less volatile than new dwelling consents but they follow a similar pattern.

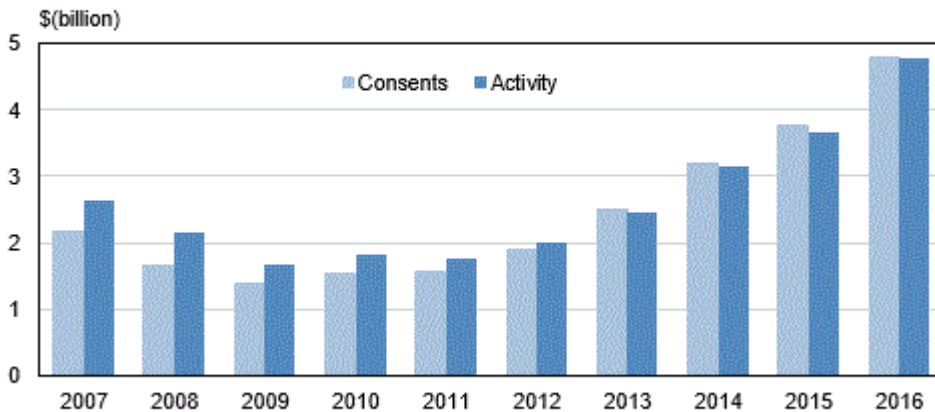
## Auckland

In Auckland, the number of new dwellings and the value of residential building consents have been increasing for five years, but are showing signs of decreasing in early 2017. In 2016, the number of new dwellings reached 10,026, the highest since 2004. The number has more than doubled since 2012.

Residential building activity has increased each year since 2011, reaching the same value as consents in 2016 – \$4.8 billion. Residential building activity value has been lower than the value of building consents in the four years to 2016, suggesting that activity has not kept pace with building consents. In other words, there may be a backlog of work for residential consents. Therefore, residential building activity is likely to increase in 2017.



**Auckland residential building – consents and activity**  
 Value including alterations and additions  
 Year ended December

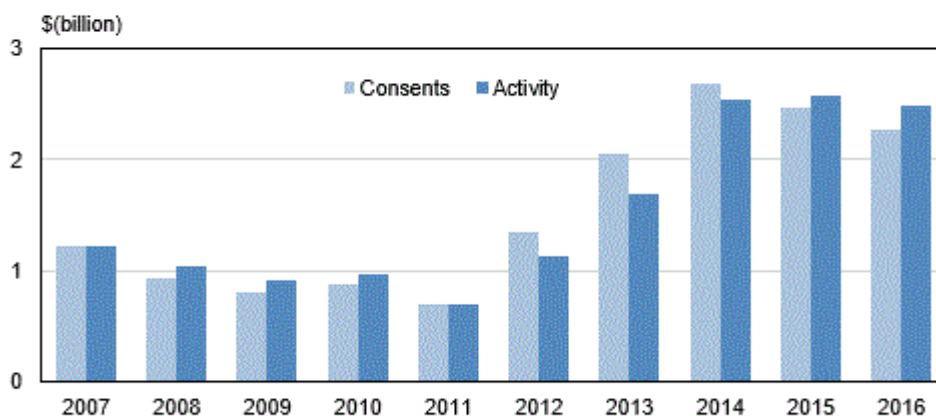


Source: Stats NZ

## Canterbury

Canterbury is the only major region where new dwelling numbers have fallen in the last two years. However, this follows three years of substantial growth due to rebuilding after the Canterbury earthquakes in September 2010 and February 2011. The 4,119 new houses consented in the 2016 year is over 10 percent more than the previous high levels in 2003 and 2004.

**Canterbury residential building – consents and activity**  
 Value including alterations and additions  
 Year ended December



Source: Stats NZ

In Canterbury, the value of residential building work was \$2.5 billion in each of the three years to 2016. New dwelling consents have fallen, so this value is expected to decrease in future.

