

CHINA AND HONG KONG

QUARTERLY CONSTRUCTION COST REVIEW



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CHINA AND HONG KONG MARKET OVERVIEW



PRODUCTIVITY CHALLENGE REMAINS

Globally, the construction industry is not as productive as it could be. This is particularly evident in Hong Kong as it has struggled to create efficiency in the construction process. However, the government has created measures and guidelines to facilitate the adoption of Modular Integrated Construction (MiC), an innovative construction method that eases some of the current challenges faced by the local construction industry.

MiC can help improve productivity, but its adoption rate is still low despite pilot testing by the government. The greatest barrier to MiC becoming a scalable solution in Hong Kong is the city's geographical landscape, which creates significant logistical challenges. Building in such a congested and developed metropolis leads to complicated construction sites and difficulties moving large and heavy equipment into place.

Another area of development is the use of technology in Hong Kong's construction industry. Platforms such as Building Information Modelling (BIM) are being adopted at a lower rate than other cities. The industry is hesitant to take on the initial set up costs, and there is no outright legislative mandate that they need to do so in private works, only for public projects that exceed HK\$30 million. There is also a shortage of workers with the technical know-how to operate BIM. This skills-gap has been acknowledged by the government, which is starting to invest in training people to use BIM software.

MARKET MOVEMENT

ECONOMY

Indicator	Q1/17 - Q1/18	Q4/17 - Q4/18	Q1/18 - Q1/19
GDP Growth per annum	Q1/17 - Q1/18 (+) 4.6%	Q4/17 - Q4/18 (+) 1.2%	Q1/18 - Q1/19 (+) 0.6%
Inflation Rate (CPI) per annum	Mar 17 - 18 (+) 2.6%	Dec 17 - 18 (+) 2.5%	Mar 18 - 19 (+) 2.1%

BASIC COSTS

Indicator	Nov 17 - Jan 18	Aug - Oct 18	Nov 18 - Jan 19
Highways Material Index	Nov 17 - Jan 18 804.8	Aug - Oct 18 863.1	Nov 18 - Jan 19 854.2
Labour Wages Index	Nov 17 - Jan 18 150.8	Aug - Oct 18 148.9	Nov 18 - Jan 19 148.7

SUPPLY & DEMAND

Indicator	Q4/17	Q3/18	Q4/18
Activity Level (Gross output; new + A&A)	Q4/17 HK\$67.674 Bn	Q3/18 HK\$60.255 Bn	Q4/18 HK\$65.503 Bn

CONSTRUCTION COST TREND

Indicator	Q1/18	Q4/18	Q1/19
Tender Price Index (Arcadis)	Q1/18 1920	Q4/18 1868	Q1/19 1848



1 MARKET ANALYSIS

CHINA

In the recent International Construction Costs Comparison 2019, it was reported that China's megacities are among some of the least expensive cities in the world to build in. China is the world's largest construction market, and in the context of the ongoing US-China trade war, the central government has looked to strengthen the future of the market by approving over US\$160 billion in infrastructure works to counter any potential impact and stimulate economic growth. Since December 2018, the National Development and Reform Commission has approved 16 projects including the Shanghai Urban Rail Transit, worth over US\$44 billion.

GROSS VALUE OF CONSTRUCTION

The gross value of construction works performed in China in the first quarter of 2019 increased by 10.5% Year-on-Year (YoY), but the growth rate went down by 2.7% when compared to first quarter 2018. The total sales of commercial buildings increased by 5.6% YoY and the rate of growth went down by 4.8% according to National Bureau of Statistics (NBS). The growth of real estate and construction markets are slowing down.

In addition, the land sales area dropped by 33.1% in the first quarter of 2019, which may lead to a decrease in value of the construction works performed in the future.

COST OF MATERIALS AND LABOUR

Major construction material prices remain stable despite a rise in movement towards the end of 2018. Labour wages have also increased moderately with the market tender price remaining stable in the first quarter of 2019. However, under the influence of the slowing real estate market, construction costs are anticipated to drop slightly moving into the next quarter.

HONG KONG

In contrast to China, Hong Kong remains the most expensive city in Asia for construction according to the International Construction Costs Comparison 2019. Consistent trends keep costs high, such as a shortage of labour, an aging workforce, a reliance on importing construction materials and a low level of productivity.

SLOWED ECONOMIC GROWTH

The Gross Domestic Product (GDP) data released by Census and Statistics Department showed Hong Kong's economy had continued growth of over 3% for seven consecutive quarters, which ended at the end of the second quarter of 2018. The growth dropped to 0.6% in first quarter of 2019, which is the lowest growth rate in nearly a decade amongst the ongoing tension of the US-China trade war and weakened consumer demand.

GROWTH CAPITAL WORKS

In 2018, several long-term civil projects reached completion, including the Hong Kong-Zhuhai-Macau Bridge and the West Kowloon Railway Station. This created a potential gap in ongoing capital works, but the funding for capital works projects approved in 2017/18 and 2018/19 by Hong Kong's Legislative Council increased substantially compared with the three preceding years. The approved funding in these two years is close to the same peak levels of 2012/13 and 2013/14, suggesting there will be a healthy pipeline of projects in 2019 and 2020.

COST OF MATERIALS AND LABOUR

The overall price of construction materials remained stable in the previous quarter. The price of steel decreased by around 3%, but the cost is still near peak levels since its gradual increase from the market low in early 2016. Construction workers' wages, including bar benders, electrical and mechanical workers showed little to no movement in this quarter. Wages of bricklayers and painters have dropped around 5% since the fourth quarter of 2018. The labour index has experienced a slight dip of 2.0%, YoY.



2 APPROXIMATE BUILDING COSTS

HONG KONG

Notes:

1. The cost for the respective categories given 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 cost per square metre are based on the 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 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.

BUILDING TYPE	HK\$/m ² CFA	OUTLINE SPECIFICATION
DOMESTIC		
Apartments, high rise, public authority standard	11,000 - 13,500	Apartment units with fit-out, based on Hong Kong Housing Authority Non-standard Cruciform Block design
Apartments, high rise, average standard	23,800 - 27,800	Apartment units with fit-out, including air-conditioning, kitchen cabinets and home appliances, but excluding decorative light fittings and loose furniture
Apartments, high rise, high end	31,300 - 36,500	Apartment units with good quality fit-out, including air-conditioning, kitchen cabinets and home appliances, but excluding decorative light fittings and loose furniture
Terraced houses, average standard	32,200 - 37,800	Houses with fit-out, including air-conditioning, kitchen cabinets and home appliances, but excluding decorative light fittings, loose furniture, garden and parking
Detached houses, high end	48,000 up	Houses with good quality fit-out, including 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	23,400 - 27,300	RC structure, curtain wall/window wall, including public area fit-out, tenant area with screeded floor, painted wall and ceiling
High rise offices, prestige quality	28,300 - 33,100	RC structure, curtain wall, including public area fit-out, tenant area with raised floor/carpet, painted wall and false ceiling
Out-of-town shopping centre, average standard	23,200 - 27,600	Including public area fit-out and M&E, but excluding shop fit-out
Retail malls, high end	30,700 - 36,700	
INDUSTRIAL		
Owner operated factories, low rise, light weight industry	18,100 - 23,000	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	30,000 - 32,300	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	31,300 - 36,700	
Luxury hotels - 5-star	36,700 - 42,500	
OTHERS		
Underground/basement car parks (<3 levels)	25,000 - 30,000	RC structure
Multi storey car parks, above ground (<4 levels)	15,000 - 17,800	RC structure, natural ventilation, no facade enclosure
Schools (primary and secondary)	19,700 - 21,200	Public authority standard, including fit-out, no a/c, complete with basic external works but excluding educational equipment
Students' residences	22,900 - 25,900	Including fit-out, loose furniture and a/c
Sports clubs, multi purpose sports/ leisure centres (dry sports)	29,800 - 34,700	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	38,500 - 43,300	Excluding medical and operating equipment

