



# BITRE STATISTICAL ALERT

Engineering Construction Activity (ABS cat. 8762.0)  
September quarter 2018

16 January 2019

## Overview

On 16 January 2019, the Australian Bureau of Statistics (ABS) released the September quarter 2018 edition of Engineering Construction Activity, Australia (ABS cat. 8762.0). This publication summarises Australian engineering construction activity (all construction activity other than houses and buildings) which is the best available indicator of infrastructure investment in Australia (see the glossary of terms on page 11). Of particular interest is infrastructure investment related to transport, water, mining and electricity.

All figures presented here are in real terms, adjusted for price changes using a deflator calculated by dividing the current value of total engineering construction for each quarter by the equivalent chain volume measure.

Unless otherwise indicated, figures here are original, not seasonally adjusted or trend figures.

## Summary

	Value (\$billion)	Total percentage change (%)		
		Sep quarter 2018	From Jun quarter 2018	From Sep quarter 2017
Engineering construction work done	22.3	-11.1	-35.2	6.1
Engineering construction work commenced (a)	17.3	-36.3	-30.7	-34.6
Engineering construction work yet to be done (b)	58.9	-3.6	21.4	-9.4
Transport engineering construction work done	7.2	-16.6	9.9	9.6
Transport engineering construction work commenced (a)	4.4	-22.6	-1.8	-60.2
Transport engineering construction work yet to be done (b)	28.5	-5.2	23.8	43.9

In the September quarter 2018, total engineering construction work done was 11.1 per cent lower than the previous quarter and 35.2 per cent lower than the same quarter in the previous year. The unusually large year-on-year fall is relative to a large spike in engineering construction in the September quarter 2017, which was likely driven by the construction of the Ichthys and Prelude facilities, though the floating LNG platforms were constructed overseas.<sup>1</sup>

Work done on transport projects in the September quarter 2018 was \$7.2 billion, a decline of 16.6 per cent from the previous quarter. The value of work yet to be done on transport projects underway during the quarter decreased by 5.2 per cent to \$28.5 billion in the September quarter 2018. This is still 23.8 per cent higher than the work yet to be done in the same quarter in 2017 and 43.9 per cent higher than the work yet to be done in the same quarter in 2008.

<sup>1</sup> See <https://www.businessinsider.com.au/australian-construction-work-plunge-gdp-implications-2018-2>

### Engineering construction by data type

The ABS releases three data series: original, seasonally adjusted, and trend. The original data set is unadjusted, except for price. The seasonally adjusted series takes into account normal seasonal factors, the varying numbers of working days in a quarter and the varying date of Easter. As a result, seasonally adjusted statistics reflect both irregular and trend movements. Trend estimates are derived from the seasonally adjusted series, which is smoothed to reduce the impact of irregular changes.

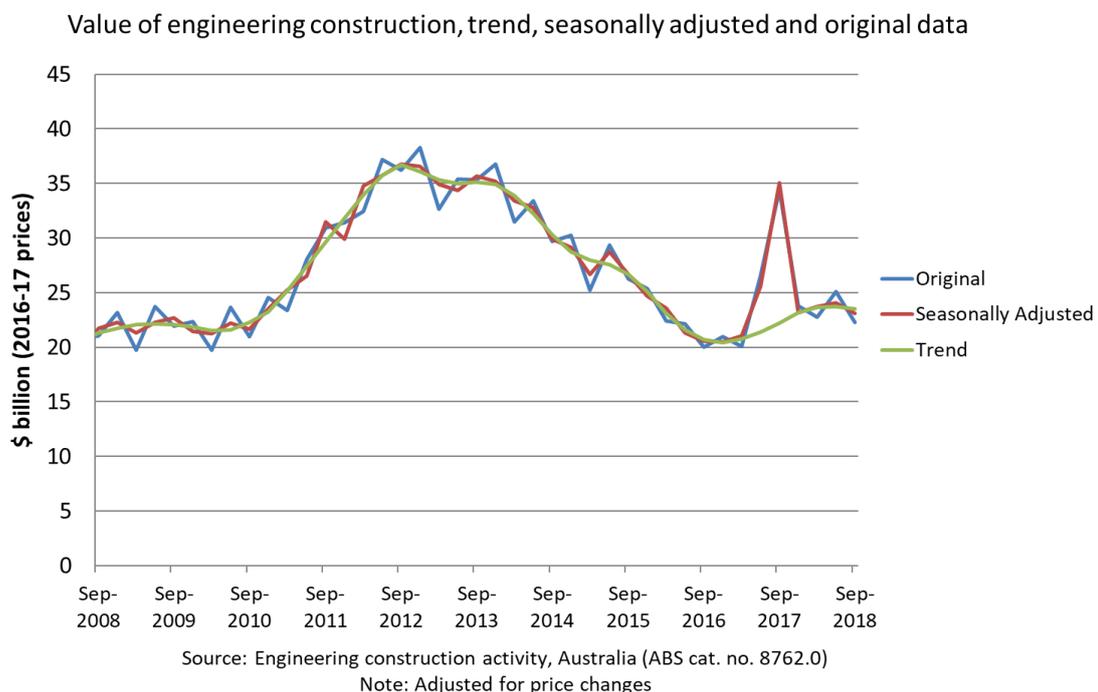
All the data presented in this statistical alert uses chain volume estimates. This measure reflects changes in value after the direct effects of price changes have been removed.

