

# Quarterly Construction Cost Review

China and Hong Kong

2022 | Q3

Arcadis Hong Kong Limited



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# China and Hong Kong Market Overview



In the third quarter of 2022, the economy further contracted by 4.5% YoY. As reported by the Buildings Department, gross floor areas of both consented and commenced private construction works dropped by 76% and 58% QoQ, and 89% and 87% YoY based on Q3 2022 respectively. It is anticipated the construction output will be reduced in short term.

On 29 September, the Government announced the quarterly land sale programme for the third quarter of 2022-23. Three residential sites in Kai Tak, Stanley and Kennedy Town will be sold by tender between October and December 2022. Meanwhile, the Urban Renewal Authority and the MTR Corporation Limited will tender out new projects in the coming quarter. According to the Secretary of Development, the Government will continue to sustain the land supply in spite of the economic challenges.

After the salary freeze in three consecutive years, the Hong Kong Construction Industry Employees General Union announced in October the pay rise of 3% to 12.5% in 12 trades in next year. The Union also expected construction activity level would increase hence was optimistic about the future labour demand.

## Market movement

### Economy

	Q3/20 - Q3/21	Q2/21 - Q2/22	Q3/21 - Q3/22
GDP Growth	(+) 5.4%	(-) 1.3%	(-) 4.5%
Inflation Rate (CPI)	Sep 20 - 21 (+) 1.4%	Jun 21 - 22 (+) 1.8%	Sep 21 - 22 (+) 4.4%

### Construction Output

	Q2/21	Q1/22	Q2/22
Activity Level (Gross output; new + A&A)	HK\$55.061 Bn	HK\$58.233 Bn	HK\$59.471 Bn*

### Basic Costs

	Jun - Aug 21	Mar - May 22	Jun - Aug 22
Highways Material Index	1102.7	1238.9	1233.7
Labour Wages Index	154.9	155.2	155.1

### Construction Cost Trend

	Q3/21	Q2/22	Q3/22
Tender Price Index (Arcadis)	1780	1820	1840

\*Provisional

Source: Highways Materials Index from Civil Engineering and Development Department (CEDD), other data from Census and Statistics Department (CSD).



# Market Analysis

## China

In the third quarter of 2022, China's GDP grew by 3.9% Year-on-Year (YoY). China's economy is stable generally and emerging a balance between epidemic control and economic and social development.

The real estate market keeps cooling down, the real estate investment, sales and land purchases have fallen sharply. The real estate investment capital source by the end of the second quarter of this year has decreased by 24.5% YoY. Besides, floor area commencing construction had a decrease of 38% YoY and the area of land sales dropped by 53% YoY.

In Q3 2022, construction wages remain stable. Compared with last quarter, the average basic construction material costs keep in a downward trend. Rebar and steel prices decreased 13%. Aluminium, copper, concrete and cement prices dropped 10%, 10%, 5% and 16%, respectively.

Fewer new projects commenced construction causing fierce bidding resulted in lower tender prices. However, quite a number of projects under construction have been halted by the repeated outbreak and containment in various degrees with contractors raising claims related to prolonged programme and cost. As a result, the construction prices has not fallen significantly. Prices of major materials show no signs of recovering, and the construction price is anticipated to trend down in the next quarter.

## Hong Kong

### Decline in economic growth

The Hong Kong economy contracted for the third consecutive quarter. The Gross Domestic Product (GDP) recorded a negative growth rate of (-)4.5% YoY in Q3 2022, after the revised figure of (-)1.3% YoY in Q2 2022. The Consumer Price Index (CPI) recorded an inflation of (+)4.4% YoY in September 2022, which is notably high due to the low base resulted from waiver of public housing rentals by the Housing Authority in September 2021. After netting out the effects of all Government's one-off relief measures, CPI in September 2022 was (+)1.8%, which remained stable throughout this year.

### Floor area of commenced and completed works

The total gross floor area of the consented and commenced private construction works dropped by 89% and 87% YoY in Q3 2022 respectively. Meanwhile, the completed private construction works rose by 400% YoY in Q3 2022. Based on the last twelve months period, both consented and commenced private construction works dropped by 54.5% and 48.4% YoY respectively as well, whilst completed private construction works increased by 56.0% YoY.

### Gross value of performed construction works

Gross value of performed new-built private and A&A works rose by 5.7% and 4.6% QoQ in Q2 2022 respectively after the decline in the last quarter. Gross value of performed public works dropped by 2.2% QoQ in Q2 2022. The overall performed construction works in Q2 2022 recorded an increase of 8.0% as compared to the previous year.

### Cost of materials and labour

The Tender Price Index (TPI) increased by 3.37% YoY based on Q3 2022. Steel price continued to fall from the peak in March 2022 and dropped by 9.5% YoY based on August 2022. Meanwhile, prices of concrete blocks, diesel fuel, cement and tiles also significantly increased by 30.6%, 25.6%, 18.8% and 16.0% YoY based on August 2022 respectively. The construction labour wages index remained stable comparing with previous quarter and Q3 2021. Amongst the various trades of labourer, wages of carpenter, general welder and plasterer increased by 3% to 4% YoY, while wages of bricklayer, plumber and painter decreased by 2 to 4% YoY based on Q3 2022 data.

# Approximate Building Costs Hong Kong

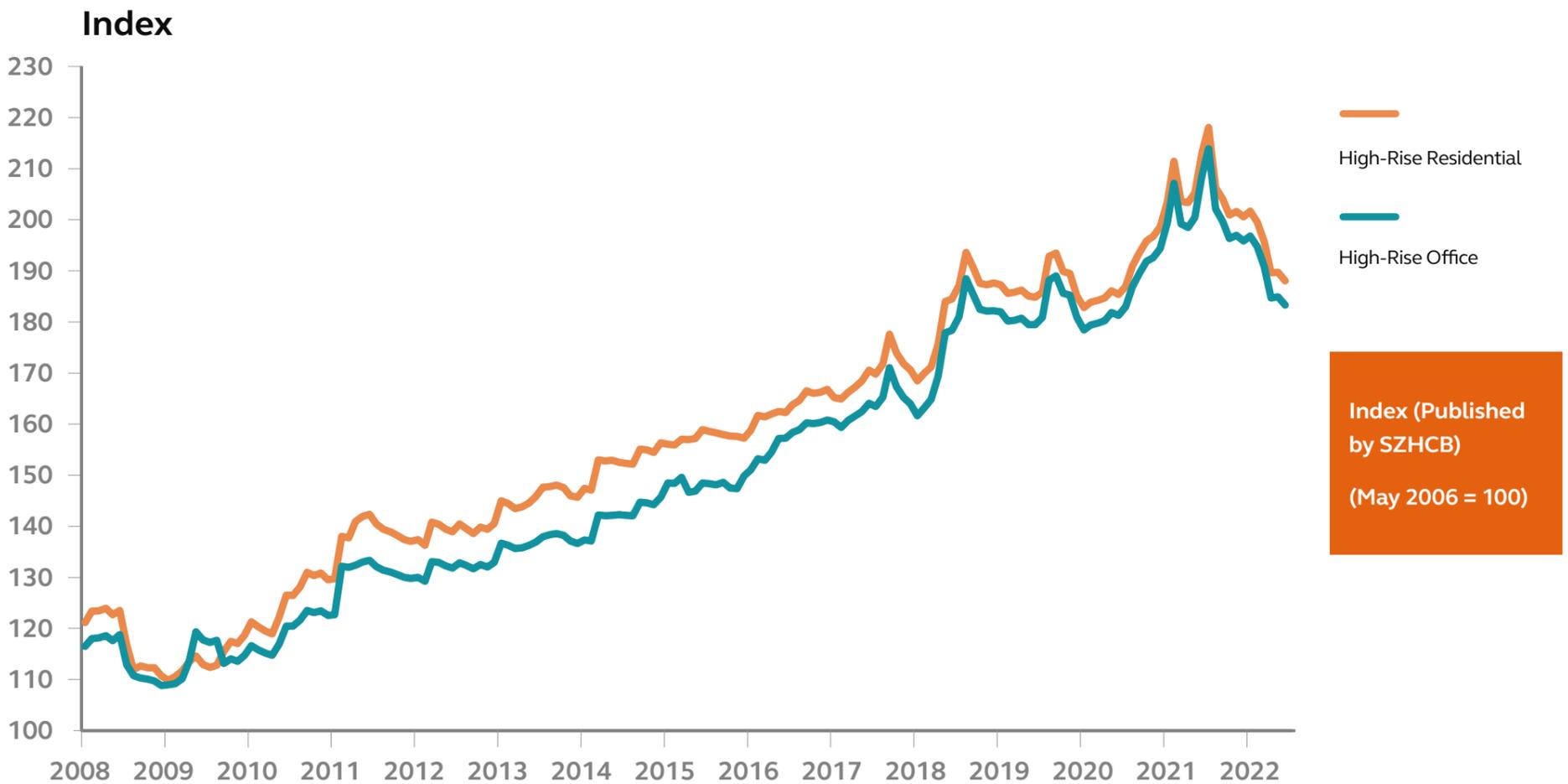
## Notes:

