'Sustainable Development Study For The Hong Kong Logistics Industry'
(A Follow-up Research of the Study conducted in 2015)
Submitted to
Asian Institute of Supply Chains & Logistics
March 6, 2023

香港中文大學亞洲供應鏈及物流研究所 Asian Institute of Supply Chains & Logistics The Chinese University of Hong Kong



# 1. The Hong Kong Logistics Cluster

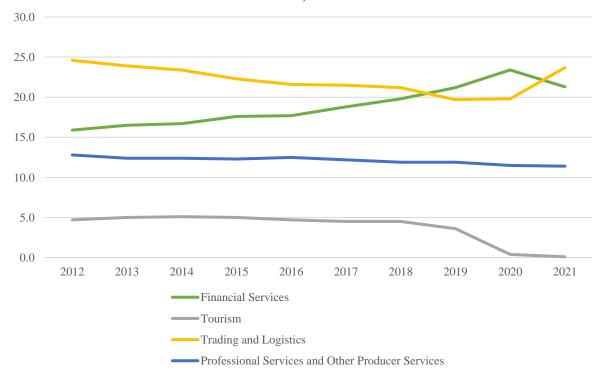
Hong Kong's pivotal role in logistics has all along gained international recognition, thanks to its status as a free port, efficiency in customs clearance, geographic location, and proximity to half of the world's population within a five-hour flight time. Nonetheless, global economic uncertainty due to the disruption of COVID-19 pandemic, the Sino-US trade conflicts, as well as the Russia-Ukraine War, has forced corporations to reconstruct their global supply chains, bringing both opportunities and challenges to Hong Kong logistics industry.

The Study aims to reassess the competitiveness of the logistics industry in Hong Kong and recommend relevant policies in supporting the sustainable development of the Hong Kong logistics industry.

## **Overall Landscape**

Hong Kong's four major pillar industries, including financial services, trading and logistics, tourism, and professional and producer services, have been a major thrust of Hong Kong's economic growth, contributing to more than half of the GDP in Hong Kong over the decade. Among which, the trading and logistics industries together has the largest GDP share since 2012 despite a downward trend of contribution until 2019. It has gradually picked up the momentum since 2020 and generated HKD651 billion in 2021, accounting for 23.7% of Hong Kong's total GDP to re-gain the lead among the four pillars.

Figure 1. Percentage of Economic Contributions to Hong Kong's GDP of the Four Major Pillar Industries, 2012-2021



Source: Census and Statistical Department



### **Economic Contributions of Hong Kong Logistics Cluster**

Logistics activities, according to the definition by the C&SD, include freight transport, freight forwarding, storage, postal and courier services. The economic contributions of the logistics cluster are updated with the 2021 data. The updated results show that in 2021, the Hong Kong logistics industries generated a total value added of HKD169,300 million (6.2% of total GDP) and 184,000 jobs (5.0% of total employment) which are the direct contributions of the logistics cluster. The assessment details are shown in Table 1.

Table 1. Direct Economic Contribution of Hong Kong's Logistics Cluster, 2012 – 2021

<b>Economic Contributions</b>	Number of Persons Engaged			Value Added (HKD Million)		
Year	2012	2016	2021	2012	2016	2021
<b>Direct Contribution</b>	183,500	174,800	184,000	67,100	76,800	169,300
Percentage of Hong Kong Economy	5.0%	4.6%	5.0%	3.3%	3.2%	6.2%

Source: Census and Statistical Department

Applying the same indirect and induced multipliers deduced in the previous Study, the total economic contributions generated by Hong Kong's logistics cluster based on 2021 data are summarized in Table 2.

Table 2. Combined Economic Contributions of the Logistics Cluster in Hong Kong, 2021

Economic Contributions, 2021 Data	No. of Persons Engaged	Value Added (in million HKD)
Direct Contribution	184,000	169,300
% of Hong Kong Economy	5.0%	6.2%
Indirect Contribution	46,556	56,061
Induced Contribution	40,402	46,816
<b>Total Contribution</b>	270,958	272,177
Percentage in Hong Kong Economy	7.4%	9.9%

Source: Study Team Analysis

Based on estimation, the total economic contribution brought by the logistics industry itself together with the other indirect and induced activities, added up to HKD 272.2 billion, 9.9% of the total economy, which is almost a doubled increase in the percentage, and around 271 thousand job opportunities.