The value of engineering construction work done (original data) in the September quarter 2018 was \$22.3 billion, a decrease of 11.1 per cent from the previous quarter and a decrease of 35.2 per cent compared to the same quarter in 2017. However it is an increase of 6.1 per cent compared to a decade ago.

The seasonally adjusted value of engineering construction work done in the September quarter 2018 was \$23.1 billion, a decrease of 3.8 per cent from the previous quarter and a reduction of 34.0 per cent compared to the same quarter in 2017. However it is an increase of 6.3 per cent compared to a decade ago.

The trend value of engineering construction work done in the September quarter 2018 was \$23.5 billion, a decrease of 0.7 per cent from the previous quarter, an increase of 5.9 per cent compared to the same quarter in 2017 and an increase of 10.5 per cent compared to a decade ago.

The remainder of this release reports original data, to show seasonal variations and individual projects.

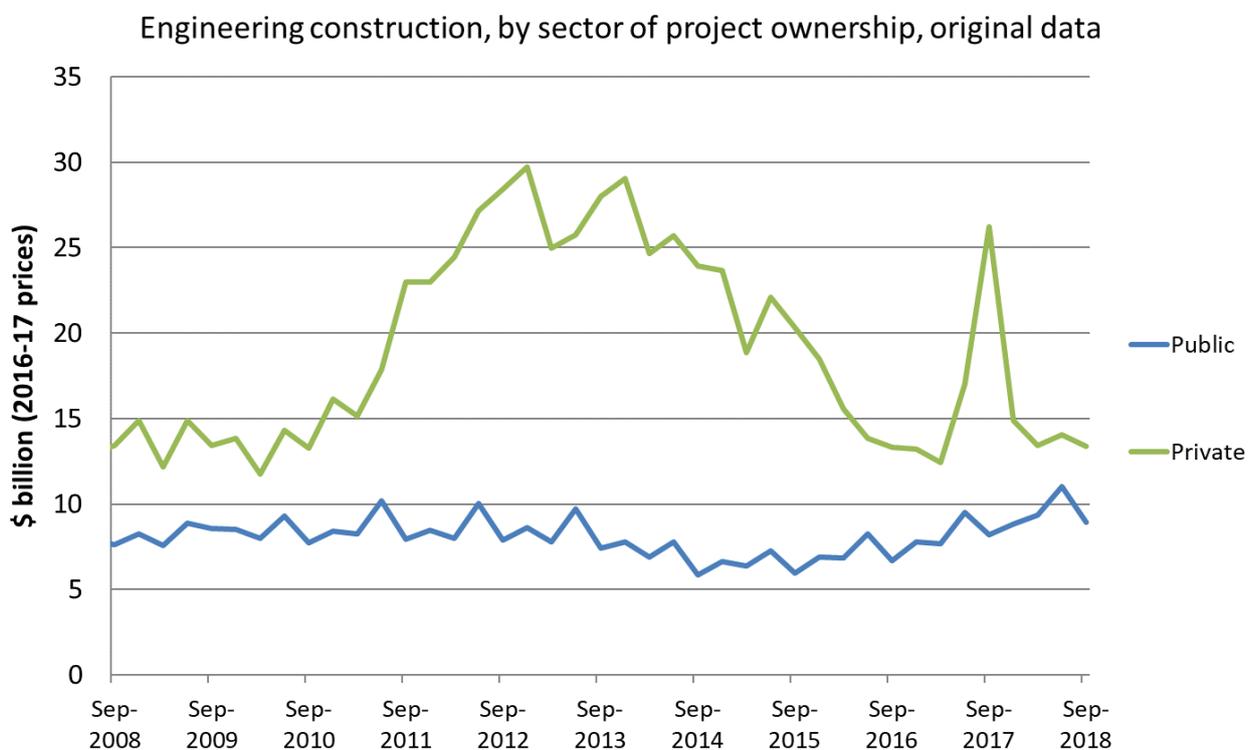


### Engineering construction by sector

The value of engineering construction work done for the public sector decreased by 19.1 per cent to \$8.9 billion in the September quarter 2018. However, this is still 9.0 per cent higher than the same quarter in 2017 and 17.3 per cent higher than the same quarter in 2008.

In the September quarter 2018, engineering construction work done for the private sector decreased by 4.7 per cent to \$13.4 billion. This is 49.0 per cent lower than the same quarter in 2017 but 0.4 per cent higher than the same quarter in 2008.

