

AsiaConstruct22

Country Report - Hong Kong

prepared by
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About the Research Centre for Construction and Real Estate Economics (RCCREE):

The RCCREE is the Hong Kong Polytechnic University's Research Centre for solution oriented research and consultancy in construction and real estate economics. It undertakes internationally relevant multi-disciplinary research that supports the advancement of the construction and real estate industries in the following areas: Economic Policy and Institutional Analysis, Real Estate Economics, Construction Economics, Housing, Human Behavior in Economic Decision Making, and Value Management and Facilities Performance. For further information, please contact Professor Eddie C.M. Hui (bscmhui@polyu.edu.hk).

I. Executive Summary

Hong Kong's economic growth further expanded by 4.3% in real terms in the first quarter of 2017, after growing by 3.2% in the fourth quarter of 2016. The seasonally adjusted GDP increased marginally by 0.7% from the preceding quarter. Additionally, the total export value of goods has been increasing steadily in the past two years and increased by 9.2% in the first quarter of 2017 from a year earlier, against a decline of 1.8% in 2016. Service exports increased by 2.6% in real terms from a year earlier, after the decline of 3.2% for 2016. The weakness of export performance was caused by a severe drag on global economy and trade. As the world's economy and trade have slowed down in recent years, private consumption and investment have become significant in sustaining Hong Kong's growth. Further integration with the mainland, through infrastructure projects, such as the Hong Kong–Macau–Zhuhai Bridge and the Hong Kong Section of the Guangzhou–Shenzhen–Hong Kong Express Rail Link, could provide support for favorable employment conditions.

The labor market conditions remain tight, whereas the domestic demand remains the key force propelling economic growth to maintain the solid labor demand. The unemployment rate was 3.1% in the second quarter of 2017 compared with 3.4% in 2016. The total employment registered a modest growth of 0.3% and achieved 3,920,100. Wages and earnings sustained a moderate increase. However, Hong Kong's industry has encountered serious challenges, such as lackluster international markets, labor shortage, and skyrocketing production and labor costs.

II. Macro-Economic Review and Outlook

1. Overview

The Hong Kong economy grew modestly by 4.3% in real terms in the first quarter of 2017, after growing by 3.2% in the fourth quarter of 2016. The seasonally adjusted GDP increased by 0.7% from the preceding quarter (Table 1). Additionally, the total export value of goods has been increasing steadily in the past two years and increased by 9.2% in the first quarter of 2017 from a year earlier, against a decline of 1.8% in 2016. Service exports increased by 2.6% in real terms from a year earlier, after the decline of 3.2% for 2016. The weakness of export performance was caused by a severe drag on global economy and trade. As the world's economy and trade have slowed down in recent years, private consumption and investment have become significant in sustaining Hong Kong's growth. Table 3 shows that, as the infrastructure and residential construction

projects for new town extensions and new development areas are increasing in number, the demand for construction services in Hong Kong, particularly in the public sector, will remain high. In addition, further integration with the mainland, through infrastructure projects, such as the Hong Kong–Macau–Zhuhai Bridge and the Hong Kong Section of the Guangzhou–Shenzhen–Hong Kong Express Rail Link, could support favorable employment conditions (Table 3).

The net output of the service sector grew moderately by 2.3% in real terms in 2016, an increase from the 1.7% growth in 2015 (Table 1), reflecting the slowdown in the global economic growth and the uncertain external economic environment. Among the major service sectors, import/export, wholesale and retail trades, and accommodation and food services grew slightly from one year earlier. The net output of financing and insurance grew solidly by 4.7% in 2016, followed by information and communications with a growth rate of 3.7%. Other service sectors, such as transportation and storage, real estate, and professional and business expanded further. Generally, the net output sustained moderate growth in 2016 as a whole.