#### Air Cargo Sector

In 1980, in terms of value, 26% of Hong Kong's total exports and 19% of its imports were flown in by air. That number increased to 34% of total exports in 2012 and a further increase to 37% in 2020. Similarly, the number increased to 39% of total imports in 2012 and 48% in 2020.

Before the outbreak of the COVID-19 pandemic, about 120 airlines operated over 1,100 flights every day between the Hong Kong International Airport ("HKIA") and about 220 destinations worldwide, including some 50 destinations in Mainland China. The extensive service network and world-class infrastructure provide solid foundation for HKIA to excel and secure its status as the world's busiest cargo airport for ten consecutive years.

Despite the continuous impact brought by the COVID-19 pandemic and international trade dispute, the air cargo business at the HKIA remains resilient. In terms of international air cargo throughput, the



HKIA took over the Memphis International Airport again and recaptured its lead globally in 2021 (see Figure 2).

In 2021, HKIA handled 5 million tonnes of freight, with an average growth of 2.5% from 2012 to 2021 (see Figure 3). Its cargo throughput accounted for about 42%, or about HK\$4,340 billion, of the total value of Hong Kong's external trade.

TOUGHOR AREA THE REPORT OF THE PROPERTY OF THE

Figure 2. Top Ten World's Busiest Airports by Cargo Traffic, 2021

Source: Airports Council International (ACI) World

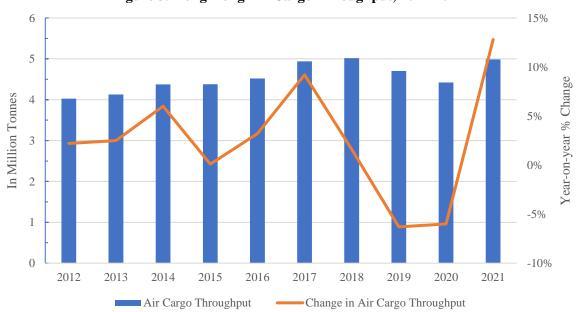


Figure 3. Hong Kong Air Cargo Throughput, 2012-2021

Source: Airport Authority Hong Kong

In terms of cargo tonnage, there is also a sustained growth on the percentage of cargo being shipped by air in the past decade. Air shipment accounted for 1.34% of total amount of freight in 2012, the



percentage has increased to 2.08% in 2021. The aforementioned indicates the continuation of the HKIA's role as an international air cargo hub amid challenging time.

## **Sea Freight Sector**

The port of Hong Kong is a natural deep-water seaport Hong Kong which provides ideal conditions for berthing and the handling of all types of vessels. However, its cargo traffic has witnessed a continued decline over the past decade. Statistics from the Maritime Department of the Government of the HKSAR revealed that Hong Kong's World Container Port has been ranked the third in 2007 and dropped subsequently to the ninth in 2021. Specifically, the overall container throughput has shown a downward trend since 2011, from 24.384 million TEUs in that year to 16.573 million TEUs (a 32% decline) in 2022 (see Table 3).

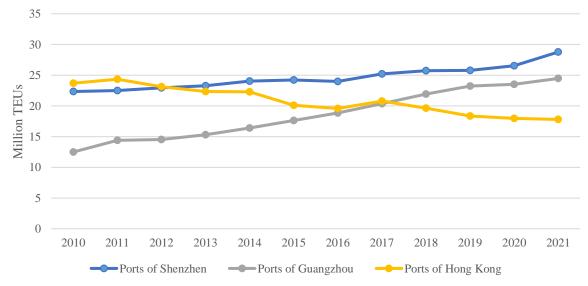
Table 3. Container Throughput of Hong Kong, 2011-2022

