SINGAPORE

QUARTERLY CONSTRUCTION COST REVIEW

Issue 40
Arcadis Singapore Pte Ltd

2018 THIRD QUARTER

CONTENTS

SINGAPORE
MARKET OVERVIEW

The third quarter of 2018 experienced an increase in demand in the private construction sector that helped maintain stability in Singapore's construction market despite the decline in demand for public infrastructure projects.

Singapore's gross domestic project (GDP) has grown by 2.2% year-on-year (YoY) in 3Q2018. However, the construction sector has seen a reduction of 2.3% YoY this quarter, primarily due to a decrease in public sector construction activities.

The construction outlook tender prices for 3Q2018 have remained relatively stable as compared to 2Q2018. The Building and Construction Authority's (BCA) data on key construction material prices such as cement, steel bars, granite, concreting sand and ready mixed concrete have also remained relatively stable in Q3 when compared to 2Q2018.

Improving the standard of living in Singapore is high on the government's agenda as it unveils new property guidelines to limit shoebox units and new carpark guidelines as part of its car-lite ambitions:

1) Revision of guidelines on the maximum number of Dwelling Units (DUs) for new flats and condominium developments to deter a surplus in shoebox units

2) Reduction in bonus Gross Floor Area (GFA) cap for private outdoor spaces from 10% to 7% to encourage balcony design to be more practical and efficient

3) Greater provision of communal indoor recreation spaces through the new Indoor Recreation Space GFA Scheme

4) Changes to Parking Provisions Policy and new development of five car-lite precincts

MARKET MOVEMENT

ECONOMY

Indicator			
GDP Growth per annum	Q3/16 - Q3/17 (+) 5.5%	Q2/17 - Q2/18 (+) 4.1%	Q3/17 - Q3/18 (+) 2.2%
Inflation Rate (CPI) per annum	Sep 16 - 17 (+) 0.4%	Jun 17 - 18 (+) 0.6%	Sep 17 - 18 (+) 0.7%

Source: Ministry of Trade and Industry

SUPPLY & DEMAND

Indicator			
BCA Construction Demand	Q3/17 S$7.26 Bn	Q2/18 S$6.27 Bn	Q3/18p S$6.29 Bn
BCA Construction Output	Q3/17 S$6.64 Bn	Q2/18 S$6.45 Bn	Q3/18p S$6.58 Bn

Source: Building and Construction Authority
p- denotes preliminary data

BASIC COSTS

Indicator			
BCA Concrete Price Index	Jul 18 106.9	Aug 18 107.0	Sep 18 108.0
BCA Steel Reinforcement Price Index	Jul 18 104.4	Aug 18 104.6	Sep 18 103.9

Source: Building and Construction Authority

CONSTRUCTION COST TREND

Indicator			
BCA Tender Price Index	Q3/17 96.6	Q2/18 98.5	Q3/18 98.9
Arcadis Singapore Tender Price Index	Q3/17 98.7	Q2/18 99.7	Q3/18 99.7

Source: Building and Construction Authority

1 MARKET ANALYSIS

INCREASED PRIVATE SECTOR PROJECTS MAINTAINS STABILITY IN SINGAPORE'S CONSTRUCTION MARKET

According to the BCA's preliminary data, total construction demand (based on actual contracts awarded) for 3Q2018 at S$6.29 billion remained at a similar level as 2Q2018. While public sector construction demand has declined by 27% as compared to 2Q2018, the positive increase of private sector construction demand by 48% contributed to supporting the stability of the Singapore construction market.

Public sector construction demand for 3Q2018 is at S$2.9 billion and the decline is mainly attributed to the slowdown of residential, industrial and civil engineering projects. On the other hand, private sector construction demand accounts for approximately 54% of the total construction demand, and it experienced an increase for all building typologies except civil engineering projects.

REVISED GUIDELINES MODERATES DEVELOPMENT OF SHOEBOX UNITS IN SINGAPORE

There has been a revision of the guidelines on the maximum allowable number of DUs for new flats and condominium developments outside the Central Area of Singapore. It aims to deter the excessive development of shoebox units in a bid to address capacity concerns and reduce the strain new developments place on local infrastructure.

The revised formula used to derive the maximum permissible number of DUs allowed in a non-landed residential development outside the Central Area will come into effect from 17 January 2019. Under the new formula, the maximum number of DUs will be derived by dividing the proposed building GFA by 85m2 (in lieu of the current formula of dividing the GFA by 70m2).

Nine areas have also been identified where the cumulative effect of new developments could pose a strain on local infrastructure. These areas are Marine Parade, Joo Chiat-Mountbatten, Telok Kurau-Jalan Eunos, Balestier, Stevens-Chancery, Pasir Panjang, Kovan-How Sun, Shelford and Loyang. In these areas, the maximum allowable number of DUs will be determined by dividing the GFA by 100m2.