Regarding the secondary sector, the net output of the manufacturing sector declined for the third consecutive year. Since 2008, the government has implemented various mega-infrastructure development projects to promote economic growth, such as the Hong Kong–Macau–Zhuhai Bridge, West Kowloon Terminus, and the Expansion of Hong Kong International Airport into a three-runway system project. Thus, the construction sector registered a modest growth at 2.6% in 2016 as a whole although the percentage declined by 1.2% in the first quarter. The building and construction expenditure registered a substantial growth in the fourth quarter of 2016 and in the first quarter of 2017 despite the decline in the prices of aggregates, bitumen, and Portland cement (Tables 9 and 10). Construction in the private sector has also recently picked up due to the rising property price. Given the sustained high workload, the construction industry is facing the challenges of skill mismatches and an aging workforce (Development Bureau, 2012).

Hong Kong's construction industry is characterized by a small number of large local contractors, a high level of sub-contracting, and the presence of numerous overseas contractors. Most of Hong Kong's construction companies are small- or medium-sized with less than HK\$300 million in annual value contracts (Table 4). The labor market conditions remain tight (Tables 7 and 8), whereas the domestic demand remains the key force propelling economic growth to maintain the solid labor demand. The seasonally adjusted unemployment rate declined to 3.1%, which decreased by 0.3% in 2016. The total employment increased by 0.5%

and reached 3,920,100 (Table 1). A total of 171,893 construction workers were employed in principal jobs in March 2015, and the number of skillful workers and general workers accounted for 78.6% and 21.4%, respectively (Table 5). A total of 199,861 people were directly engaged in building and civil engineering establishments at the end of 2015 (Table 6). The value added per employee was HK\$0.33 million in 2016 (Table 7). The gross floor area of buildings completed in 2015 (including private residential premises, office buildings, hotels and boarding houses, multi-purpose commercial premises, and flatted factory blocks and warehouses) was 8,033 thousand sq.m (Table 8).

Nonetheless, employment in the consumption and tourism-related sectors, such as retail and accommodation, modestly declined amid the slowdown in inbound tourism. Wages and earnings expanded modestly in 2016 (see Tables 11–13) (Census and Statistics Department, Government of the Hong Kong SAR, 2017). However, Hong Kong's industry has encountered serious challenges, such as lackluster international markets, labor shortage, and skyrocketing production and labor costs.

2. Main economic indicator

Table 1: Main Socio-Economic Indicators

	2012	2013	2014	2015	2016
GDP in chained (2014) dollars (HK\$ million)*	2,133,096	2,199,254	2,260,005	2,313,565	2,358,619
GDP at current market price (HK\$ million)	2,037,059	2,138,305	2,260,005	2,398,408	2,489,109
Real GDP growth (%)	1.7	3.1	2.8	2.4	1.9
<i>Agriculture, fishing, mining and quarrying sector</i>	-3.2	4.9	-6.0	-6.8	N.A.
<i>Manufacturing Sector</i>	-0.8	0.1	-0.4	-1.5	-0.4
<i>Electricity, gas, water supply, & waste management sector</i>	1.4	-2.9	0.8	-2.6	N.A.
<i>Services Sector</i>	1.8	2.7	2.5	1.7	2.3
<i>Construction Sector</i>	8.3	4.2	13.0	5.4	2.6
Population	7,171,000	7,210,900	7,252,900	7,309,700	7,374,900
Population Growth Rate (%)	0.9	0.6	0.6	0.8	0.9
Total Labor Force	3,782,200	3,855,100	3,871,100	3,903,200	3,920,100
Labor Force Growth rate (%)	2.1	1.9	0.4	0.8	0.4
Unemployment Rate (%)	3.3	3.4	3.3	3.3	3.4
Inflation Rate (%)	4.7	4.0	3.5	2.5	2.3
Interbank interest rate per annum at year end (%)	0.95	0.87	0.84	0.85	1.58
Short term interest rate** (%)	0.08	0.11	0.04	2.05	0.31
Long term interest rate*** (%)	0.96	2.31	0.04	1.66	1.5
Exchange Rate against US\$	7.76	7.75	7.76	7.75	7.75

*Exchange rate, US\$ 1 ≈ HK\$ 7.8

**Yield of 91-day exchange fund bills (mid-year)

***Yield of 10-year exchange fund notes (mid-year)

Sources: GDP, Demographic and Financial Indicators: Government of the HKSAR web page at <http://www.censtatd.gov.hk/hkstat/sub/bbs.jsp>; Labor Force at <http://www.censtatd.gov.hk/hkstat/sub/sp150.jsp?tableID=001&ID=0&productType=8>; Short and long term interest rates: *Monthly Statistical Bulletin*, Hong Kong Monetary Authority, various issues

III. Overview of the Construction Industry

1. Construction investment

Table 2 manifests that construction works can generally be divided into two categories, namely, “buildings” and “structures and facilities.” The overall expenditure of construction activities carried out by main contractors in Hong Kong registered a consecutively solid growth. The overall construction sector

produced HK\$158 billion worth of work in 2016, with a steady increase of approximately 8.6% over the preceding year. The public construction sector posted a continually solid growth (Tables 2 and 3).

