

SINGAPORE

QUARTERLY CONSTRUCTION COST REVIEW





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SINGAPORE MARKET OVERVIEW

The Ministry of Trade and Industry (MTI) has announced that the Singapore economy has contracted by 2.4% on a year-on-year basis in 4Q2020. For the whole year of 2020, the economy has contracted 5.4%, its first annual contraction since 2001 and worst recession since independence.

The construction sector has been severely impacted by the COVID-19 pandemic. It contracted by 27.4% on a year-on-year basis in 4Q2020, moderating from the significant decline of 65.6% and 52.5% in 2Q2020 and 3Q2020 respectively as construction activities gradually resumed. For the whole year of 2020, the construction sector contracted 35.9%, a reversal from the 1.6% expansion recorded in 2019. This is weighed down by the reduction in both public and private sector construction activities, making it the worst performing sectoral in 2020.

According to MTI's forecast, the Singapore economy for 2021 is expected to grow by 4.0% to 6.0%. The recovery is expected to be gradual although uneven across sectors, as it will rely heavily on the performance of the global economy as well as how the vaccination drive progresses in Singapore and other countries.

The construction sector is expected to recover from the low base in 2020. However, construction activities will continue to be dampened by the implementation of safe management measures at construction worksites.

Based on Arcadis Singapore's data, tender prices for 2020 have increased by approximately 3% compared to 2019 (i.e. 4Q2020 versus 4Q2019). The increase is mainly driven by the gradual resumption of construction activities, the new norm of including safe distancing measures, the impact on loss of productivity and labour availability.

Looking ahead, we anticipate that the higher cost is likely to remain in 2021 mainly due to an increase in labour prices and key construction materials, shortages of contracting resources due to market uncertainties and insolvency as a result from the easing of Government support and relief schemes.

As such, price movement (if any) for the whole year of 2021 is anticipated to increase by an estimate of 10% or more, the actual level depending on the prevailing market sentiment, any adverse ramifications of the prevailing economic instability and COVID-19 pandemic situation.

MARKET MOVEMENT



ECONOMY

Indicator	Q4/18 - Q4/19	Q3/19 - Q3/20	Q4/19 - Q4/20
GDP Growth per annum	Q4/18 - Q4/19 (+) 1.3%	Q3/19 - Q3/20 (-) 5.8%	Q4/19 - Q4/20 (-) 2.4%
Inflation Rate (CPI) per annum	Dec 18 - 19 (+) 0.8%	Sep 19 - 20 (-) 0.01%	Dec 19 - 20 (+) 0.02%

Source: Ministry of Trade and Industry



SUPPLY & DEMAND

Indicator	Q4/19	Q3/20	Q4/20
BCA Construction Demand	Q4/19 S\$8.01 Bn	Q3/20 S\$2.98 Bn	Q4/20 S\$5.71 Bn
BCA Construction Output	Q4/19 S\$7.51 Bn	Q3/20 S\$3.46 Bn	Q4/20 S\$5.72 Bn

Source: Building and Construction Authority



BASIC COSTS

Indicator	Oct 20	Nov 20	Dec 20
BCA Concrete Price Index	Oct 20 121.5	Nov 20 121.4	Dec 20 121.5
BCA Steel Reinforcement Price Index	Oct 20 94.0	Nov 20 95.7	Dec 20 105.5

Source: Building and Construction Authority



CONSTRUCTION COST TREND

Indicator	Q4/19	Q3/20	Q4/20
BCA Tender Price Index	Q4/19 100.2	Q3/20 102.7 [^]	Q4/20 106.5
Arcadis Singapore Tender Price Index	Q4/19 100.2	Q3/20 100.2 [#]	Q4/20 103.2

Source: Building and Construction Authority

[^] The BCA TPI sub-indices for 3Q20 (all except Public Residential) are assumed unchanged from 1Q20 in view of a lack of representative data due to insufficient tenders for new works awarded during this period

[#] Arcadis Singapore TPI for 3Q20 are assumed unchanged from 1Q20 in view of a lack of representative data due to insufficient tenders



1 MARKET ANALYSIS

SINGAPORE'S CONSTRUCTION DEMAND

According to Building and Construction Authority (BCA)'s data, the total construction demand (based on actual contracts awarded) in 2020 was \$21.0 billion, a decline of approximately 37% as compared to \$33.5 billion in 2019, impacted by the COVID-19 pandemic which has caused unprecedented disruption to project implementation schedules.

The public sector construction demand shrank from \$19 billion in 2019 to \$12.8 billion in 2020, mainly caused by the postponement of some major infrastructure projects such as the Changi Terminal 5 development. Similarly, the private sector construction demand shrank from \$14.5 billion in 2019 to \$8.2 billion in 2020, weighed down by market uncertainties.