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\$/m2 CFA	Outline Specification
<b>Domestic</b>		
Apartments, high rise, public authority standard	11,300 - 13,500	Based on Hong Kong Housing Authority Non-standard Cruciform Block design (Rental Housing)
Apartments, high rise, average standard	24,300 - 28,100	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	31,500 - 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	33,500 - 38,600	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	48,800 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
<b>Office / Commercial</b>		
Medium/high rise offices, average standard	24,200 - 27,500	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	29,000 - 33,200	RC structure, curtain wall, including public area fit-out, tenant area with raised floor, painted wall and false ceiling
Out-of-town shopping centre, average standard	23,900 - 28,000	Including public area fit-out and M&E, but excluding shop fit-out
Retail malls, high end	31,000 - 36,700	
<b>Industrial</b>		
Owner operated factories, low rise, light weight industry	18,500 - 23,200	RC structure, including small office with simple fit-out and M&E, but excluding a/c
<b>Hotel</b>		
Budget hotels - 3-star, mid market	30,700 - 32,600	1) Interior decoration
Business hotels - 4/5-star	31,700 - 36,800	2) Furniture (fixed and movable)
Luxury hotels - 5-star	36,900 - 41,900	3) Special light fittings (chandeliers, etc.) 4) Operating Supplies and Equipment (OS&E) excluded
<b>Others</b>		
Underground/basement car parks (<3 levels)	26,300 - 31,300	RC structure
Multi storey car parks, above ground (<4 levels)	15,700 - 18,600	RC structure, natural ventilation, no facade enclosure
Schools (primary and secondary)	20,400 - 22,000	Public authority standard including fit-out and a/c, but excluding loose furniture and educational equipment
Students' residences	23,300 - 26,200	Including fit-out, loose furniture and a/c
Sports clubs, multi purpose sports/ leisure centres (dry sports)	30,600 - 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	38,800 - 42,700	Excluding medical and operating equipment

The above costs are at 3<sup>rd</sup> Quarter 2022 levels.

# Building & Building Services Price Index Mainland China

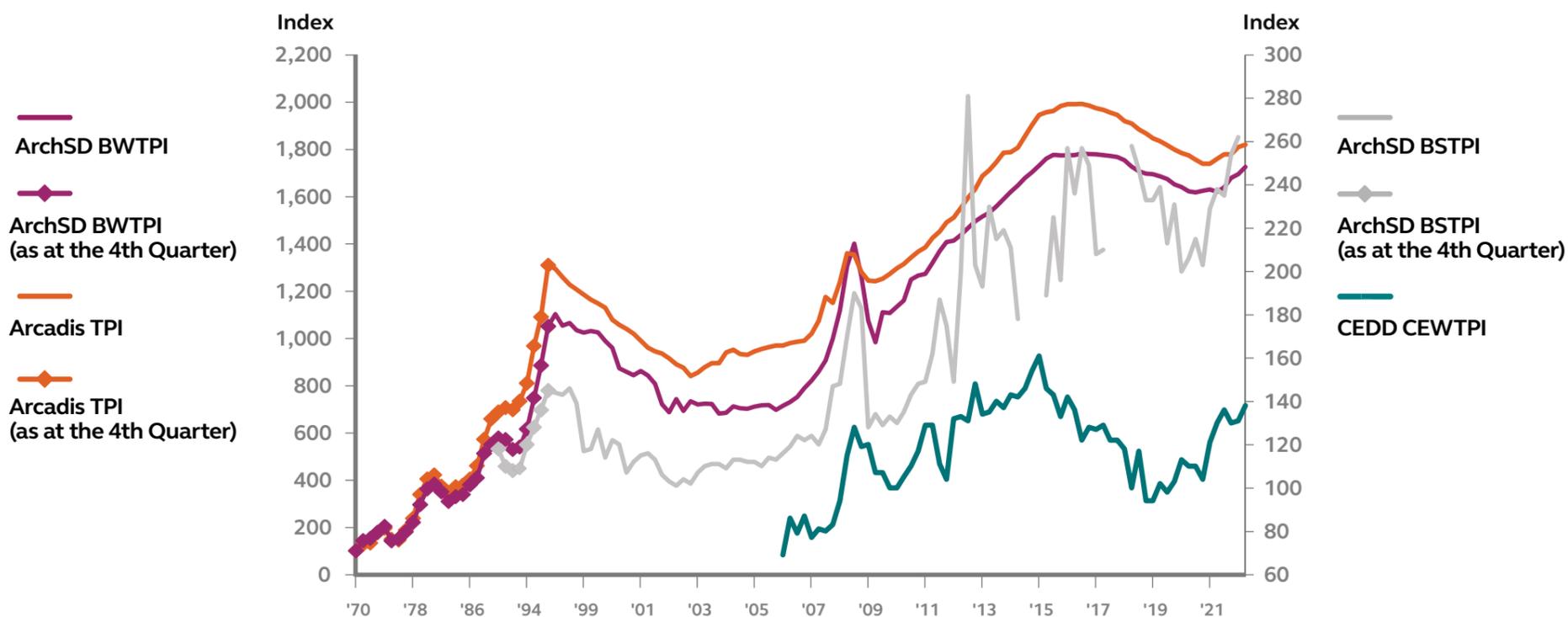


Building & Building Services Price Index								
Index	(Base Index: May 2006 = 100)							
	High-Rise Residential				High-Rise Office			
Month / Year	2019	2020	2021	2022	2019	2020	2021	2022
January	187.5	189.8	195.8	200.8	182.4	185.5	191.8	196.3
February	187.2	189.4	196.6	201.5	182.0	185.2	192.4	196.9
March	187.5	185.0	198.5	200.5	182.1	180.8	194.3	195.8
April	187.2	182.7	203.4	201.6	181.9	178.3	199.3	196.7
May	185.5	183.8	211.4	199.4	180.1	179.3	207.0	194.7
June	185.7	184.1	203.5	195.5	180.2	179.7	199.1	190.7
July	186.1	184.6	203.3	189.6	180.6	180.1	198.4	184.6
August	184.9	186.0	205.2	189.6	179.4	181.7	200.3	184.8
September	184.8	185.3	212.9	187.9	179.3	181.2	208.4	183.2
October	185.7	186.8	218.0		180.8	182.8	213.8	
November	192.8	190.8	206.2		188.1	186.8	202.0	
December	193.4	193.4	204.0		189.0	189.4	199.6	