REVISION TO BALCONY INCENTIVE SCHEME (BIS) FOR PRIVATE NON-LANDED RESIDENTIAL DEVELOPMENTS

Singapore has experienced a growing trend in oversized balconies in private residential developments. To curb the rise in units with large balconies and relatively smaller interiors, the Urban Redevelopment Authority (URA) has released the following guidelines that will also take effect from 17 January 2019:

- The bonus GFA cap for private outdoor spaces will be reduced from 10% to 7%
- The size and width requirements of balconies will be capped at 15% of the nett internal area and each balcony is required to have a minimum width of 1.5m so that the outdoor space can be used meaningfully
- As some owners seek to convert large balconies into an extra room with screens, developers are now required to inform homebuyers of the allowable balcony screens at the point of purchase

NEW INDOOR RECREATION SPACES BONUS GFA SCHEME

URA also introduced a new bonus GFA scheme to encourage the greater provision of communal indoor recreation spaces in private non-landed residential developments and the residential component of mixed-use developments. The new scheme provides bonus GFA capped at 1% of total GFA, or the GFA of the residential component for mixed-use developments.

With effect from 17 October 2018, developers could apply for the communal indoor recreation spaces to be counted as bonus GFA, provided such spaces exceed 0.6% of the total GFA of the development or 10m2 (whichever is higher). Examples of communal indoor recreation spaces: gyms, function rooms, libraries, game rooms and reading rooms.

FIVE NEW AREAS TO BE CAR-LITE PRECINCTS AND CHANGES TO PARKING PROVISIONS

The Land Transport Authority (LTA) announced on 9 November 2018 that with effect from 1 February 2019, the new Range-based Parking Provision Standards (RPPS) will replace the existing Car Parking Standards and Range-based Car Parking Standards. It aims to provide developers with greater flexibility in managing parking provisions and free up more land for community spaces and greenery. The new standards will stipulate both minimum and maximum number of car parking requirements.

Additionally, five areas will be gazetted for development as car-lite precincts where parking provision for developments will be determined on a case-by-case basis. These precincts are Marina South, Kampong Bugis, Woodlands North, Bayshore and Jurong Lake District.

LTA also introduced a new mandatory motorcycle parking provision requirements in all non-residential development to ensure new developments provide sufficient motorcycle parking lots.

EXPANSION OF POLICIES ON SURPLUS CAR PARK CONVERSION AND COMPUTATION OF SURPLUS PARKING SPACES AS GFA

In view of the changes in parking provision policy by the LTA, the URA has revised the guidelines and treatment for surplus parking spaces for existing and new developments.

From 1 February 2019, URA has extended the conversion of surplus car park spaces policy to the following existing developments to be converted to additional GFA for other uses:

- Residential developments within the Central Area;
- Commercial, Mixed Use, Hotel and Business Park developments within 400m of MRT and LRT stations.

For new developments, the computation of surplus car and motorcycle parking spaces as GFA will be extended to:

- Residential developments within the Central Area;
- Business Parks within 400m of MRT and LRT stations.

Payment of development charge / differential premium (based on the usual 70% of value enhancement) is required, where applicable, in relation to the additional GFA.

2 APPROXIMATE BUILDING COSTS

SINGAPORE

BUILDING TYPE	S$/m² CFA
RESIDENTIAL	
Terraced Houses	2,350 - 2,650
Semi-Detached Houses	2,550 - 3,000
Detached Houses	3,000 - 4,000
Average Standard Condominium	1,800 - 2,050
Above Average Standard Condominium	2,050 - 2,800
Luxury Condominium	2,800 - 4,200
OFFICE	
Average Standard Offices	2,350 - 2,650
Prestige Offices	2,650 - 2,900
COMMERCIAL	
Shopping Centres, Average Quality	2,650 - 2,800
Shopping Centres, High Quality	2,800 - 3,100
CAR PARKS	
Multi-Storey Car Parks	880 - 1,280
Basement Car Parks	1,280 - 1,730
INDUSTRIAL	
Flatted Light Industrial Buildings	1,230 - 1,380
Flatted Heavy Industrial Buildings	1,380 - 1,880
Single Storey Industrial Buildings	1,130 - 1,280
Flatted Warehouses	1,130 - 1,280
Single Storey Warehouses	1,000 - 1,280
HOTEL (Including Furniture and Fittings)	
3-Star Hotels	2,950 - 3,250
4-Star Hotels	3,150 - 3,750
5-Star Hotels	3,800 - 4,300
HEALTH	
Private Hospitals	3,800 - 4,000
Polyclinics, non air-conditioned	1,600 - 1,800
Nursing Homes, non air-conditioned	1,600 - 1,900
Medical Centres	2,900 - 3,100

The above costs are at 3rd Quarter 2018 levels.

Notes:

The construction costs above serve only as a guide for preliminary cost appraisals and budgeting. It must be understood that the actual cost of a building will depend upon the design, site conditions and many other factors and may vary from the figures shown. The costs per square metre are based on **Construction Floor Areas (CFA)** measured to the outside face of the external walls / external perimeter including lift shafts, stairwells, plant rooms, water tanks and the like.