Table 2: Gross Value of Construction Contracts/Expenditure

Type of Contract / Expenditure (HK\$ million)	2012	2013	2014	2015	2016
Buildings	60,954	59,400	68,206	89,632	100,580
Residential	37,501	38,186	45,488	57,618	64,400
Commercial	7,564	7,659	8,223	13,116	17,411
Industrial & Storage	2,054	3,127	3,282	4,906	3,864
Services	13,835	10,428	11,213	13,991	14,904
Structures & facilities	43,067	52,367	54,571	55,391	58,376
Transport	30,465	41,540	44,606	48,262	50,896
Other utilities & plant	4,181	3,397	2,572	2,073	2,023
Environment	7,892	7,030	6,710	4,187	4,366
Sports & recreation	528	400	683	870	1,092
Overall total	104,021	111,767	122,777	145,023	158,659

Table 3: Forecast of Public Construction Works

Respective Departments	Title of Contract	Scheduled Project Start	Scheduled Project Completion	Estimate of Cost (HKD)
Architectural Services Department (ASD)	Re-provisioning of Shanghai Street refuse collection point and street sleepers' services units to the site at Hau Cheung Street, Yau Ma Tei for the phase II development of the Yau Ma Tei Theatre project	2016-17	2019-20	\$200M - \$300M
	Re-provisioning of Transport Department's Vehicle Examination Centers at Tsing Yi	2016-17	2021-22	>=\$500M
	The demolition of existing superstructures at Carolina Hill Road site, Causeway Bay	2017-18	2018-19	<\$100M
	Ancillary facilities block at Tseung Kwan O Area 65C2	2017-18	2019-20	\$200M - \$300M
	Conversion of the former French Mission Building for accommodation use by law-related organization(s) and related purposes	2017-18	2019-20	\$100M - \$200M

Respective Departments	Title of Contract	Scheduled Project Start	Scheduled Project Completion	Estimate of Cost (HKD)
	District open space adjoining public housing development at Anderson Road	2017-18	2019-20	\$200M - \$300M
	Improvement of Hoi Bun Road Park and adjacent area	2017-18	2019-20	\$100M - \$200M
	Waterfront Promenade adjacent to the Hong Kong Children's Hospital at Kai Tak	2017-18	2019-20	<\$100M
	A 30-Classroom Primary School at Tonkin Street, Cheung Sha Wan	2017-18	2020-21	\$300M - \$400M
	Avenue Park at Kai Tak	2017-18	2020-21	\$400M - \$500M
	Construction of rank and file quarters for Fire Services Department at Area 106, Pak Shing Kok, Tseung Kwan O	2017-18	2020-21	>=\$500M
	District open space adjoining San Po Kong public housing development	2017-18	2020-21	\$300M - \$400M
	Re-provisioning of Tsun Yip Street Playground facilities to Hong Ning Road Park and Ngau Tau Kok Fresh Water Service Reservoir	2017-18	2020-21	\$300M - \$400M
	Inland Revenue Tower in Kai Tak Development Area	2017-18	2021-22	>=\$500M
	Redevelopment of Queen Mary Hospital, Phase 1 - Main Works	2017-18	2023-24	>=\$500M
	Re-provisioning of recreational facilities at Hiu Ming Street Playground, Kwun Tong	2018-19	2020-21	\$100M - \$200M
	Community hall cum social welfare facilities at Queen's Hill, Fanling	2018-19	2021-22	>=\$500M
	Immigration Headquarters in Area 67, Tseung Kwan O	2018-19	2023-24	>=\$500M
Civil Engineering and Development Department (CEDD)	Tseung Kwan O – Lam Tin Tunnel	Jul-17	Mid 2021	\$8.731 B
Drainage Services Department (DSD)	Drainage Improvement Works at North District – Packages A and C – Investigation	May-17	Jan-19	About \$6.3M
	Rehabilitation of Underground Sewers and Drains – Investigation, Design and Construction	May-17	Mar-28	\$20M