Source : Housing and Construction Bureau of Shenzhen

# Tender Price Index

## Hong Kong



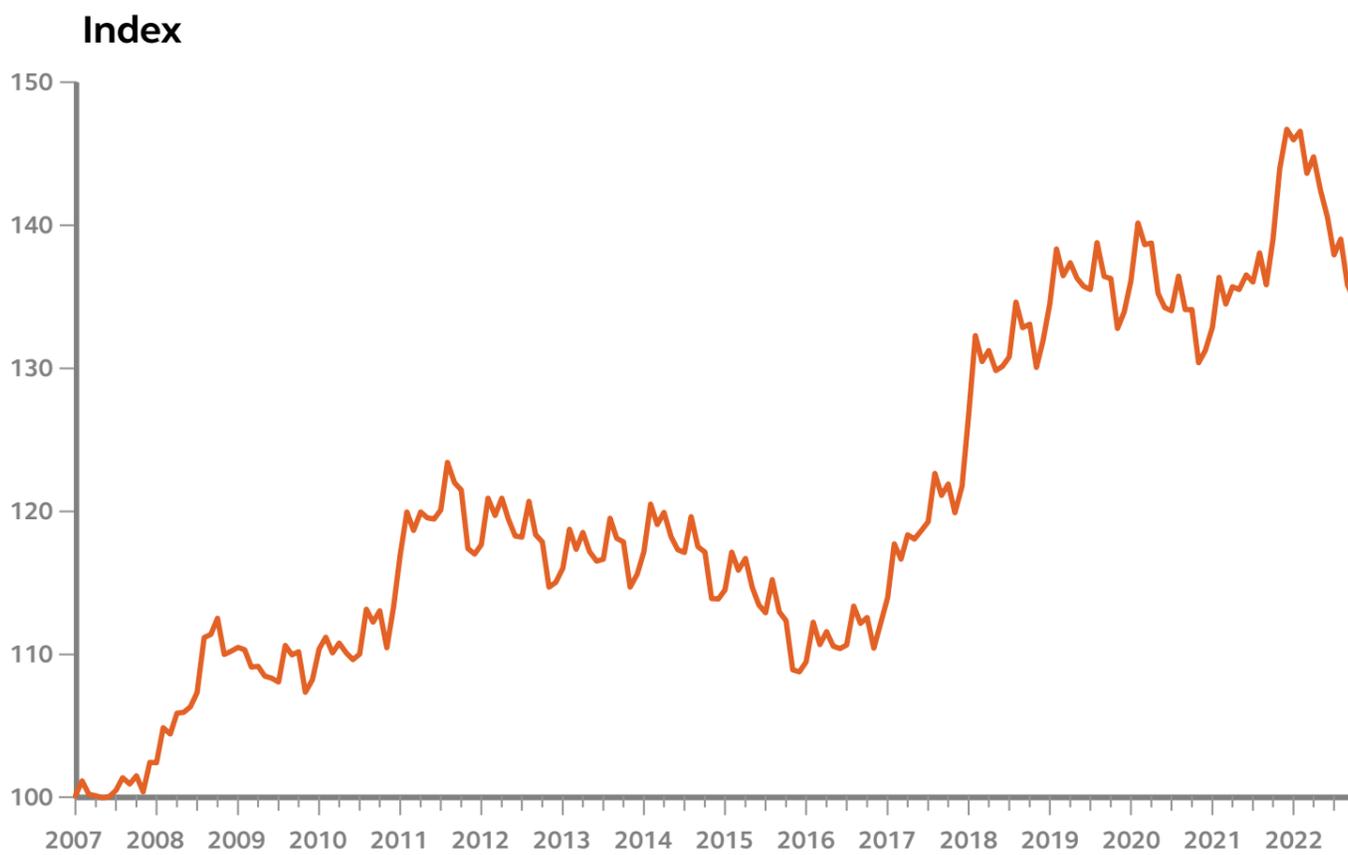
Quarter/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>ArchSD BWTPI (Base = 100, at Q1 1970)</b>										
Q1	1516	1621	1732	1775	1779	1755	1695	1641	1631	1696
Q2	1532	1648	1761	1776	1776	1727	1686	1623	1620	1726
Q3	1559	1679	1777	1783	1773	1708	1675	1618	1640	
Q4	1590	1703	1775	1781	1768	1698	1652	1625	1679	
<b>ArchSD BSTPI (Base = 100, at Q4 1989)</b>										
Q1	193	211	(N/A)	257	208	(N/A)	233	200	229	262
Q2	230	178	189	236	210	258	239	206	238	
Q3	215	(N/A)	225	257	(N/A)	247	213	215	235	
Q4	219	(N/A)	196	249	287	233	231	203	254	
<b>Arcadis TPI (Base = 100, at Q1 1970)</b>										
Q1	1688	1789	1946	1992	1975	1920	1848	1785	1740	1810
Q2	1713	1808	1958	1992	1968	1910	1835	1775	1760	1820
Q3	1747	1857	1963	1993	1957	1885	1818	1757	1780	1840
Q4	1786	1903	1984	1986	1946	1868	1800	1740	1780	
<b>CEDD CEWTPI (Base = 100, at Q1 2010)</b>										
Q1	134	143	161	142	127	118	94	113	121	131
Q2	135	142	146	136	129	100	102	110	130	138*
Q3	140	146	143	122	122	117	98	110	136	
Q4	137	154	133	128	122	94	103	104	130	

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 2013 and onwards are given in detail, whereas indices between year 1970 to 1997 are shown with their 4th Quarter figures.

# Materials Mainland China



Index (Projected  
by Arcadis)  
(12/2006 = 100)

Construction Material Price Index								
Month / Year	Published (by NBS of China) (Base : Corresponding month in preceding year = 100)				Projected (by Arcadis) (Base : 12/2006 = 100) (see explanatory notes below)			
	2019	2020	2021	2022	2019	2020	2021	2022
January	104.6	101.3	97.3	107.5	138.3	140.1	136.3	146.6
February	104.6	101.6	97.0	106.8	136.4	138.6	134.5	143.6
March	104.7	101.0	97.8	106.7	137.3	138.7	135.7	144.8
April	105.0	99.2	100.2	105.1	136.3	135.2	135.5	142.4
May	104.3	98.9	101.7	103.0	135.7	134.2	136.5	140.6
June	103.6	98.9	101.5	101.4	135.5	134.0	136.0	137.9
July	103.1	98.3	101.2	100.7	138.8	136.4	138.0	139.0
August	102.7	98.3	101.3	100.0	136.4	134.0	135.8	135.8
September	102.4	98.4	103.7	96.9	136.2	134.0	139.0	134.7
October	102.1	98.2	110.4		132.7	130.3	143.9	
November	101.5	98.0	111.8		133.9	131.2	146.7	
December	101.2	97.6	109.9		136.1	132.8	146.0	

Source : National Bureau of Statistics (NBS) of China

## Notes:

1. Data are published on a monthly basis, measuring the year-on-year change in price level of each month, but the quarter-on-quarter change is not published, ie. the changes between consecutive quarters are not given.
2. To give an illustration of the price trend over time, Arcadis applies a hypothetical calculation to derive the data table and chart as above. For comparison purpose, December 2006 is referred to as base and the base index as 100.