All buildings are assumed to have no basements (unless otherwise stated) and are built on flat ground with normal soil conditions. The costs exclude the following:

- Professional fees
- Authorities' plan processing charges
- Land cost
- Financing charges
- Site inspectorate
- Administrative expenses
- Legal cost & disbursements
- Demolition of existing building(s)
- Furniture and fittings (unless otherwise stated)
- Operating equipment
- External works
- Prefabricated Prefinished Volumetric Construction (PPVC) / Prefabricated Bathroom Units (PBUs) / Structural steel structure
- Cross Laminated Timber (CLT) / Glued Laminated Timber (Glulam)
- Cost escalation
- Goods and Services Tax

3 TENDER PRICE INDEX

SINGAPORE

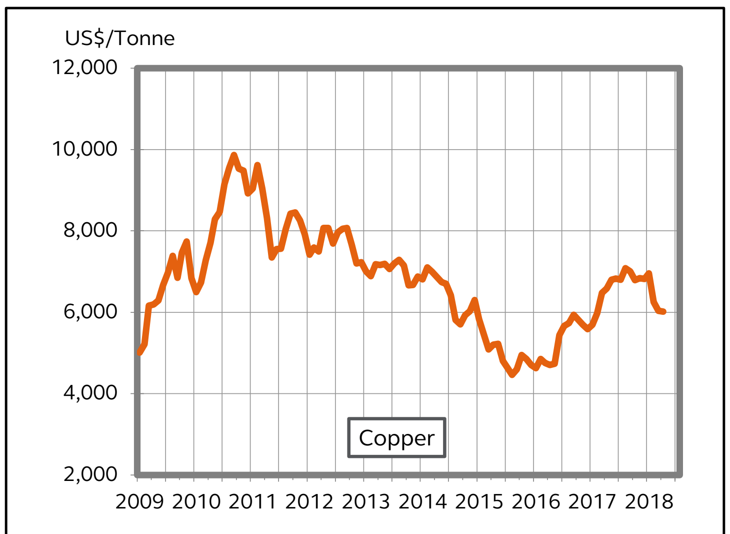
Arcadis Singapore TPI is a measure of the comparative tender price movements based on the projects handled by Arcadis Singapore Pte Ltd. The TPI reflects the tender price level of contracts let out over the years. Other than material and labour costs, it takes into account the elements of competition, risk and profits.

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	1Q18	2Q18	3Q18
BCA*	101.3	100.0	99.7	99.8	104.6	106.8	104.0	98.0	96.7	97.4	98.5	98.9
Arcadis SG^	96.6	100.0	102.0	102.0	108.1	108.1	104.3	101.2	98.7	98.7	99.7	99.7

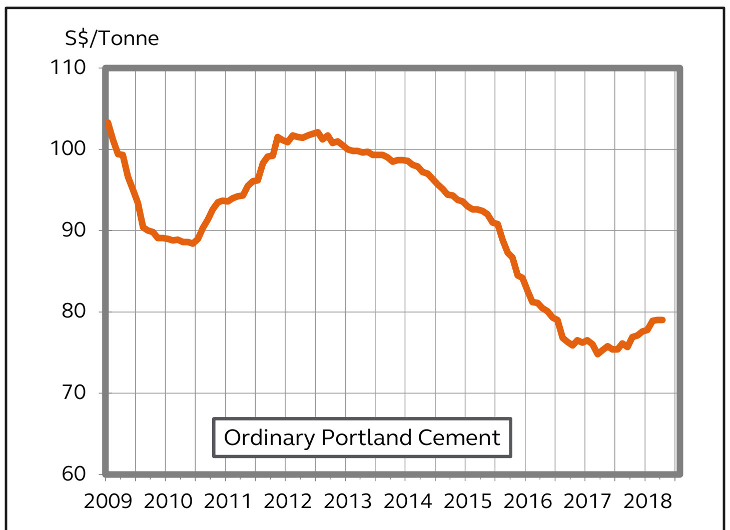
Source: * Building and Construction Authority
^ From 2009 onwards, Arcadis Singapore TPI based on 4th Quarter Index.

