Country Report

SINGAPORE

新加坡建築商公會有限公司
THE SINGAPORE CONTRACTORS ASSOCIATION LTD
Building Our Nation Together

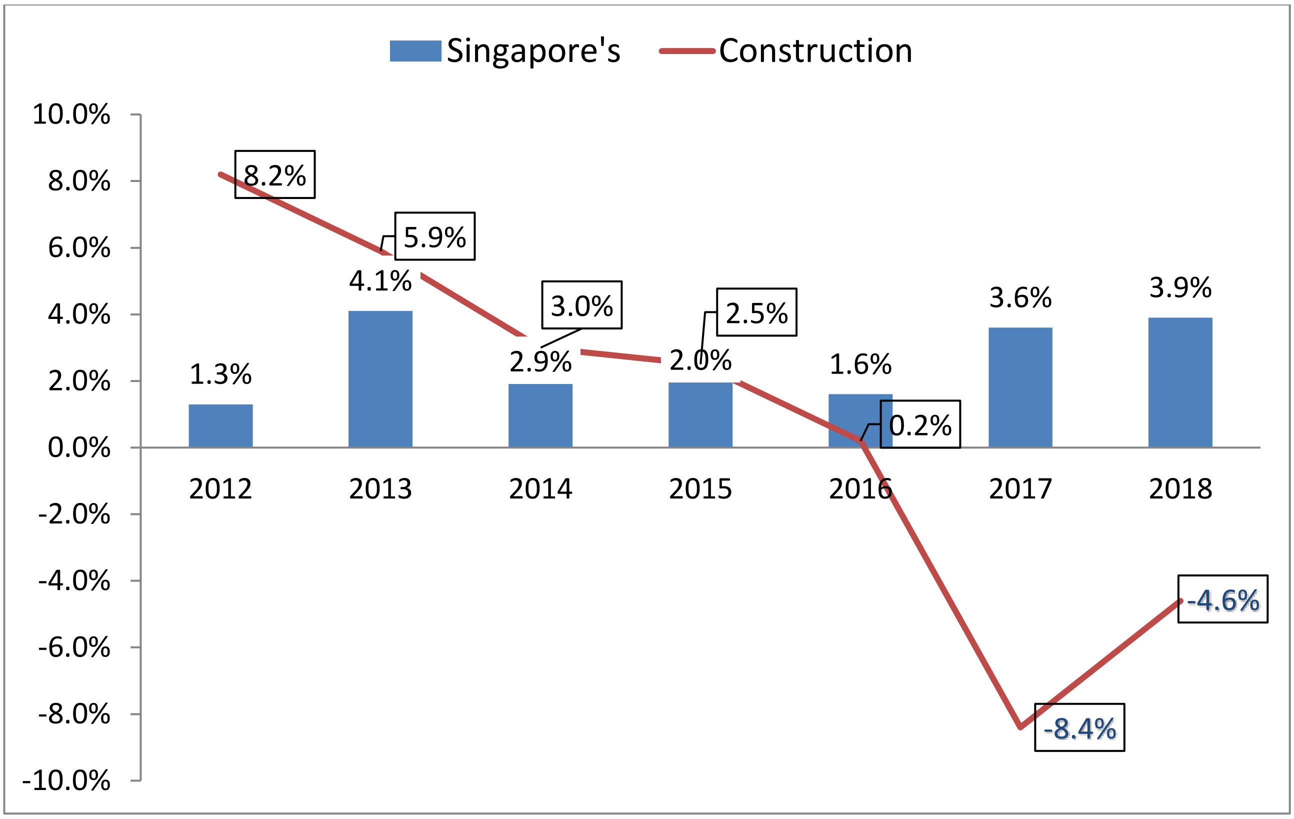
1 Overview of the Macroeconomic of Singapore for the Year 2018

1.1 The Singapore Economy Performance in 2018

The Singapore economy grew by 3.9% on a year-on-year basis in the second quarter, easing from the 4.5% growth in the preceding quarter. Similarly, the economy expanded slowly at 0.6%, moderating from the 2.2% growth in the last quarter, on a quarter-on-quarter seasonally-adjusted annualised basis.

Economic expansion is likely to abate in 2018 as domestic demand is expected to reduce by continued weakness in public sector construction activities. The construction sector contracted by 4.6% on a year-on-year basis in 2018, easing from the 5.2% decline in the previous quarter. On a quarter-on-quarter seasonally-adjusted annualised basis, the sector shrank by 15.4%, a reversal from the 0.8% growth in the preceding quarter.

Source: Ministry of Trade and Industry



Source: Ministry of Trade and Industry

1.2 Economic Outlook for 2018

The Ministry of Trade and Industry (MTI) has expected the GDP growth for 2018 to be between 2.5% to 3.5% in 2018, in contrast to the 1.5% to 3.5% announced previously.