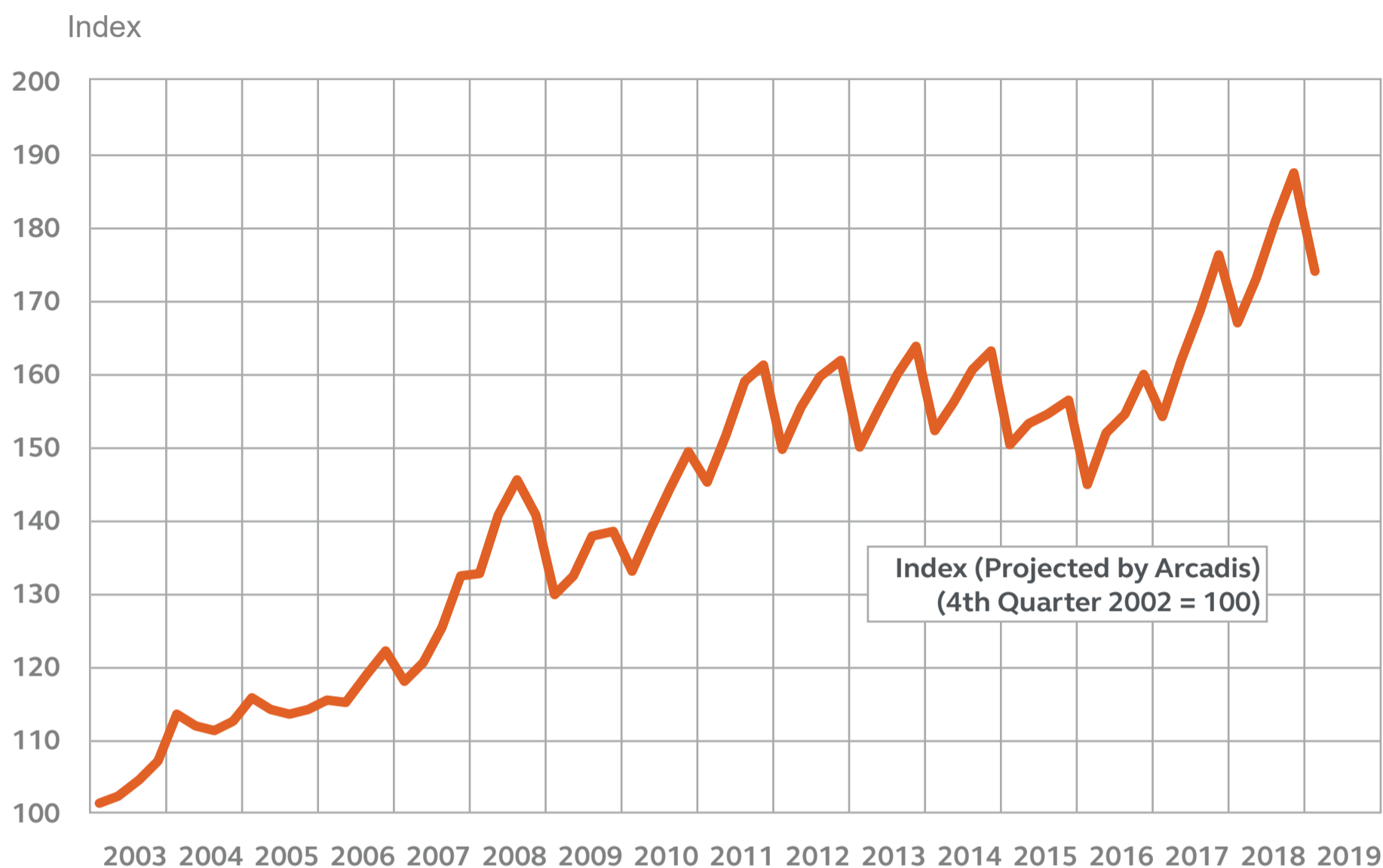
*The above cost are at 1st Quarter 2019 levels.



3

BUILDING & BUILDING SERVICES PRICE INDEX

MAINLAND CHINA



BUILDING & BUILDING SERVICES PRICE INDEX								
Index	Published (by NBS of China) (Base: Corresponding Quarter in Preceding Year = 100)				Projected (by Arcadis) (Base: Q4/2002 = 100) (see explanatory notes below)			
	2016	2017	2018	2019	2016	2017	2018	2019
Quarter / Year								
1st Quarter	96.4	106.4	108.4	104.2	144.9	154.1	167.1	174.1
2nd Quarter	99.1	106.5	106.9		152.0	161.8	173.0	
3rd Quarter	100.0	109.0	107.2		154.6	168.5	180.7	
4th Quarter	102.2	110.1	106.4		160.0	176.2	187.5	

Source : National Bureau of Statistics (NBS) of China

Notes:

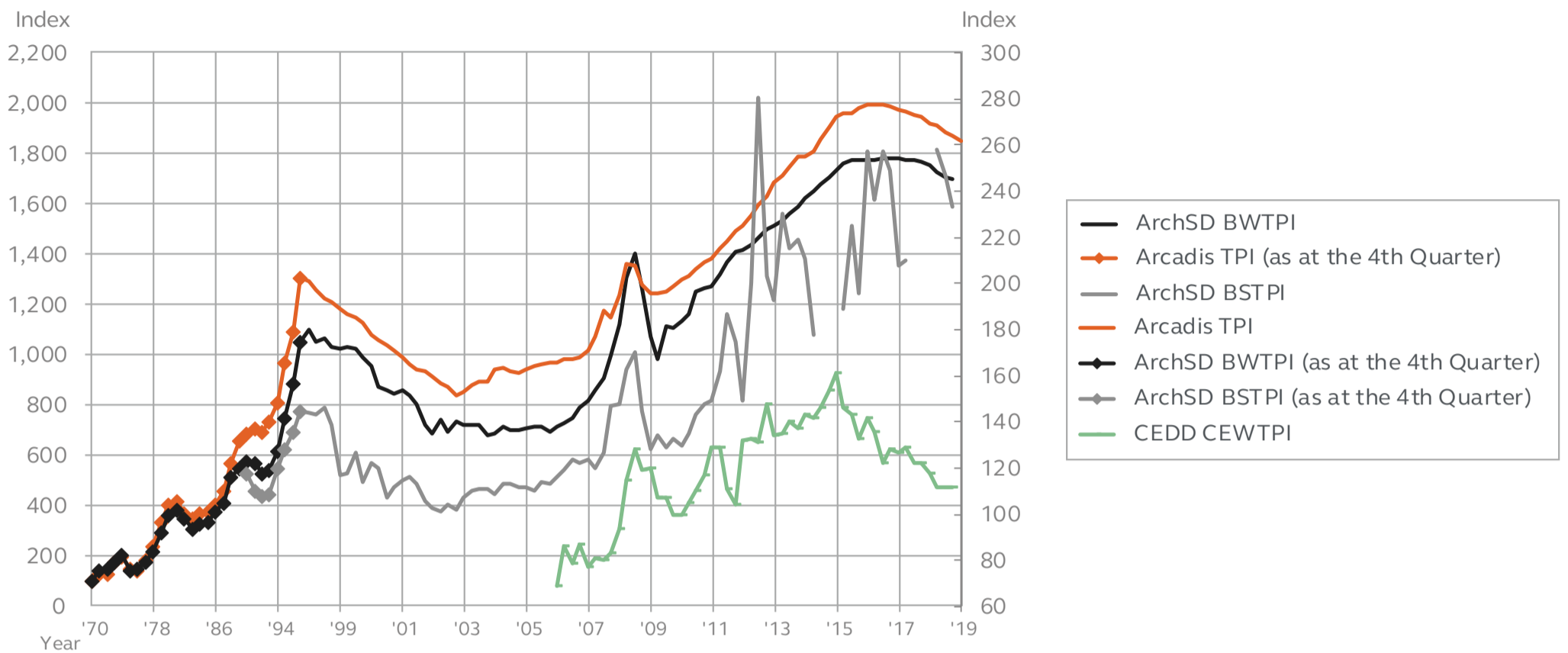
Data are published on a quarterly basis, measuring the year-on-year change in price level of each quarter, but the quarter-on-quarter change is not published, ie. the changes between consecutive quarters are not given.