The unusually large decrease in the value of work done for the private sector in the September quarter 2018 compared to the September quarter 2017 results reflects a large spike in engineering construction in the September quarter 2017. This spike was likely driven by the construction of the Ichthys and Prelude facilities, although the floating LNG platforms were constructed overseas.<sup>2</sup>



Source: Engineering Construction Activity, Australia (ABS cat.no. 8762.0)  
 Note: Adjusted for price changes

<sup>2</sup> See <https://www.businessinsider.com.au/australian-construction-work-plunge-gdp-implications-2018-2>

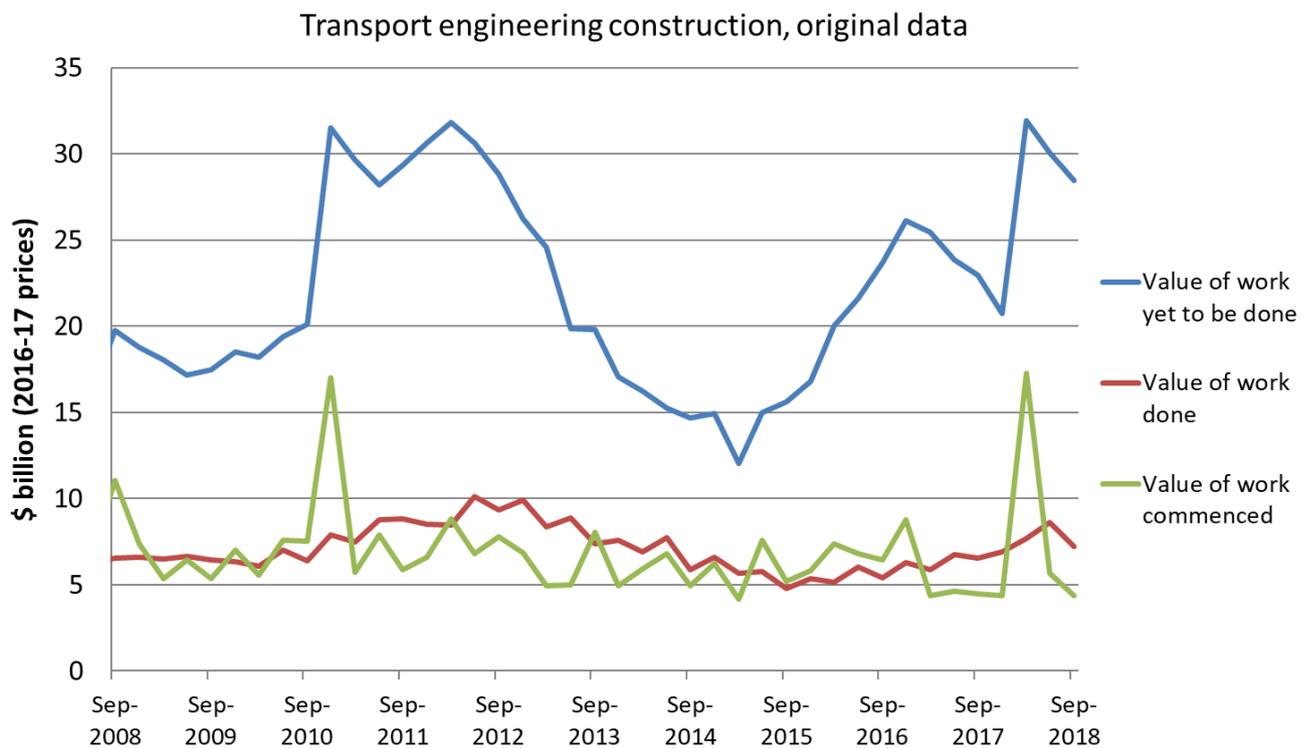
### Transport infrastructure — National

The three variables shown here are: the value of work done on all projects during the quarter, the value of (new) work commenced during the quarter and value of work yet to be done on all projects underway at the end of the quarter<sup>3</sup>. Care should be taken comparing the value of work yet to be done to the other two variables as it is a stock while the value of work done and value of work commenced are flows. For large projects the work yet to be done may be done over a number of years.

In the September quarter 2018, the value of engineering work done on transport infrastructure decreased by 16.6 per cent to \$7.2 billion. The work done in the September quarter 2018 is 9.9 per cent higher than the same quarter in 2017 and 9.6 per cent higher than the work done in the same quarter in 2008.

The value of work yet to be done on transport projects underway at the end of the quarter decreased by 5.2 per cent to \$28.5 billion at the end of the September quarter 2018. This is still 23.8 per cent higher than the work yet to be done at the end of the same quarter in 2017 and 43.9 per cent higher than the work yet to be done on the same day in 2008.

The value of work commenced decreased by 22.6 per cent to \$4.4 billion in the September quarter 2018. The value of work commenced in the September quarter 2018 is 1.8 per cent lower than the work commenced in the same quarter in 2017 and 60.2 per cent lower than the work commenced in the same quarter in 2008.