Respective Departments	Title of Contract	Scheduled Project Start	Scheduled Project Completion	Estimate of Cost (HKD)
	Modification Works for Food Waste & Sewage Sludge Anaerobic Co-digestion Pilot Trial at Tai Po Sewage Treatment Works	Jun-17	Dec-18	\$13.98M
	Term Contract for Inspection, Repair, Overhaul and Testing of Electrical and Mechanical Installations at Various STW and Pumping Stations in NTW and NTN (2017-2020)	Jul-17	Jul-20	\$148.9M

Sources: Public Works Project Information in Development Bureau, Retrieved from http://sc.devb.gov.hk/TuniS/www.devb.gov.hk/tc/links/public_works_project_information/index.html on July 21, 2017.

2. Construction companies

Table 4: Number of Contractors by Size

	No. of registered contractors (by July 2017)			
Buildings Department (Registered General Building Contractors)	727			
Development Bureau (List of Approved Contractors for Public Works)	Group A	Group B	Group C	Total
	98	137	115	350
Housing Authority (Counterparty Lists)	NW1	NW2	Total	
	17	23	40	

Notes: “Group A” denotes contractors eligible to tender for value contracts of up to \$100 million. “Group B” denotes contractors eligible to tender for value contracts of up to \$300 million. “Group C” denotes contractors eligible to tender for any value contract exceeding \$300 million. “P” denotes probationary status in the category indicated. Group NW1 denotes contractors eligible to for new work contracts with a value of up to \$270M. Group NW2 denotes contractors eligible to for new work contracts with an unlimited value.

Sources:

List of Registered General Building Contractors of Buildings Department available at http://www.bd.gov.hk/english/inform/e_gbc_1.html; List of Approved Contractors for Public Works available at <http://www.devb.gov.hk/Contractor.aspx?section=80&lang=1>.

Housing Authority Counterparty List available at http://comis.housingauthority.gov.hk/ha/eng/ctp_list.jsp?LIST_CD=BLG.

3. Employees and construction labor

Table 5: Number of Workers Employed in the Principal Jobs of Construction, Building, and Civil engineering and Related disciplines

Job Levels	March 2015
Professional/Technologist	22,924
Technician	36,414
Skilled & Semi-Skilled worker	75,755
General Worker	36,800
Total	171,893

Sources: 2015 Manpower Survey Reports on the Building and Civil Engineering Industry, Building and Civil Engineering Industry Training Board, Vocational Training Council.

Table 6: Number of Persons Directly Engaged in the Building and Civil Engineering Establishments

Main industry group	2012	2013	2014	2015
Construction of buildings	24,025	22,442	25,921	25,963
Civil engineering	20,732	23,717	24,195	25,887
Demolition and site preparation	7,673	8,206	8,474	9,735
Building services installation and maintenance activities	73,828	73,165	66,592	71,357
Building finishing and other specialized construction activities	58,305	58,243	64,272	66,918
All construction activities	184,563	185,773	189,454	199,861

Source: *Key Statistics on Business Performance and Operating Characteristics of the Building, Construction and Real Estate Sectors*, The Census and Statistics Department, Hong Kong SAR, various issues.

