

CHINA AND HONG KONG

QUARTERLY CONSTRUCTION COST REVIEW



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CHINA AND HONG KONG MARKET OVERVIEW



MARKET OVERVIEW

The construction industry in Hong Kong has been suffering for a period due to the impact of China-US trade war and local social unrest on Hong Kong's economy. Meanwhile, stakeholders have longed for a booster to energize the construction market, placing high hopes on recent resumption of LegCo meeting and announcement of Policy Address 2019.

Despite the resumption of capital works funding approval process by the LegCo Finance Committee, the number of approved projects is still very limited, indicating a low volume of public works in the near future.

On the other hand, the government pledged to use its full strength to increase land supply for public housing by invoking the Lands Resumption Ordinance. However, detailed technical study must be undergone to resolve problems such

as the potential violation of private property rights. It is expected that there is still a long way to go before the said ordinance can be effectively used to increase the land supply.

Together with the decelerated private land sales, the construction market is expected to remain gloomy in the coming quarters.

MARKET MOVEMENT



ECONOMY

Indicator	Q3/17 - Q3/18	Q2/18 - Q2/19	Q3/18 - Q3/19
GDP Growth per annum	Q3/17 - Q3/18 (+) 2.8%	Q2/18 - Q2/19 (+) 0.4%	Q3/18 - Q3/19 (-) 2.9%
Inflation Rate (CPI) per annum	Aug 17 - 18 (+) 2.3%	May 18 - 19 (+) 2.8%	Aug 18 - 19 (+) 3.5%



BASIC COSTS

Indicator	Apr - Jun 18	Jan - Mar 19	Apr - Jun 19
Highways Material Index	Apr - Jun 18 837.4	Jan - Mar 19 853.4	Apr - Jun 19 867.5
Labour Wages Index	Apr - Jun 18 148.1	Jan - Mar 19 148.5	Apr - Jun 19 149.3



SUPPLY & DEMAND

Indicator	Q2/18	Q1/19	Q2/19
Activity Level (Gross output; new + A&A)	Q2/18 HK\$62.001 Bn	Q1/19 HK\$55.953 Bn	Q2/19 HK\$57.043 Bn



CONSTRUCTION COST TREND

Indicator	Q3/18	Q2/19	Q3/19
Tender Price Index (Arcadis)	Q3/18 1885	Q2/19 1835	Q3/19 1818



1 MARKET ANALYSIS

CHINA

GROSS VALUE OF CONSTRUCTION

Gross Value of Construction Work Performed in Mainland China in the first three quarters of the year has been increased by (+) 6.66% year-on-year. The sales of commercial buildings amounted had an increase of (+) 7.1% YoY. The said rates of growth are lower than those of the same period in 2018 (according to National Bureau of Statistics (NBS)). The growth of real estate and construction markets are still slowing down.

In addition, the land sales area drops (-) 20.2% YoY in the first 9 months of this year, which may lead to the construction work performed value decrease in the future.

COST OF MATERIALS AND LABOUR

Major construction material prices dropped in 2019 Q3, including (-)3% in rebar, (-)1% in concrete and (-)5% in cement respectively. Labour wage has been increased by 4.2%YoY. However, due to the slow growth of construction market, the market tender prices drop slightly.

Instead of cast-in-place reinforced concrete structure, precast structure is widely promoted in mainland China. The implementation of precast structure can reduce the waste and improve the noise and dust control at the construction site. It becomes a compulsory design criterion of new projects in many cities including Beijing, Shanghai, Shenzhen/Guangzhou and Chengdu/Chongqing. However, the precast manufactories are at the beginning stage of developing. Due to the limited productivity, for reinforced concrete structure buildings, the structural cost rises at RMB50~300/m² on construction area.

HONG KONG

DECLINE IN ECONOMIC GROWTH

According to Census and Statistics Department, there has been a significant decline in the growth rate of Hong Kong's Gross Domestic Product (GDP) since Q1 2018. The growth rate further dropped to (-)2.9% in Q3 2019, which has again reached the bottom growth rate in closely a decade. It is believed that the economic growth is still affected by the continuing tension of the US-China trade war and weakened consumer demand.

SUPPRESSED CONSTRUCTION ACTIVITIES

The gross value of construction works performed increased by 1.9% QoQ, while decreased by 8.0% YoY based on Q2 2019. This market movement was due to the decline in both public and private sector output. The decline was especially significant in the public sector, which dropped by 26.9% YoY and 4.6%QoQ. The decline might be continued in Q3 as the funding approval process for capital works has been delayed due to early summer recess of LegCo. However, as there is noticeable upsurge in floor areas getting consent to commence construction works and floor areas with notification of commencement of construction works in private sector, it is hoped that the gross value of construction works performed could be recovered gradually in short term. For Tender Price Index (TPI) in Q3, it has seen a (-)0.93% QoQ; (-)3.55% YoY. This declining movement since 2016 Q4 is expected to extend to Q4 2019.

COST OF MATERIALS AND LABOUR

The cost of construction materials in the second quarter of 2019 showed a gradual increase in prices of sand and floor tiles and diesel, while other construction materials remained stable in the previous quarter. For construction workers' wages, wages of bricklayer dropped significantly, while wages of bar bender and fixer, carpenter and painter increased by 3%, 2%, and 2% respectively in the second quarter. The labour index increased slightly in the second quarter.



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 - 13,400	Apartment units with fit-out, based on Hong Kong Housing Authority Non-standard Cruciform Block design
Apartments, high rise, average standard	23,700 - 27,400	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	30,800 - 35,900	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 - 37,400	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	47,400 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	23,200 - 26,900	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	28,000 - 32,500	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	23,000 - 27,200	Including public area fit-out and M&E, but excluding shop fit-out
Retail malls, high end	30,200 - 36,100	
INDUSTRIAL		
Owner operated factories, low rise, light weight industry	17,900 - 22,600	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	29,800 - 31,700	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	31,000 - 36,100	
Luxury hotels - 5-star	36,000 - 41,500	
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)	19,500 - 21,000	Public authority standard, including fit-out, no a/c, complete with basic external works but excluding educational equipment
Students' residences	22,600 - 25,600	Including fit-out, loose furniture and a/c
Sports clubs, multi purpose sports/ leisure centres (dry sports)	29,500 - 34,100	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	38,000 - 42,300	Excluding medical and operating equipment