Looking ahead, BCA forecasts that the total construction demand is expected to improve in 2021 to reach between \$23 billion and \$28 billion. Public sector projects are expected to continue to drive the construction demand contributing approximately 65% of the total construction demand; mainly supported by major public infrastructure works such as the Jurong Region Mass Rapid Transit (MRT) Line, Cross Island MRT Line Phase 1 and Deep Tunnel Sewerage System (DTSS) Phase 2 and public residential projects such as new housing units and rejuvenation projects to improve the living environment of existing public housing estates.

On the other hand, private sector construction demand is expected to maintain at the same level as 2020 and could perform better than its forecast if the economy recovery picks up momentum and improve business sentiments.

While the current forecast of \$23 billion to \$28 billion worth of construction demand is anticipated to be sustainable, the key challenge that is constantly faced by the construction industry is the lack of contractors for certain categories of work. As a result, tender prices will rise due to a shortage of contracting resources in Singapore.

It is also anticipated that with the commencement of major public sector infrastructure works such as the Jurong Region MRT Line, Cross Island MRT Line Phase 1 and Deep Tunnel Sewerage System Phase 2, there would be an increase in the costs of piling and diaphragm wall works as well as some specialist works/materials costs.

KEY CONSTRUCTION MATERIAL PRICES

Based on BCA's data, construction material market prices of cement, granite, concreting sand and ready-mixed concrete (RMC) have remained relatively stable in 4Q2020.

Market prices of steel bars, on the other hand, have increased about 13% in December 2020 at \$808.52 per tonne compared to \$713.90 per tonne in December 2019. This was due to the rising cost of raw materials caused by the dwindling supply of iron ore, coupled with a surge in steel demand and short-term disruptions caused by storms in Australia. We anticipate that steel bars prices will remain high in the first half of 2021 or until the supply and demand are in equilibrium again. However, downside risks remain due to the uncertainties of the COVID-19 pandemic situation.

BCA foresees that the RMC price is unlikely to increase significantly in 2021. Any upward movement in raw material prices is expected to be softened by the current competitive RMC supply market due to the anticipated relatively lower construction output in 2021 as compared to the volumes in recent years prior to the COVID-19 pandemic.

Based on the projected construction activities, the demand for precast concrete is expected to increase in 2021 to 2023. As the Government is pushing the industry to adopt more DfMA technologies to improve productivity and reduce reliance on foreign workers, the demand for precast concrete will continue to increase beyond 2023. Coupled with the increasing number of precast suppliers, the cost premium is also expected to reduce further.

CONSTRUCTION LABOUR

With the tightening of work pass requirements, the minimum salary requirement has been further raised for Employment Pass (EP) from 1 September 2020 and S Pass (SP) from 1 October 2020. In addition, the foreign worker quota for SP workers will be reduced as well. The SP sub-Dependency Ratio Ceiling will be tightened from 20% to 18% on 1 January 2021 and to 15% on 1 January 2023. These new measures will inevitably add pressure to the business operating cost and the current labour shortage issue in the construction industry caused by the COVID-19 pandemic.

Based on contractors' feedback, the construction industry is still facing an on-going labour shortage issue as foreign workers who have returned home to visit are not able to return to Singapore while new foreign worker permit applications have slow down due to border restrictions. The Government is limiting entry approvals for work pass holders to reduce the risk of imported COVID-19 cases and to protect public health.

While construction activities can fully resume, contractors are faced with delay issues and are under pressure to meet project deadlines as the availability of foreign workers has not returned to pre-COVID-19 pandemic level. They have also faced requests from workers to increase their remuneration while some have offered a higher remuneration package to motivate their workers to stay when their work permit ends.

To help the industry tackle the labour shortage issues, the Government has gradually resumed processing new work pass application from countries with lower health risks such as China.

On 15 December 2020, the Government has announced that they are easing restrictions to allow new work permit and SP applications across all sectors into Singapore in order to alleviate the manpower shortage faced by businesses. They are now processing applications from all approved source countries, with workers from certain countries and regions working for specific industry sectors.

Despite the Government's effort to allow new work permit and SP applications into Singapore, labour cost is anticipated to remain high due to higher salaries, pricing allowance by contractors in anticipation of the risk of labour shortages and uncertainties in the COVID-19 pandemic situation.