4 MATERIALS
SINGAPORE

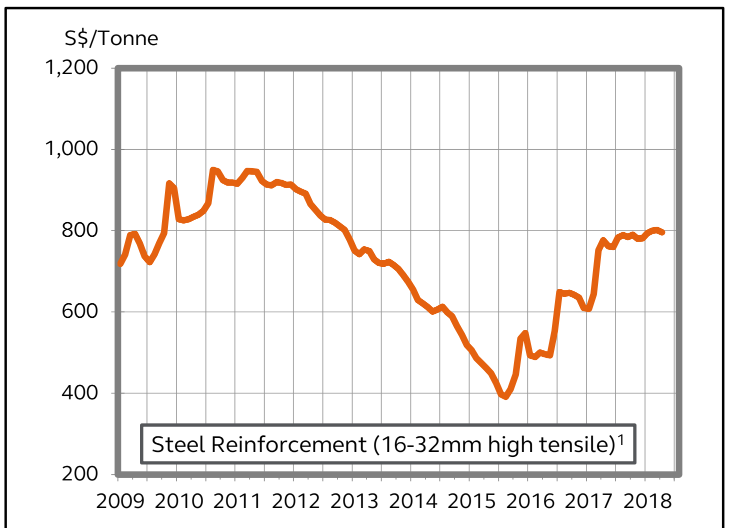
Basic Construction Materials



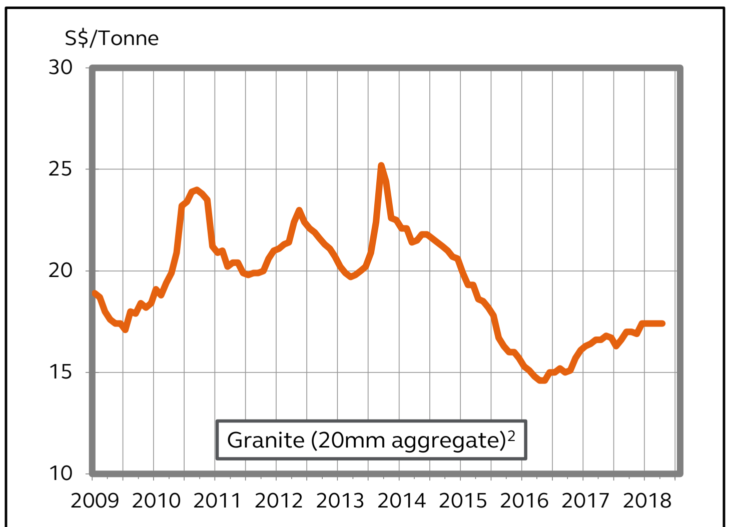
Source : London Metal Exchange



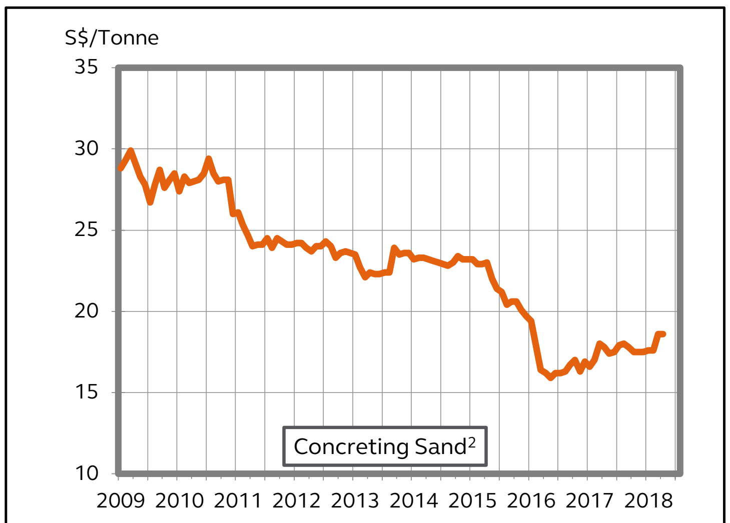
Source: Building and Construction Authority



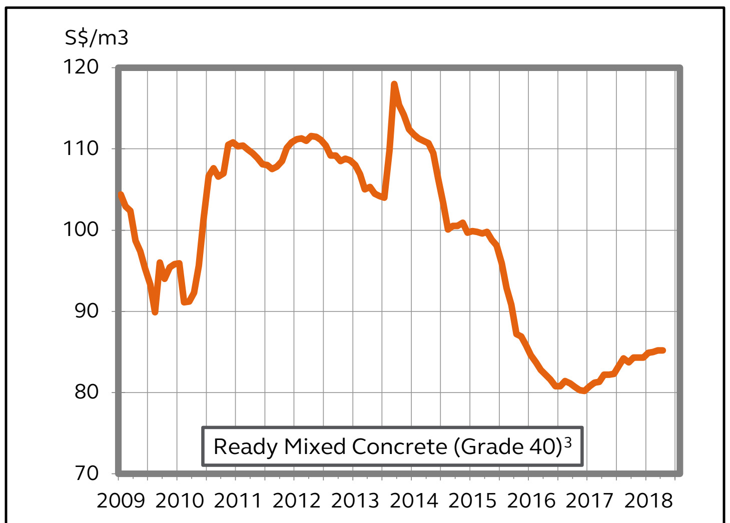
Source: Building and Construction Authority