## Non-residential building consents value

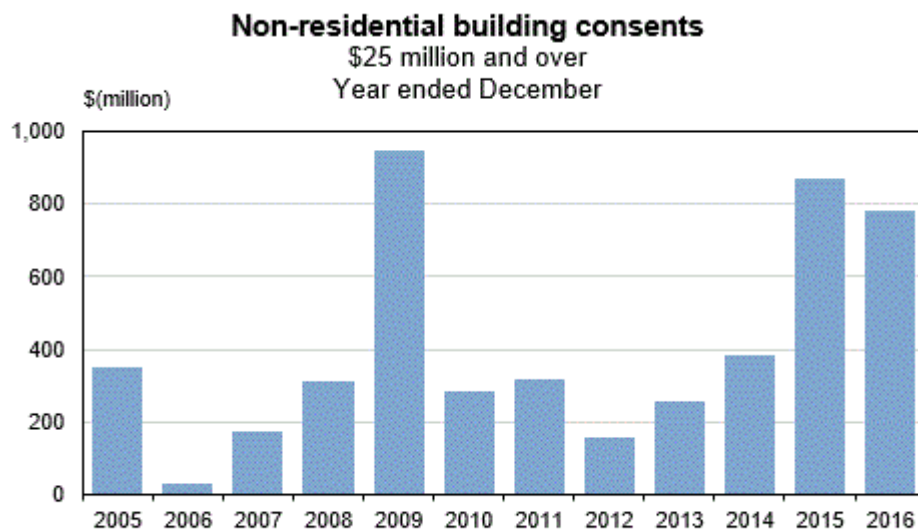
In the December 2016 year, the value of consents for work on non-residential buildings was \$6 billion, up 1.7 percent on the December 2015 year. This followed increases of 22 percent and 16 percent in the 2014 and 2015 years. In the last three years, about three-quarters of the value was

for new buildings, and the remainder was for alterations and additions to existing buildings. This varies over time, by building type and region.

In the December 2016 year, the non-residential building types with the highest value were:

- education buildings – \$1,226 million (up 11 percent on the December 2015 year)
- offices, administration, and public transport buildings – \$1,161 million (down 6.7 percent)
- shops, restaurants, and bars – \$757 million (down 3.4 percent).

Building activity on high-value building projects can take longer than on other projects, as few are able to deliver more than \$10 million worth of work each quarter. We publish non-residential building consent values for individual consents worth \$25 million or more.



Source: Stats NZ

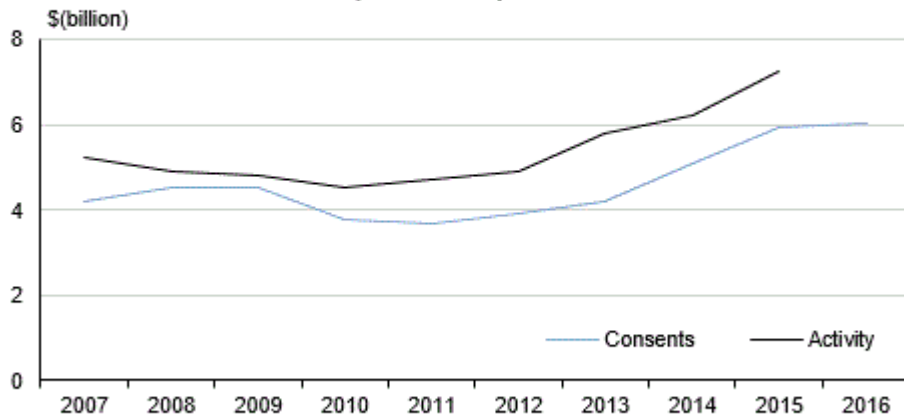
## Non-residential building activity

Non-residential building activity was \$7.2 billion in 2016, up 17 percent on 2015. The non-residential building types with the highest value of work were:

- offices, administration, and public transport buildings – \$1,789 million (up 28 percent on the December 2015 year)
- education buildings – \$1,228 million (up 32 percent)
- shops, restaurants, and bars – \$952 million (up 8 percent).

Much non-residential building activity 'put in place' during 2016 was consented in 2014 and 2015. However, some of the consents were issued three years earlier, and others in 2016.