However, uncertainties and downside risks in the global economy have increased since the beginning of this year that could dampen expectations. First, recent protectionist actions and US tariff measures have led to retaliatory tariffs imposed on the US by China, the European Union (EU) and several US key trading partners, resulting in a risk of further escalation of ongoing trade conflicts that could lead to vicious tit-for-tat measures between US and other major economies. If occurs, it could adversely impact the international trade as well as dampen investors and consumers' confidence, and in turn, affecting the global trade flows and global growth. Second, against the backdrop of rising global interest rates and generally tightening financial conditions, financial vulnerabilities in emerging market economies could arise, particularly for those regions with elevated debt levels. If this occurs, there could be some pullback in investment and consumption growth in these economies.

Against this external backdrop, the pace of expansion for Singapore is expected to moderate in the second half of 2018, following the strong performance in the first half year, with the primary support by the outward-oriented sectors. The manufacturing sector, supported partly by the electronics cluster, is expected to continue to expand although growth will moderate from the high figures seen in the first quarter of 2018. Similarly, while outward-oriented services sectors such as finance and insurance, wholesale trade and transportation & storage are projected to remain on an expansionary path, their growth momentums are likely to ease in tandem with the moderation in growth projected for key advanced and regional economies in the second half of 2018.

Moreover, growth in domestic concentrated service sectors such as retail and food services is likely to be supported by a pickup in consumer sentiments amidst improvements in the labour market. Sectors like information & communications and other services are also projected to stay resilient. On the contrary, the construction sector is likely to underperform for the rest of the year, given the earlier weakness in awarded contracts.

In consideration of the global and domestic economic environment, as well as the performance of Singapore economy in the first half year, the GDP growth forecast for 2018 is maintained at "2.5 to 3.5%".

Source: Ministry of Trade and Industry

2 Singapore Construction Industry Performance

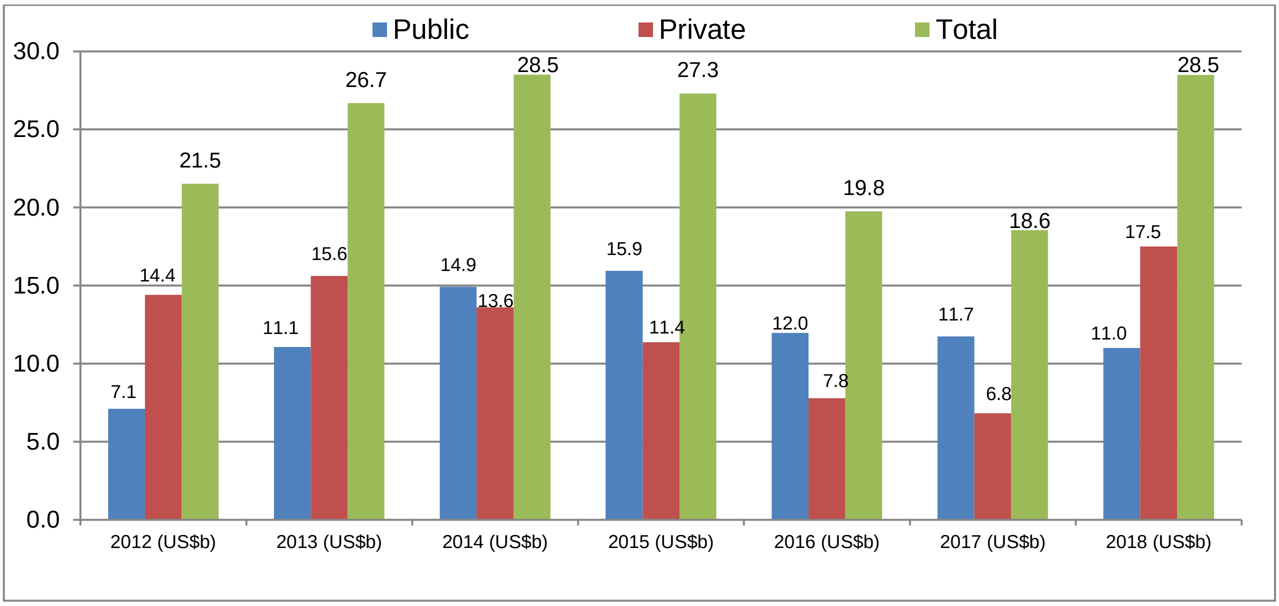
2.1 Construction Sector Overview for 2018

The construction sector contracted by 4.6% on a year-on-year basis in the second quarter of 2018, easing from the 5.2% decline in the previous quarter. This could be largely attributed to the weakness in public sector construction output.