To give an illustration of the price trend over time, Arcadis applies a hypothetical calculation to derive the data table and chart as above, basing on the following understanding and assumptions:

1. Only indices from 1st Quarter 2003 and onwards are published.
2. For 2002 and before, indices were only published annually. This annual index indicates that the average fluctuation of 2002 was moderate. Arcadis' own in-house data further substantiates that the construction costs in 2002 were rather stable throughout the year.
3. Changes between quarters in 2002 are assumed to be evenly distributed throughout the year. This establishes a notional relationship between the four quarters in 2002 and can be compared with the published data for 2003 to find their notional quarter-on-quarter changes.
4. For comparison purposes, 4th Quarter 2002 is referred to as base and the base index as 100.

\$ 4 TENDER PRICE INDEX

HONG KONG



Quarter/Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ArchSD BWTPI (Base = 100, at Year 1970)										
1 st Quarter	1134	1273	1414	1516	1621	1732	1775	1779	1755	
2 nd Quarter	1161	1320	1438	1532	1648	1761	1776	1776	1727	
3 rd Quarter	1249	1369	1467	1559	1679	1777	1783	1773	1708	
4 th Quarter	1266	1408	1496	1590	1703	1775	1781	1768	1698	
ArchSD BSTPI (Base = 100, at Year 1989)										
1 st Quarter	130	149	149	193	211	(N/A)	257	208	(N/A)	
2 nd Quarter	135	162	200	230	178	189	236	210	258	
3 rd Quarter	143	187	281	215	(N/A)	225	257	(N/A)	247	
4 th Quarter	148	175	203	219	(N/A)	196	249	287	233	
Arcadis TPI (Base = 100, at Year 1970)										
1 st Quarter	1297	1385	1511	1688	1789	1946	1992	1975	1920	1848
2 nd Quarter	1315	1425	1552	1713	1808	1958	1992	1968	1910	
3 rd Quarter	1342	1452	1595	1747	1857	1963	1993	1957	1885	
4 th Quarter	1367	1491	1632	1786	1903	1984	1986	1946	1868	
CEWTPI (Base = 100, at Year 2010)										
1 st Quarter	100	129	132	134	143	161	142	127	118	
2 nd Quarter	105	129	133	135	142	146	136	129	112*	
3 rd Quarter	110	111	131	140	146	143	122	122	112*	
4 th Quarter	117	104	148	137	154	133	128	122	112*	

Source : Competitive tenders received by Arcadis, Building Works Tender Price Index (BWTPI) and Building Services Tender Price Index (BSTPI) of Architectural Services Department (ArchSD) of HKSAR, and Civil Engineering Works Tender Price Index (CEWTPI) of Civil Engineering and Development Department (CEDD) of HKSAR

Notes :

- [*] denotes forecast figures
- Both BWTPI (ArchSD) and Arcadis TPI measure the trend of general builder's works only. Special works and Mechanical and Electrical Services would have to be considered separately.
- All indices were published quarterly. For reference purpose, only indices from 1st quarter of 1998 and onwards are given in detail, whereas indices between year 1970 to 1997 are shown with their 4th Quarter figures.