Source: Building and Construction Authority



Source: Building and Construction Authority



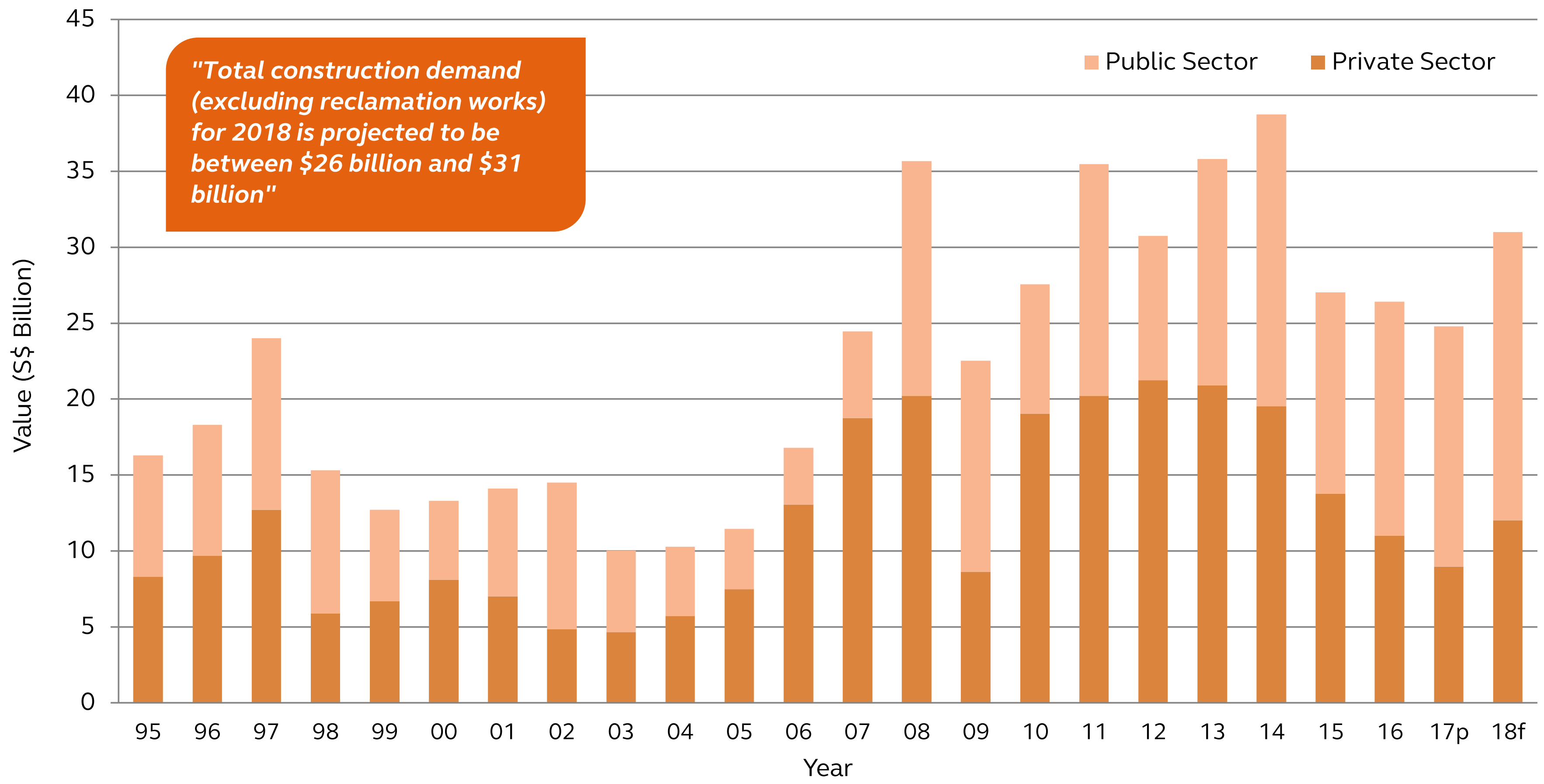
Source: Building and Construction Authority

Notes:

[1] Prices of rebar other than 16-32mm dimensions may subject to surcharge
[1] With effect from Jan 2015, the market prices of rebar (without cut & bend) are based on fixed price supply contracts with contract period 1 year or less
[2] Prices of granite and concreting sand exclude local delivery charges to concrete batching plants
[3] The market prices of ready mixed concrete are based on contracts with non-fixed price, fixed price and market retail price for Grade 40 pump

5 CONSTRUCTION DEMAND

SINGAPORE



BCA Construction Demand (Exclude Reclamation) (S$ Billion)												
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Private Sector	8.3	9.7	12.7	5.9	6.7	8.1	7.0	4.8	4.6	5.7	7.5	13.1
Public Sector	8.0	8.6	11.3	9.4	6.0	5.2	7.1	9.6	5.4	4.6	4.0	3.7
Total Value	16.3	18.3	24	15.3	12.7	13.3	14.1	14.5	10.0	10.3	11.5	16.8

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017p	2018f
Private Sector	18.8	20.2	8.6	19.0	20.2	21.2	20.9	19.5	13.8	11.0	9.0	10 - 12
Public Sector	5.7	15.5	13.9	8.6	15.3	9.5	14.9	19.2	13.3	15.4	15.8	16 - 19
Total Value	24.5	35.7	22.5	27.6	35.5	30.8	35.8	38.8	27.0	26.4	24.8	26 - 31

	1Q18	2Q18	3Q18
Private Sector	3.8	2.3	3.4
Public Sector	4.5	4.0	2.9
Total Value	8.3	6.3	6.3

Source: Building and Construction Authority

Notes:

1. Construction demand refers to the total value of construction contracts awarded. It is a leading market indicator for the construction industry.
2. p - denotes preliminary data
3. f - denotes forecast