	Hong Kong International Container Port			
Year	Container throughput ('000 TEUs)	Year-on-year % change	World Container Port Ranking	
2011	24 384	+2.9	3	
2012	23 117	-5.2	3	
2013	22 352	-3.3	4	
2014	22 226	-0.6	4	
2015	20 073	-9.7	5	
2016	19 813	-1.3	5	
2017	20 770	+4.8	5	
2018	19 596	-5.7	7	
2019	18 303	-6.6	8	
2020	17 969	-1.8	9	
2021	17 798	-1.0	9	
2022	16 573	-6.9	-	

Source: Marine Department of the HKSARG

Meanwhile, Hong Kong's neighboring ports in the GBA such as Ports of Shenzhen and Guangzhou, have year-on-year increase in its cargo traffic (see Figure 4) and surpassed Hong Kong in the world container port ranking in the past few years.

Figure 4. Container Throughput of Shenzhen, Guangzhou and Hong Kong Ports, 2010-2021



Source: Marine Department of the HKSARG, Guangzhou Port Group and Yantian International Container Terminals Limited



Despite keen competition in the region, Hong Kong Port remains strong in container cargo handling, serving as an international transhipment port in the region. Geographically, Hong Kong is closer to the main trade routes and sea outlets which offer significant advantages in cargo distribution.

Furthermore, profits derived from international operations of Hong Kong-registered vessels are eligible for profits tax exemption. In addition, Hong Kong has signed agreements for the elimination of double taxation with many countries and regions. These measures prompted many foreign shipowners to choose to incorporate in Hong Kong. According to the US Department of Transportation, Hong Kong is the world's fourth largest ship registry hub in terms of gross tonnage. The number of Hong Kong-registered ships increased from 2,193 in 2012 to 2,527 in 2021, with a 66% surge to 131.1 million gross tonnes during the period. These figures reflect Hong Kong's capability as an international maritime centre.



# 2. Logistics Policies Support

#### **Public Governance**

<u>Transport and Logistics Bureau</u>: The Transport and Logistics Bureau ("TLB") was established on 1 July 2022, when the housing portfolios of the former Transport and Housing Bureau ("THB") was spun off to form the Housing Bureau. TLB endeavours to demonstrate the HKSAR Government's commitment and sheer focus in policy responsibility for Hong Kong's transportation and logistics development. TLB is responsible for the formulation of policies on matters relating to Hong Kong's internal and external transportation, including air services, land transport, maritime transport and logistics.

Relevant subordinate departments under TLB include Civil Aviation Department, Marine Department and Transport Department:

<u>Civil Aviation Department</u>: As the civil aviation authority in Hong Kong, the Civil Aviation Department (CAD) has the regulatory role in aviation safety, and provides air navigation services for the flights at the Hong Kong International Airport and in the Hong Kong Flight Information Region. CAD also works collaboratively with the international, regional and local aviation industry to promote aviation development.

<u>Marine Department</u>: The Hong Kong Marine Department (MD) is the administrator of the port of Hong Kong and is responsible for all navigational matters in Hong Kong for ensuring safe operation of the port and shipping in Hong Kong waters and administering the Hong Kong Shipping Register.

<u>Transport Department</u>: The Transport Department is the authority for administering the Road Traffic Ordinance and legislation for the management of road traffic, regulation of public transport services and operation of major transport infrastructures. It is responsible for transportation-related policy in Hong Kong.

#### Overall Policy Support for the Logistics Sector in Hong Kong

The 14th Five-Year Plan promulgated by the Central Government in March 2021 supports the development of the Hong Kong's services sector towards a high-end and high value-added direction, with a view to enhancing Hong Kong's status as an international financial, maritime and trade centre, as well as an international aviation hub.

The GBA Outline Development Plan promulgated in February 2019 also clearly stated that Hong Kong's advantages as an international maritime centre should be leveraged to form a world-class port cluster and international logistics hub with other Greater Bay Area cities, and strengthen its overall international competitiveness. Moreover, a world-class airport cluster in the Greater Bay Area should be developed, Hong Kong's status as an international aviation hub should be consolidated and enhanced, and differential development and positive interaction of airports in the Greater Bay Area should be pursued.