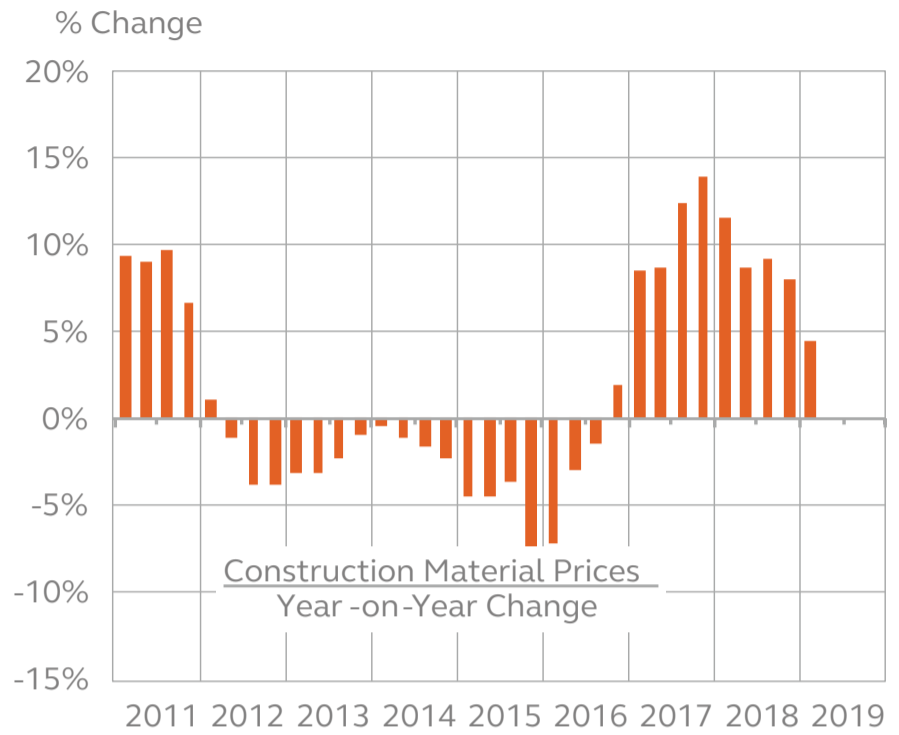


5 MATERIALS

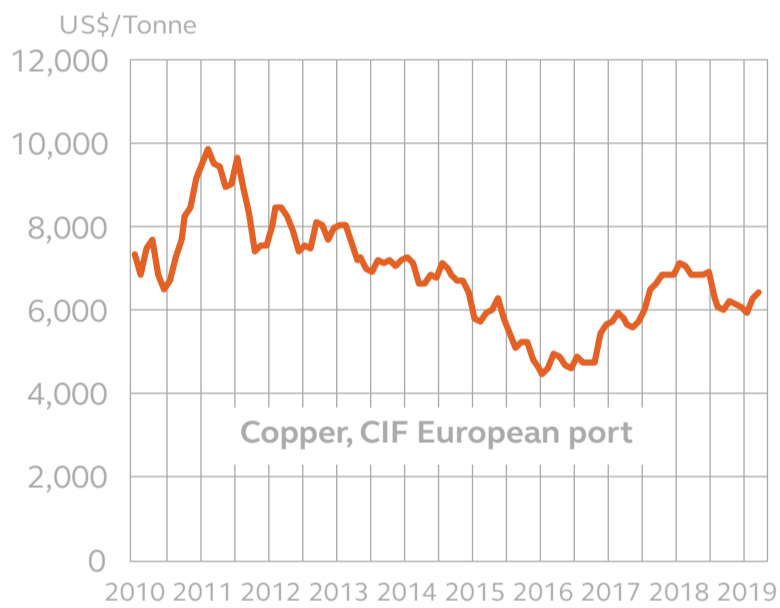
MAINLAND CHINA

CONSTRUCTION MATERIAL PRICES YEAR-ON-YEAR CHANGE			
Quarter / Year	2017	2018	2019
1st Quarter	(+) 8.5%	(+) 11.6%	(+) 4.5%
2nd Quarter	(+) 8.7%	(+) 8.7%	
3rd Quarter	(+) 12.4%	(+) 9.1%	
4th Quarter	(+) 13.9%	(+) 8.0%	

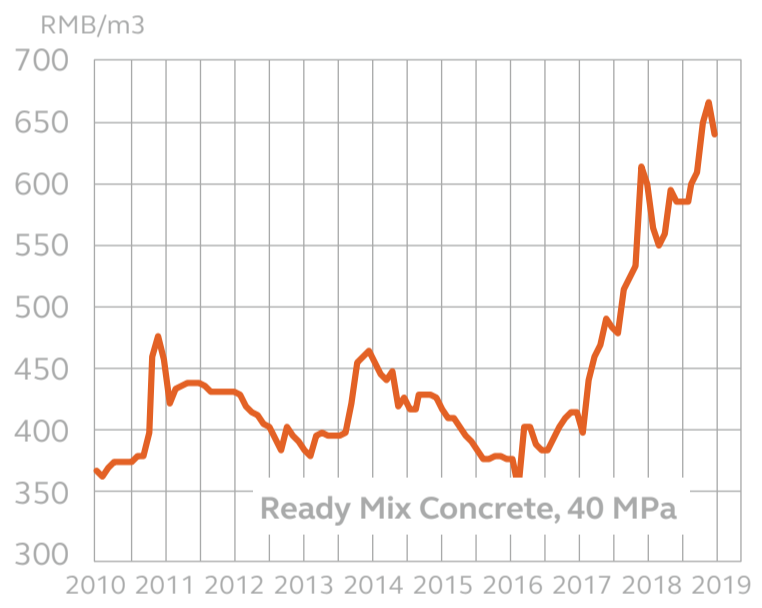
Source : National Bureau of Statistics of China