6 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	Shanghai	Beijing	Guangzhou/Shenzhen	Chongqing/Chengdu
			RMB / m^2 CFA	
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	2,709 - 3,124	2,687 - 3,099	2,501 - 2,772	2,409 - 2,828
- Full fit	4,633 - 5,136	4,253 - 4,673	3,707 - 4,100	3,715 - 4,450
Apartments, high rise, high end				
- Shell and core	3,308 - 3,604	3,170 - 4,599	2,616 - 3,450	2,974 - 3,944
- Full fit	10,782 - 11,774	10,299 - 11,732	6,024 - 6,602	6,104 - 7,732
Terraced houses, average standard				
- Shell and core	3,133 - 3,348	3,100 - 3,620	2,815 - 3,095	2,996 - 3,642
- Full fit	N/A	6,085 - 6,597	N/A	N/A
Detached houses, high end				
- Shell and core	4,651 - 5,166	4,673 - 5,199	3,840 - 4,224	3,979 - 4,591
- Full fit	N/A	11,694 - 12,205	N/A	N/A
OFFICE / COMMERCIAL				
Medium/high rise offices, average standard	6,026 - 8,019	5,946 - 8,006	5,396 - 5,969	5,823 - 6,766
High rise offices, prestige quality	8,035 - 10,032	8,006 - 13,152	7,857 - 9,444	7,403 - 10,034
Out-of-town shopping centre, average standard	N/A	4,533 - 6,059	5,198 - 5,706	4,659 - 6,018
Retail malls, high end	8,521 - 11,003	8,199 - 11,286	7,554 - 10,557	7,044 - 10,442
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed unit)	1,945 - 2,372	1,873 - 2,286	3,451 - 3,799	2,809 - 3,580
Owner operated factories, low rise, light weight industry	3,001 - 3,747	3,620 - 4,153	N/A	N/A
HOTEL				
Budget hotels - 3-star, mid market	6,608 - 8,111	6,706 - 8,266	6,839 - 7,526	6,449 - 8,004
Business hotels - 4/5-star	10,801 - 14,711	11,206 - 14,799	11,053 - 15,777	10,924 - 13,680
Luxury hotels - 5-star	14,689 - 17,614	14,279 - 18,365	15,025 - 16,558	13,755 - 16,905
OTHERS				
Underground/basement car parks (<3 levels)	5,146 - 7,172	5,179 - 5,693	3,560 - 5,691	2,810 - 3,830
Multi storey car parks, above ground (<4 levels)	2,649 - 3,690	3,113 - 3,153	2,551 - 2,803	2,141 - 2,675
Schools (primary and secondary)	3,664 - 4,695	3,606 - 4,660	2,824 - 3,112	2,890 - 3,216
Students' residences	2,616 - 3,661	2,553 - 3,606	1,836 - 2,060	N/A
Sports clubs, multi purpose sports/ leisure centres (dry sports)	6,625 - 8,134	6,179 - 6,226	5,235- 5,775	N/A
General hospitals - public sector	9,842 - 12,766	8,119 - 10,166	N/A	N/A

Notes :
1. The costs for the respective categories given above are averages based on fixed price competitive tenders. It must be understood that the actual cost of a building will depend upon the design and many other factors and may vary from the figures shown.
2. The costs per square metre are based on Construction Floor Areas (CFA) measured to the outside face of the external walls / external perimeter including lift shafts, stairwells, balconies, plant rooms, water tanks and the like.
3. All bulidings are assumed to have no basements (except otherwise stated) and are built on flat ground, with normal soil and site conditions. The cost excludes site formation works, external works, land cost, professional fees, finance and legal expenses.
4. The standard for each category of building varies from region to region and do not necessary follow that of each other.
5. "Shell and core": generally covers ONLY base building elements. "Shell" refers to overall structure and foundations, exterior walls, floors and roof, completing with common areas, staircases, lift shafts, service ducts and fire services systems to local statutory requirements. "Core" refers to fully-fitted public areas (like lobbies, corridors and lavatories) and M&E main plant and upfeed, with tenant or occupant areas unfurnished.
6. "Full fit" buildings should complete with all elements that allow the buildings to be ready for operation, including public and tenants' (or occupants') areas (i.e. with ALL finishes, fittings and M&E distributions).
7. Fluctuation in exchange rates may lead to changes in construction costs expressed in U.S. dollars.

The above costs are at 3rd Quarter 2018 levels.