# Basic Construction Materials

**Copper, CIF European port**

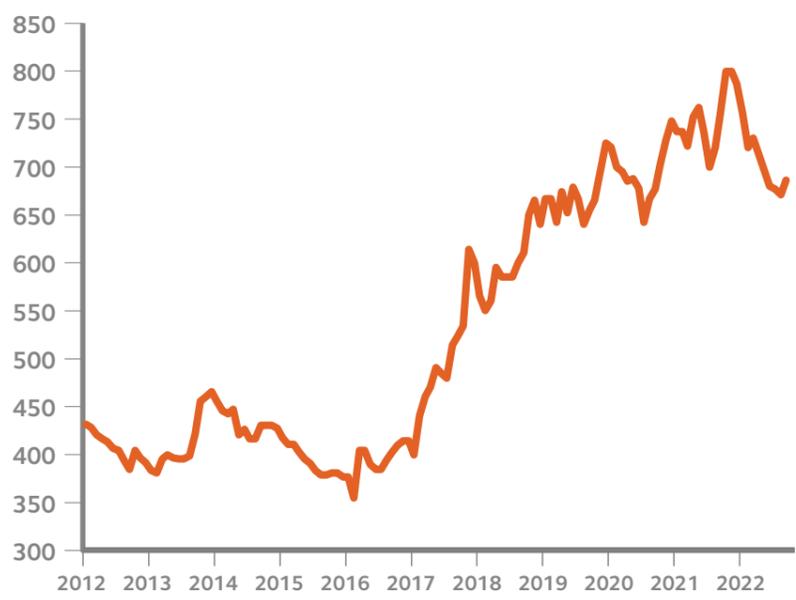
US\$/Tonne



Source : London Metal Exchange

**Ready Mix Concrete, 40 MPa**

RMB/m3



Shanghai Municipal Management Commission of Housing and Urban-Rural Development

**Steel Reinforcement, Grade III**

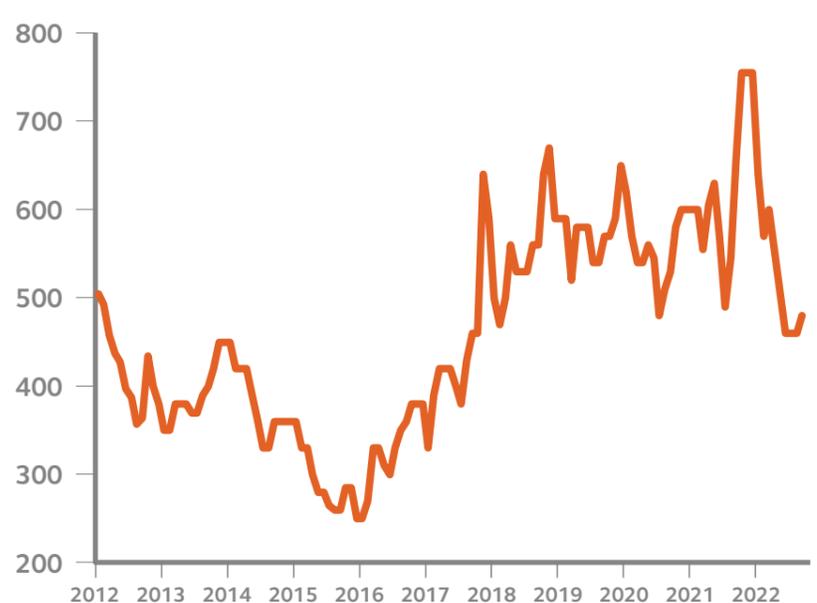
RMB/Tonne



Shanghai Municipal Management Commission of Housing and Urban-Rural Development

**Portland Cement, 42.5 MPa**

RMB/Tonne

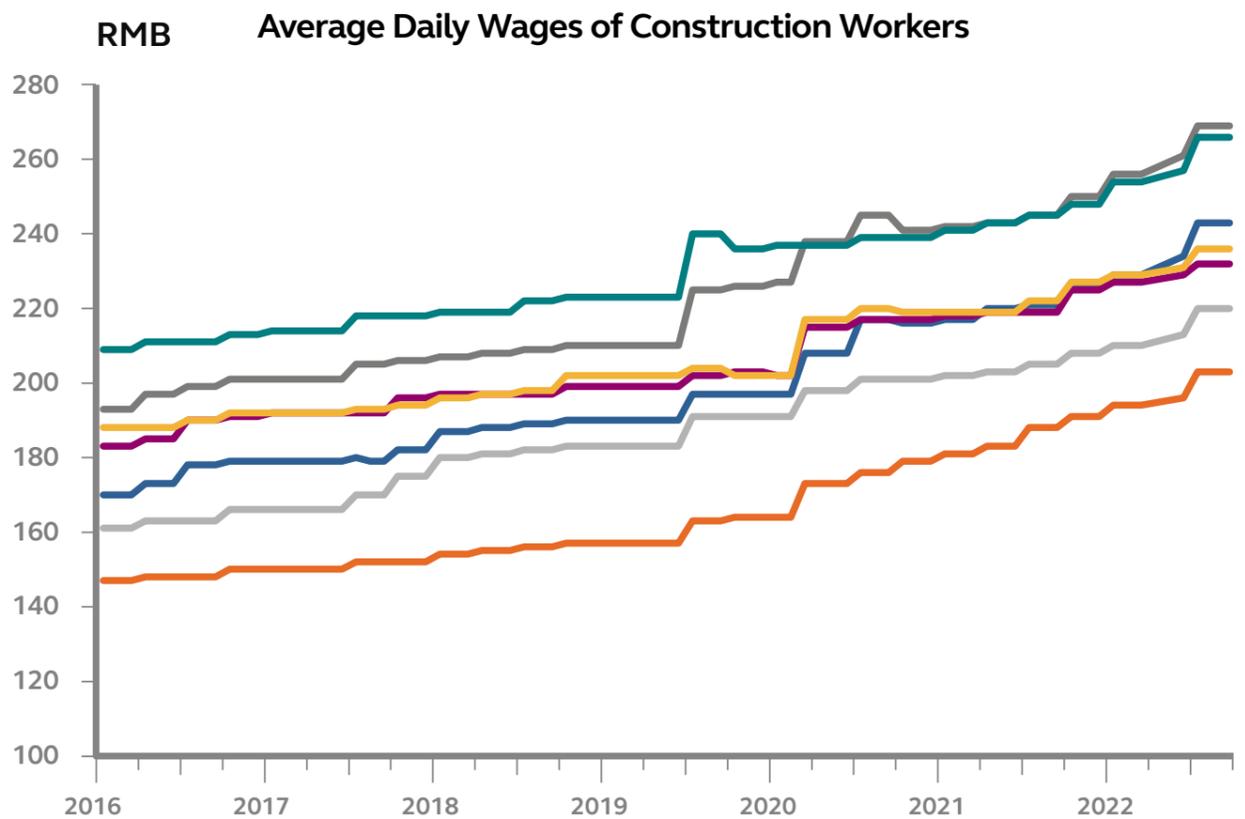


Shanghai Municipal Management Commission of Housing and Urban-Rural Development

# Labour

## Mainland China

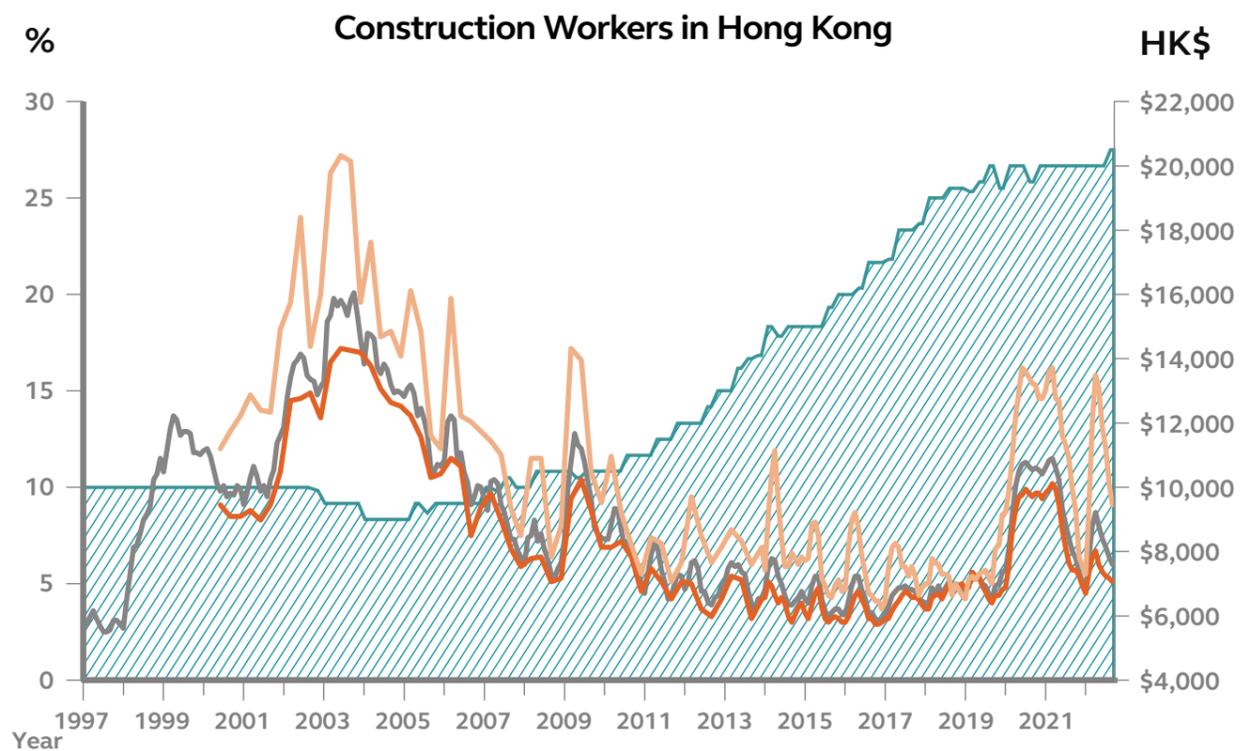
- General workers
- Concretor
- Bar bender and fixer
- Carpenter