Source: Engineering Construction Activity, Australia (ABS cat. no. 8762.0)  
 Note: Adjusted for price changes

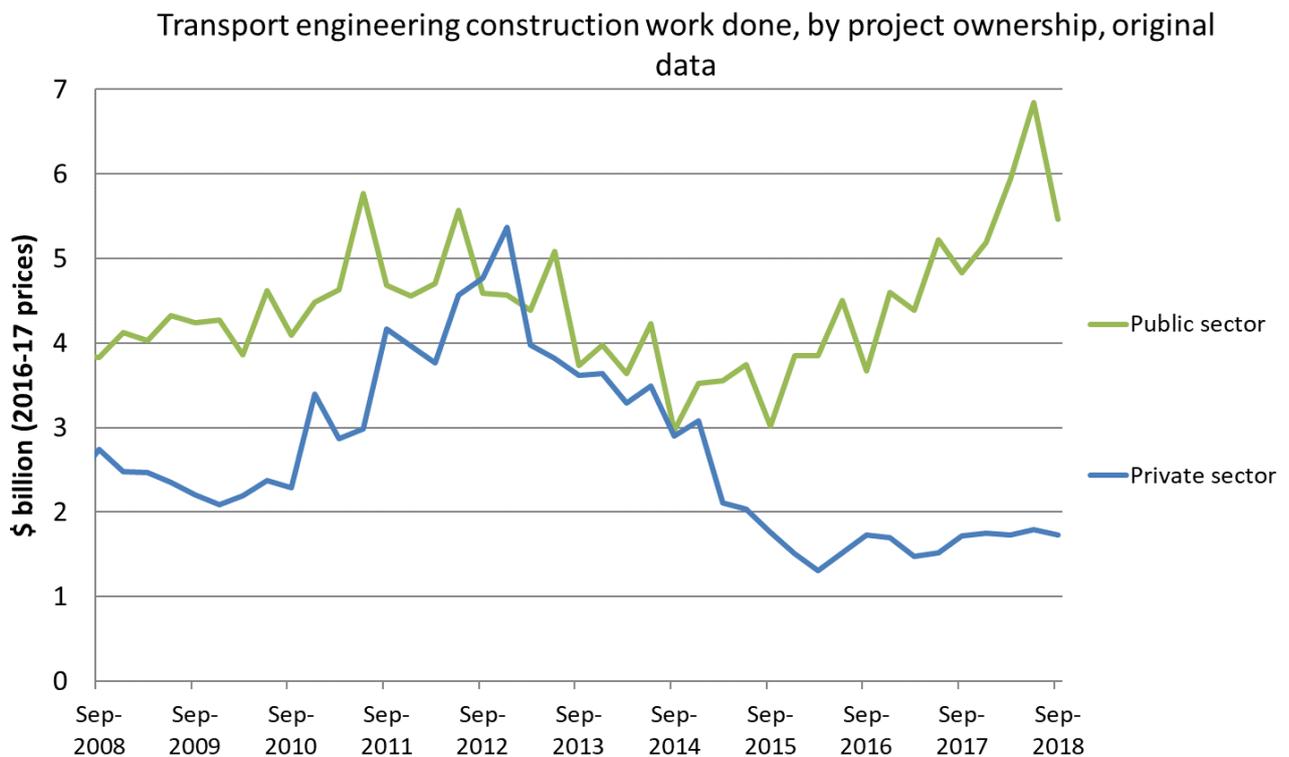
<sup>3</sup><http://www.abs.gov.au/AUSSTATS/abs@.nsf/DSSbyCollectionid/C72D2A48BAE3CA24CA2570DC0017C678?opendocument>. Also see the Glossary on page 11 for more detail.

### Transport construction by sector

Work done on publicly-owned transport projects decreased by 20.2 per cent to \$5.5 billion in the September quarter 2018. This is still 13.1 per cent higher than the work done in the same quarter in 2017 and 42.6 per cent higher than the work done in the same quarter in 2008.

The decrease in work done on publicly-owned transport projects was primarily driven by a 23.9 per cent decrease to \$3.7 billion in the engineering construction work done on publicly-owned road related infrastructure. However, the value of work done on publicly-owned road related construction is still 4.9 per cent higher than the same quarter in 2017 and 21.6 per cent higher than the same quarter in 2008.

In the September quarter 2018, transport infrastructure work done for the private sector decreased by 3.1 per cent to \$1.7 billion, well below the peak of \$5.4 billion in the December quarter 2012.



Source: Engineering Construction Activity, Australia (ABS cat. no. 8762.0)  
 Note: Adjusted for price changes