2 APPROXIMATE BUILDING COSTS

SINGAPORE

BUILDING TYPE	S\$/m ² CFA
RESIDENTIAL	
Terraced Houses	2,400 - 2,650
Semi-Detached Houses	2,600 - 3,000
Detached Houses	3,050 - 4,000
Average Standard Condominium	1,850 - 2,050
Above Average Standard Condominium	2,100 - 2,800
Luxury Condominium	2,850 - 4,200
OFFICE	
Average Standard Offices	2,400 - 2,650
Prestige Offices	2,700 - 2,900
COMMERCIAL	
Shopping Centres, Average Quality	2,700 - 2,800
Shopping Centres, High Quality	2,850 - 3,100
CAR PARKS	
Multi-Storey Car Parks	900 - 1,280
Basement Car Parks	1,300 - 1,730
INDUSTRIAL	
Flatted Light Industrial Buildings	1,250 - 1,380
Flatted Heavy Industrial Buildings	1,400 - 1,880
Single Storey Industrial Buildings	1,150 - 1,280
Flatted Warehouses	1,150 - 1,280
Single Storey Warehouses	1,050 - 1,280
HOTEL (INCLUDING FURNITURE AND FITTINGS)	
3-Star Hotels	3,000 - 3,250
4-Star Hotels	3,200 - 3,750
5-Star Hotels	3,850 - 4,300
HEALTH	
Private Hospitals	3,850 - 4,000
Polyclinics, Non Air-conditioned	1,650 - 1,800
Nursing Homes, Non Air-conditioned	1,650 - 1,900
Medical Centres	2,950 - 3,100

The above costs are at 4th Quarter 2020 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:

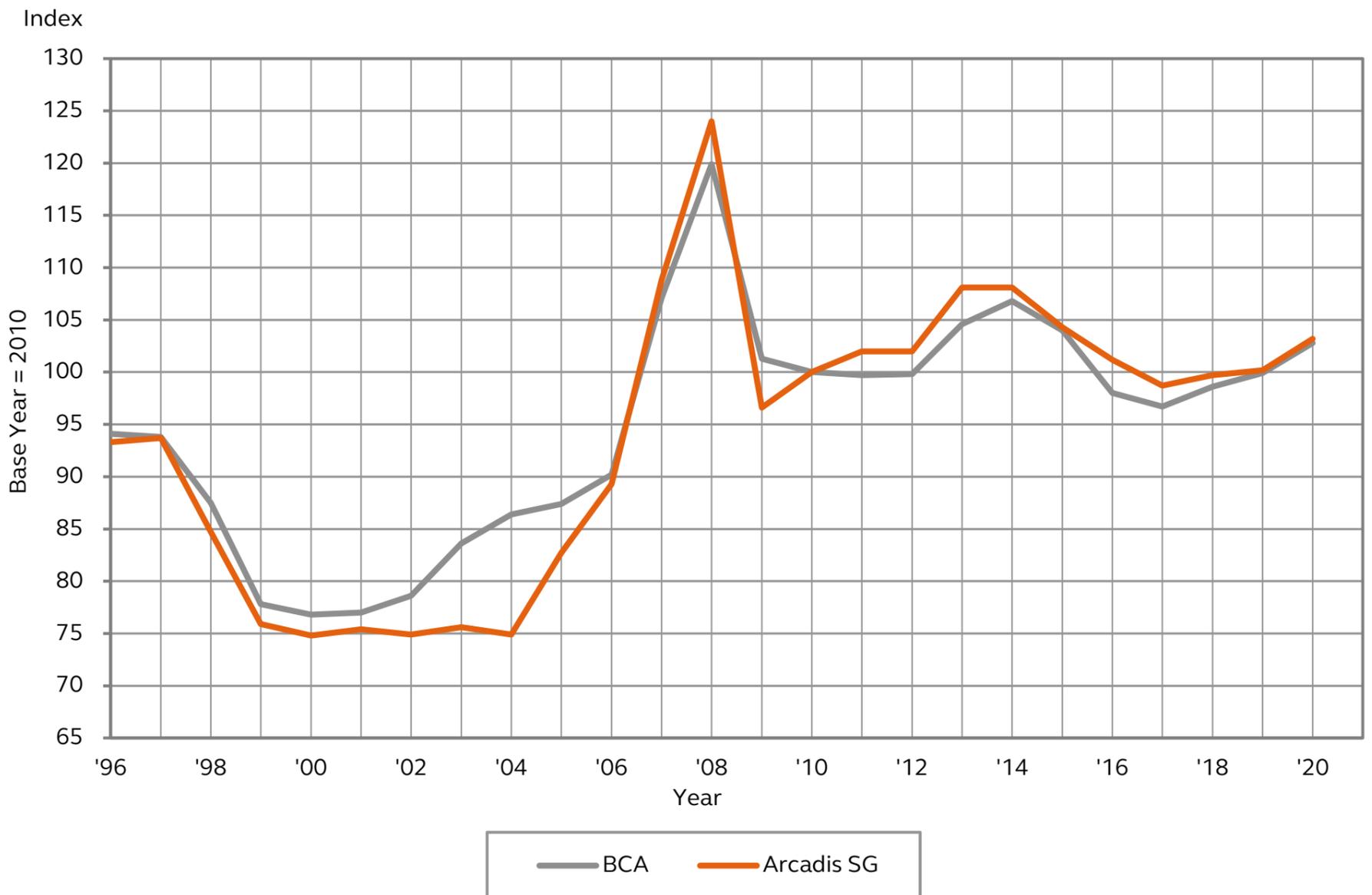
- Professional fees
- Authorities' plan processing charges
- Land cost
- Financing charges
- Site inspectorate
- Administrative expenses
- Legal cost & disbursements
- Demolition of existing building(s)
- Furniture and fittings (unless otherwise stated)
- Operating equipment
- External works
- Prefabricated Prefinished Volumetric Construction (PPVC) / Prefabricated Bathroom Units (PBUs) / Structural steel structure
- Cross Laminated Timber (CLT) / Glued Laminated Timber (Glulam)
- BCA Green Mark Gold and above
- Cost escalation
- Goods and Services Tax
- Cost impact arising from COVID-19 pandemic