- Joiner
- Metal worker
- Painter



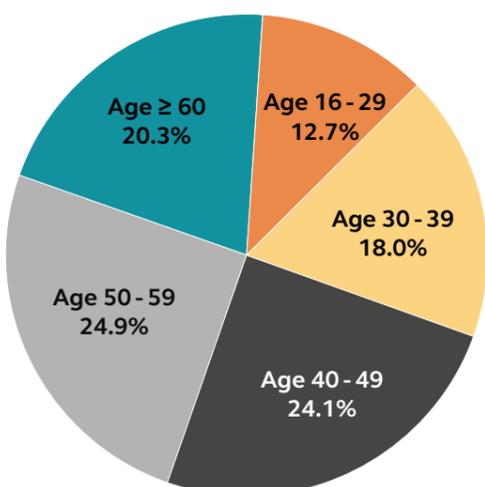
Source : Shanghai Municipal Management Commission of Housing and Urban-Rural Development

## Hong Kong

- Median Monthly Earning (HK\$)
- Unemployment Rate (%) - All Construction Trades
- Unemployment Rate (%) - Foundation & Superstructure
- Unemployment Rate (%) - Decoration & Maintenance



Source : Census & Statistics Department, Hong Kong SAR

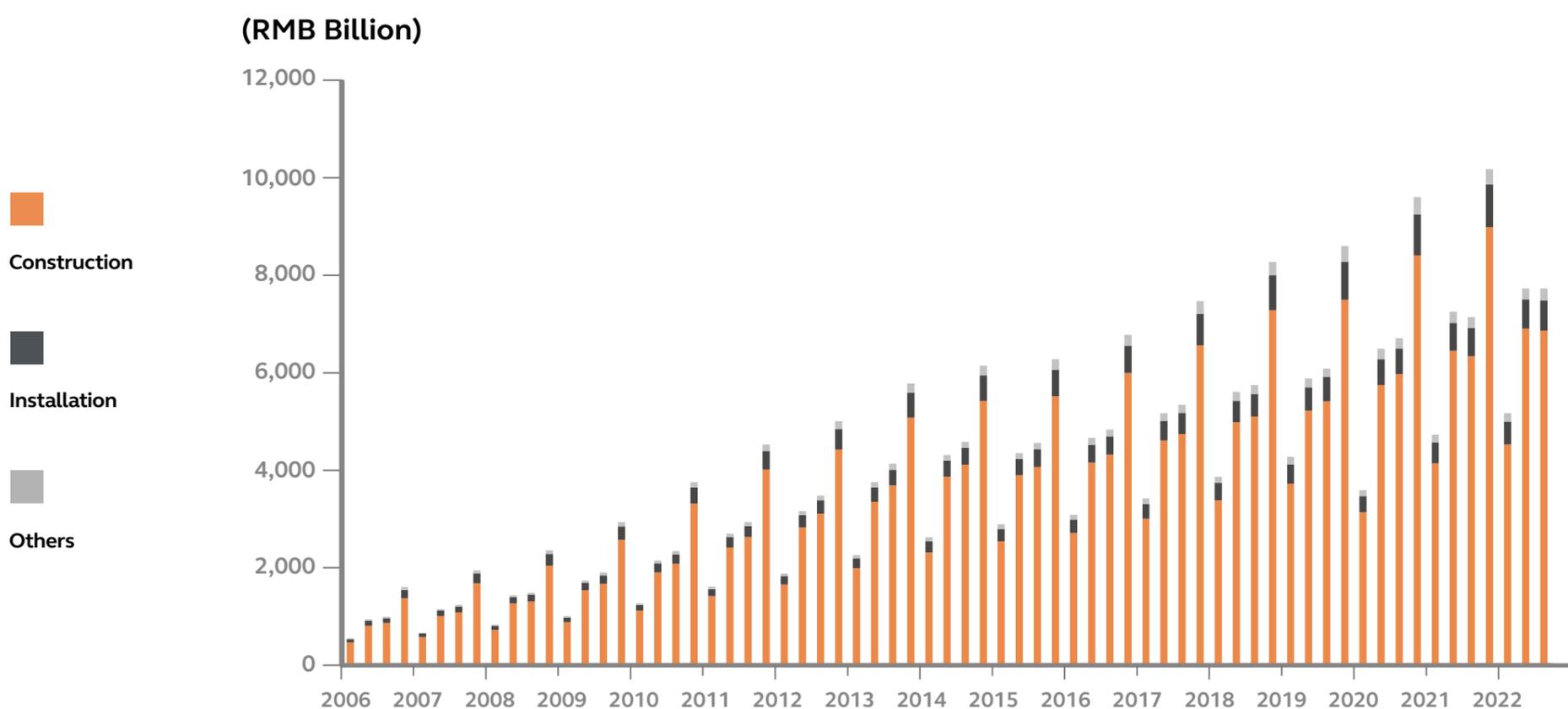


### Age Distribution of Workers

Age Group	No. Of workers employed by construction industry	
Age 16 - 29	76,207	12.7%
Age 30 - 39	108,454	18.0%
Age 40 - 49	144,670	24.1%
Age 50 - 59	149,614	24.9%
Age ≥ 60	121,924	20.3%
<b>Total (as at Sep 2022) :</b>	<b>600,869</b>	<b>100.0%</b>