4. Productivity

Table 7: Value Added Per Employee

Year	Value added per employee (HK\$million)
2012	0.30
2013	0.29
2014	0.33
2015	0.34
2016	0.33

Source: Value added by Construction activity: *Chain volume measures of Gross Domestic Product (GDP) by economic activity - in chained (2015) dollars*, The Census and Statistics Department, Hong Kong SAR, various issues. Employed Persons by Industry (Construction): *Hong Kong Annual Digest of Statistics*, The Census and Statistics Department, Hong Kong SAR, various issues

Table 8: Physical Measurement of Construction Production
(Unit: Thousand sq.m.*, and % change over last year)

End use of building	2011	2012	2013	2014	2015
Private residential premises+	5,839 (59.3%)	5,282 (-9.5%)	5,235 (-0.9%)	5,957 (+13.8%)	5,609 (-5.9%)
Office buildings	172 (-55.7%)	471 (173.8%)	486 (+3.1%)	526 (+8.3%)	779 (+48.0%)
Hotels and boarding houses	401 (147%)	322 (-19.7%)	247 (-23.3%)	310 (+25.4%)	443 (+43.2%)
Multi-purpose commercial premises	455 (53.9%)	494 (8.6%)	711 (+44%)	793 (+11.6%)	840 (+5.9%)
Flatted factory blocks and warehouses	362 (189.3%)	486 (34.3%)	327 (-32.7%)	288 (-11.9%)	363 (+25.8%)
Total	7,229 (35.7%)	7,055 (-2.4%)	7,006 (-0.7%)	7,875 (+12.4%)	8,033 (+2.0%)

*Area refers to the gross floor area of buildings when completed;

+Includes buildings exclusive for residential purposes and combined residential and non-residential buildings.

Source: *Key Statistics on Business Performance and Operating Characteristics of the Building, Construction and Real Estate Sectors*, The Census and Statistics Department, Hong Kong SAR.

5. Construction cost

Table 9: Building Works Tender Price Index (BWTPI)

Year	Building Works Tender Price Index (BWTPI)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4
2016	1,775	1,776	1,783	1,781
2015	1,732	1,761	1,777	1,775
2014	1,621	1,648	1,679	1,703
2013	1,516	1,532	1,559	1,590
2012	1,414	1,438	1,467	1,496

Note: The value in the first quarter of 1970 is regarded as the base index value of 100, and subsequent values are expressed in the index form on the basis of the first quarter 1970 value.

Source: *Building Works Tender Price Index* compiled by the Architectural Services Department available at

http://sc.devb.gov.hk/TuniS/www.devb.gov.hk/tc/publications_and_press_releases/figures_and_statistics/building_works_tender_price_index/index.html.

Table 10: Major Construction Material Average Prices

		2013	2014	2015	2016	2017
Aggregates (HK\$ per tonne)		60	76	75	76	63
Bitumen (HK\$ per tonne)		8,803	7,150	8,250	7,150	4,983
Concrete blocks, 100mm thick (\$ per square metre)		72	76	77	76	76
Diesel fuel	For industrial use (light) (\$ per 200-litre drum)	2,075	1,843	1,957	1,843	1,962
	For road use (HK\$ per 100 litre)	1,030	840	941	840	934
Glass - Clear sheet glass, 5mm thick (HK\$ per square metre)		151	157	157	157	157
Glazed ceramic wall tiles	White tiles, 108mmx108mm (\$ per 100 pieces)	233	233	233	233	243
	Colour tiles, 200mmx200mm (\$ per 100 pieces)	398	443	401	433	440
Hardwood	Sawn hardwood, 50x75 mm column (\$ per cubic metre)	5,502	5,707	5,707	5,707	5,707
Homogeneous floor tiles	Non-slip tile, 200mmx200mm (\$ per square metre)	158	160	160	160	163
Galvanised mild steel	Steel plates (HK\$ per tonne)	8,773	8,578	9,577	8,578	9,139
	Steel angles (HK\$ per tonne)	11,823	11,469	11,967	11,469	12,716
	Steel flats (HK\$ per tonne)	10,076	9,926	10,319	9,926	10,255
Metal formwork	Steel plate, 4mm thick (HK\$ per tonne)	5,848	4,615	5,683	4,615	4,941
Mosaic tiles	Unglazed tiles, 18mmx18mm (\$ per square metre)	104	119	119	119	119
	Glass tiles, 25mmx25mm (\$ per square metre)	50	50	50	50	50
	Glazed tiles, 45mmx45mm (\$ per square metre)	122	134	132	134	143
Paint	Emulsion paint (HK\$ per litre)	52	53	52	53	53
	Acrylic paint (HK\$ per litre)	49	51	49	51	50
Portland cement (ordinary) (HK\$ per tonne)		700	738	729	738	713
Sand (HK\$ per tonne)		122	189	119	189	180
Steel reinforcement	Mild steel round bars, 6mm to 20mm (\$ per tonne)	5,870	5,037	5,470	5,073	5,675
	High tensile steel bars, 10mm to 40mm (\$ per tonne)	5,099	3,242	4,349	3,242	4,264
Timber formwork	Plywood, formwork, 19mm thick (\$ per square metre)	74	75	75	75	73
	Sawn hardwood, 25mm thick plank (\$ per cubic metre)	3,814	4,026	3,814	4,026	4,556
uPVC pipes	32mm diameter pipes, 4m long (HK\$ per number)	57	52	55	52	53