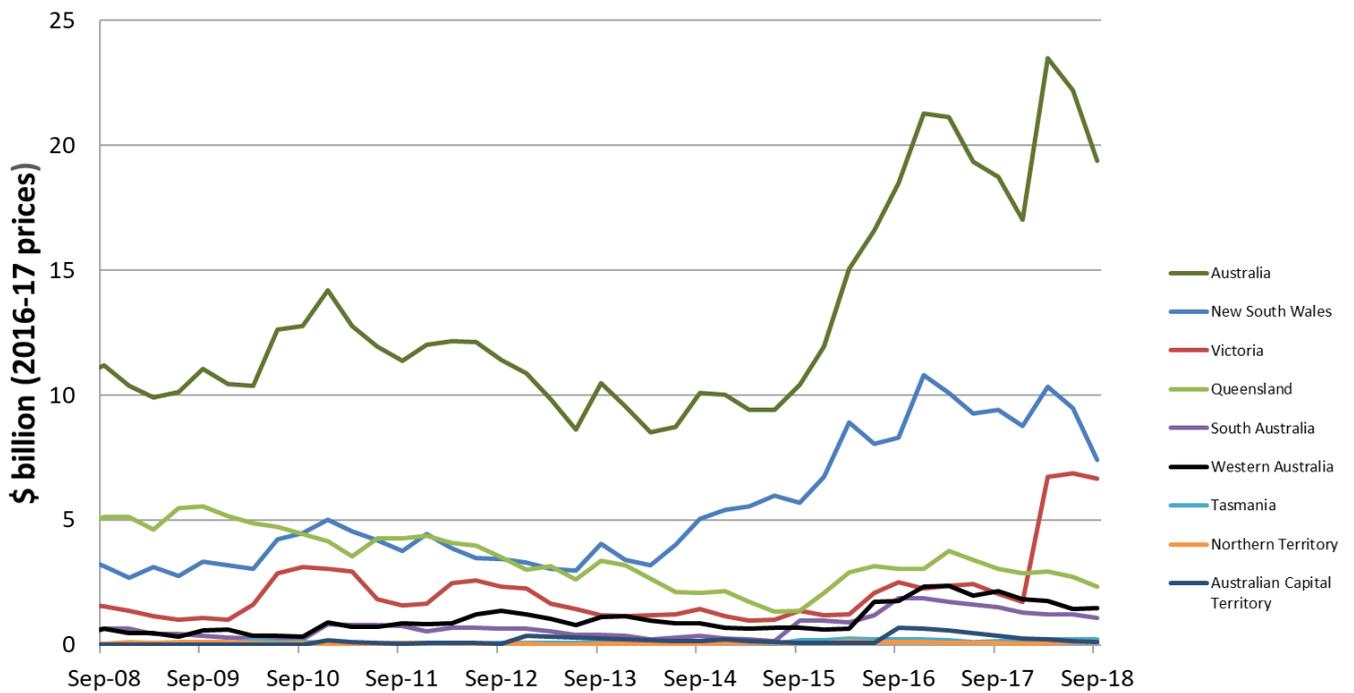
### Public sector transport infrastructure — Work yet to be done by jurisdiction

Work yet to be done on public sector<sup>4</sup> transport projects already underway at the end of the September quarter 2018 was \$19.4 billion. The figure for the September quarter was 12.7 per cent lower than the previous quarter, but still 3.5 per cent higher than the September quarter 2017 and 73.2 per cent higher than the September 2008 quarter.

New South Wales had the highest value of work yet to be done on public sector transport projects with \$7.4 billion at the end of the September quarter 2018. The next highest jurisdiction was Victoria which had \$6.7 billion worth of public sector transport projects with work yet to be done at the end of the September quarter 2018.

Compared to the end of the previous quarter, work yet to be done on public sector transport projects increased in Western Australia, Tasmania and the Northern Territory and decreased in every other jurisdiction.

Transport engineering construction work yet to be done for the public sector, by jurisdiction, original data



Source: Engineering Construction Activity, Australia (ABS cat. no. 8762.0)  
 Note: Adjusted for price changes.

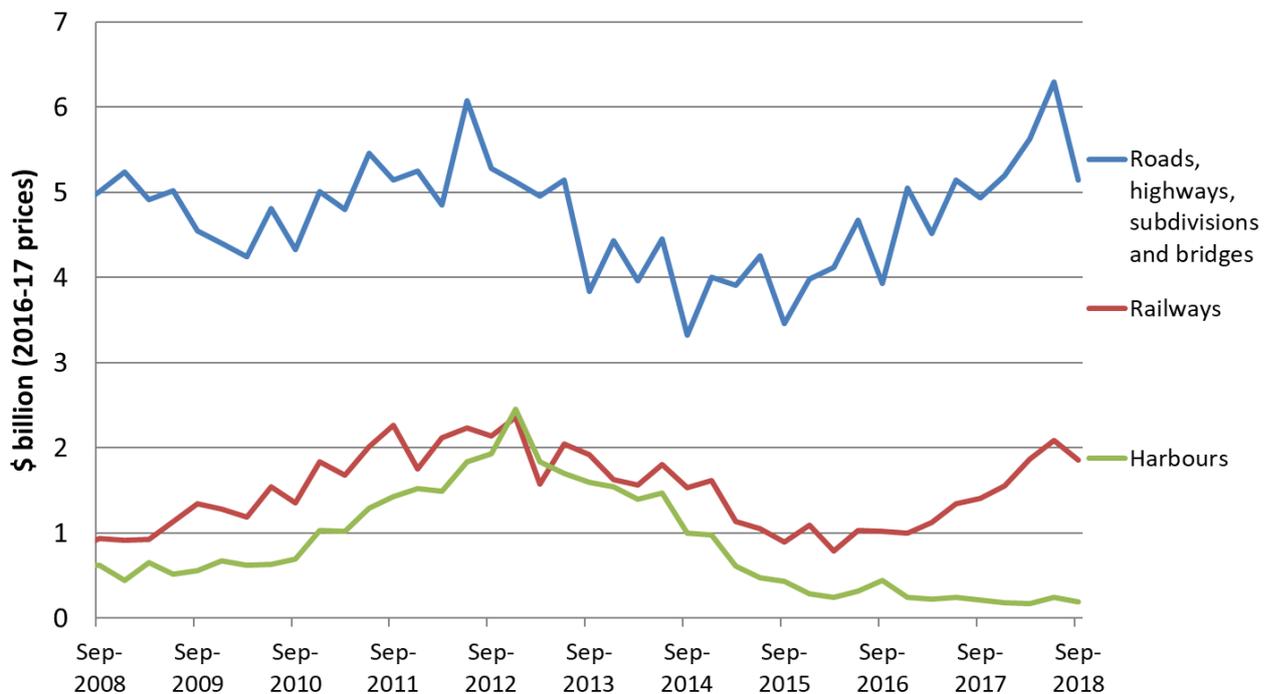
<sup>4</sup> This also includes work yet to be done by the private sector for the public sector.