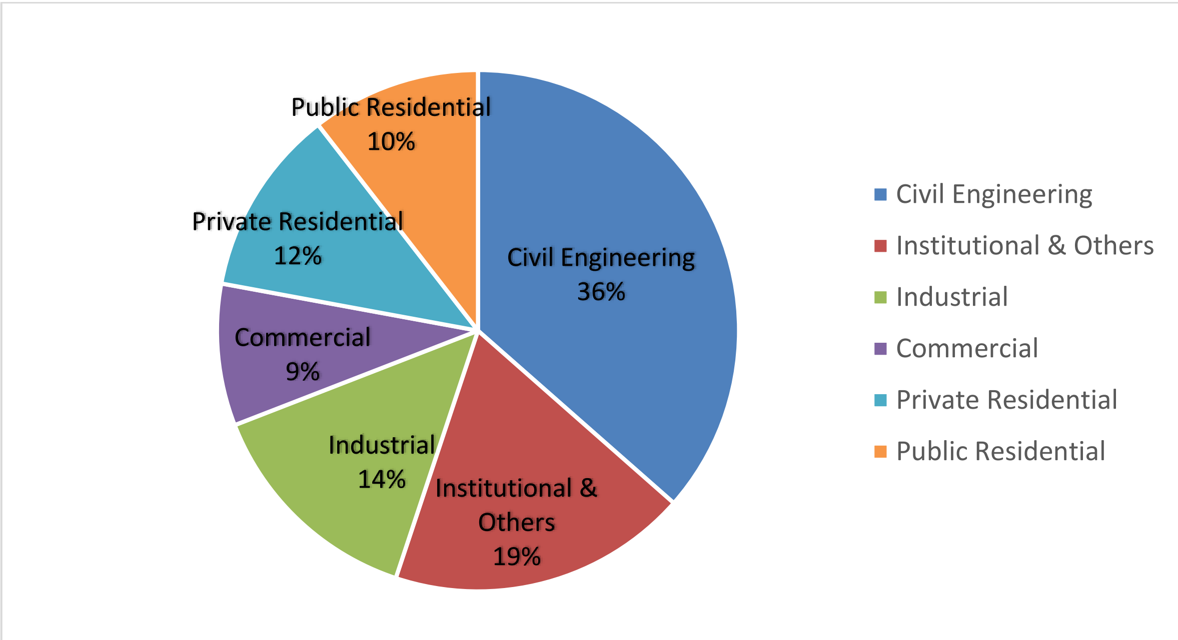
In the second quarter, nominal certified progress payments, a factor for construction output, fell by 5.6%, although this was an improvement from the 14% decline in the first quarter (Exhibit 2.3). The reduction in construction output was due to a dive in public certified progress payments (-11%), which was in turn implicated by contractions in public institutional & other building works (-33%) and public residential building works (-7.6%). In contrast, private certified progress payments increased marginally by 0.3%, driven mainly by an expansion in private industrial building works (26%). On the other hand, construction demand in terms of awarded contracts continued to increase, boosting to 15% in the second quarter, extending the 73% increase in the previous quarter (Exhibit 2.3). This was due to a rise in public sector construction demand (39%) resulting in an increased demand for public civil engineering works (185%) and public residential building works (39%). Conversely, private sector construction demand fell by 14%, a reversal from the 80% rise in the preceding quarter. This decline was mainly due to weakness in contracts awarded for private industrial building works (-58%) and private institutional & other building works (-58%).
Source: Ministry of Trade and Industry

Exhibit 2.3: Changes in Contracts Awarded and Certified Payments

2.2 Construction Demand up to 2018



Source: Building Construction Authority (BCA) Infonet
^US$1= S$1.37 as of 16.8.2018
*excluding reclamation projects



Source: Building Construction Authority (BCA) Infonet

2.3 Impact on Construction Demand on Output

In the second quarter of 2018, the total nominal construction output fell to US$6.39 billion, a decrease of 5.9% compared to the same quarter of 2017. The public sector fell to US$3.09 billion, a drop of 9.1% as compared to the same quarter of the preceding year. The public sector construction output, mainly supported by notable projects, includes residential projects of new public housing construction, upgrading works for HDB flats, and a number of upcoming sizeable condominium projects earmarked for development at Shunfu Road, Stirling Road, Hougang Avenue 7 and Upper Serangoon Road.

Total private sector construction output remained similar at US$3.3 billion for the second quarter of 2018 as to the same quarter of the preceding year. Nonetheless, the construction output for private sector continues to increase gradually in the medium term, boosted by the redevelopment of en-bloc sale sites and the spill-over benefits generated by the improved performance and outlook in other economic sectors. Projects slated to be awarded in 2018 include commercial projects for major upcoming office building at locations such as Central Boulevard and Harbour Drive, industrial projects at Jalan Terusan and a multi-storey recycling facility in Northern Singapore, redevelopment of National Skin Centre at Mandalay Road and Woodlands Integrated Health Campus, nature-based attractions and recreational facilities for tourists at Mandai Park and civil engineering projects for the North-South Corridor, new MRT works and Deep Tunnel Sewerage System (DTSS) phase 2 as well as rolling out of the remaining package for Runway 3 by Changi Airport Group.

Based on the contracts awarded in the past few years and considering the construction demand forecast for 2018, total nominal construction output in 2018 is projected to remain subdued at between $26 billion and $28 billion as compared to the estimated $28 billion in 2017. This is due to the continued drag from the significant slowdown in private sector construction demand since 2015.
Source: Building Construction Authority (BCA) Infonet

2.4 Construction Demand Outlook for 2019

Anticipating a strong pipeline of construction projects over the medium term, the Building and Construction Authority (BCA) forecasts construction demand to see an improvement at between US$26.0 to US$33.0 billion in 2019.