Aligning with the Central Government's key initiatives, the HKSAR government has been putting forward policies in supporting the industry development, with a view to reinforce and enhance Hong Kong's status as an international aviation and maritime centre.

Developing intermodal connectivity for air cargo



The Governments have been in full support to the initiative of the Airport Authority Hong Kong ("AAHK") in developing intermodal cargo transhipment between HKIA and the Greater Bay Area. This includes the establishment of the HKIA logistics park in Dongguan, where export cargo from the Mainland can undergo security screening, palletization and cargo acceptance in advance, and then be transported seamlessly by sea to an airside sea-air cargo handling facility to be set up in the restricted area of the HKIA for direct transhipment to overseas destinations. This arrangement will boost efficiency to cross-border air cargo transhipment as it eliminated the need for further screening and customs clearance in Hong Kong.

Furthermore, the AAHK has been working closely with the Zhuhai government and planning for the long-term expansion of Zhuhai airport. The "Fly-via-Zhuhai-HK" scheme, which is part of a plan to consolidate the city's aviation status in the Greater Bay Area (GBA), is envisaged to be able to attract more cargo operators. Cargoes from the second or third tier mainland cities not served by Hong Kong can use Zhuhai's domestic network to be consolidated and transported to Hong Kong, and then further transported to overseas long-haul flight destinations utilizing Hong Kong's comprehensive aviation network worldwide. Through these complementary developments, it is envisioned to achieve greater synergy between the two airports, driving the long-term economic development of two cities.

## Developing smart and green port

the Government announced a number of initiatives in the Chief Executive's 2018 Policy Address to support and enhance the development of high value-added maritime services. These include using tax measures to foster the development of ship leasing business in Hong Kong and setting up Regional Desks of the Hong Kong Shipping Registry (HKSR) of the Marine Department in selected overseas Economic and Trade Offices and Mainland Offices and Liaison Units, etc.

Besides, the Chief Executive's 2021 Policy Address also announced to further develop high value-added maritime business services, including ship registration, ship finance and management, marine insurance, and maritime legal and arbitration services etc. Other initiatives also include tax concessions to attract members of the maritime industry to establish a business presence in Hong Kong; further expanding the overseas service network of the HKSR; as well as new initiatives such as developing smart port and green port.

Hong Kong has a steadfast maritime tradition, which relies heavily on manual operations and paper-based processes. To reinforce Hong Kong's status as an international maritime centre, it is necessary for the Hong Kong Port to improve both the hardware and software infrastructure with adopting advance technologies to maintain competitiveness. A Task Force on Smart Port Development was established under the Hong Kong Maritime and Port Board. It has been working with the trade on the concrete proposal to drive the smart port development, with a view to further enhance port efficiency and reducing cargo handling time and cost through streamlining and optimising the multi-party co-ordinated processes electronically.

## Launching Maritime and Aviation Training Fund

On nurturing a vibrant, diversified and competitive pool of professionals and technical personnel to support Hong Kong's future development in the maritime and aviation sectors, the HKD100 million Maritime and Aviation Training Fund ("MATF") approved by the Legislative Council came into operation on 1 April 2014. In May 2019, HKD200 million was approved to be injected into the MATF to sustain and enhance existing training schemes, scholarships and provide systematic bespoke traineeship for new recruits for the two sectors.

Up to July 2021, various schemes under the MATF have benefitted more than 12,500 students and inservice practitioners of maritime and aviation sectors.



### Introducing the Pilot Subsidy Scheme for Third-Party Logistics Service Providers

The Government launched the "Pilot Subsidy Scheme for Third-party Logistics Service Providers" ("the Pilot Scheme") amounting to \$300 million on 12 October 2020 to provide subsidy to third-party logistics service providers, so as to encourage the adoption of technology by the logistics sector for enhancing efficiency and productivity. Projects eligible under the funding are those being implemented for applying technology and/or information system to enhance the productivity and efficiency of value-added logistics processes, including the purchase of screening equipment such as X-ray machines and Explosive Trace Detection equipment under the Regulated Air Cargo Screening Facilities Scheme accepted by the Civil Aviation Department.