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	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
BCA*	100.0	99.7	99.8	104.6	106.8	104.0	98.0	96.7	98.6	99.9
Arcadis SG^	100.0	102.0	102.0	108.1	108.1	104.3	101.2	98.7	99.7	100.2

Year	2020
BCA*	102.8
Arcadis SG^	103.2

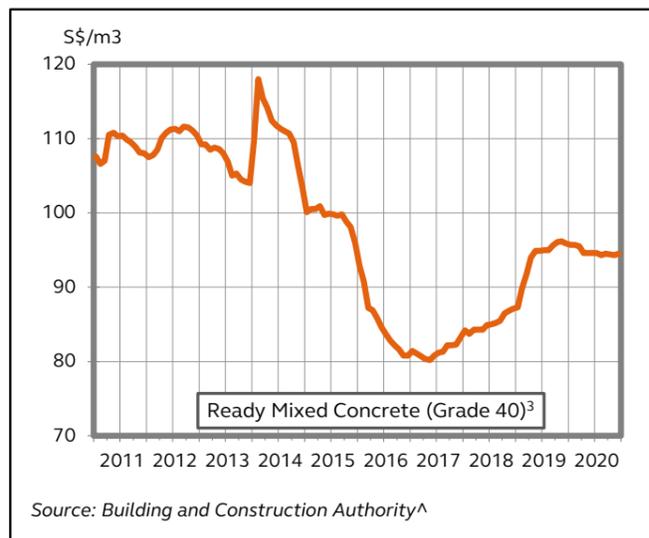