6 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	Hong Kong	Macau	Singapore	Kuala Lumpur
	USD / m² CFA *(See also exchange rates per U.S. dollar below)*			
DOMESTIC	HK$ 7.83	MOP 8.07	S$1.37	RM 4.14
Apartments, high rise, average standard				
- Shell and core	N/A	1,770 - 2,623	N/A	N/A
- Full fit	3,052 - 3,576	2,279 - 2,788	1,315 - 1,495	420 - 585[$]
Apartments, high rise, high end				
- Shell and core	N/A	2,623 - 3,934	N/A	N/A
- Full fit	4,036 - 4,713	3,183 - 4,864	2,045 - 3,065	880 - 1,125
Terraced houses, average standard				
- Shell and core	N/A	3,107 - 3,858	N/A	N/A
- Full fit	4,151 - 4,853	3,884 - 4,635	1,715 - 1,935	235 - 345[$$]
Detached houses, high end				
- Shell and core	N/A	3,756 - 5,411	N/A	N/A
- Full fit	6,130 up	4,737 - 6,163	2,190 - 2,920	790 - 980
OFFICE / COMMERCIAL				
Medium/high rise offices, average standard	2,989 - 3,512*	2,623 - 3,387	1,715 - 1,935[@]	640 - 740[$$$]
High rise offices, prestige quality	3,640 - 4,278	3,387 - 3,705	1,935 - 2,115[@]	920 - 1,250[$$$]
Out-of-town shopping centre, average standard	2,963 - 3,538	2,470 - 3,705	1,935 - 2,045	585 - 720
Retail malls, high end	3,972 - 4,738	3,884 - 4,686	2,045 - 2,265	725 - 1,000
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed unit)	N/A	N/A	730 - 935	340 - 430
Owner operated factories, low rise, light weight industry	2,324 - 2,963	N/A	N/A	460 - 520
HOTEL				
Budget hotels - 3-star, mid market	3,857 - 4,176	3,451 - 3,909	2,155 - 2,370	1,070 - 1,490
Business hotels - 4/5-star	4,036 - 4,738	4,686 - 5,602	2,775 - 3,140	1,840 - 2,160
Luxury hotels - 5-star	4,725 - 5,492	5,602 - 6,621	2,775 - 3,140	2,055 - 2,395
OTHERS				
Underground/basement car parks (<3 levels)	3,193 - 3,831	2,050 - 3,005	935 - 1,265	380 - 530
Multi storey car parks, above ground (<4 levels)	1,916 - 2,299	1,133 - 1,490	640 - 935[@@]	245 - 350
Schools (primary and secondary)	2,516 - 2,708**	2,266 - 2,623	N/A	265 - 310[$$$$]
Students' residences	2,925 - 3,308	1,795 - 2,088	1,570 - 1,715	315 - 370[$$$$$]
Sports clubs, multi purpose sports/ leisure centres (dry sports)	3,831 - 4,470	N/A	1,970 - 2,115	630 - 740
General hospitals - public sector	4,955 - 5,594	N/A	2,775 - 2,920	920 - 1,160

Notes :

1. The costs for the respective categories given above are averages based on fixed price competitive tenders. It must be understood that the actual cost of a building will depend upon the design and many other factors and may vary from the figures shown.
2. The costs per square metre are based on Construction Floor Areas (CFA) measured to the outside face of the external walls / external perimeter including lift shafts, stairwells, balconies, plant rooms, water tanks and the like.
3. All builidings are assumed to have no basements (except otherwise stated) and are built on flat ground, with normal soil and site conditions. The cost excludes site formation works, external works, land cost, professional fees, finance and legal expenses.
4. The standard for each category of building varies from region to region and do not necessary follow that of each other.
5. "Shell and core": generally covers ONLY base building elements. "Shell" refers to overall structure and foundations, exterior walls, floors and roof, completing with common areas, staircases, lift shafts, service ducts and fire services systems to local statutory requirements. "Core" refers to fully-fitted public areas (like lobbies, corridors and lavatories) and M&E main plant and upfeed, with tenant or occupant areas unfurnished.
6. "Full fit" buildings should complete with all elements that allow the buildings to be ready for operation, including public and tenants' (or occupants') areas (i.e. with ALL finishes, fittings and M&E distributions).
7. Fluctuation in exchange rates may lead to changes in construction costs expressed in U.S. dollars.

The above costs are at 3rd Quarter 2018 levels.

6 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	Bangkok	Jakarta	Manila
	USD / m^2 CFA *(See also exchange rates per U.S. dollar below)*		
DOMESTIC	BAHT 32.75	IDR 14603.00	PHP 52.75
Apartments, high rise, average standard			
- Shell and core	534 - 687	N/A	N/A
- Full fit	702 - 870	722 - 818	935 - 1,150
Apartments, high rise, high end			
- Shell and core	626 - 809	N/A	N/A
- Full fit	977 - 1,206	996 - 1,124	1,262 - 2,135
Terraced houses, average standard			
- Shell and core	305 - 397	N/A	N/A
- Full fit	458 - 565	383 - 499	760 - 929
Detached houses, high end			
- Shell and core	534 - 763	N/A	N/A
- Full fit	794 - 962	1,042 - 1,165	1,627 - 2,759
OFFICE / COMMERCIAL			
Medium/high rise offices, average standard	641 - 794#	712 - 789	931 - 1,090
High rise offices, prestige quality	870 - 1,176##	1,050 - 1,174	1,262 - 1,408
Out-of-town shopping centre, average standard	626 - 809	612 - 676	760 - 947
Retail malls, high end	840 - 886	676 - 731	1,090 - 1,528
INDUSTRIAL			
Industrial units, shell only (Conventional single storey framed unit)	489 - 611	328 - 357	484 - 545
Owner operated factories, low rise, light weight industry	N/A	356 - 393	683 - 799
HOTEL			
Budget hotels - 3-star, mid market	1,145 - 1,267	1,237 - 1,462	1,193 - 1,330
Business hotels - 4/5-star	1,466 - 1,679	1,691 - 1,826	1,344 - 1,628
Luxury hotels - 5-star	1,710 - 1,985	1,799 - 2,028	1,847 - 2,557
OTHERS			
Underground/basement car parks (<3 levels)	550 - 733	506 - 620	493 - 618
Multi storey car parks, above ground (<4 levels)	183 - 293	328 - 357	474 - 669
Schools (primary and secondary)	N/A	N/A	699 - 964
Students' residences	N/A	N/A	740 - 949
Sports clubs, multi purpose sports/ leisure centres (dry sports)	N/A	1,094 - 1,638	1,183 - 1,721
General hospitals - public sector	N/A	N/A	1,284 - 1,543