Public sector construction demand is also anticipated to strengthen gradually from US$16.0 billion to US$20.0 billion in 2019. In tandem with the current slow progression in the property market and continued economic uncertainties, private sector construction demand is projected to increase moderately in the medium term, boosted by the redevelopment of en-bloc sale sites and the spill-over benefits generated by the improved performance and outlook in other economic sectors.

2.5 Summary

1) Construction output is anticipated to strengthen over the medium term. The industry should take the opportunity to build up its capabilities in areas such as construction quality excellence through the adoption of effective and productive construction methods such as DfMA.

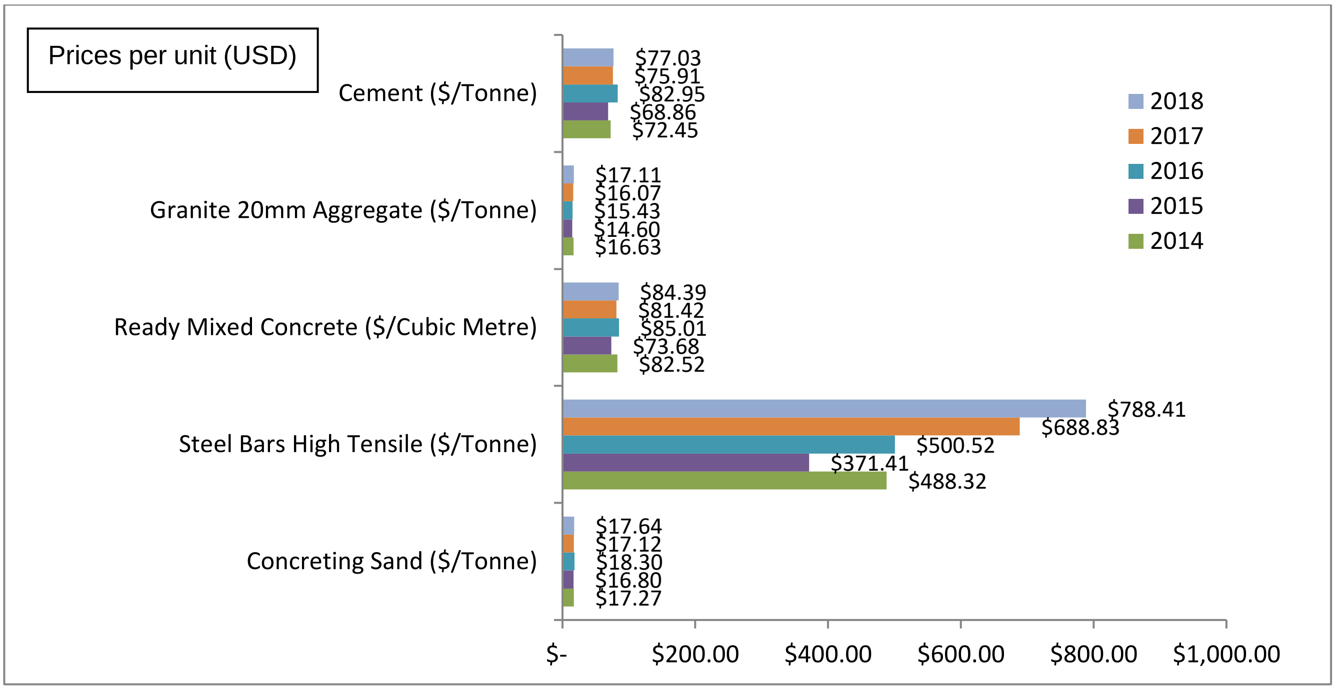
2) Both public and private sector construction are sustained with the upcoming support by notable public infrastructure developments and industrial projects.

3) BCA will continue to work with tripartite partners to transform the industry and realise the vision of the Construction Industry Transformation Map (ITM).