Source of Table 10: *Average Wholesale Prices of Selected Building Materials*, Census and Statistics Department, Hong Kong SAR, various issues.

Table 11: Construction Industry Salaries and Wages—Unskilled Workers

	Unskilled Workers Daily Wage (HK\$)
2013 Dec	743
2014 Dec	856
2015 Dec	916
2016 Dec	1,011
2017 Apr	1,078

Source: *Average Daily Wages of Workers Engaged in Public Sector Construction Projects*, Census and Statistics Department, Hong Kong SAR, various issues.

Table 12: Construction Industry Salaries and Wages—Construction Professionals
(Unit: Median monthly salary in HK\$)

Professionals in Building and construction and related trades	2013 June	2014 June	2015 June	2016 June
Accountant	34,900	34,300	34,300	36,700
Architect	N/A	N/A	N/A	N/A
Building Services Engineer	35,600	36,100	37,200	38,000
Mechanical Engineer	29,900	32,700	33,900	36,000
Personnel Manager/ Human Resources Manager/ Staff Relations Manager	45,200	48,300	50,400	51,900
Project Manager	64,100	65,800	64,900	67,700
Safety Officer	38,200	41,200	42,900	44,600
Structural Engineer	39,600	42,200	44,500	48,200

Source: *Report of Salaries and Employee Benefits Statistics, Managerial and Professional Employees (Excluding Top Management)*, Wages and Labour Costs Statistics Section, Census and Statistics Department, Hong Kong SAR.

Professionals in most disciplines, such as building service engineers, mechanical engineers, human resources managers, safety officers, and structural engineers, had a modest increase in their wages (Table 12).

Table 13: Construction Industry Daily Wages—Skilled Workers (in HK\$)

	2014 Dec	2015 Dec	2016 Dec	2017 Apr
Concretor	1,895	1,895	1,959	1,947
Bricklayer	1,189	1,212	1,244	1,328
Drainlayer	1,420	1,502	1,605	1,662
Mason	1,229	1,082	1,038	1,120
Bar bender and fixer	1,882	1,899	2,108	2,074
Metal worker	1,104	1,159	1,156	1,187
General welder	1,320	1,324	1,382	1,422
Structural steel erector	1,450	1,470	1,506	1,496
Structural steel welder	1,457	1,472	1,399	1,388
Rigger/metal formwork erector	1,488	1,628	1,698	1,680
Carpenter (formwork)	1,877	1,838	2,033	1,963
Joiner	1,048	1,184	1,220	1,225
Plumber	1,130	1,259	1,374	1,428
Construction plant mechanic	1,179	1,219	1,276	1,276
Plant & equipment operator (load shifting)	1,045	1,129	1,177	1,199
Truck driver	789	828	856	903
Rock-breaking driller	1,595	1,380	1,371	1,338
Asphalter (road construction)	884	893	909	920
Bamboo scaffolder	1,639	1,706	1,868	1,860
Diver	2,243	2,172	2,180	2,194
Plasterer	1,256	1,344	1,378	1,363
Glazier	1,247	1,258	1,445	1,560
Painter and decorator	982	1,122	1,168	1,253
Leveller	1,376	1,342	1,364	1,413
Marble worker	1,153	1,200	1,278	1,237
Electrical fitter (incl. electrician)	928	1,033	1,132	1,218
Mechanical fitter	817	798	841	934
Refrigeration/AC/ventilation mechanic	753	821	957	991
Fire services mechanic	989	1,042	1,104	1,306
Lift and escalator mechanic	720	749	735	796
Building services maintenance mechanic	710	742	818	814
Power cable jointer	1,010	1,200	1,200	1,200

Source: *Average Daily Wages of Workers Engaged in Public Sector Construction Projects*, Census and Statistics Department, Hong Kong Special Administrative Region, various issues.