Notes :
1. The costs for the respective categories given above are averages based on fixed price competitive tenders. It must be understood that the actual cost of a building will depend upon the design and many other factors and may vary from the figures shown.
2. The costs per square metre are based on Construction Floor Areas (CFA) measured to the outside face of the external walls / external perimeter including lift shafts, stairwells, balconies, plant rooms, water tanks and the like.
3. All bulidings are assumed to have no basements (except otherwise stated) and are built on flat ground, with normal soil and site conditions. The cost excludes site formation works, external works, land cost, professional fees, finance and legal expenses.
4. The standard for each category of building varies from region to region and do not necessary follow that of each other.
5. "Shell and core": generally covers ONLY base building elements. "Shell" refers to overall structure and foundations, exterior walls, floors and roof, completing with common areas, staircases, lift shafts, service ducts and fire services systems to local statutory requirements. "Core" refers to fully-fitted public areas (like lobbies, corridors and lavatories) and M&E main plant and upfeed, with tenant or occupant areas unfurnished.
6. "Full fit" buildings should complete with all elements that allow the buildings to be ready for operation, including public and tenants' (or occupants') areas (i.e. with ALL finishes, fittings and M&E distributions).
7. Fluctuation in exchange rates may lead to changes in construction costs expressed in U.S. dollars.

The above costs are at 3rd Quarter 2018 levels.

6 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	OUTLINE SPECIFICATION
DOMESTIC	
Apartments, high rise, average standard	Shell and core, including finishes to public area, but excluding finishes to apartment units Full fit, with air-conditioning, kitchen cabinets and home appliances, but excluding decorative light fittings and loose furniture
Apartments, high rise, high end	Shell and core, including finishes to public area, but excluding finishes to apartment units Full fit, good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but excluding decorative light fittings and loose furniture
Terraced houses, average standard	Shell and core, joined houses in row(s), excluding garden, parking, finishes and fittings to house interior Full fit, joined houses in row(s), with air-conditioning, kitchen cabinets and home appliances, but excluding decorative light fittings, loose furniture, garden and parking
Detached houses, high end	Shell and core, good quality facade, excluding garden, parking, finishes and fittings to house interior Full fit, good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but excluding decorative light fittings, loose furniture, garden and parking
OFFICE / COMMERCIAL	
Medium/high rise offices, average standard	RC structure, curtain wall, including public area fit-out, tenant area with raised floor/ carpet, painted wall and false ceiling
High rise offices, prestige quality	
Out-of-town shopping centre, average standard	Including public area fit-out and M&E, but excluding shop fit-out
Retail malls, high end	
INDUSTRIAL	
Industrial units, shell only (Conventional single storey framed unit)	RC structure with steel roof and M&E to main distribution, but excluding a/c, heating and lighting
Owner operated factories, low rise, light weight industry	RC structure, including small office with simple fit-out and M&E, but excluding a/c and heating
HOTEL	
Budget hotels - 3-star, mid market	1) Interior decoration 2) Furniture (fixed and movable) 3) Special light fittings (chandeliers, etc.) 4) Operating Supplies and Equipment (OS&E) excluded
Business hotels - 4/5-star	
Luxury hotels - 5-star	
OTHERS	
Underground/basement car parks (<3 levels)	RC structure
Multi storey car parks, above ground (<4 levels)	RC structure, natural ventilation, no facade enclosure
Schools (primary and secondary)	Including fit-out and a/c, but excluding educational equipment
Students' residences	Including fit-out, loose furniture and a/c
Sports clubs, multi purpose sports/leisure centres (dry sports)	Dry sports (no swimming pool) and are for 'leisure centre' type schemes including main sports hall, ancillary sports facilities, changing and showers, restaurant / cafe, bar, etc. Costs include a/c, Furniture, Fittings and Equipment (FF&E)
General hospitals - public sector	Excluding medical and operating equipment

Notes:

1. The costs for the respective categories given above are averages based on fixed price competitive tenders. It must be understood that the actual cost of a building will depend upon the design and many other factors and may vary from the figures shown.
2. The costs per square metre are based on Construction Floor Areas (CFA) measured to the outside face of the external walls / external perimeter including lift shafts, stairwells, balconies, plant rooms, water tanks and the like.
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7. Fluctuation in exchange rates may lead to changes in construction costs expressed in U.S. dollars.
8. Hong Kong: * (i) Tenant area with screeded floor, painted wall and ceiling (ii) Facade in curtain wall/window wall ** Public authority standard, no a/c and complete with basic external works
9. Singapore: @ Excluding carpet @@ Open on all sides with parapet
10. Kuala Lumpur $ 6-12 units per floor, 46m2 - 83m2 per unit; excluding air-conditioning $$ Excluding air-conditioning, Kitchen cabinets and home appliances $$$Exclude Tenant fit-out $$$$ Standard government provisions $$$$$ University standard
11. Bangkok # (i) Excluding raised floor/carpet and inter-tenancy partition (ii) Facade in windows and brick wall/pre-cast concrete panel ## Excluding raised floor/carpet and inter-tenancy partition

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