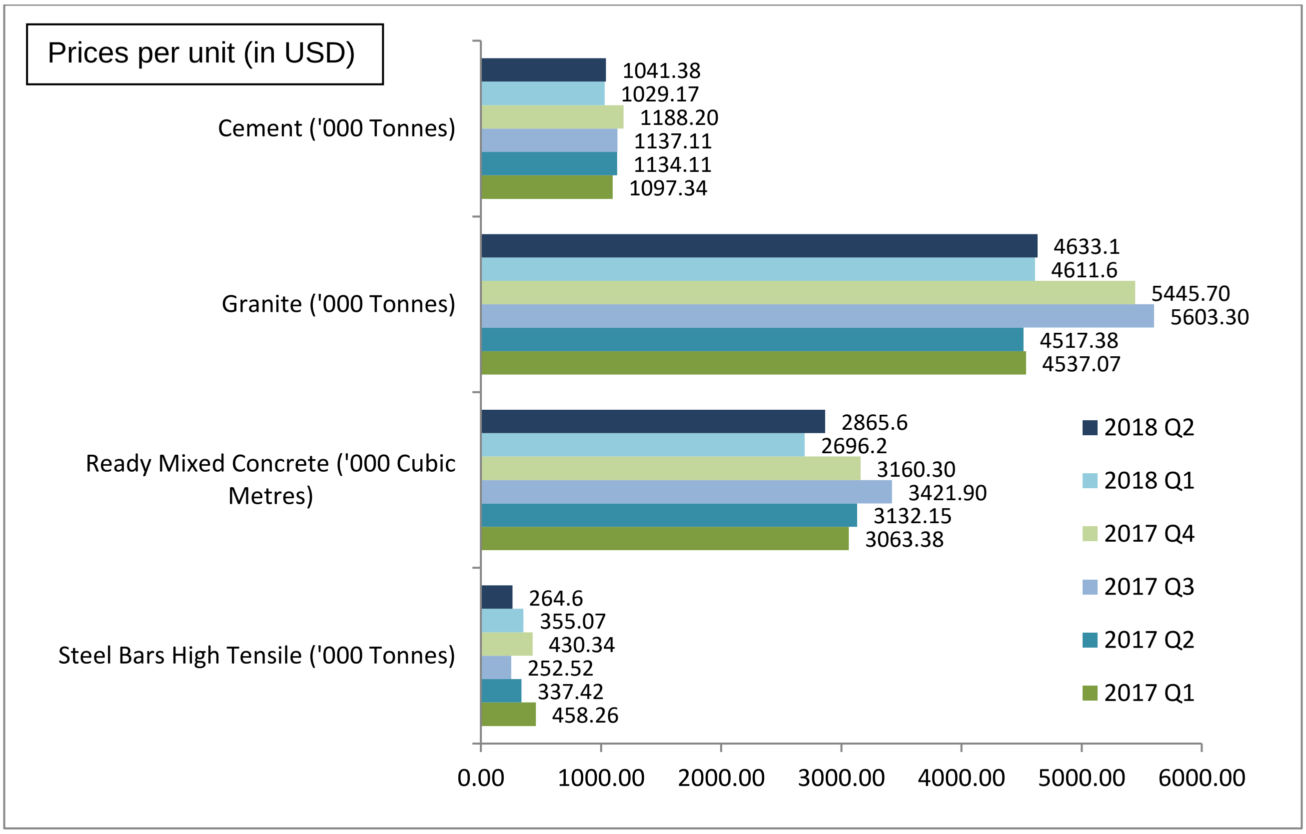
Source: Building Construction Authority Infonet

3 Building and Construction Cost Indices

3.1 Prices of Construction Materials from 2014 to 2018

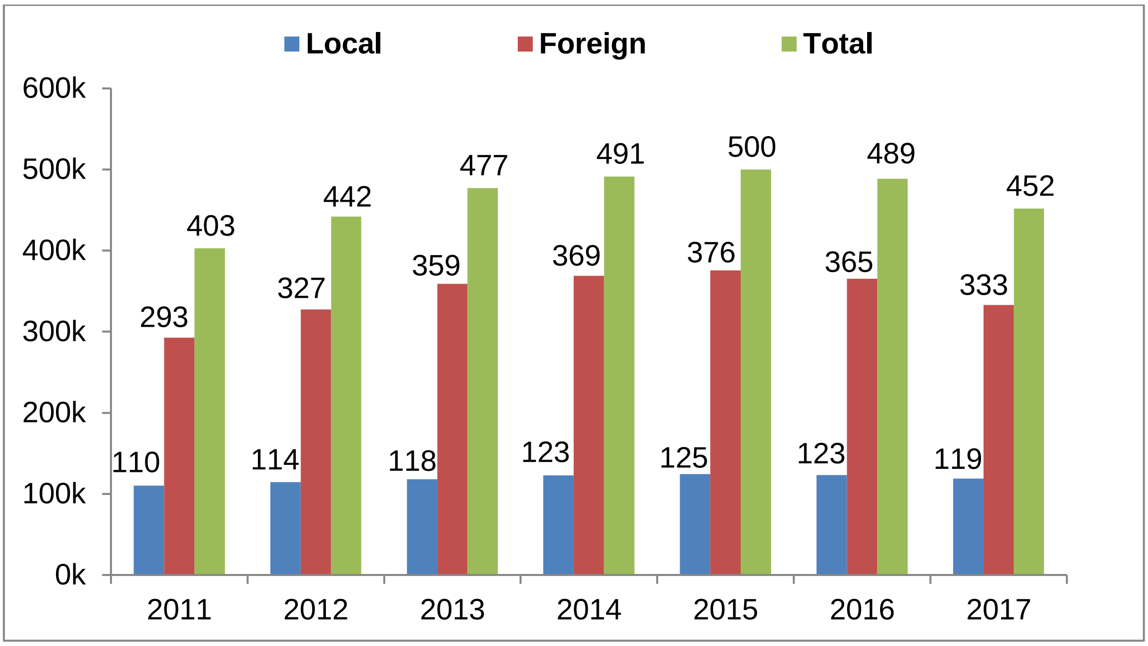


3.2 Demand for Construction Materials Quarterly from 2017 Q1 to 2018 Q2



Source: Building Construction Authority (BCA) Infonet
US$1= S$1.37 as of 16.8.2018