Source : Construction Industry Council

# Gross Value of Construction Work Performed – Mainland China



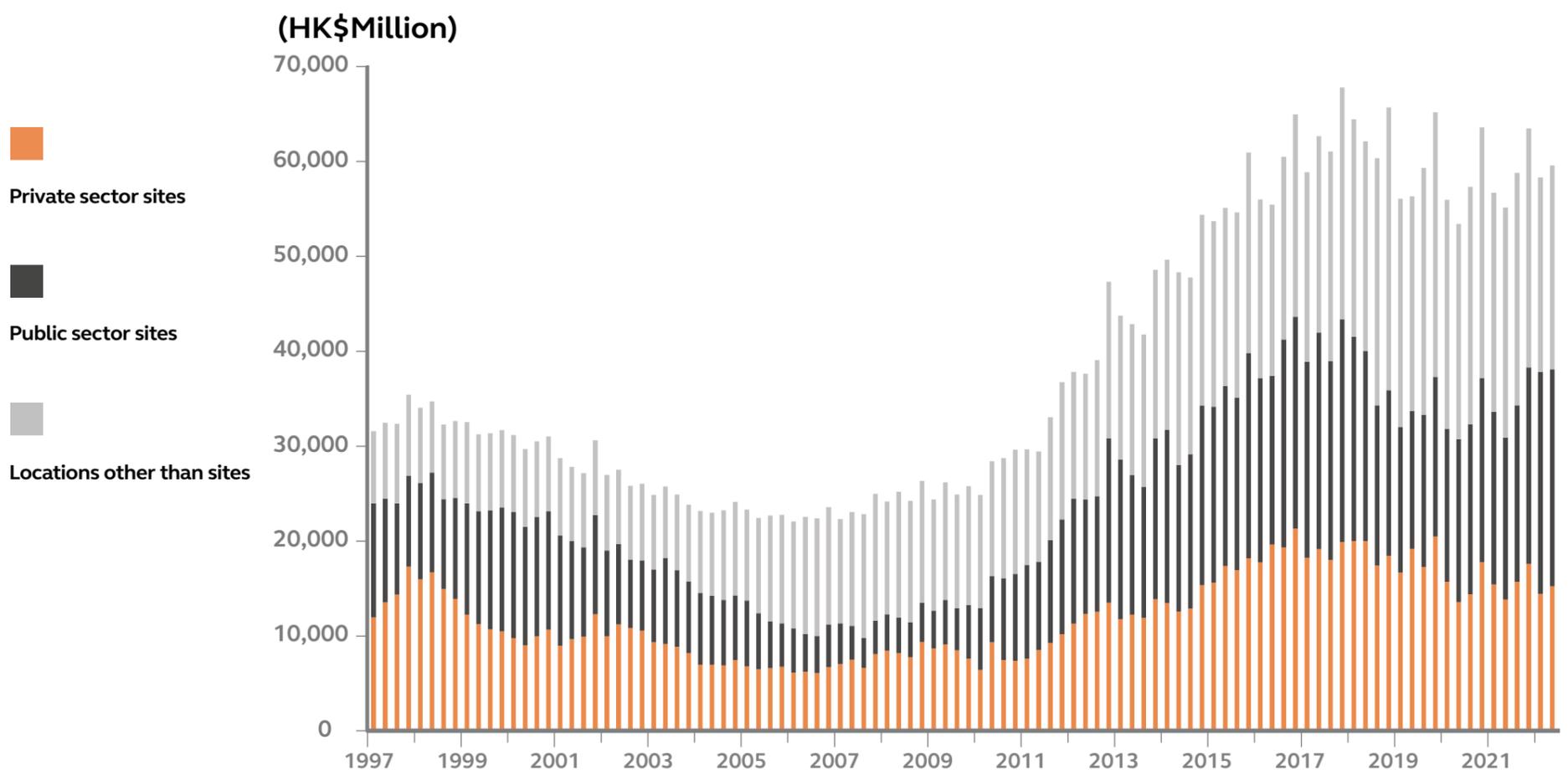
Value Performed (RMB Billion)										
Quarter	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>A. Construction</b>										
1 <sup>st</sup> Quarter	1,994	2,311	2,544	2,712	3,003	3,382	3,727	3,138	4,141	4,533
2 <sup>nd</sup> Quarter	3,355	3,866	3,899	4,158	4,609	4,985	5,223	5,753	6,453	6,902
3 <sup>rd</sup> Quarter	3,687	4,113	4,068	4,322	4,742	5,106	5,414	5,977	6,336	6,863
4 <sup>th</sup> Quarter	5,078	5,425	5,517	5,994	6,562	7,286	7,502	8,405	8,991	
<b>Year Total:</b>	<b>14,115</b>	<b>15,714</b>	<b>16,028</b>	<b>17,186</b>	<b>18,916</b>	<b>20,759</b>	<b>21,867</b>	<b>23,272</b>	<b>25,921</b>	<b>18,298</b>
<b>B. Installation</b>										
1 <sup>st</sup> Quarter	200	230	255	277	303	358	393	326	428	463
2 <sup>nd</sup> Quarter	300	333	331	366	405	438	476	523	569	602
3 <sup>rd</sup> Quarter	322	346	363	374	437	459	498	519	579	623
4 <sup>th</sup> Quarter	514	517	548	561	646	708	768	840	871	
<b>Year Total:</b>	<b>1,336</b>	<b>1,426</b>	<b>1,498</b>	<b>1,578</b>	<b>1,791</b>	<b>1,963</b>	<b>2,135</b>	<b>2,208</b>	<b>2,448</b>	<b>1,689</b>
<b>C. Others</b>										
1 <sup>st</sup> Quarter	69	83	91	96	113	129	155	127	164	175
2 <sup>nd</sup> Quarter	100	118	117	138	154	187	186	217	229	223
3 <sup>rd</sup> Quarter	123	126	126	137	160	189	173	213	228	240
4 <sup>th</sup> Quarter	189	205	216	222	262	282	328	357	318	
<b>Year Total:</b>	<b>481</b>	<b>531</b>	<b>550</b>	<b>593</b>	<b>689</b>	<b>787</b>	<b>843</b>	<b>915</b>	<b>940</b>	<b>638</b>
<b>Annual gross value performed (A + B + C)</b>										
<b>Total:</b>	<b>15,932</b>	<b>17,671</b>	<b>18,076</b>	<b>19,357</b>	<b>21,396</b>	<b>23,509</b>	<b>24,845</b>	<b>26,395</b>	<b>29,309</b>	<b>20,625</b>

Source : National Bureau of Statistics of China

## Notes:

1. Value of "Construction" refers to the value of projects included in the project budgets.
2. Value of "Installation" refers to the value of the installation of equipment, excluding the value of the equipment to be installed.
3. Value of "Others" refer to the output value excluding construction projects and installation projects. It includes: output value of repairing buildings and structures; output value of non-standard equipment manufacturing; overhead expenses received by contracted enterprises from the sub-contracted enterprises and the completed output value of construction activities undefined.