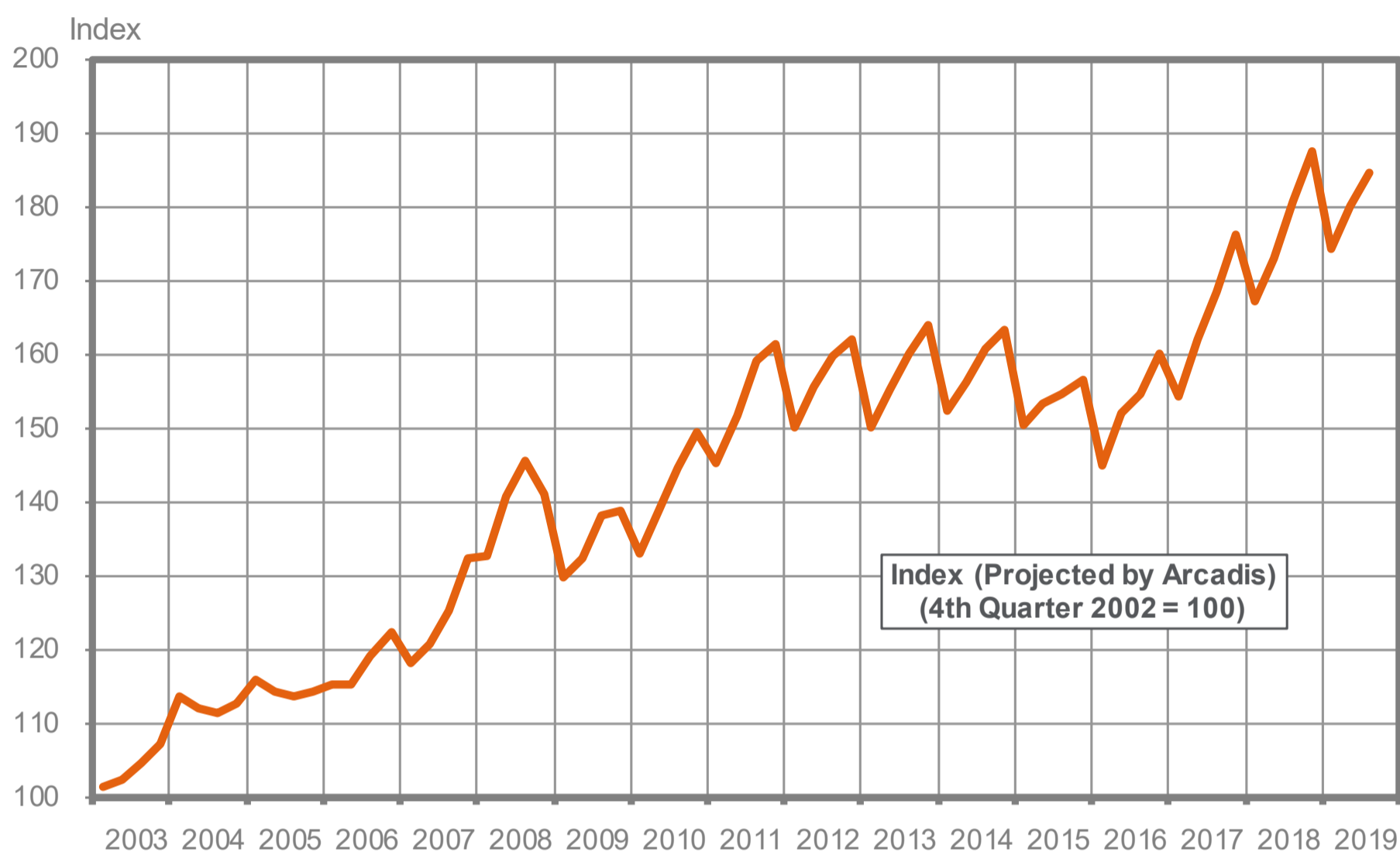
*The above cost are at 3rd Quarter 2019 levels.



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)			
	Quarter / Year	2016	2017	2018	2019	2016	2017	2018
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	104.1	152.0	161.8	173.0	180.1
3rd Quarter	100.0	109.0	107.2	102.1	154.6	168.5	180.7	184.5
4th Quarter	102.2	110.1	106.4		160.0	176.2	187.5	

Source : National Bureau of Statistics (NBS) of China

Notes:

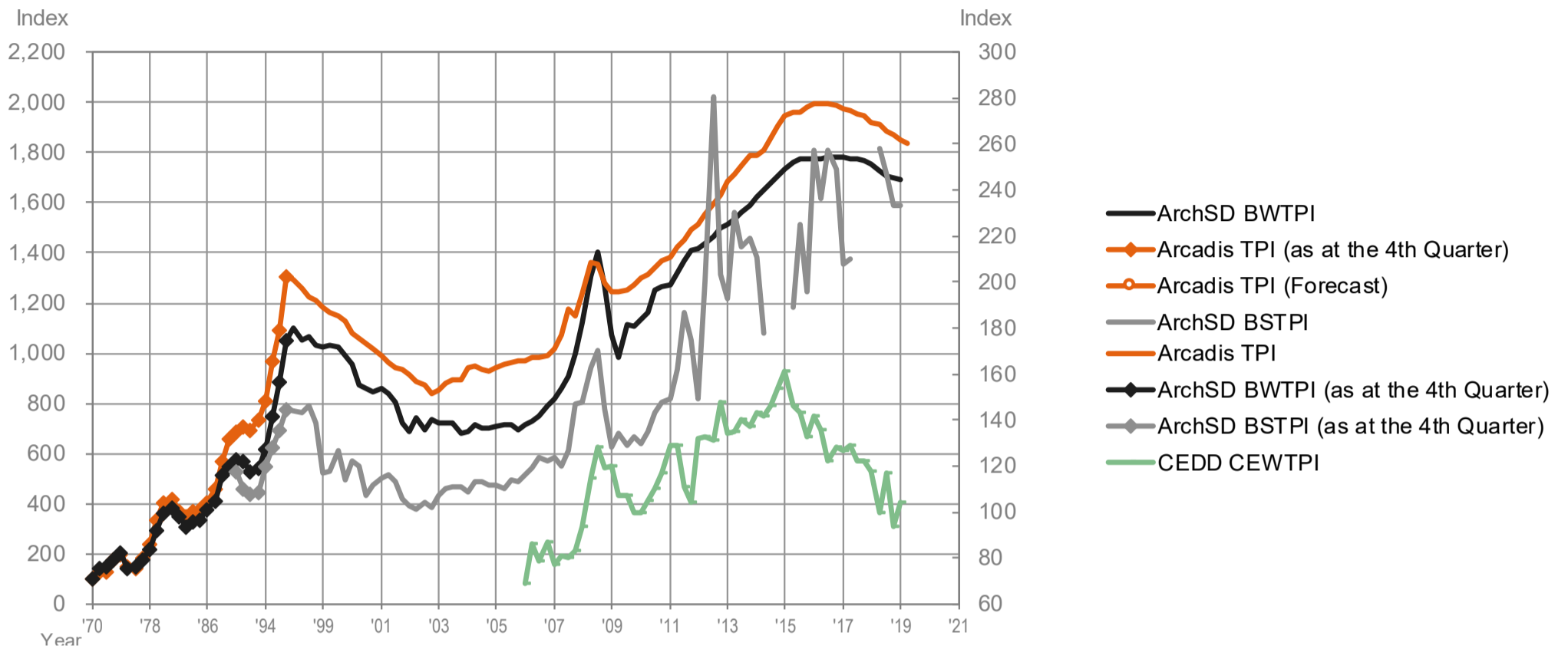
Data are published on a quarterly basis, measuring the year-on-year change in price level of each quarter, but the quarter-on-quarter change is not published, ie. the changes between consecutive quarters are not given.