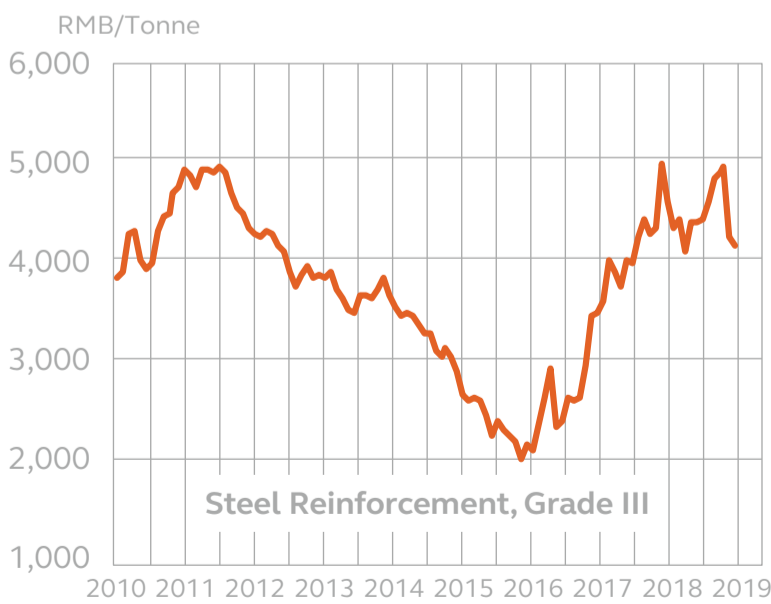
Basic Construction Materials



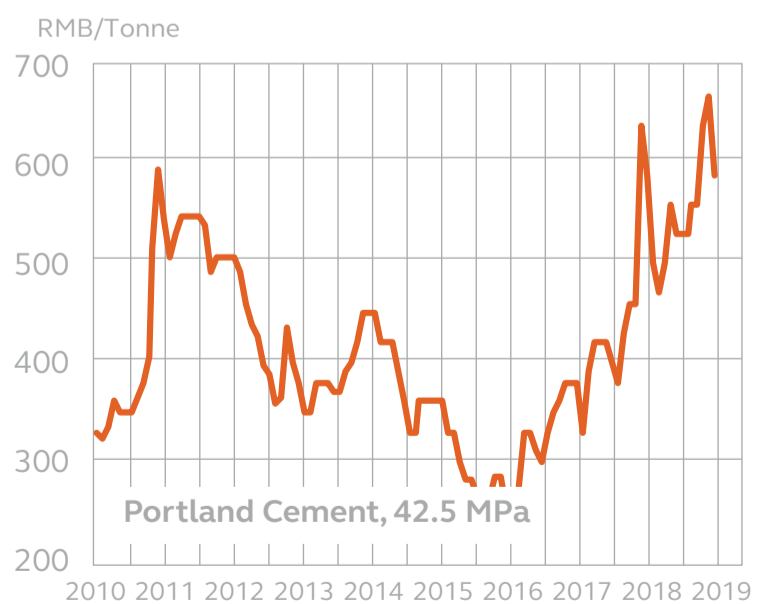
Source: London Metal Exchange



Shanghai Construction & Construction Material Industry Administration Department



Shanghai Construction & Construction Material Industry Administration Department



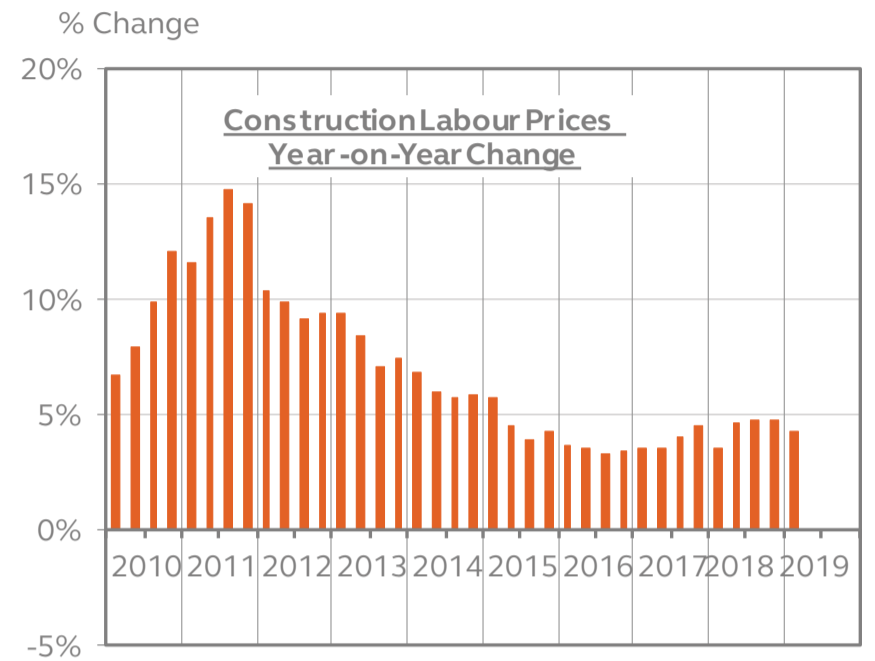
Shanghai Construction & Construction Material Industry Administration Department

6 LABOUR

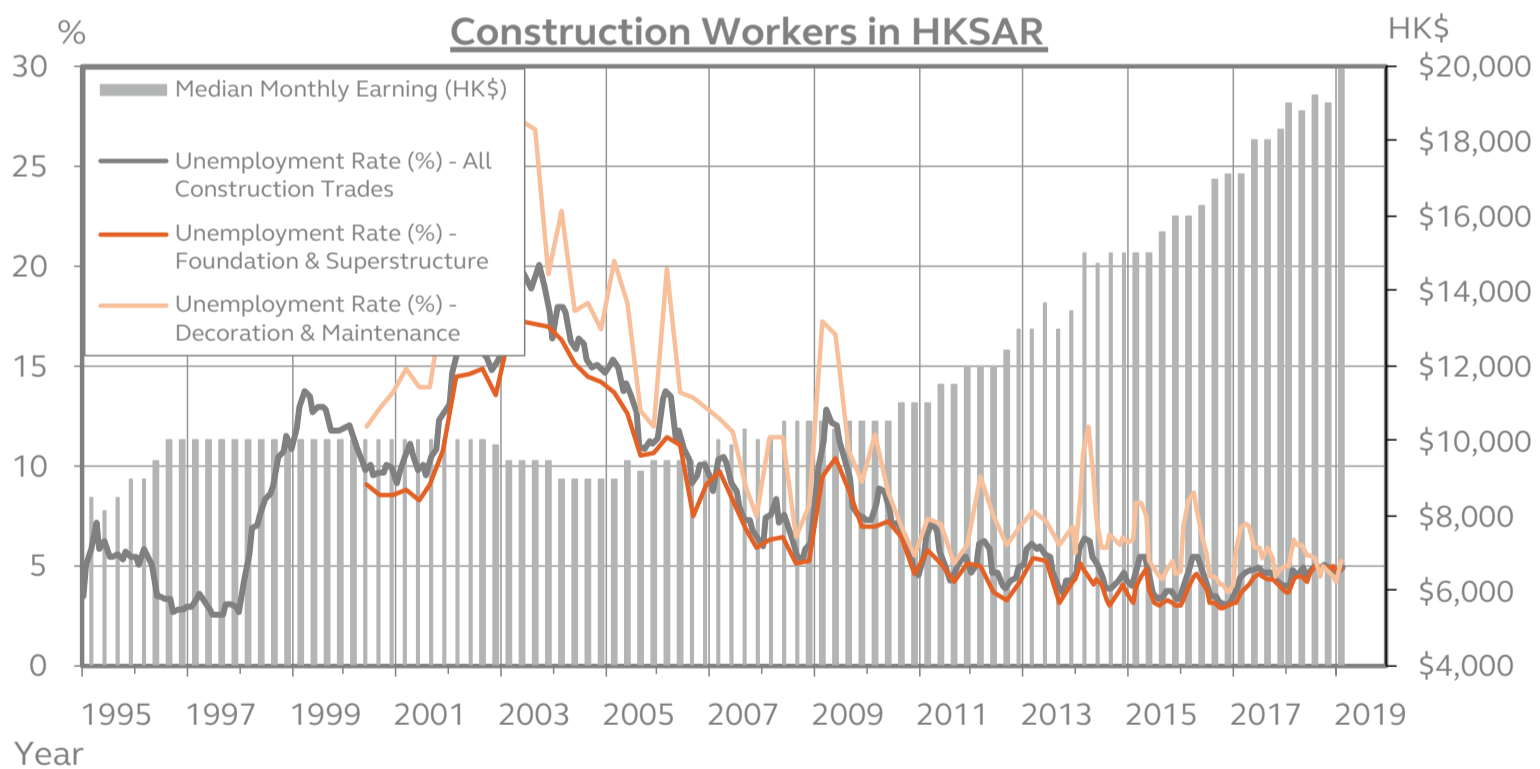
Mainland China

CONSTRUCTION LABOUR PRICES YEAR-ON-YEAR CHANGE			
Quarter / Year	2017	2018	2019
1st Quarter	(+) 3.6%	(+) 3.5%	(+) 4.3%
2nd Quarter	(+) 3.5%	(+) 4.6%	
3rd Quarter	(+) 4.0%	(+) 4.8%	
4th Quarter	(+) 4.5%	(+) 4.8%	

Source : National Bureau of Statistics of China

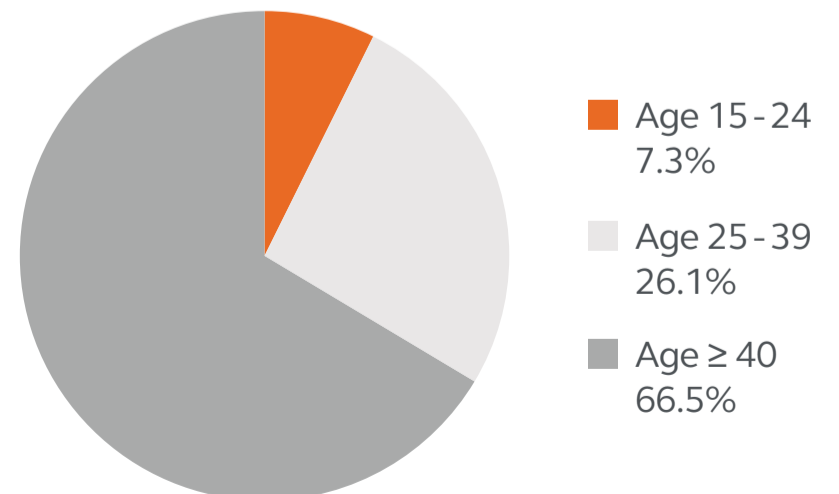


Hong Kong



Age Group	No. of Workers Employed by Construction Industry	
Age 15 - 24	34,506	7.3%
Age 25 - 39	123,095	26.1%
Age ≥ 40	313,379	66.5%
Total (as at June 2018)	470,980	100.0%