# Gross Value of Construction Work Performed – Hong Kong



Value Performed (HK\$ Million)										
Quarter	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
A. Private sector sites										
1 <sup>st</sup> Quarter	11,675	13,395	15,528	17,652	18,150	19,918	16,583	15,647	15,339	14,351
2 <sup>nd</sup> Quarter	12,176	12,507	17,284	19,530	19,070	19,925	19,112	13,489	13,758	15,164*
3 <sup>rd</sup> Quarter	11,848	12,792	16,849	19,252	17,912	17,340	17,199	14,303	15,620	
4 <sup>th</sup> Quarter	13,781	15,259	18,119	21,231	19,813	18,369	20,393	17,685	17,521	
<b>Year Total:</b>	<b>49,480</b>	<b>53,953</b>	<b>67,780</b>	<b>77,665</b>	<b>74,945</b>	<b>75,552</b>	<b>73,287</b>	<b>61,124</b>	<b>62,238</b>	<b>29,515*</b>
B. Public sector sites										
1 <sup>st</sup> Quarter	16,829	18,258	18,531	19,414	20,639	21,533	15,338	16,083	18,167	23,356
2 <sup>nd</sup> Quarter	14,690	15,397	18,964	17,780	22,827	20,002	14,512	17,155	17,054	22,835*
3 <sup>rd</sup> Quarter	13,792	16,253	18,163	21,878	20,934	16,888	16,022	17,940	18,604	
4 <sup>th</sup> Quarter	16,976	18,915	21,585	22,295	23,455	17,433	16,825	19,400	20,687	
<b>Year Total:</b>	<b>62,287</b>	<b>68,823</b>	<b>77,243</b>	<b>81,367</b>	<b>87,855</b>	<b>75,856</b>	<b>62,697</b>	<b>70,578</b>	<b>74,512</b>	<b>46,191*</b>
C. Location other than sites										
1 <sup>st</sup> Quarter	15,140	17,909	19,549	18,809	19,963	22,871	24,032	24,126	23,075	20,526
2 <sup>nd</sup> Quarter	15,914	20,327	18,744	18,041	20,657	22,073	22,592	22,674	24,249	21,472*
3 <sup>rd</sup> Quarter	16,038	18,636	19,520	19,274	22,093	26,027	25,992	24,971	24,465	
4 <sup>th</sup> Quarter	17,716	20,088	21,111	21,333	24,406	29,797	27,839	26,398	25,183	
<b>Year Total:</b>	<b>64,808</b>	<b>76,960</b>	<b>78,924</b>	<b>77,457</b>	<b>87,119</b>	<b>100,768</b>	<b>100,455</b>	<b>98,169</b>	<b>96,972</b>	<b>41,998*</b>
Annual gross value performed (A + B + C)										
<b>Total:</b>	<b>176,575</b>	<b>199,736</b>	<b>223,947</b>	<b>236,489</b>	<b>249,919</b>	<b>252,176</b>	<b>236,439</b>	<b>229,871</b>	<b>233,722</b>	<b>117,704*</b>

\*Provisional

Source : Census and Statistics Department, Hong Kong SAR

# Approximate Building Costs For Major Cities In Asia

Building Type	Shanghai	Beijing	Guangzhou/ Shenzhen	Chongqing/ Chengdu
	Q3/2022	Q3/2022	Q3/2022	Q3/2022
	RMB/ m <sup>2</sup> CFA			
<b>Domestic</b>				
<b>Apartments, high rise, average standard</b>				
- Shell and core	3,139 - 3,579	2,856 - 3,294	2,698 - 3,099	2,692 - 3,118
- Full fit	5,132 - 5,658	4,517 - 4,961	4,281 - 4,911	4,117 - 4,861
<b>Apartments, high rise, high end</b>				
- Shell and core	3,774 - 4,088	3,403 - 4,936	2,816 - 3,818	3,328 - 4,312
- Full fit	11,589 - 12,634	10,948 - 12,463	6,955 - 7,929	6,647 - 8,300
<b>Terraced houses, average standard</b>				
- Shell and core	3,514 - 3,813	3,297 - 3,850	2,835 - 3,219	3,365 - 4,024
- Full fit	7,090 - 7,724	6,469 - 7,007	6,485 - 7,753	5,693 - 6,684
<b>Detached houses, high end</b>				
- Shell and core	5,168 - 5,712	4,965 - 5,526	3,946 - 4,481	4,409 - 5,033
- Full fit	12,469 - 13,229	12,431 - 12,970	12,442 - 14,578	7,243 - 8,227
<b>Office / Commercial</b>				
Medium/high rise offices, average standard	6,584 - 8,699	6,444 - 8,680	6,080 - 6,944	6,563 - 7,541
High rise offices, prestige quality	8,459 - 11,569	10,473 - 14,256	8,900 - 11,184	8,275 - 10,999
Out-of-town shopping centre, average standard	N/A	4,815 - 6,437	5,793 - 6,586	5,305 - 6,714
Retail malls, high end	8,940 - 12,051	8,712 - 11,994	8,571 - 12,420	7,880 - 10,876
<b>Industrial</b>				
Industrial units, shell only (Conventional single storey framed units)	2,028 - 2,484	1,990 - 2,426	2,257 - 2,773	3,257 - 4,050
Owner operated factories, low rise, light weight industry	3,136 - 3,928	3,846 - 4,409	N/A	N/A
<b>Hotels</b>				
Budget hotels - 3-star, mid market	7,204 - 8,781	7,128 - 8,781	7,800 - 8,845	7,122 - 8,706
Business hotels - 4/5-star	11,608 - 15,713	12,146 - 16,036	12,607 - 18,555	12,765 - 15,790
Luxury hotels - 5-star	15,694 - 18,761	15,460 - 19,901	16,967 - 19,280	15,712 - 18,682
<b>Others</b>				
Underground/basement car parks (<3 levels)	5,380 - 7,502	5,506 - 6,051	4,018 - 6,574	3,114 - 4,314
Multi storey car parks, above ground (<4 levels)	2,756 - 3,852	3,314 - 3,345	2,862 - 3,243	2,482 - 3,034
Schools (primary and secondary)	4,112 - 5,190*	3,833 - 4,948*	3,234 - 4,200*	3,292 - 3,626*
Students' residences	3,010 - 4,106	2,712 - 3,833	2,980 - 3,800	2,304 - 3,296
Sports clubs, multi purpose sports/ leisure centres (dry sports)	6,938 - 8,522	6,564 - 6,621	5,525 - 6,260	5,194 - 5,693
General hospitals - public sector	10,600 - 13,667	8,630 - 10,809	8,366 - 10,783	8,300 - 10,276

The above costs are at 3<sup>rd</sup> Quarter 2022 levels.

# Approximate Building Costs For Major Cities In Asia

Building Type	Hong Kong	Macau	Singapore	Kuala Lumpur
	Q3/2022	Q3/2022	Q3/2022	Q3/2022
	USD/ m2 CFA (See also exchange rates per U.S. dollar below)			
	HK\$ 7.85	MOP 8.010	S\$ 1.37	RM 4.41
<b>Domestic</b>				
<b>Apartments, high rise, average standard</b>				
- Shell and core	N/A	1,922 - 2,849	N/A	N/A
- Full fit	3,096 - 3,580	2,475 - 3,028	1,765 - 1,905	300 - 595 \$
<b>Apartments, high rise, high end</b>				
- Shell and core	N/A	2,849 - 4,272	N/A	N/A
- Full fit	4,013 - 4,650	3,456 - 5,281	2,700 - 3,995	690 - 1,430
<b>Terraced houses, average standard</b>				
- Shell and core	N/A	3,374 - 4,190	N/A	N/A
- Full fit	4,268 - 4,917	4,217 - 5,033	2,265 - 2,520	220 - 350 \$\$
<b>Detached houses, high end</b>				
- Shell and core	N/A	4,079 - 5,877	N/A	N/A
- Full fit	6,217 up	5,144 - 6,692	2,880 - 3,850	730 - 1,000
<b>Office / Commercial</b>				
Medium/high rise offices, average standard	3,083 - 3,503	2,849 - 3,678	2,265 - 2,520	575 - 760
High rise offices, prestige quality	3,694 - 4,229	3,678 - 4,024	2,555 - 2,770	905 - 1,295
Out-of-town shopping centre, average standard	3,045 - 3,567	2,684 - 4,024	2,445 - 2,700	425 - 635
Retail malls, high end	3,949 - 4,675	4,217 - 5,088	2,700 - 2,950	670 - 1,020
<b>Industrial</b>				
Industrial units, shell only (Conventional single storey framed units)	N/A	N/A	1,080 - 1,260	315 - 440
Owner operated factories, low rise, light weight industry	2,357 - 2,955	N/A	N/A	415 - 525
<b>Hotels</b>				
Budget hotels - 3-star, mid market	3,911 - 4,153	3,748 - 4,245	2,880 - 3,165	970 - 1,430
Business hotels - 4/5-star	4,038 - 4,688	5,088 - 6,085	3,705 - 4,100	1,270 - 2,225
Luxury hotels - 5-star	4,701 - 5,338	6,085 - 7,190	3,705 - 4,100	1,865 - 2,495
<b>Others</b>				
Underground/basement car parks (<3 levels)	3,350 - 3,987	2,226 - 3,262	1,295 - 1,690	300 - 535
Multi storey car parks, above ground (<4 levels)	2,000 - 2,369	1,230 - 1,618	900 - 1,295	200 - 345
Schools (primary and secondary)	2,599 - 2,803	2,461 - 2,849	N/A	240 - 310 \$\$\$
Students' residences	2,968 - 3,338	1,950 - 2,268	2,120 - 2,230	290 - 365 \$\$\$
Sports clubs, multi purpose sports/ leisure centres (dry sports)	3,898 - 4,420	N/A	2,590 - 2,770	580 - 735
General hospitals - public sector	4,943 - 5,439	N/A	3,670 - 3,850	805 - 1,175

The above costs are at 3<sup>rd</sup> Quarter 2022 levels.