**Non-residential buildings value –  
consents and activity**  
Year ended December  
Activity shown one year earlier



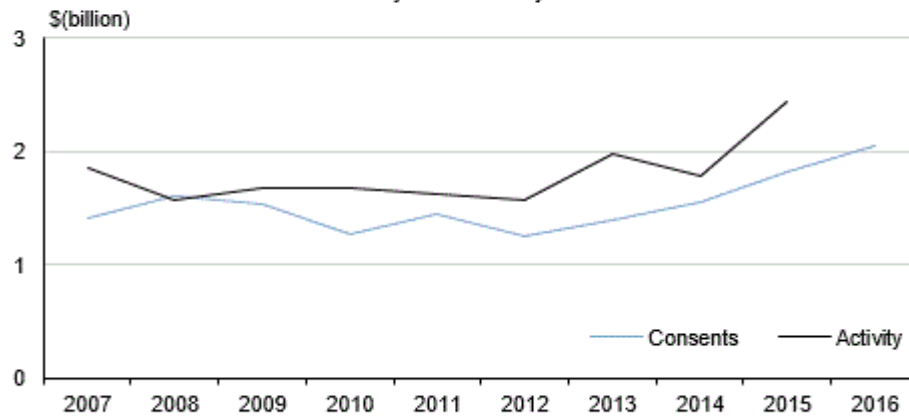
Source: Stats NZ

Non-residential building work for most building types grew in most regions in the December 2016 quarter.

## Auckland

In Auckland, the value of non-residential building consents reached \$2.0 billion in 2016, and building activity was \$2.4 billion, \$670 million higher than in 2015.

**Auckland non-residential buildings value –  
consents and activity**  
Year ended December  
Activity shown one year earlier

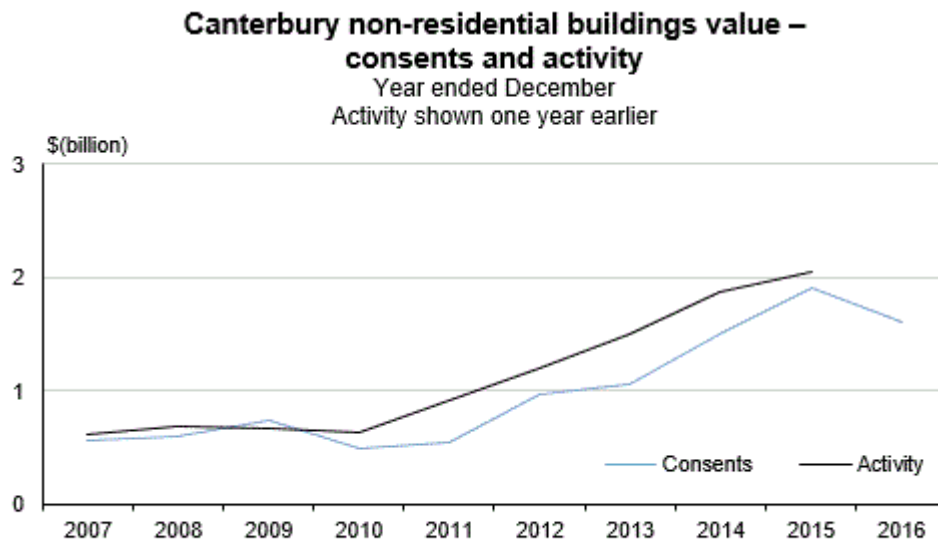


Source: Stats NZ

The value of non-residential building activity in 2017 is likely to be a similar level to the \$2.4 billion in 2016.

## Canterbury

In Canterbury, the value of non-residential building consents more than tripled from 2010 to 2015, reaching \$1.9 billion in 2015 when several hospital and government projects were consented. The value of non-residential consents fell 16 percent in 2016.



Source: Stats NZ

In Canterbury, non-residential building activity topped \$2.0 billion in 2016, more than double the 2012 value. Given the recent pattern of consents, non-residential building activity value in 2017 is likely to be similar to the \$2.0 billion in 2016.

## More information

See [Infoshare](#) for building consents and building activity data by building type and region.