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	1695
2 nd Quarter	1161	1320	1438	1532	1648	1761	1776	1776	1727	1686
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)	233
2 nd Quarter	135	162	200	230	178	189	236	210	258	239
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	1835
3 rd Quarter	1342	1452	1595	1747	1857	1963	1993	1957	1885	1818
4 th Quarter	1367	1491	1632	1786	1903	1984	1986	1946	1868	1800
CEWTPI (Base = 100, at Year 2010)										
1 st Quarter	100	129	132	134	143	161	142	127	118	98*
2 nd Quarter	105	129	133	135	142	146	136	129	100	98*
3 rd Quarter	110	111	131	140	146	143	122	122	117	
4 th Quarter	117	104	148	137	154	133	128	122	94	

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.

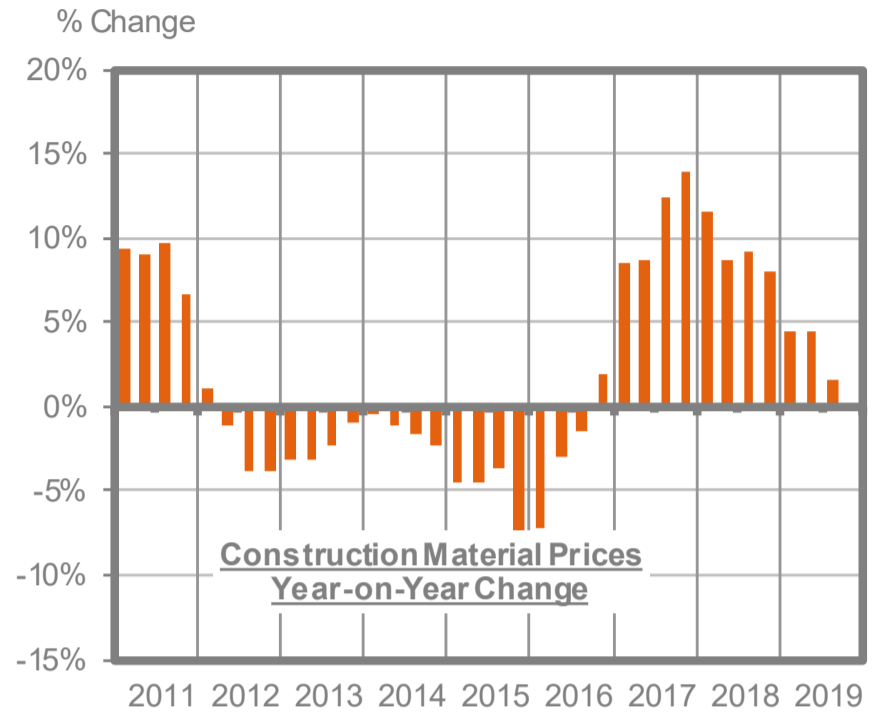


5 MATERIALS

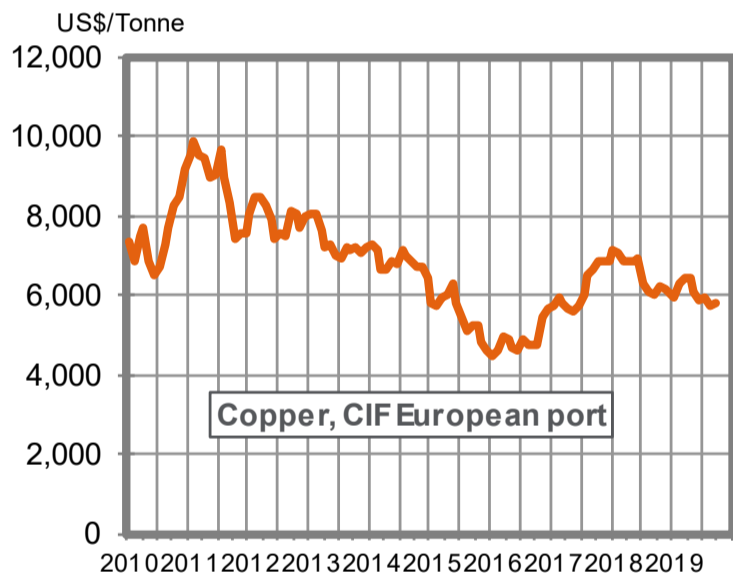
MAINLAND CHINA

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%	(+) 4.4%
3rd Quarter	(+) 12.4%	(+) 9.1%	(+) 1.5%
4th Quarter	(+) 13.9%	(+) 8.0%	