4 Labour & Human Resource

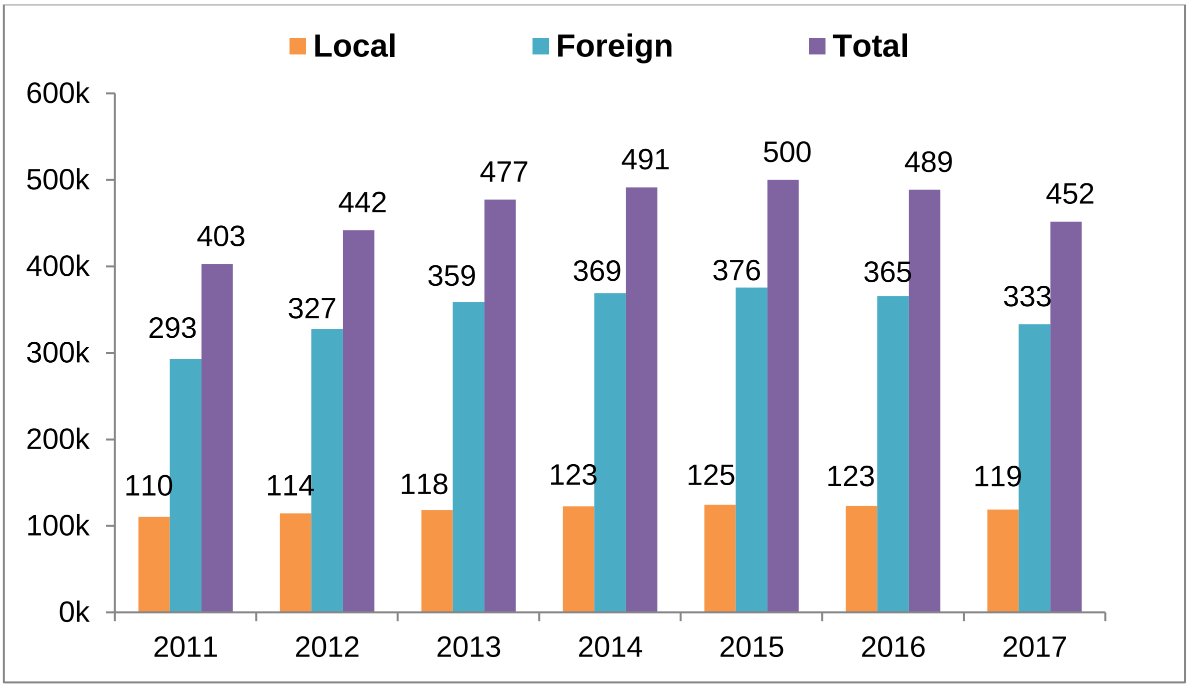


Source: Ministry of Manpower - Labour Market Statistical Information

4.1 Manpower Capacity

Overall employed manpower grew by 7,100 in 2018 for the second quarter of 2018, an increase over the preceding quarter (400) as the declines in construction and manufacturing employment moderated. Employment in construction contracted by 600 in the second quarter of 2018 where private sector construction activities continued to be weak.

4.2 Construction Industry's Employment



Source: Ministry of Manpower
**Data unavailable for 2018*

5 Workplace Safety and Health

5.1 Workplace Fatal Injuries in 2018

Workplace fatal injuries in the construction sector have fallen since 2006, dropping to a rate of 1.3 per 100,000 employed persons in the first half of 2018. However, 8 construction workplace fatal cases have been reported in the first half of 2018, 6 cases more than the same period in 2017, indicating a need for companies to remain vigilant.

5.2 Number of Workplace Fatal Injuries by Industry in 2017/2018

	1H 2018	**2017**
All Sectors	**20**	**42**
Construction	8	11
Marine	1	2
Manufacturing	4	5

Source: Workplace Safety and Health Report 2018 (1H) – National Statistics

5.3 Workplace Major Injuries in 2018

in the construction sector, 110 cases were reported in 2018, down from 153 cases in 2017. This brought down the rate to 24.2 per 100,000 employed persons from 30.9 per 100,000 employed persons in of 2016.

5.4 Number of Workplace Major Injuries by Industry in 2017/2018

	1H 2018	**2017**
All Sectors	**285**	**574**
Construction	64	110
Marine	*	22
Manufacturing	51	124

Source: Workplace Safety and Health Report 2018 (1H) – National Statistics
**data unavailable*

6 Contracts and Practices

6.1 Standard Conditions of Construction Contracts (According to Law)

There are 3 main Conditions of Contracts used in Singapore namely:

1) PSSCOC (Public Sector Standard Condition of Contracts)
2) Singapore Institute of Architects Articles and Conditions of Contracts
3) REDAS Conditions of Contracts

These contracts could be used for different methods of procurement and the usual procurement methods as follows:

a) a conventional method where the developer employs the Consultant team and the builder build according to the design provided.
b) the Design and Build method
c) public Private Partnership method

6.2 Construction Quality Assessment System (CONQUAS)

The Construction Quality Assessment System (CONQUAS), introduced in Singapore since 1989, serves as a standard assessment system on the quality of building projects. A de-facto national yardstick for the industry, CONQUAS has been periodically fine-tuned to keep pace with changes in technology and quality demands of a more sophisticated population. In 1998, BCA introduced a number of new features to CONQUAS resulting in the launch of CONQUAS. Such refinements make CONQUAS scoring more comprehensive and customer oriented.