The Pilot Scheme is implemented on a 1:1 matching basis, with each enterprise to be granted a maximum of \$1 million. The subsidy ration has been raised from 1:1 to 2:1 since January 2023 to further encourage logistics enterprises to adopt technology.

#### **Infrastructure Developments**

#### Guangzhou-Shenzhen-Hong Kong Express Rail Link

The Guangzhou-Shenzhen-Hong Kong Express Rail Link ("XRL"), a high-speed railway line that connects Beijing and Hong Kong (Kowloon) via Guangzhou and Shenzhen, inaugurated in September 2018. As one of the most expensive infrastructure undertakings in Hong Kong's history, it effectively enhances the high-speed passenger transport network in the Bay Area; thereby, strengthening the synergy effect among the regions and creating more development opportunities.

#### Hong Kong-Zhuhai-Macao Bridge

The Hong Kong-Zhuhai-Macao Bridge ("HZMB") commenced operation in late 2018, connecting the Hong Kong Special Administrative Region in the east and the Macao Special Administrative Region and Zhuhai of Guangdong in the west. It benefits the flow of passengers and goods from the three cities in the GBA within 3 hours of travelling time.

The HKSAR Government is pressing ahead with the "Quota-free Scheme for Hong Kong Private Cars Travelling to Guangdong via the HZMB ("the Scheme"), which will allow eligible Hong Kong private cars to travel between Hong Kong and Guangdong via HZMB without the need to obtain a regular quota, thereby facilitating Hong Kong residents to drive to Guangdong for business, visiting families or sight-seeing on a short-term basis.

### **Increase of Control Points**

To facilitate cross-boundary transportation of passengers and goods, there are a total of 14 control points equipped with appropriate Customs, Immigration and Quarantine ("CIQ") services in Hong Kong, covering air, land and sea travel. Among which, there are nine control points serving cross-boundary land traffic, i.e., Lo Wu, Hung Hom, Lok Ma Chau Spur Line, West Kowloon Station of Guangzhou-Shenzhen-Hong Kong Express Rail Link, Man Kam To, Lok Ma Chau, Sha Tau Kok, Shenzhen Bay and Hong Kong-Zhuhai-Macao Bridge Hong Kong Port.

#### Three-Runway System at HKIA

In order to cater for the city's long-term air traffic demand, the Government has been actively supporting the AAHK in implementing the three-runway system ("3RS"). The new Third Runway, has been put into operation in 2022, whilst the entire construction is expected to be completed by 2024.



Upon full commissioning of the 3RS, the HKIA's annual passenger can cargo handling capacity will be increased to around 100 million and 9 million tons respectively. The 3RS is a critical infrastructure in strengthening Hong Kong's status as a leading aviation hub.



logistics processes

# 3. SWOT of Hong Kong Logistics

Table 4 summarizes the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of the competitiveness of the logistics industry in Hong Kong as a regional logistics hub, as well as identifies the key issues that are influential to the development of Hong Kong's logistics industries.