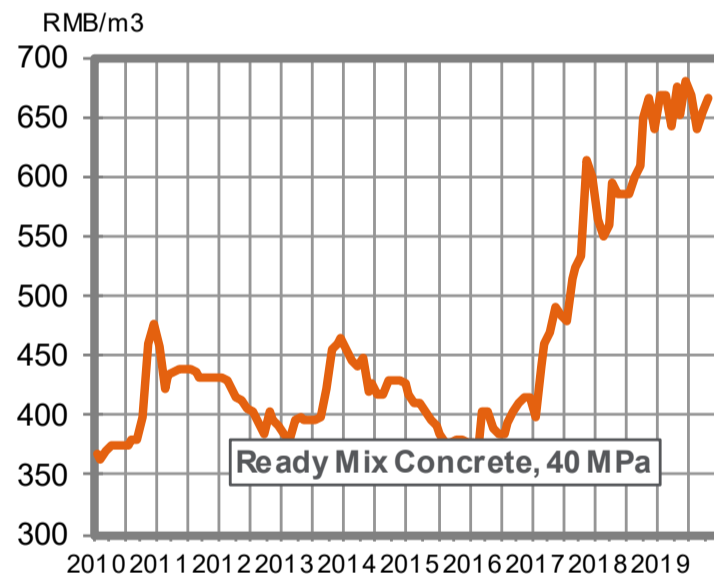
Source : National Bureau of Statistics of China



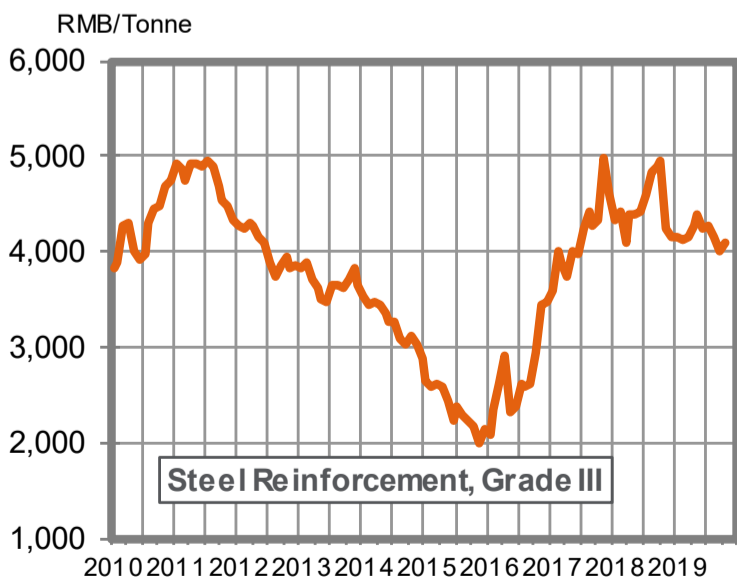
Basic Construction Materials



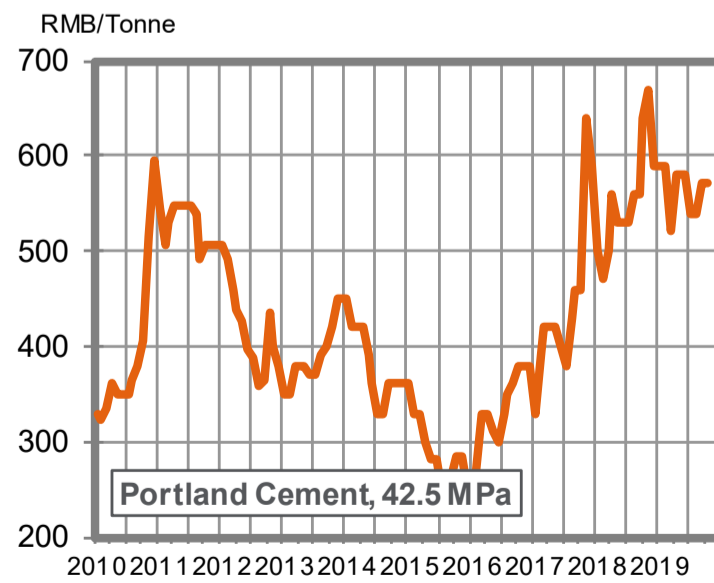
Source : London Metal Exchange



Shanghai Construction & Construction Material Industry Administration Department



Shanghai Construction & Construction Material Industry Administration Department



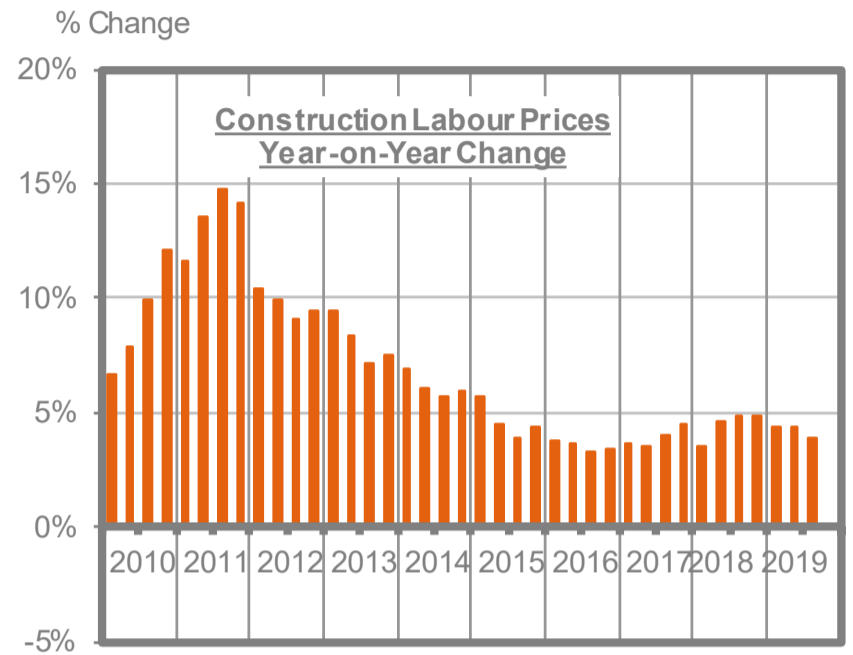
Shanghai Construction & Construction Material Industry Administration Department