Source : Construction Industry Council



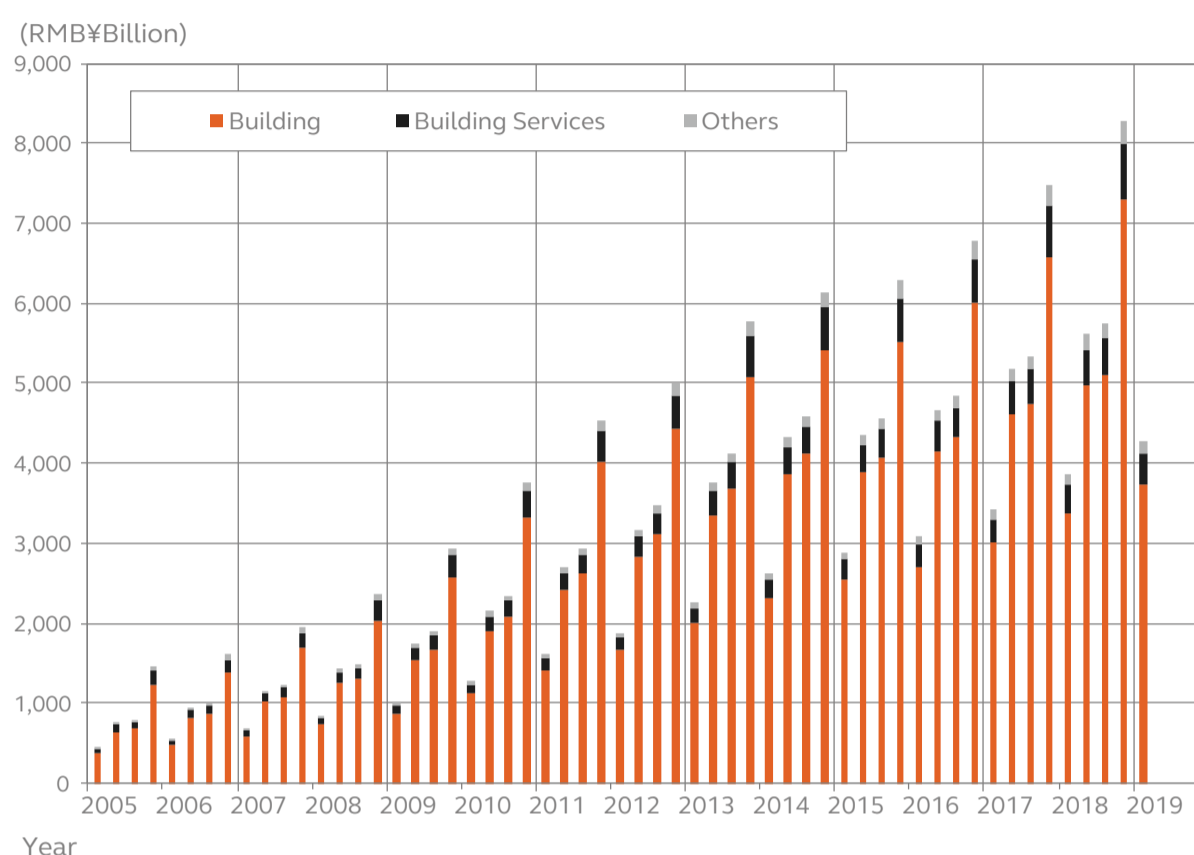
Age Distribution of Workers



7

GROSS VALUE OF CONSTRUCTION WORK PERFORMED

MAINLAND CHINA



Quarter	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
A. Building										
1 st Quarter	1,118	1,422	1,661	1,994	2,311	2,544	2,712	3,003	3,382	3,727
2 nd Quarter	1,906	2,419	2,826	3,355	3,866	3,899	4,158	4,609	4,985	
3 rd Quarter	2,082	2,634	3,111	3,687	4,113	4,068	4,322	4,742	5,106	
4 th Quarter	3,318	4,016	4,427	5,078	5,425	5,517	5,994	6,562	7,286	
Year Total:	8,424	10,490	12,025	14,115	15,714	16,028	17,186	18,916	20,759	3,727
B. Building Services										
1 st Quarter	115	141	165	200	230	255	277	303	358	393
2 nd Quarter	183	214	251	300	333	331	366	405	438	
3 rd Quarter	196	224	271	322	346	363	374	437	459	
4 th Quarter	333	378	413	514	517	548	561	646	708	
Year Total:	827	957	1,100	1,336	1,426	1,498	1,578	1,791	1,963	393
C. Other										
1 st Quarter	38	47	57	69	83	91	96	113	129	155
2 nd Quarter	60	69	86	100	118	117	138	154	187	
3 rd Quarter	66	77	97	123	126	126	137	160	189	
4 th Quarter	107	133	166	189	205	216	222	262	282	
Year Total:	270	326	406	481	531	550	593	689	787	155
Annual gross value performed (A + B + C)										
Total:	9,521	11,773	13,530	15,931	17,671	18,076	19,357	21,396	23,509	4,276

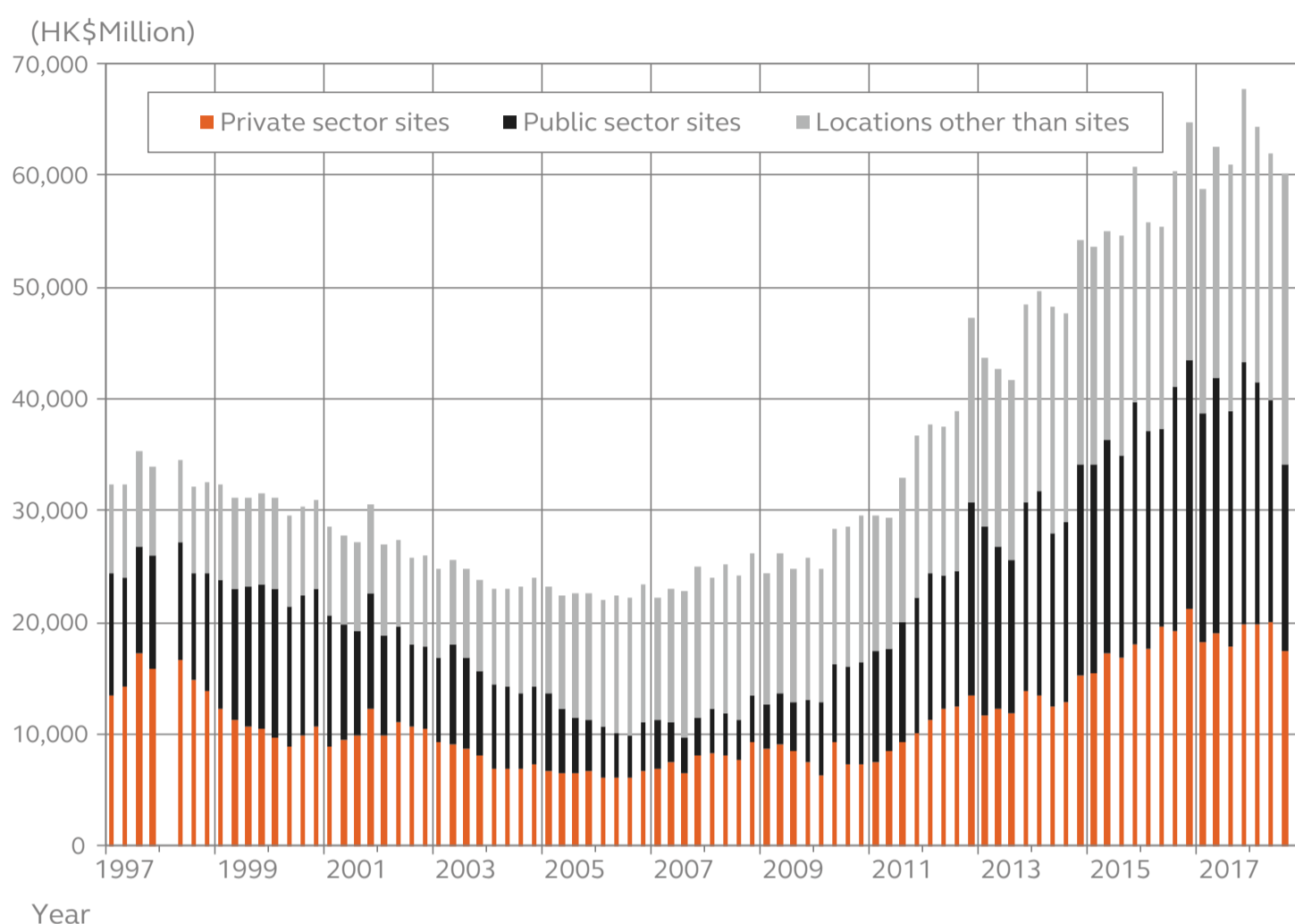
Source : National Bureau of Statistics of China