# Approximate Building Costs For Major Cities In Asia

Building Type	Bangkok	Bangalore	Manila	Ho Chi Minh
	Q3/2022	Q3/2022	Q3/2022	Q3/2022
	USD/ m2 CFA (See also exchange rates per U.S. dollar below)			
	BAHT 35.50	INR 77.55	PHP 55.02	VND 23,450
<b>Domestic</b>				
<b>Apartments, high rise, average standard</b>				
- Shell and core	507 - 670	624 - 713	N/A	N/A
- Full fit	682 - 831	727 - 883	911 - 1,221	677 - 839
<b>Apartments, high rise, high end</b>				
- Shell and core	592 - 749	1,039 - 1,262	N/A	N/A
- Full fit	915 - 1,121	1,155 - 1,478	1,231 - 2,211	861 - 987
<b>Terraced houses, average standard</b>				
- Shell and core	282 - 366	426 - 505	N/A	N/A
- Full fit	428 - 530	509 - 575	817 - 1,000	457 - 537
<b>Detached houses, high end</b>				
- Shell and core	493 - 704	554 - 655	N/A	N/A
- Full fit	746 - 901	649 - 738	1,587 - 2,702	521 - 635
<b>Office / Commercial</b>				
Medium/high rise offices, average standard	755 - 901	546 - 602 #	834 - 1,089	792 - 916
High rise offices, prestige quality	944 - 1,211	678 - 729 #	1,208 - 1,558	913 - 1,243
Out-of-town shopping centre, average standard	645 - 834	548 - 599	710 - 884	N/A
Retail malls, high end	865 - 915	738 - 845	969 - 1,357	740 - 968
<b>Industrial</b>				
Industrial units, shell only (Conventional single storey framed units)	501 - 634	469 - 577	473 - 610	325 - 410
Owner operated factories, low rise, light weight industry	N/A	500 - 623	636 - 799	368 - 486
<b>Hotels</b>				
Budget hotels - 3-star, mid market	1,177 - 1,310	1,072 - 1,162	1,059 - 1,310	1,468 - 1,796
Business hotels - 4/5-star	1,507 - 1,732	1,486 - 1,922	1,208 - 2,004	N/A
Luxury hotels - 5-star	1,761 - 2,042	2,088 - 2,452	1,673 - 3,174	1,853 - 2,224
<b>Others</b>				
Underground/basement car parks (<3 levels)	577 - 761	362 - 422	552 - 718	672 - 802
Multi storey car parks, above ground (<4 levels)	189 - 310	301 - 355	436 - 655	432 - 474
Schools (primary and secondary)	N/A	376 - 445	622 - 859	568 - 620
Students' residences	N/A	393 - 485	667 - 846	568 - 729
Sports clubs, multi purpose sports/ leisure centres (dry sports)	N/A	724 - 812	1,048 - 1,526	839 - 898
General hospitals - public sector	N/A	814 - 952	1,262 - 1,475	N/A

The above costs are at 3<sup>rd</sup> Quarter 2022 levels.

# Approximate Building Costs For Major Cities In Asia

Building Type	Outline Specification
<b>Domestic</b>	
Apartments, high rise, average standard	<b>Shell and core</b> , including finishes and fittings to public area, but <b>excluding</b> finishes and fittings to apartment units <b>Full fit</b> , with air-conditioning, kitchen cabinets and home appliances, but <b>excluding</b> decorative light fittings and loose furniture
Apartments, high rise, high end	<b>Shell and core</b> , including finishes and fittings to public area, but <b>excluding</b> finishes and fittings to apartment units <b>Full fit</b> , good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but <b>excluding</b> decorative light fittings and loose furniture
Terraced houses, average standard	<b>Shell and core</b> , joined houses in row(s), <b>excluding</b> garden, parking, finishes and fittings to house interior <b>Full fit</b> , including finishes and fittings to house interior, with air-conditioning, kitchen cabinets and home appliances, but <b>excluding</b> decorative light fittings, loose furniture, garden and parking
Detached houses, high end	<b>Shell and core</b> , good quality facade, <b>excluding</b> garden, parking, finishes and fittings to house interior <b>Full fit</b> , good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but <b>excluding</b> decorative light fittings, loose furniture, garden and parking
<b>Office / Commercial</b>	
Medium/high rise offices, average standard	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	RC structure, curtain wall, including public area fit-out, tenant area with raised floor, painted wall and false ceiling
Out-of-town shopping centre, average standard	Including public area fit-out and M&E, but <b>excluding</b> shop fit-out
Retail malls, high end	
<b>Industrial</b>	
Industrial units, shell only (Conventional single storey framed units)	RC structure with steel roof and M&E to main distribution, but <b>excluding</b> a/c and tenant fit-out
Owner operated factories, low rise, light weight industry	RC structure, including ancillary office with simple fit-out and M&E, but <b>excluding</b> a/c
<b>Hotels</b>	
Budget hotels - 3-star, mid market	<ol style="list-style-type: none"> <li>Interior decoration</li> <li>Furniture (fixed and movable)</li> <li>Special light fittings (chandeliers, etc.)</li> <li>Operating Supplies and Equipment (OS&amp;E) <b>excluded</b></li> </ol>
Business hotels - 4/5-star	
Luxury hotels - 5-star	
<b>Others</b>	
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 <b>excluding</b> 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 / café, bar, etc. Costs include a/c, Furniture, Fittings and Equipment (FF&E)
General hospitals - public sector	<b>Excluding</b> 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 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 and corridors) and M&E main plant and upfeed, with occupant areas unfurnished.
- "Full fit" buildings should complete with all elements that allow the buildings to be ready for operation, including public and occupant 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.
- Beijing, Shanghai, Guangzhou/Shenzhen, Chongqing/Chengdu:** \*Public authority standard, no a/c. **Kuala Lumpur:** \$ 6-12 units per floor, 46m<sup>2</sup> - 83m<sup>2</sup> per unit; excluding air-conditioning, kitchen cabinets and home appliances \$\$ Excluding air-conditioning, kitchen cabinets and home appliances \$\$\$ Standard government provisions \$\$\$ University standard. **Bangalore:** #Tenant area with screeded floor, painted wall and ceiling, excluding raised floor.
- The data for Bangkok is provided by Mentabuild Limited.
- The data for Bangalore is provided by Arkind LS Private Limited.
- The data for Singapore is provided by Global Infrastructure Solutions Inc.
- The data for Kuala Lumpur is provided by JUBM Group.
- Singapore:** Rates are nett of GST. **Kuala Lumpur:** Rates are exclusive of GST and contingencies. **Bangkok:** Rates are nett of VAT. **Bangalore:** Rates are nett of GST. **Manila:** Rates include 12% VAT. **Ho Chi Minh:** Rates are nett of VAT.



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