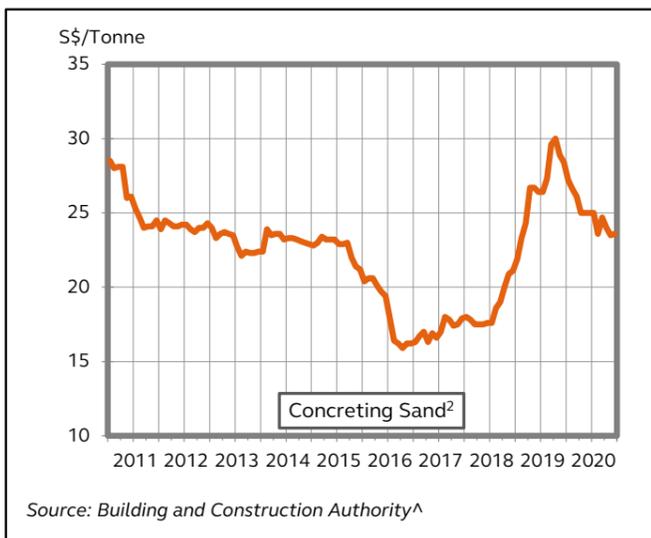
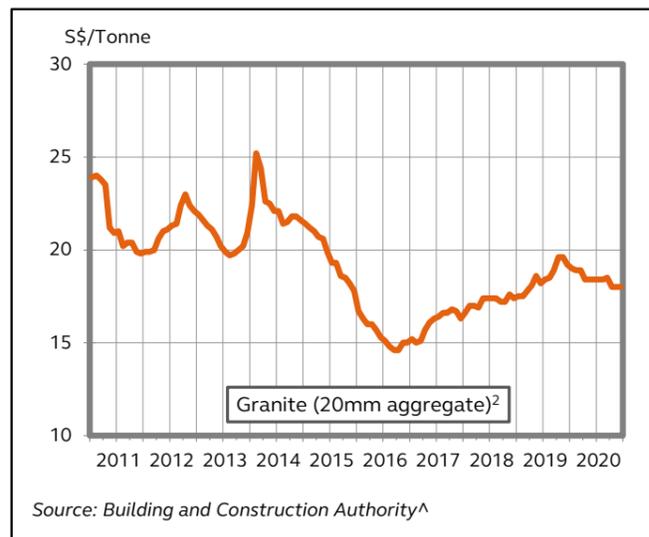
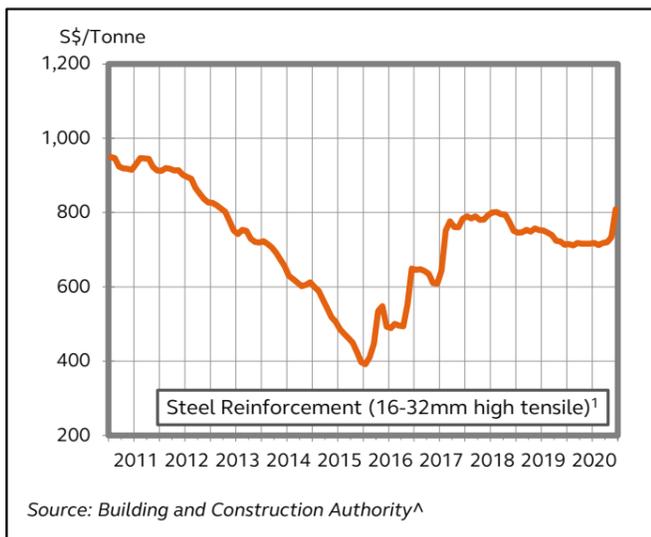
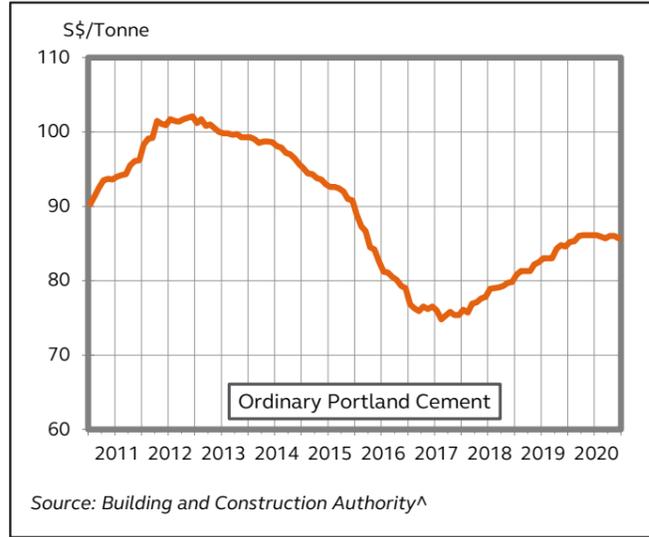
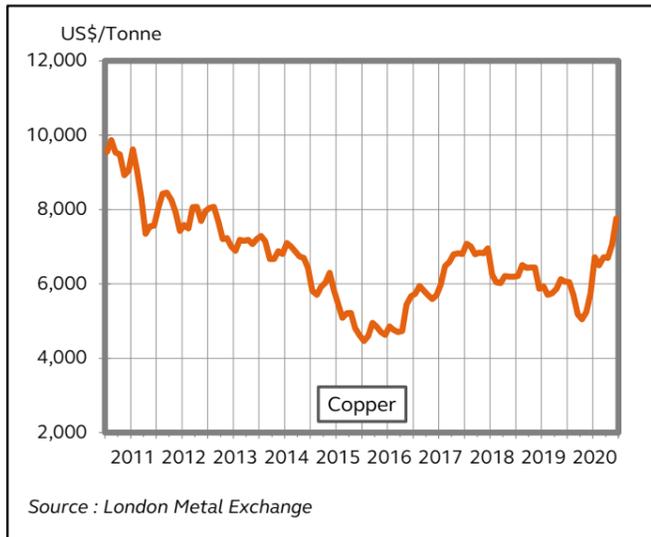
Source: * Building and Construction Authority (BCA TPI based on average for the whole year)