### Transport infrastructure by mode of transport

In the September quarter 2018, the value of road related engineering construction work done decreased by 18.4 per cent to \$5.1 billion. The value of railway engineering construction work done decreased by 10.8 per cent to \$1.9 billion in the September quarter 2018. Harbour engineering construction work done decreased by 21.2 per cent to \$0.2 billion.

Compared to the same quarter in 2008, the value of engineering construction work done on road and rail related infrastructure increased by 2.6 per cent and 99.1 per cent respectively. In contrast, the value of engineering construction work done on harbours is 68.6 per cent lower than the same quarter ten years ago.

Transport engineering construction, by mode of transport, original data



Source: Engineering Construction Activity, Australia (ABS cat. no. 8762.0)

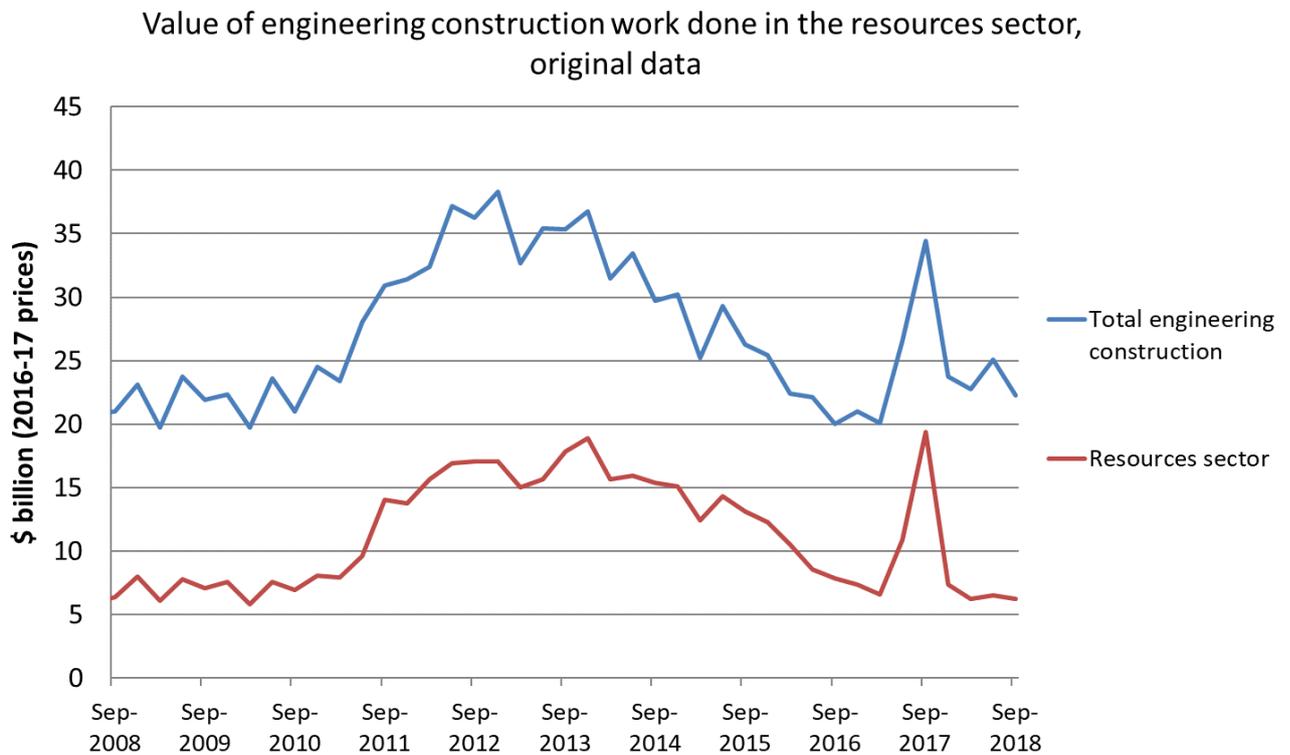
Note: Adjusted for price changes

### Engineering construction work done and the resources sector<sup>5</sup>

The value of private and public engineering construction work done in the resources sector decreased by 4.3 per cent to \$6.2 billion in the September quarter 2018. This is 2.5 per cent lower than work done in the same quarter in 2008.

There were unusually large quarterly increases in the private sector engineering construction work done in the June and September quarters 2017 which were reversed in the December 2017 quarter. These were likely driven by the importation of floating LNG platforms, as noted on page 2.