Notes :

1. Value of "Construction" includes builder's works and building services systems.
2. Value of "Installation" is for assembling and installation of equipment for industrial production, power, load-lifting, transportation, medical and laboratory uses, but excludes supply costs of such equipment.
3. Value of "Others" is generally maintenance and other miscellaneous construction activities.

8 GROSS VALUE OF CONSTRUCTION WORK PERFORMED

HONG KONG



Value performed (HK\$ Million)										
Quarter	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
A. Private sector sites										
1 st Quarter	8,600	6,349	7,529	11,209	11,675	13,395	15,528	17,652	18,150	19,918
2 nd Quarter	9,055	9,276	8,458	12,260	12,176	12,507	17,284	19,530	19,070	19,925
3 rd Quarter	8,408	7,360	9,192	12,481	11,848	12,792	16,849	19,252	17,912	17,340
4 th Quarter	7,543	7,322	10,102	13,411	13,781	15,259	18,119	21,231	19,813	18,430 *
Year Total:	33,606	30,307	35,281	49,361	49,480	53,953	67,781	77,666	74,945	75,613*
B. Public sector sites										
1 st Quarter	3,967	6,511	9,880	13,168	16,829	18,258	18,531	19,414	20,639	21,533
2 nd Quarter	4,652	6,937	9,263	12,023	14,690	15,397	18,964	17,780	22,827	20,002
3 rd Quarter	4,428	8,651	10,814	12,137	13,792	16,253	18,163	21,878	20,934	16,888
4 th Quarter	5,605	9,117	12,113	17,332	16,976	18,915	21,585	22,295	23,455	17,284 *
Year Total:	18,652	31,216	42,070	54,660	62,287	68,823	77,242	81,367	87,855	75,707*
C. Location other than sites										
1 st Quarter	11,750	11,926	12,172	13,347	15,140	17,909	19,549	18,809	19,963	22,871
2 nd Quarter	12,415	12,109	11,620	13,245	15,914	20,327	18,744	18,041	20,657	22,073
3 rd Quarter	11,969	12,620	12,953	14,358	16,038	18,636	19,520	19,274	22,093	26,027
4 th Quarter	12,552	13,097	14,439	16,479	17,716	20,088	21,111	21,333	24,406	29,789 *
Year Total:	48,686	49,752	51,184	57,429	64,808	76,961	78,924	77,458	87,119	100,760*
Annual gross value performed (A + B + C)										
Total:	100,944	111,275	128,535	161,450	176,575	199,737	223,946	236,491	249,919	252,080*

*Provisional

Source : Census and Statistics Department, Hong Kong SAR



9 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	2,481 - 2,913
- Full fit	4,636 - 5,136	4,254 - 4,671	3,706 - 4,095	3,831 - 4,587
Apartments, high rise, high end				
- Shell and core	3,308 - 3,604	3,170 - 4,599	2,616 - 3,450	3,063 - 4,062
- Full fit	10,785 - 11,777	10,299 - 11,729	6,066 - 6,649	6,295 - 7,974
Terraced houses, average standard				
- Shell and core	3,095 - 3,310	3,102 - 3,623	2,811 - 3,095	3,088 - 3,755
- Full fit	N/A	6,085 - 6,597	N/A	N/A
Detached houses, high end				
- Shell and core	4,622 - 5,136	4,671 - 5,198	3,838 - 4,226	4,102 - 4,733
- Full fit	N/A	11,694 - 12,205	N/A	N/A
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	6,024 - 8,023	5,948 - 8,009	5,392 - 5,968	6,121 - 7,114
High rise offices, prestige quality	8,037 - 10,028	8,009 - 13,151	7,856 - 9,445	7,787 - 10,549
Out-of-town shopping centre, average standard	N/A	4,532 - 6,059	5,198 - 5,705	4,900 - 6,329
Retail malls, high end	8,522 - 11,000	8,196 - 11,284	7,551 - 10,556	7,405 - 10,445
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	1,943 - 2,373	1,874 - 2,283	3,449 - 3,796	2,956 - 3,761
Owner operated factories, low rise, light weight industry	2,998 - 3,748	3,623 - 4,150	N/A	N/A
HOTELS				
Budget hotels - 3-star, mid market	6,607 - 8,113	6,704 - 8,266	6,836 - 7,523	6,649 - 8,252
Business hotels - 4/5-star	10,799 - 14,713	11,208 - 14,796	11,048 - 15,775	12,124 - 15,185
Luxury hotels - 5-star	14,692 - 17,614	14,276 - 18,363	15,025 - 16,559	14,983 - 17,988
OTHERS				
Underground/basement car parks (<3 levels)	5,149 - 7,169	5,177 - 5,691	3,560 - 5,691	2,866 - 4,088
Multi storey car parks, above ground (<4 levels)	2,651 - 3,692	3,116 - 3,151	2,547 - 2,804	2,249 - 2,811
Schools (primary and secondary)	3,664 - 4,691	3,609 - 4,657	2,825 - 3,109	3,040 - 3,380
Students' residences	2,616 - 3,657	2,554 - 3,609	1,832 - 2,061	N/A
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	6,628 - 8,134	6,177 - 6,225	5,233 - 5,774	N/A
General hospitals - public sector	9,841 - 12,763	8,120 - 10,167	N/A	N/A

* The above costs are at 1st Quarter 2019 levels.