Table 4. SWOT Analysis of Hong Kong Logistics Industry

Strengths	Weaknesses
<ul> <li>Strategic geographical location at the heart of Asia and the gateway to mainland China</li> <li>Freeport</li> <li>No. 1 airport for air cargo</li> <li>Flexibility – the ability to accommodate shipments from various transport modes</li> <li>Efficient customs procedures</li> <li>Simple and low tax regime</li> <li>Clean government and sound legal system, which offer good protection to intellectual property right</li> <li>Free flow of capital and information</li> </ul>	<ul> <li>Insufficient land for development of logistics facilities</li> <li>High rental costs, typically with short-term tenancy and high down payments</li> <li>Lack of talents and professionals in the logistics field</li> <li>Labour shortages (e.g., warehouse workers, cross-boundary truck drivers, etc.)</li> <li>High labour costs</li> <li>Lack of appropriate logistics facilities (e.g. cold chain logistic facilities)</li> <li>Insufficient IT adoption (relative to Singapore and China)</li> <li>Lack of industry specific policies to promote the logistics industry</li> </ul>
Opportunities	Threats
<ul> <li>Growing domestic demand in Asia and mainland China</li> <li>Prominent intra-Asia trade</li> <li>Growing affluence – higher demand for high-value goods</li> <li>Collaborations of HKIA and Zhuhai airport</li> <li>Regional Comprehensive Economic Partnership (RCEP) encourages trade among the Asia-Pacific nations</li> <li>E-commerce booms reshaped the traditional</li> </ul>	<ul> <li>Heated property market, surging land costs</li> <li>Increasing competitiveness of Singaporean as well as Chinese logistics operators in the GBA</li> <li>Mainland China hubs offer cheaper land, and are improving customs and warehouse quality</li> <li>Rising of neighboring competitors with regards to aviation and maritime e.g., Guangzhou Airport and trading, Shanghai FTZ, Ports of Shenzhen and Guangzhou</li> </ul>



## 4. Recommendations

On one hand, the global landscape has a sweeping change in the past decade, major events such as the global financial crisis, Sino-US trade conflicts, COVID-19 pandemic and other geopolitical issues have caused disruptions across various industries around the globe. On the other hand, opportunities arise from the GBA, as well as the ASEAN countries, which are keen to formulate regional economic partnerships with an aim to facilitate trade activities in the region.

Hong Kong has strategic advantages of its geographic location and free port status, which provide a favourable environment for the development of the logistics cluster in Hong Kong. However, the industry needs strong support from the public sector in IT adoption and appropriate infrastructure to strengthen its competitiveness and seize the immense opportunities in good time.

In particular, the e-commerce booms since the COVID-19 pandemic have induced rising demand for integrated and specialized logistics solutions. Logistics service providers are expected to adopt transport and warehouse management systems, big data analytics, IoT (Internet of Things) and other technologies to remain competitive.

With the challenges identified in previous chapter, herewith some recommendations for the HKSAR Government to consider:

- To increase investment to promote transformation and upgrading of the Hong Kong Port, including the establishment of "the Port Authority of Hong Kong", a statutory body that is responsible for operations of the Hong Kong Port and driving the smart port transformation initiative.
- To develop multi-modal transportation including infrastructure for rail-sea freight in order to save transportation manpower and time.
- To develop specialised facilities and equipment to support high value-added cold-chain logistics of food and pharmaceutical products.
- To incentivise the industry to gradually adopt SMART technology to enhance business
  efficiency and provide business matching opportunities for technology start-ups and logistics
  service providers.
- To nurture talents and encourage new generations to devote into logistics industries and explore the sharing of talent pool in the GBA.
- To develop and enforce the use of an integrated smart logistics platform for the GBA with an aim to facilitate physical flows, information flows and e-money flows among the stakeholders along respective supply chains.

Some of the abovementioned recommendations may require coordination of cross-bureaux of the HKSAR Government or even inter-government facilitation among the GBA in order for them to be successfully implemented.



## 5. References

"Logistics Industry in Hong Kong", Hong Kong Trade Development Council, March 2023

"The world's leading cargo transhipment hub", Hong Kong Maritime Hub, February 2023

"The Four Key Industries in the Hong Kong Economy", Hong Kong Census and Statistics Department, Dec 2022

"Airport Authority Hong Kong and Zhuhai Municipal Government Sign Memorandum on Cooperation", Airport Authority Hong Kong, Nov 2022

"Hong Kong Annual Digest of Statistics", Hong Kong Census and Statistics Department, Oct 2022

"Hong Kong Air Cargo Throughput", Civil Aviation Department, 2022

"Top 10 Largest Flag States in the Shipping Industry", Marine Insight, April 2022

"Hong Kong Logistics: The Cold Supply Chain", Hong Kong Trade Development Council, April 2021

Legislative Council meetings & Annual Policy Address 2012 - 2021