Prior to the peak of \$19.4 billion in the September quarter 2017, total engineering construction work done in the resources sector peaked at \$18.9 billion in the December quarter 2013. In the September quarter 2018, the resources sector made up 28.0 per cent of all engineering construction, which is much smaller than the 51.4 per cent seen during the height of the mining construction boom in the December quarter 2013 but comparable to the 30.4 per cent seen in the December quarter 2008.



Source: Engineering Construction Activity, Australia (ABS cat. no. 8762.0)

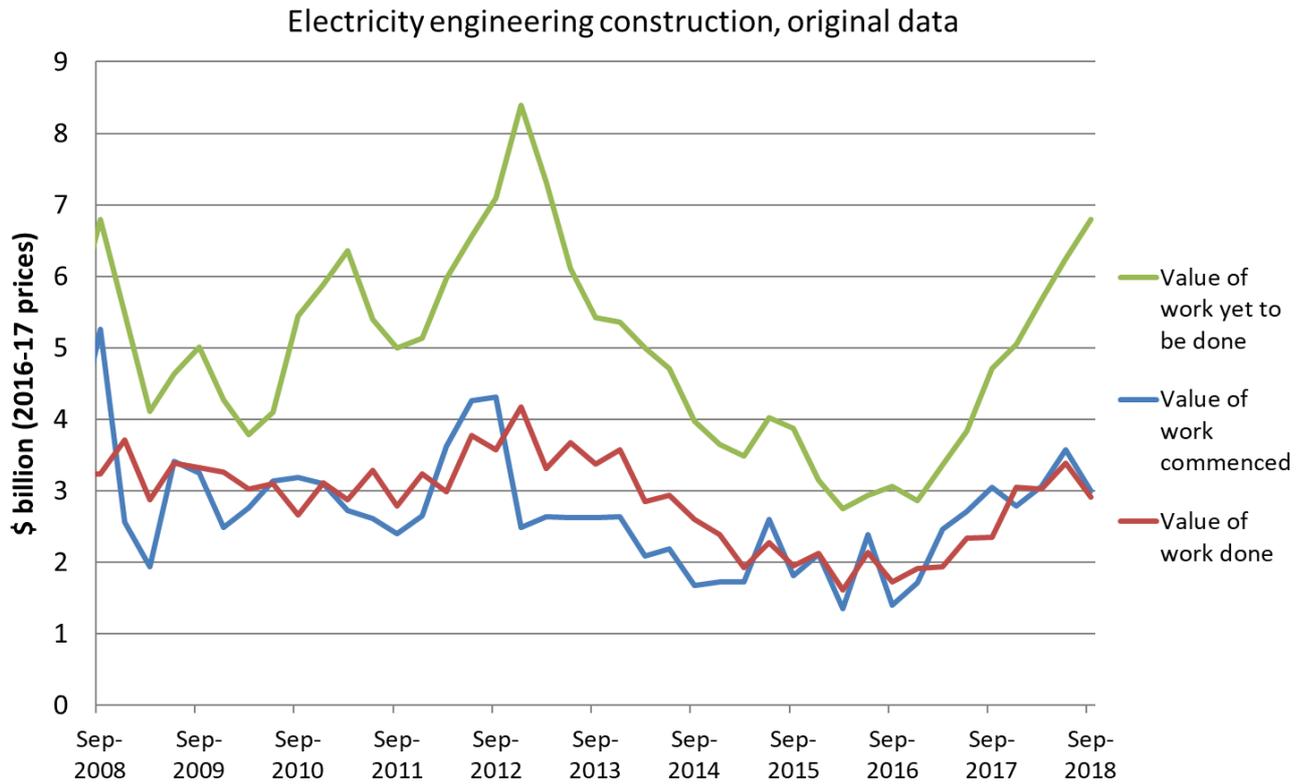
Note: Adjusted for price changes

<sup>5</sup> The resources sector refers to the ABS category "oil, gas, coal and other minerals".

### Electricity infrastructure construction

The value of electricity infrastructure construction work done decreased by 14.0 per cent to \$2.9 billion in the September quarter 2018.

In the September quarter 2018, the value of work commenced decreased by 16.1 per cent to \$3.0 billion. At the end of the September quarter 2018, the value of work yet to be done had increased by 8.6 per cent to \$6.8 billion.