^ From 2009 onwards, Arcadis Singapore TPI based on 4th Quarter Index



4 MATERIALS SINGAPORE

Basic Construction Materials



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

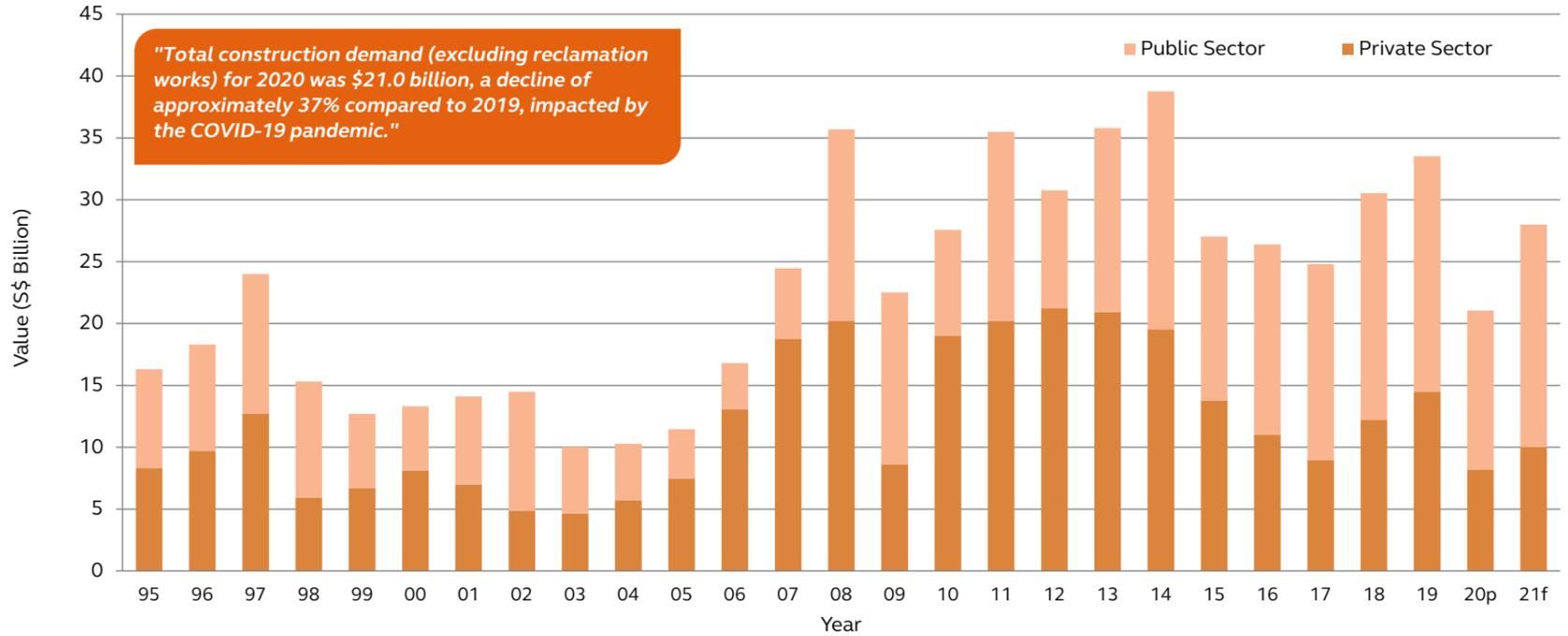
² Prices of granite and concreting sand exclude local delivery charges to concrete batching plants

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

[^] In view of the lack of business transactions for materials due to a stoppage/slowdown of most construction activities on the back of the Covid-19 fallout, the BCA construction material market prices in May, Jun and Jul 2020 (except for rebar prices in Jun and Jul 2020) are assumed unchanged from those of Apr 2020



5 CONSTRUCTION DEMAND SINGAPORE



BCA Construction Demand (Excludes Reclamation Works) (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	24.0	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	2017	2018
Private Sector	18.8	20.2	8.6	19.0	20.2	21.2	20.9	19.5	13.8	11.0	9.0	12.2
Public Sector	5.7	15.5	13.9	8.6	15.3	9.5	14.9	19.2	13.3	15.4	15.8	18.3
Total Value	24.5	35.7	22.5	27.6	35.5	30.8	35.8	38.8	27.0	26.4	24.8	30.5

	2019	2020p	2021f
Private Sector	14.5	8.2	8.0 - 10.0
Public Sector	19.0	12.8	15.0 - 18.0
Total Value	33.5	21.0	23.0 - 28.0

Source: Building and Construction Authority as at 4 February 2021.