9 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\$ 7.85	MOP 8.09	S\$ 1.35	RM 4.08
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	N/A	1,759 - 2,607	N/A	N/A
- Full fit	3,032 - 3,541	2,265 - 2,771	1,370 - 1,555	355 - 595 \$
Apartments, high rise, high end				
- Shell and core	N/A	2,607 - 3,910	N/A	N/A
- Full fit	3,987 - 4,650	3,164 - 4,834	2,110 - 3,150	730 - 1,145
Terraced houses, average standard				
- Shell and core	N/A	3,088 - 3,834	N/A	N/A
- Full fit	4,102 - 4,815	3,860 - 4,606	1,780 - 2,000	225 - 355 \$\$
Detached houses, high end				
- Shell and core	N/A	3,733 - 5,378	N/A	N/A
- Full fit	6,115 up	4,708 - 6,125	2,260 - 3,000	755 - 1,005
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	2,981 - 3,478	2,607 - 3,366	1,780@ - 2,000@	590 - 760 \$\$\$
High rise offices, prestige quality	3,605 - 4,217	3,366 - 3,683	2,000@ - 2,185@	885 - 1,285 \$\$\$
Out-of-town shopping centre, average standard	2,955 - 3,516	2,455 - 3,683	2,000 - 2,110	560 - 735
Retail malls, high end	3,911 - 4,675	3,860 - 4,657	2,110 - 2,335	695 - 1,025
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	N/A	N/A	780 - 965	325 - 440
Owner operated factories, low rise, light weight industry	2,306 - 2,930	N/A	N/A	440 - 535
HOTELS				
Budget hotels - 3-star, mid market	3,822 - 4,115	3,429 - 3,885	2,220 - 2,445	1,045 - 1,430
Business hotels - 4/5-star	3,987 - 4,675	4,657 - 5,568	2,850 - 3,220	1,760 - 2,230
Luxury hotels - 5-star	4,675 - 5,414	5,568 - 6,581	2,850 - 3,220	1,985 - 2,495
OTHERS				
Underground/basement car parks (<3 levels)	3,185 - 3,822	2,037 - 2,987	965 - 1,295	320 - 545
Multi storey car parks, above ground (<4 levels)	1,911 - 2,268	1,126 - 1,481	665@@ - 965@@	225 - 355
Schools (primary and secondary)	2,510 - 2,701	2,253 - 2,607	N/A	255 - 315 \$\$\$\$
Students' residences	2,917 - 3,299	1,784 - 2,075	1,630 - 1,780	305 - 370 \$\$\$\$\$
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	3,796 - 4,420	N/A	2,035 - 2,185	610 - 745
General hospitals - public sector	4,904 - 5,516	N/A	2,850 - 3,000	875 - 1,180

* The above costs are at 1st Quarter 2019 levels.



9 APPROXIMATE BUILDING COSTS FOR MAJOR CITIES

ASIA

BUILDING TYPE	Bangkok	Jakarta	Manila	Ho Chi Minh
	USD/ m2 CFA (See also exchange rates per U.S. dollar below)			
	BAHT 31.76	IDR 14,140	PHP 51.93	VND 22,600
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	551 - 708	N/A	N/A	N/A
- Full fit	756 - 897	779 - 882	951 - 1,170	650 - 806
Apartments, high rise, high end				
- Shell and core	645 - 834	N/A	N/A	N/A
- Full fit	1,007 - 1,244	1,069 - 1,207	1,265 - 2,140	827 - 948
Terraced houses, average standard				
- Shell and core	315 - 409	N/A	N/A	N/A
- Full fit	472 - 582	413 - 537	800 - 979	438 - 514
Detached houses, high end				
- Shell and core	551 - 787	N/A	N/A	N/A
- Full fit	819 - 992	1,120 - 1,251	1,713 - 2,905	500 - 610
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	756 - 897	768 - 851	933 - 1,093	760 - 880
High rise offices, prestige quality	944 - 1,212	1,127 - 1,261	1,265 - 1,419	877 - 1,195
Out-of-town shopping centre, average standard	645 - 834	663 - 732	762 - 950	N/A
Retail malls, high end	866 - 913	729 - 788	1,093 - 1,532	710 - 930
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	504 - 630	358 - 390	510 - 574	312 - 393
Owner operated factories, low rise, light weight industry	N/A	388 - 427	685 - 857	353 - 465
HOTELS				
Budget hotels - 3-star, mid market	1,181 - 1,307	1,335 - 1,576	1,196 - 1,333	1,410 - 1,725
Business hotels - 4/5-star	1,511 - 1,732	1,815 - 1,962	1,347 - 1,633	N/A
Luxury hotels - 5-star	1,763 - 2,046	1,924 - 2,169	1,852 - 2,792	1,780 - 2,137
OTHERS				
Underground/basement car parks (<3 levels)	567 - 756	553 - 678	494 - 738	645 - 770
Multi storey car parks, above ground (<4 levels)	189 - 309	358 - 390	475 - 671	415 - 455
Schools (primary and secondary)	N/A	N/A	701 - 967	545 - 595
Students' residences	N/A	N/A	742 - 952	545 - 700
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	N/A	1,144 - 1,714	1,186 - 1,726	806 - 862
General hospitals - public sector	N/A	N/A	1,425 - 1,547	N/A

* The above costs are at 1st Quarter 2019 levels.



9 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
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 <u>excluding</u> 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 hospital - 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.
- Hong Kong: ** 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 \$\$\$\$ Standard government provisions \$\$\$\$\$ University standard 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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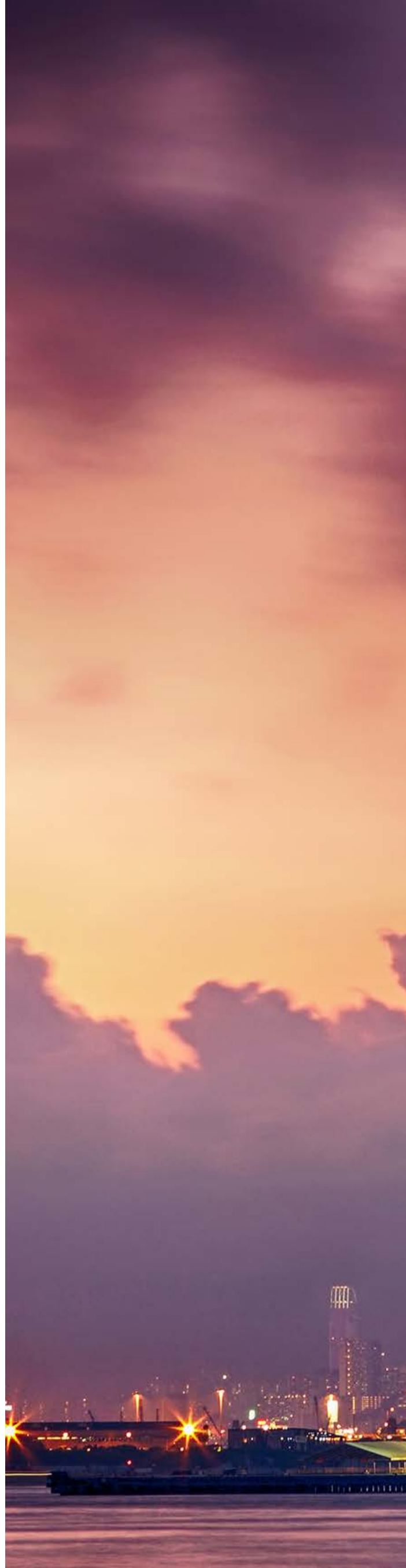
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