Table 13 summarizes the wages of 32 categories of skilled workers. The average daily wages of skilled workers increased from 2013 to April 2017. However, the daily wages of several categories, such as concretor, carpenter, bar bender and fixer, structural steel erector, structural steel welder, rock-breaking driller, plasterer, and marble worker, fairly declined.

6. Import and export of construction services

A remarkable decline was registered in the import and export of construction services in 2015 (Table 14). The import value decreased from HK\$2.690 million to HK\$1.317 million in 2015. The net export value of construction services decreased from HK\$128 million in 2014 to HK\$23 million in 2015 (Table 14). The import of architectural engineering and other technical services has increased since 2010, and the export also increased from HK\$4.107 million in 2014 to HK\$4.302 million in 2015. The net export value of architectural engineering and other technical services grew from HK\$1.270 million in 2014 to HK\$1.379 million in 2015. In addition, the majority of the export and import of construction and consultancy services were carried out within the Asian region. However, exports to the Asian markets were also mostly subdued in 2015.

Table 14: Annual Import/Export of Construction and Consultancy Services

Major service group/Region	Year	Export of services	Import of services	Net export of services
		HK\$million	HK\$million	HK\$million
<i>Construction services</i>	2011	1,111	609	502
	2012	2,564	2,500	64
	2013	3,043	2,710	333
	2014	2,818	2,690	128
	2015	1,340	1,317	23
Asia	2011	1,066	609	457
	2012	2,564	2,500	64
	2013	3,043	2,710	333
	2014	2,818	2,690	128
	2015	1,340	1,317	23
<i>Architectural, engineering and other technical services</i>	2011	3,731	2,483	1,248
	2012	3,946	2,544	1,402
	2013	3,815	2,593	1,222
	2014	4,107	2,837	1,270
	2015	4,302	2,923	1,379
Asia	2011	N/A	N/A	N/A
	2012	N/A	N/A	N/A
	2013	N/A	N/A	N/A
	2014	N/A	N/A	N/A
	2015	N/A	N/A	N/A

Notes: "Construction services" include general construction work (including new work, additions and alterations, repair, and maintenance) and installation work at sites, buildings, and structures that generally last for less than one year. "Consultancy services—architectural, engineering, and other technical services" include advisory architectural services, architectural design services, contract administration services, advisory and consultative engineering services, engineering design services for construction projects or industrial processes, and urban planning and landscape architectural services.

Source: *Hong Kong Trade in Services Statistics*, the Census and Statistics Department, Hong Kong SAR. <http://www.censtatd.gov.hk/hkstat/sub/sp240.jsp?productCode=B1020011>.

Conclusion

The construction industry plays an instrumental role in shaping the employment structure. The number of vacancies in the construction sites of Hong

Kong are also increasing rapidly, reflecting the strong growth of the industry. In the first quarter of 2017, the number of employed persons in the construction sector was 337,200, the unemployment rate was 4.4%, and the underemployment rate was 5.1%. Wages and earnings sustained a moderate increase in 2016 (Census and Statistics Department, Government of the Hong Kong SAR, 2017). The overall demand for construction workers in Hong Kong is increasing. According to the manpower forecast for construction workers (CIC, 2014), the number of workers in the construction industry is expected to reach approximately 285,000 by 2023 with an upward trend, representing an increase of approximately 10.45% in 7 years (CIC Manpower Forecasting Model, 2014). However, Hong Kong's construction industry has encountered serious challenges, such as lackluster international markets, labor shortage, and skyrocketing production and labor costs. In the absence of long-term manpower planning and development, the size of the labor pool fluctuates, causing shortages and surpluses. An aging workforce, job mismatches, training limitations, and increasing manpower demands are the possible factors that will result in a critical manpower situation in the coming years. Thus, support and guidance are recommended from the government, public organizations, private developers, construction consultations, main contractors, and construction-related associations toward sustainable construction.

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