6 LABOUR

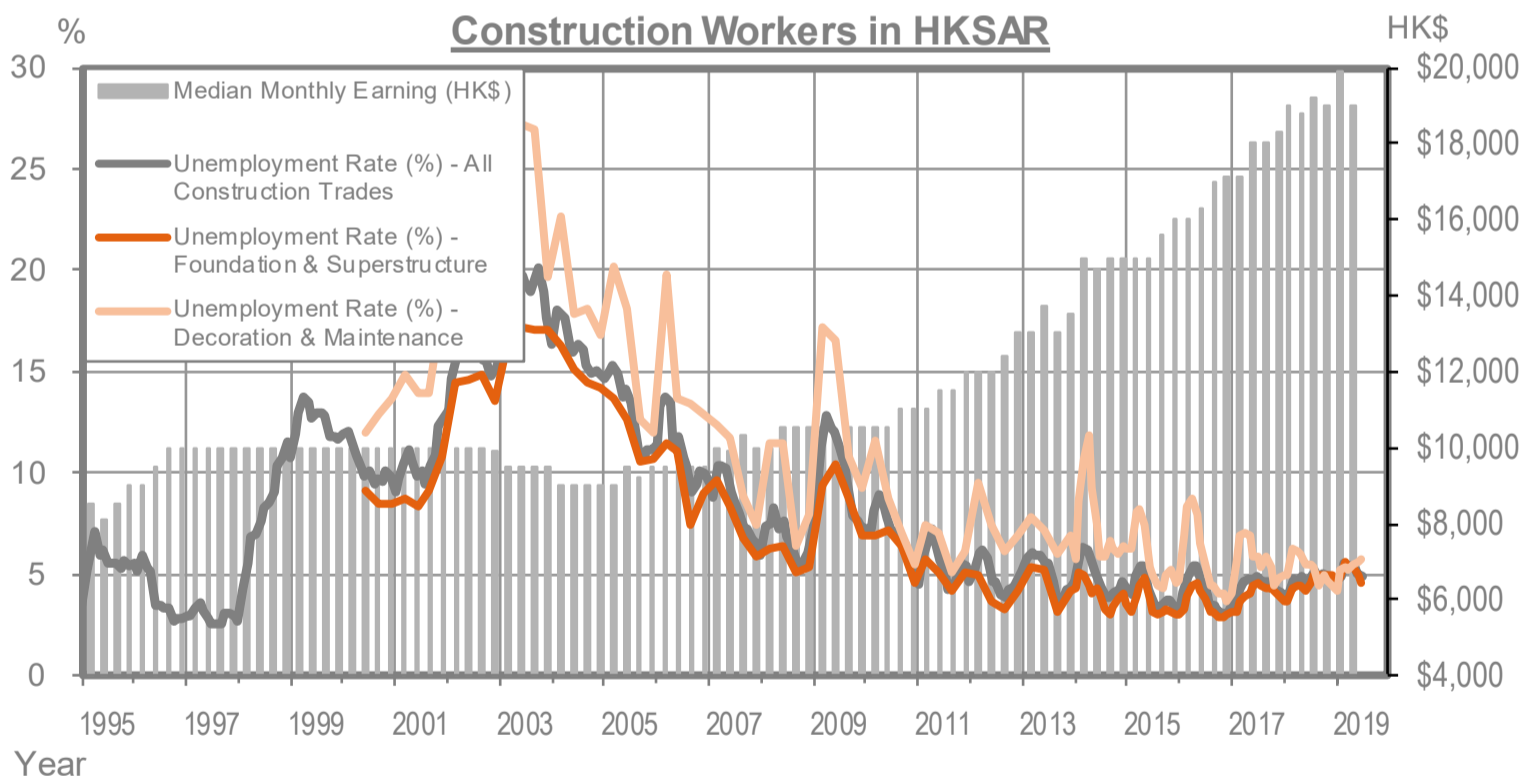
Mainland China

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%	(+) 4.3%
3rd Quarter	(+) 4.0%	(+) 4.8%	(+) 3.9%
4th Quarter	(+) 4.5%	(+) 4.8%	