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; f - denotes forecast



6 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	Shanghai	Beijing	Guangzhou/ Shenzhen	Chongqing/ Chengdu
	RMB/ m2 CFA			
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	2,960 - 3,375	2,719 - 3,136	2,652 - 2,924	2,631 - 3,063
- Full fit	4,887 - 5,386	4,303 - 4,726	4,138 - 4,554	3,981 - 4,737
Apartments, high rise, high end				
- Shell and core	3,559 - 3,855	3,240 - 4,700	2,767 - 3,602	3,213 - 4,212
- Full fit	11,035 - 12,027	10,421 - 11,867	6,659 - 7,286	6,445 - 8,124
Terraced houses, average standard				
- Shell and core	3,346 - 3,561	3,139 - 3,666	2,811 - 3,096	3,238 - 3,905
- Full fit	6,752 - 7,352	6,158 - 6,673	6,204 - 7,194	5,498 - 6,501
Detached houses, high end				
- Shell and core	4,873 - 5,386	4,727 - 5,261	3,838 - 4,227	4,252 - 4,883
- Full fit	11,873 - 12,593	11,834 - 12,349	11,900 - 13,523	7,003 - 7,999
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	6,208 - 8,206	6,019 - 8,105	5,782 - 6,442	6,321 - 7,314
High rise offices, prestige quality	8,054 - 11,017	9,781 - 13,312	8,448 - 10,190	7,987 - 10,749
Out-of-town shopping centre, average standard	N/A	4,587 - 6,131	5,570 - 6,112	5,100 - 6,529
Retail malls, high end	8,540 - 11,017	8,296 - 11,418	8,092 - 11,312	7,605 - 10,645
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	1,933 - 2,363	1,894 - 2,310	2,158 - 2,574	3,106 - 3,911
Owner operated factories, low rise, light weight industry	2,988 - 3,737	3,663 - 4,198	N/A	N/A
HOTELS				
Budget hotels - 3-star, mid market	6,858 - 8,364	6,785 - 8,362	7,326 - 8,059	6,849 - 8,452
Business hotels - 4/5-star	11,049 - 14,963	11,345 - 14,975	11,840 - 16,903	12,324 - 15,385
Luxury hotels - 5-star	14,942 - 17,864	14,441 - 18,586	16,097 - 17,741	15,183 - 18,188
OTHERS				
Underground/basement car parks (<3 levels)	5,124 - 7,143	5,240 - 5,762	3,821 - 6,098	3,016 - 4,238
Multi storey car parks, above ground (<4 levels)	2,626 - 3,666	3,155 - 3,188	2,726 - 3,010	2,399 - 2,961
Schools (primary and secondary)	3,916 - 4,943*	3,650 - 4,712*	3,029 - 3,333*	3,190 - 3,530*
Students' residences	2,867 - 3,909	2,581 - 3,650	1,914 - 2,112	2,224 - 3,234
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	6,606 - 8,112	6,250 - 6,303	5,280 - 5,808	5,049 - 5,557
General hospitals - public sector	10,092 - 13,013	8,217 - 10,289	7,999 - 9,999	8,085 - 10,098

The above costs are at 4th Quarter 2020 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)			
	HK\$ 7.75	MOP 7.980	S\$ 1.36	RM 4.11
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	N/A	1,793 - 2,657	N/A	N/A
- Full fit	2,990 - 3,460	2,308 - 2,823	1,360 - 1,505	305 - 590 \$
Apartments, high rise, high end				
- Shell and core	N/A	2,657 - 3,984	N/A	N/A
- Full fit	3,870 - 4,520	3,223 - 4,926	2,095 - 3,090	710 - 1,410
Terraced houses, average standard				
- Shell and core	N/A	3,147 - 3,908	N/A	N/A
- Full fit	4,080 - 4,720	3,934 - 4,694	1,765 - 1,950	220 - 350 \$\$
Detached houses, high end				
- Shell and core	N/A	3,804 - 5,480	N/A	N/A
- Full fit	5,970 up	4,798 - 6,242	2,245 - 2,940	740 - 1,000
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	2,950 - 3,390 &	2,657 - 3,430	1,765 - 1,950@	580 - 755 \$\$\$
High rise offices, prestige quality	3,540 - 4,080	3,430 - 3,753	1,985 - 2,130@	900 - 1,280 \$\$\$\$
Out-of-town shopping centre, average standard	2,930 - 3,430	2,502 - 3,753	1,985 - 2,060	545 - 725
Retail malls, high end	3,790 - 4,520	3,934 - 4,746	2,095 - 2,280	680 - 1,015
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	N/A	N/A	770 - 940	320 - 440
Owner operated factories, low rise, light weight industry	2,270 - 2,850	N/A	N/A	430 - 530
HOTELS				
Budget hotels - 3-star, mid market	3,750 - 4,000	3,495 - 3,959	2,205 - 2,390	1,015 - 1,420
Business hotels - 4/5-star	3,880 - 4,530	4,746 - 5,673	2,830 - 3,160	1,340 - 2,210
Luxury hotels - 5-star	4,530 - 5,210	5,673 - 6,706	2,830 - 3,160	1,935 - 2,475
OTHERS				
Underground/basement car parks (<3 levels)	3,200 - 3,830	2,076 - 3,044	955 - 1,270	310 - 540
Multi storey car parks, above ground (<4 levels)	1,910 - 2,270	1,148 - 1,509	660 - 940@@	220 - 350
Schools (primary and secondary)	2,490 - 2,680*	2,295 - 2,657	N/A	250 - 315 \$\$\$\$\$
Students' residences	2,850 - 3,210	1,818 - 2,115	1,620 - 1,730	295 - 370 \$\$\$\$\$
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	3,740 - 4,270	N/A	2,020 - 2,130	595 - 740
General hospitals - public sector	4,750 - 5,280	N/A	2,830 - 2,940	850 - 1,170

The above costs are at 4th Quarter 2020 levels.
Singapore: Rates are nett of GST.