By using CONQUAS as a standardized method of quality assessment, developers are able to use the CONQUAS Score to set targets for contractors to achieve and also assess the quality of the finished building.

The assessment consists of 3 main components:

1. Structural Works
2. Architectural Works
3. M&E Works

Each component is further divided into different items for assessment. The sum of the 3 components will give the CONQUAS score for the project.

The building is assessed based primarily on workmanship standards through site inspection. The assessment is done throughout the construction process for Structural and M&E Works and on the completed building for Architectural Works.

The assessment also includes tests on the materials and the functional performance of selected services and installation. These tests help to safeguard the interest of building occupants in relation to safety, comfort and aesthetic defects, which surface only after some time.

Source: Building Construction Authority

6.3 New Constructability Score Requirement

While the Buildable Design Score focuses on the use of buildable designs by designers during the upstream design process, the introduction of a new Constructability Score for builders would impact on the construction methods used during the downstream construction phase. To encourage builders to move away from traditionally labour-intensive construction methods and switch to more labour-efficient construction processes, builders would be required to comply with a new minimum Constructability Score.

The Constructability Score would assess the builders' choice on their usage of labour efficient systems and processes under the structural, architectural, mechanical, electrical and plumbing scope of construction works. For example, under the structural component, the use of traditional timber formwork and external scaffolding would be given much lower points to disincentives their use.

Comparatively, a builder who adopts the use of system formwork and climbing scaffolding, which would reduce the manpower usage on site, would be awarded more points. Besides labour-efficient construction methods, the adoption of good site practices, such as good project and site management is also critical to improving site productivity. Thus, the Constructability Score framework also awards points for Good Industry Practices such as the use of Building Information Modelling (BIM) and trade productivity monitoring on site to achieve higher productivity.

The Constructability Score requirement applies to all new building works and projects involving repairs, alterations or additions to existing buildings (A&A works) with GFA of 5,000m² or more which are submitted for planning permission on and after 15 July 2011. Builders are required to submit the Constructability Score for their projects:

(a) When they apply for the permit to commence work or

(b) Within 3 months (6 months for Design and Build projects) after the permit has been issued in the event that they require more time to plan for the type of construction methods or technologies to be adopted in the project.

6.4 Man-Year Entitlements and Foreign Workers Levy Increase

From July 2011, foreign workers levies will be increased while the Man-Year Entitlements (MYE) will be progressively cut by a cumulative of 45% by July 2013. This is to encourage builders to seek alternative technologies and designs to improve construction productivity rather than depending on foreign labour.

Year	Higher Skilled (R1) US $	Basic Skilled (R2) US $	MYE (R1) Exempted US $	MYE (R2) Exempted US $
Jul 2011	136	174	288	288
Jan 2012	142	227	341	341
Jul 2012	189	265	379	379
Jan 2013	212	303	417	492
Jul 2013	227	341	455	568
Jul 2014	227	417	530	720
Jul 2015	227	417	455	720
Jul 2016	227	650	455	720
Jul 2017	300	700	600	950
Jul 2018	300	700	600	950

**BCA Infonet, US$1= S$1.37 as of 21.8.2018*

From 1 July 2017, the basic tier levy for R2 workers has raised from US$360 to US$512 and the MYE-waiver levy rate for R1 workers has increased from US$333 to US$439. The revised levies were adopted with aims to propel the upgrading of existing R2 workers and hiring of higher skilled R1 workers to increase productivity. Foreign worker levies will remain unchanged for all other sectors as well till 1 July 2019.

6.5 Upgrade of Basic Skilled worker to Higher Skilled worker

The introduction of a new Market-based Skills Recognition Framework is to complement the existing upgrading pathway whereby employers can upgrade Basic Skilled workers to Higher Skilled workers when they have worked in Singapore for at least 6 years and earn at least US$1,212.

6.6 Extension of Experienced Workers

The maximum Period of Employment for Higher Skilled workers will be extended from 18 years to 22 years to help retain skilled workers.

7 Mega Projects

7.1 <u>Mega Projects</u>

Tengah Estate (new HDB town):

The first HDB town to fully integrate with its surrounding ecosystems. It will also be the first to have a car-free town centre nestled next to a lush green park. Offering 42,000 residential dwelling units, it provides new living opportunities to residents in the west of Singapore.

Source: Housing Development Board (HDB)

Woodlands Integrated Health Campus:

The first hospital facility in Woodlands, 1,800-bed and heavily dependent on artificial intelligence to improve patient care.

This project, located within walking distance to Woodlands South MRT, that opens in 2019, is the first where both the acute and community hospitals, a nursing home and specialist clinics, are all built together at the same building. The medical professionals will be shared within the hospitals and new technology is being used to reduce manual work. With the new care models in place, the WHC with 7.66 hectares of land space, includes a Healing Forest Garden for exercise, quiet areas, and community gardening plots. Together with Khoo Teck Puat Hospital and Yishun Community Hospital, they will be supporting the growing population in the north.