Source : National Bureau of Statistics of China

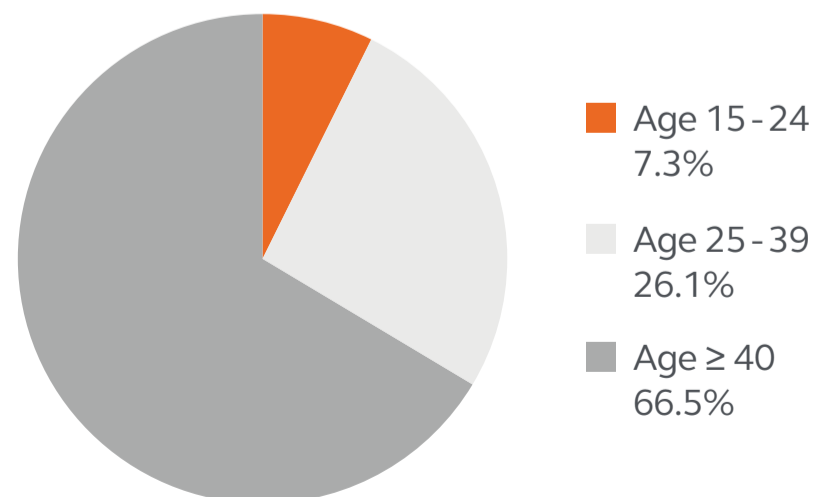


Hong Kong



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



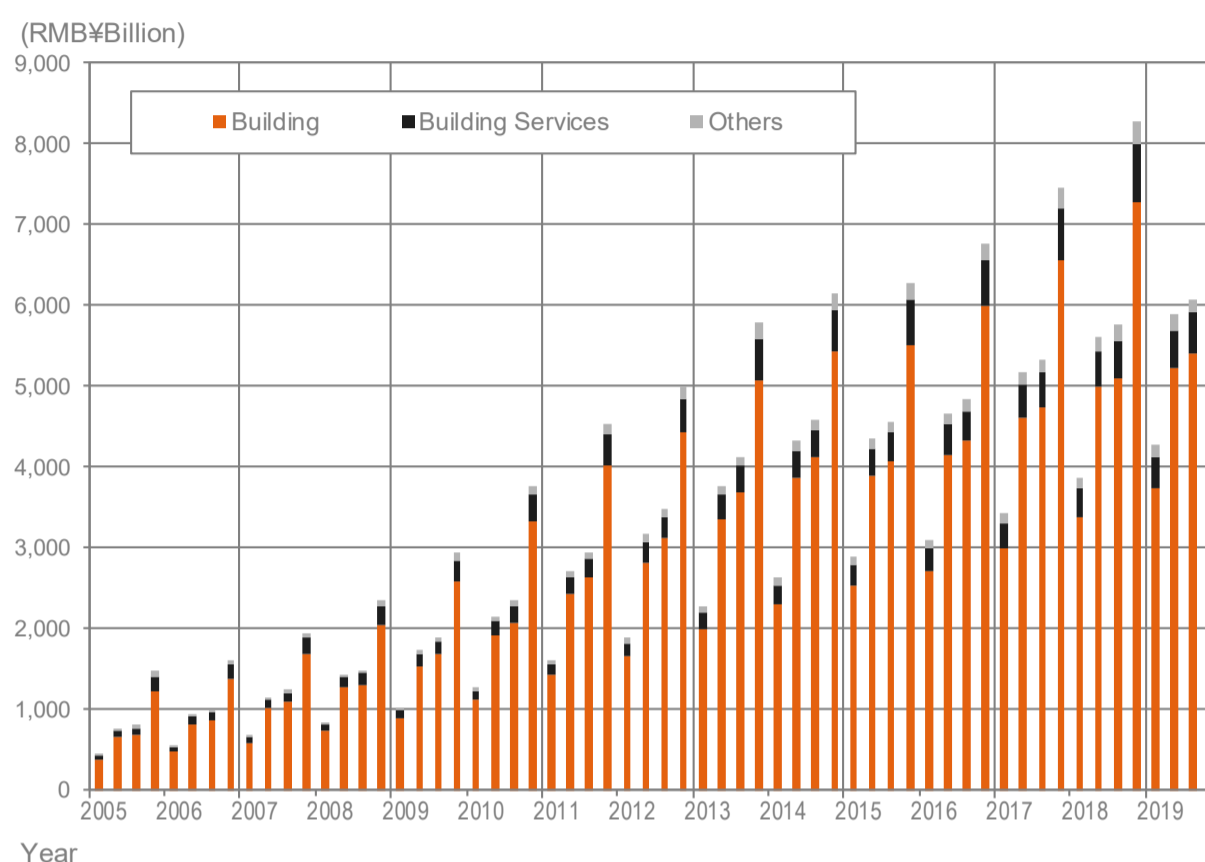
Age Distribution of Workers



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	5,223
3 rd Quarter	2,082	2,634	3,111	3,687	4,113	4,068	4,322	4,742	5,106	5,414
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	14,365
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	476
3 rd Quarter	196	224	271	322	346	363	374	437	459	498
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	1,367
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	186
3 rd Quarter	66	77	97	123	126	126	137	160	189	173
4 th Quarter	107	133	166	189	205	216	222	262	282	
Year Total:	270	326	406	481	531	550	593	689	787	515
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	16,247

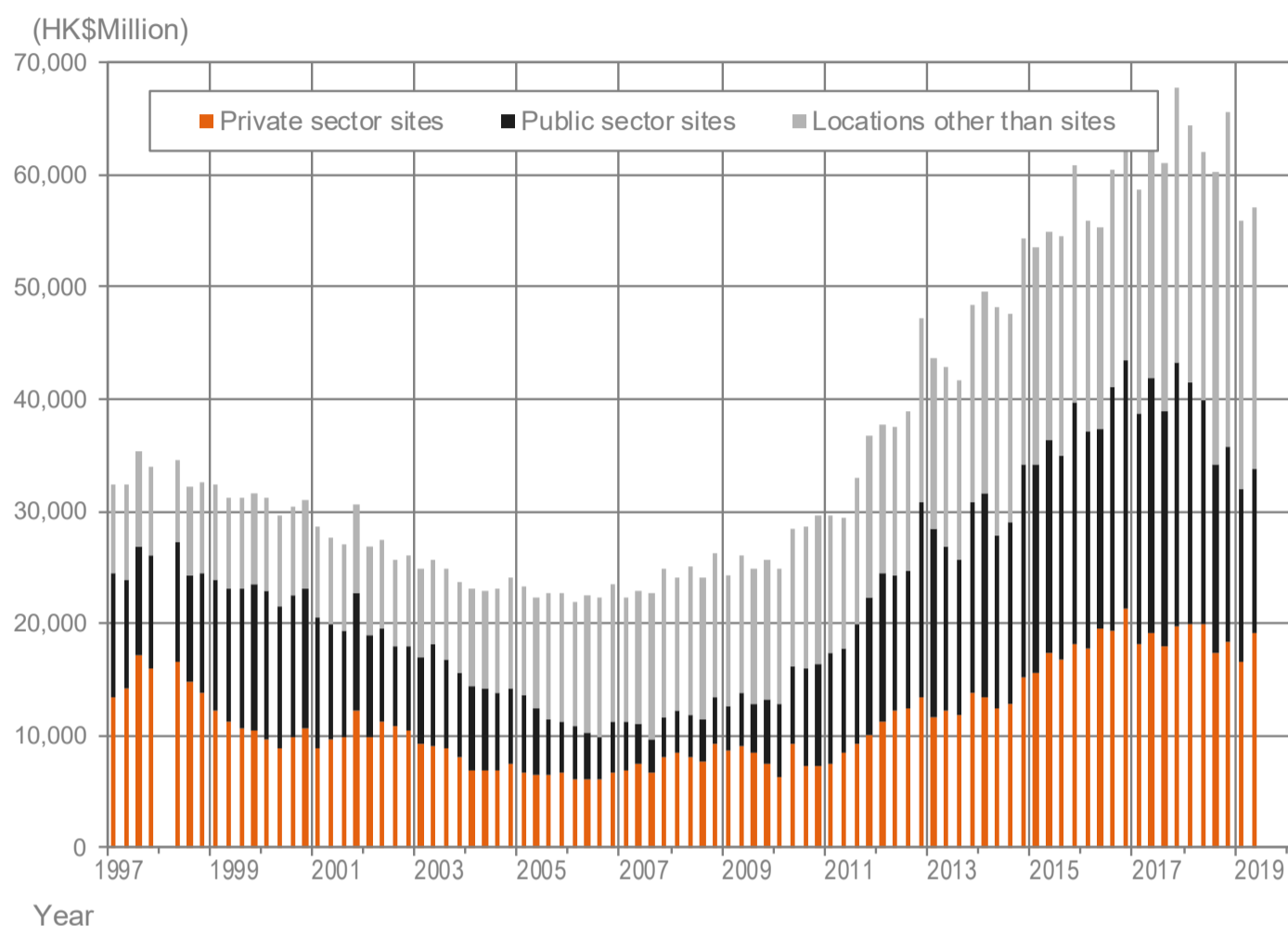
Source : National Bureau of Statistics of China