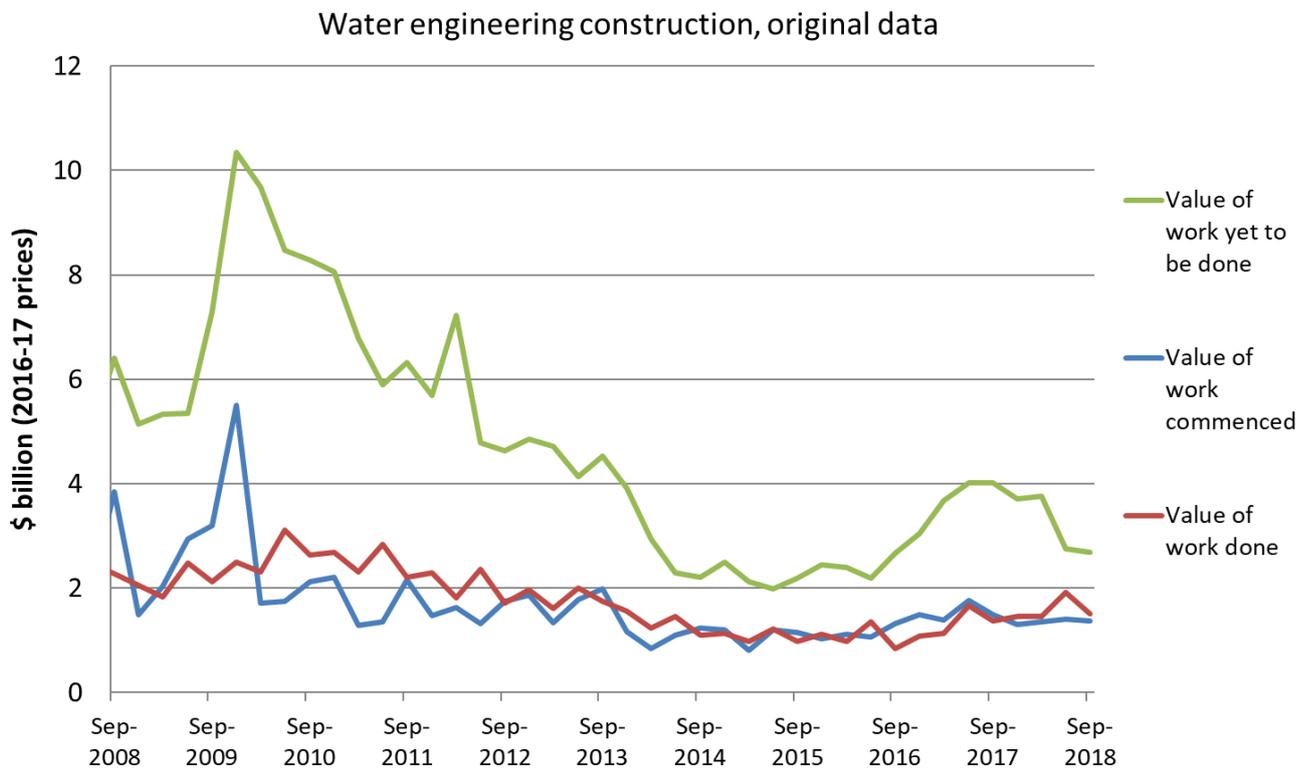


Source: Engineering Construction Activity, Australia (ABS cat. no. 8762.0)  
 Note: Adjusted for price changes

### Water infrastructure construction

In the September quarter 2018, the value of water infrastructure work done decreased by 21.4 per cent to \$1.5 billion. In the same quarter, the value of work yet to be done decreased by 2.3 per cent to \$2.7 billion. The value of work commenced decreased by 2.0 per cent to \$1.4 billion by the end of the September quarter 2018.

From June 2006, water infrastructure construction work done increased markedly. The growth related to work on the South East Queensland Water Grid and desalination plants in New South Wales, Victoria and South Australia in response to the millennium drought. Since the completion of these projects, activity has significantly declined.



Source: Engineering Construction Activity, Australia (ABS cat. no. 8762.0)  
 Note: Adjusted for price changes

## Glossary

Engineering construction	<p>Value of engineering construction includes work done on:</p> <ul style="list-style-type: none"> <li>• Roads, highways and subdivisions and airport runways,</li> <li>• Bridges</li> <li>• Railways and tramways</li> <li>• Harbours</li> <li>• Water storage and supply, sewerage and drainage</li> <li>• Electricity generation, transmission and distribution</li> <li>• Pipelines (other than water)</li> <li>• Recreation</li> <li>• Telecommunications</li> <li>• Heavy industry</li> </ul>
Building construction	<p>A building is a rigid, fixed and permanent structure which has a roof. Its intended purpose is primarily to house people, plant, machinery, vehicles, goods or livestock.</p>
Chain Volume Measures	<p>Measures that have been adjusted to take into account price variations.</p>
Resources sector	<p>Oil, gas, coal and other materials – includes construction of production, storage and distribution of facilities, refineries, pumping stations and construction of mines.</p>
Value of work done	<p>This value only includes work carried out during the quarter.</p>
Value of work commenced	<p>A project is regarded as having commenced when the site works begin, with some exceptions:</p> <ul style="list-style-type: none"> <li>• Some public sector authorities are unable to report on this basis. In such cases, the authorities report the value of their annual works budget in September quarter each year.</li> <li>• For very large projects, where a significant amount of work is done off-site, the project may be commenced before the site works begin.</li> </ul>
Value of work yet to be done	<p>The value of work yet to be done on all projects underway at the end of the quarter. Cost variations can lead to increases or decreases in the value of work yet to be done.</p>

**Next scheduled release**

27 March 2019 - Engineering Construction Activity, Australia - ABS cat. 8762.0 (December quarter 2018)

**Related ABS releases**

2 November 2018 - Producer Price Indexes, Australia - ABS cat. 6427.0 (September quarter 2018)

28 November 2018 - Construction Work Done, Australia- ABS cat. 8755.0 (September quarter 2018)

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**Acknowledgement**

The Australian Bureau of Statistics releases the data summarised in this alert.

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