Project worth: US$707 million

Source: National Healthcare Group

Changi Airport Terminal 5:

Changi Airport Terminal 5 is part of the Changi East project being undertaken by Changi Airport Group (CAG) to ensure that Changi Airport continues to have the capacity to meet growing passenger and airfreight traffic and to consolidate Changi Airport's position as a premier global air hub. The project includes the implementation of a three-runway system at Changi Airport, as well as the development of cargo complexes and other supporting aviation and ground transport infrastructure. The entire project is scheduled for completion in the late 2020s.

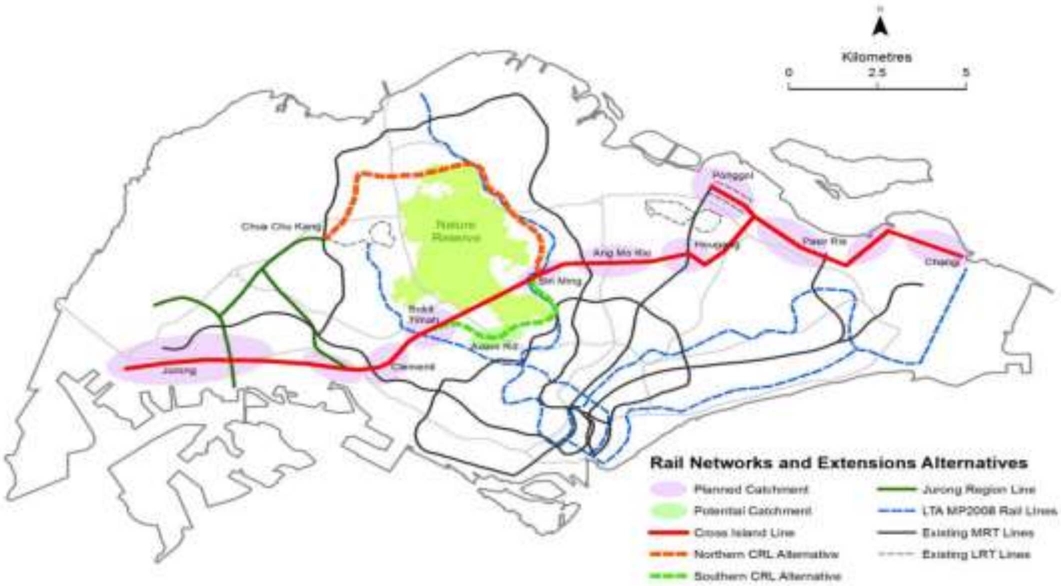
Source: Changi Airport Group

Rapid Transit System:

The RTS Link was mooted to ease congestion at the land checkpoints and make it more convenient for people to travel between both countries. Upon completion, it will be able to transport 10,000 travellers per direction per hour between Singapore and JB.

Project Worth: US$1 Billion

Cross Island Line:



The Cross Island Line (CRL) which starts from Changi, passes through Loyang, Pasir Ris, Hougang, Ang Mo Kio, Bukit Timah, Clementi, West Coast and Jurong, is expected to have a daily ridership of at least 600,000 commuters. This will place the CRL higher, in terms of capacity and usage, compared to the North East Line.

Project worth: US$23.3 Million
Source: Land Transport Authority

Jurong Regional Line

The 24-kilometre long Jurong Region Line (JRL) will add 24 stations to the existing rail network, including three interchange stations at Boon Lay, Choa Chu Kang and Jurong East MRT stations, which will link to the North-South Line and East-West Line. The JRL will commence its service from 2026 onwards.

Project worth: US$20.5 Million
Source: Land Transport Authority

Deep Tunnel Sewerage System (DTSS) Phase 2:

The first batch of deep tunnels and link sewers, amounting to 30km, together with the other phases, is expected to complete by 2025. It will be connected to the Tuas Water Reclamation Plant to transport water into the 3 centralised water reclamation plants, with the aim of increasing water recycling rate.

Project worth: US$1144 million
Source: Land Transport Authority

8 Conclusion - Forecast for 2019 and Beyond

BCA anticipates a steady improvement in construction demand over the medium term. Demand is projected to reach between $26 billion and $33 billion per annum for 2019 and 2020 and could pick up to between $28 billion and $35 billion per annum for 2021 and 2022. 8. The public sector will continue to lead demand and is expected to contribute $16 billion to $20 billion per annum in 2019 to 2022 with similar proportions of demand coming from building projects and civil engineering works.

Besides public housing developments and healthcare and educational facilities, public sector construction demand over the medium-term will continue to be supported by major infrastructure projects which include various developments for Changi Airport Terminal 5 and land transport projects such as the Cross Island Line, Jurong Regional Line, Rapid Transit System and High Speed Rail. 9. In addition, we expect private sector construction demand to also increase gradually in the medium term, boosted by the redevelopment of en-bloc sale sites and the spill-over benefits generated by the improved performance and outlook in other economic sectors.

Source: Building Construction Authority (BCA) Infonet