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	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
A. Private sector sites										
1 st Quarter	6,349	7,529	11,209	11,675	13,395	15,528	17,652	18,150	19,918	16,583
2 nd Quarter	9,276	8,458	12,260	12,176	12,507	17,284	19,530	19,070	19,925	19,189*
3 rd Quarter	7,360	9,192	12,481	11,848	12,792	16,849	19,252	17,912	17,340	
4 th Quarter	7,322	10,102	13,411	13,781	15,259	18,119	21,231	19,813	18,369	
Year Total:	30,307	35,281	49,361	49,480	53,953	67,781	77,666	74,945	75,552	35,772*
B. Public sector sites										
1 st Quarter	6,511	9,880	13,168	16,829	18,258	18,531	19,414	20,639	21,533	15,338
2 nd Quarter	6,937	9,263	12,023	14,690	15,397	18,964	17,780	22,827	20,002	14,627*
3 rd Quarter	8,651	10,814	12,137	13,792	16,253	18,163	21,878	20,934	16,888	
4 th Quarter	9,117	12,113	17,332	16,976	18,915	21,585	22,295	23,455	17,433	
Year Total:	31,216	42,070	54,660	62,287	68,823	77,242	81,367	87,855	75,856	29,965*
C. Location other than sites										
1 st Quarter	11,926	12,172	13,347	15,140	17,909	19,549	18,809	19,963	22,871	24,032
2 nd Quarter	12,109	11,620	13,245	15,914	20,327	18,744	18,041	20,657	22,073	23,218*
3 rd Quarter	12,620	12,953	14,358	16,038	18,636	19,520	19,274	22,093	26,027	
4 th Quarter	13,097	14,439	16,479	17,716	20,088	21,111	21,333	24,406	29,797	
Year Total:	49,752	51,184	57,429	64,808	76,961	78,924	77,458	87,119	100,768	47,250*
Annual gross value performed (A + B + C)										
Total:	111,275	128,535	161,450	176,575	199,737	223,847	236,491	249,919	252,176	112,987*

*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	2,931 - 3,342	2,692 - 3,105	2,626 - 2,895	2,631 - 3,063
- Full fit	4,839 - 5,333	4,263 - 4,680	3,819 - 4,204	3,981 - 4,737
Apartments, high rise, high end				
- Shell and core	3,524 - 3,817	3,176 - 4,608	2,740 - 3,566	3,213 - 4,212
- Full fit	10,926 - 11,908	10,320 - 11,752	6,155 - 6,733	6,445 - 8,124
Terraced houses, average standard				
- Shell and core	3,313 - 3,526	3,108 - 3,630	2,783 - 3,065	3,238 - 3,905
- Full fit	N/A	6,097 - 6,610	N/A	N/A
Detached houses, high end				
- Shell and core	4,825 - 5,333	4,680 - 5,208	3,800 - 4,185	4,252 - 4,883
- Full fit	N/A	11,717 - 12,229	N/A	N/A
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	6,147 - 8,125	5,959 - 8,025	5,339 - 5,909	6,321 - 7,314
High rise offices, prestige quality	7,974 - 9,946	8,025 - 13,178	7,778 - 9,351	7,987 - 10,749
Out-of-town shopping centre, average standard	N/A	4,541 - 6,071	5,147 - 5,648	5,100 - 6,529
Retail malls, high end	8,455 - 10,908	8,213 - 11,307	7,476 - 10,451	7,605 - 10,645
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	1,914 - 2,340	1,878 - 2,288	3,415 - 3,759	3,106 - 3,911
Owner operated factories, low rise, light weight industry	2,958 - 3,700	3,630 - 4,158	N/A	N/A
HOTELS				
Budget hotels - 3-star, mid market	6,790 - 8,281	6,717 - 8,282	6,768 - 7,448	6,849 - 8,452
Business hotels - 4/5-star	10,940 - 14,815	11,231 - 14,826	10,938 - 15,617	12,324 - 15,385
Luxury hotels - 5-star	14,794 - 17,687	14,304 - 18,400	14,875 - 16,394	15,183 - 18,188
OTHERS				
Underground/basement car parks (<3 levels)	5,073 - 7,072	5,188 - 5,702	3,525 - 5,634	3,016 - 4,238
Multi storey car parks, above ground (<4 levels)	2,600 - 3,630	3,122 - 3,157	2,522 - 2,776	2,399 - 2,961
Schools (primary and secondary)	3,877 - 4,894	3,616 - 4,666	2,797 - 3,079	3,190 - 3,530
Students' residences	2,839 - 3,870	2,559 - 3,616	1,814 - 2,041	N/A
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	6,541 - 8,032	6,189 - 6,238	5,181 - 5,717	N/A
General hospitals - public sector	9,992 - 12,884	8,136 - 10,187	N/A	N/A