6 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	Bangkok	Bangalore	Manila	Ho Chi Minh
	USD/ m2 CFA (See also exchange rates per U.S. dollar below)			
	BAHT 30.28	INR 74.39	PHP 48.94	VND 23,500
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	578 - 743	520 - 580	N/A	N/A
- Full fit	800 - 947	585 - 665	1,009 - 1,422	638 - 791
Apartments, high rise, high end				
- Shell and core	677 - 875	765 - 910	N/A	N/A
- Full fit	1,066 - 1,312	880 - 1,060	1,363 - 2,590	812 - 931
Terraced houses, average standard				
- Shell and core	330 - 429	345 - 375	N/A	N/A
- Full fit	500 - 614	405 - 425	983 - 1,203	430 - 505
Detached houses, high end				
- Shell and core	578 - 826	460 - 490	N/A	N/A
- Full fit	866 - 1,046	530 - 560	1,909 - 3,237	491 - 599
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	800 - 947	460 - 500	999 - 1,236	746 - 864
High rise offices, prestige quality	999 - 1,279	580 - 610	1,446 - 1,823	861 - 1,173
Out-of-town shopping centre, average standard	683 - 880	450 - 490	849 - 1,058	N/A
Retail malls, high end	916 - 963	630 - 675	1,160 - 1,626	697 - 913
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	533 - 664	365 - 420	566 - 633	306 - 386
Owner operated factories, low rise, light weight industry	N/A	385 - 450	761 - 951	347 - 457
HOTELS				
Budget hotels - 3-star, mid market	1,249 - 1,378	865 - 960	1,269 - 1,415	1,384 - 1,694
Business hotels - 4/5-star	1,599 - 1,827	1,350 - 1,600	1,430 - 2,389	N/A
Luxury hotels - 5-star	1,866 - 2,159	1,705 - 1,870	1,965 - 3,783	1,748 - 2,098
OTHERS				
Underground/basement car parks (<3 levels)	600 - 797	295 - 320	594 - 783	633 - 756
Multi storey car parks, above ground (<4 levels)	200 - 325	245 - 265	504 - 725	407 - 447
Schools (primary and secondary)	N/A	305 - 340	744 - 1,026	535 - 584
Students' residences	N/A	335 - 370	787 - 1,010	535 - 687
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	N/A	620 - 650	1,259 - 1,831	791 - 846
General hospitals - public sector	N/A	675 - 740	1,512 - 1,753	N/A

The above costs are at 4th Quarter 2020 levels.
 Bangkok and Ho Chi Minh: Rates are nett of VAT.
 Bangalore: Rates are nett of GST.
 Manila: Rates include 12% VAT.



6 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	OUTLINE SPECIFICATION
DOMESTIC	
Apartments, high rise, average standard	<u>Shell and core</u> , including finishes to public area, but <u>excluding</u> finishes to apartment units <u>Full fit</u> , with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> decorative light fittings and loose furniture
Apartments, high rise, high end	<u>Shell and core</u> , including finishes to public area, but <u>excluding</u> finishes to apartment units <u>Full fit</u> , good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> decorative light fittings and loose furniture
Terraced houses, average standard	<u>Shell and core</u> , joined houses in row(s), <u>excluding</u> garden, parking, finishes and fittings to house interior <u>Full fit</u> , joined houses in row(s), with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> decorative light fittings, loose furniture, garden and parking
Detached houses, high end	<u>Shell and core</u> , good quality facade, <u>excluding</u> garden, parking, finishes and fittings to house interior <u>Full fit</u> , good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> 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 <u>excluding</u> 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 <u>excluding</u> 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 <u>excluding</u> a/c and heating
HOTELS	
Budget hotels - 3-star, mid market	1) Interior decoration
Business hotels - 4/5-star	2) Furniture (fixed and movable)
Luxury hotels - 5-star	3) Special light fittings (chandeliers, etc.)
	4) Operating Supplies and Equipment (OS&E) <u>excluded</u>
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 <u>excluding</u> educational equipment
Students' residences	Including fit-out, loose furniture and a/c
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	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	<u>Excluding</u> medical and operating equipment

Notes :

- 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.
- 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.
- All buildings 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.
- The standard for each category of building varies from region to region and do not necessarily follow that of each other.
- "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.
- "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).
- Fluctuation in exchange rates may lead to changes in construction costs expressed in U.S. dollars.
- Shanghai, Beijing, Guangzhou/Shenzhen, Chongqing/Chengdu: * Public authority standard, no a/c and complete with basic external works.
- Hong Kong: & Excluding raised floor/ carpet and false ceiling but including screeded floor and painted ceiling * Public authority standard, no a/c and complete with basic external works.
- Singapore: @ Excluding carpet @@ Open on all sides with parapet.
- 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 and raised floor \$\$\$\$ Exclude Tenant fit-out \$\$\$\$\$ Standard government provisions \$\$\$\$\$\$ University standard.
- The data for Bangalore / India is provided by Arkind LS Private Limited, an Arcadis Alliance Partner.

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