* The above costs are at 3rd 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\$ 7.83	MOP 8.085	S\$ 1.38	RM 4.187
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	N/A	1,746 - 2,588	N/A	N/A
- Full fit	3,027 - 3,499	2,248 - 2,751	1,340 - 1,520	340 - 580 \$
Apartments, high rise, high end				
- Shell and core	N/A	2,588 - 3,881	N/A	N/A
- Full fit	3,934 - 4,585	3,140 - 4,798	2,065 - 3,080	700 - 1,120
Terraced houses, average standard				
- Shell and core	N/A	3,065 - 3,806	N/A	N/A
- Full fit	4,112 - 4,777	3,831 - 4,572	1,740 - 1,955	215 - 345 \$\$
Detached houses, high end				
- Shell and core	N/A	3,705 - 5,338	N/A	N/A
- Full fit	6,054 up	4,673 - 6,079	2,210 - 2,935	725 - 980
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	2,963 - 3,436	2,588 - 3,341	1,740 - 1,955@	565 - 740 \$\$\$
High rise offices, prestige quality	3,576 - 4,151	3,341 - 3,655	1,955 - 2,140@	850 - 1,250 \$\$\$
Out-of-town shopping centre, average standard	2,937 - 3,474	2,437 - 3,655	1,955 - 2,065	535 - 715
Retail malls, high end	3,857 - 4,610	3,831 - 4,622	2,065 - 2,285	670 - 1,000
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	N/A	N/A	760 - 940	315 - 430
Owner operated factories, low rise, light weight industry	2,286 - 2,886	N/A	N/A	425 - 520
HOTELS				
Budget hotels - 3-star, mid market	3,806 - 4,049	3,404 - 3,856	2,175 - 2,390	1,000 - 1,395
Business hotels - 4/5-star	3,959 - 4,610	4,622 - 5,527	2,790 - 3,150	1,680 - 2,170
Luxury hotels - 5-star	4,598 - 5,300	5,527 - 6,532	2,790 - 3,150	1,905 - 2,430
OTHERS				
Underground/basement car parks (<3 levels)	3,193 - 3,831	2,022 - 2,964	940 - 1,270	305 - 530
Multi storey car parks, above ground (<4 levels)	1,916 - 2,273	1,118 - 1,470	650 - 940@@	215 - 345
Schools (primary and secondary)	2,490 - 2,682	2,236 - 2,588	N/A	245 - 305 \$\$\$\$
Students' residences	2,886 - 3,269	1,771 - 2,060	1,595 - 1,740	290 - 360 \$\$\$\$\$
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	3,768 - 4,355	N/A	1,995 - 2,140	585 - 725
General hospitals - public sector	4,853 - 5,402	N/A	2,790 - 2,935	840 - 1,150

* The above costs are at 3rd Quarter 2019 levels.



9 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 30.07	INR 70.42	PHP 51.77	VND 23,273
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	582 - 748	495 - 550	N/A	N/A
- Full fit	798 - 948	565 - 645	954 - 1,180	650 - 806
Apartments, high rise, high end				
- Shell and core	682 - 881	725 - 865	N/A	N/A
- Full fit	1,064 - 1,314	850 - 1,025	1,269 - 2,245	827 - 948
Terraced houses, average standard				
- Shell and core	333 - 432	320 - 345	N/A	N/A
- Full fit	499 - 615	390 - 410	929 - 1,137	438 - 514
Detached houses, high end				
- Shell and core	582 - 831	425 - 450	N/A	N/A
- Full fit	865 - 1,048	515 - 540	1,804 - 3,060	500 - 610
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	798 - 948 #	425 - 460	945 - 1,136	760 - 880
High rise offices, prestige quality	998 - 1,280 ##	535 - 565	1,269 - 1,594	877 - 1,195
Out-of-town shopping centre, average standard	682 - 881	415 - 450	803 - 1,000	N/A
Retail malls, high end	915 - 964	580 - 625	1,097 - 1,537	710 - 930
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	532 - 665	335 - 390	512 - 576	312 - 393
Owner operated factories, low rise, light weight industry	N/A	355 - 415	687 - 860	353 - 465
HOTELS				
Budget hotels - 3-star, mid market	1,247 - 1,380	800 - 885	1200 - 1337	1,410 - 1,725
Business hotels - 4/5-star	1,596 - 1,829	1,245 - 1,475	1,352 - 2,259	N/A
Luxury hotels - 5-star	1,862 - 2,162	1,575 - 1,725	1,858 - 3,114	1,780 - 2,137
OTHERS				
Underground/basement car parks (<3 levels)	599 - 798	280 - 305	495 - 740	645 - 770
Multi storey car parks, above ground (<4 levels)	200 - 326	225 - 245	476 - 673	415 - 455
Schools (primary and secondary)	N/A	280 - 315	703 - 970	545 - 595
Students' residences	N/A	305 - 335	744 - 955	545 - 700
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	N/A	590 - 615	1,190 - 1,731	806 - 862
General hospitals - public sector	N/A	645 - 710	1,429 - 1,642	N/A

* The above costs are at 3rd 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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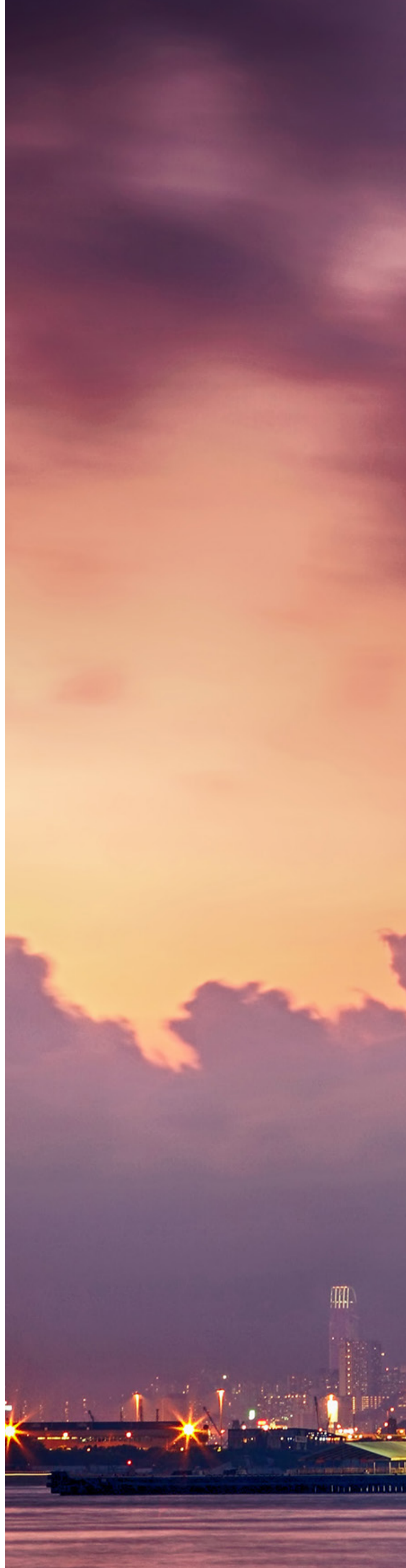
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