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“Hong Kong's Reindustrialization needs a Clearer Positioning”

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Hong Kong's Reindustrialization Needs a Clear Positioning

I. Introduction

In 2016, the Hong Kong Special Administrative Region Government (the Government) included "Re-industrialization" in its Policy Address for the first time; since then, "Re-industrialization" became the major focus of the government's innovation and technology policy. Over the years, the Government has supported thousands of re-industrialization projects through the Innovation and Technology Bureau, Hong Kong Science and Technology Parks Corporation (HKSTP), Cyberport, Hong Kong Productivity Council, etc. by means of providing direct funding and preferential rent support. Regarding the Government's re-industrialization policies, we have consulted industrialists, academics, and the management of government subvented organizations, who were generally in favour and expected that the re-focus of industrial policy would gradually make a difference. At the same time, some directly pointed out a gap between the Government's policy goals for re-industrialization and the practical baseline situation of the industry, and highlighted that the development of traditional industries has not received sufficient attention in the new policy.

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In Hong Kong, food, beverages and tobacco, machinery and equipment, and chemicals are the main types of industrial activities. Hong Kong enterprises moving north to the mainland mainly focus on light industries, such as garment, toys, watches and electronics. Therefore, it is not surprising that some might thought 're-industrialization' in Hong Kong means the Government adopts various policies to make these popular traditional industries shine again in Hong Kong. However, according to the information and list published by the Government, these traditional industries are not included. Therefore, they are not supported by the government. In recent years, the Hong Kong Innovation and Technology Fund (ITF) tends to support "High-end Manufacturing" industries on industrial land of HKSTP etc.

There is a gap between the re-industrialization goals of the HKSAR Government and the expectations of the traditional industries in Hong Kong. This gap requires more communication from all parties involved to bridge with. We believe that the Government and industries need to better clarify the positioning of the "Re-industrialization" strategy. While supporting the advancement of high-end manufacturing technologies, the Government should consider how to promote such innovative technologies to enable traditional industries to adopt, and traditional industries should also consider how to integrate their businesses with the application of innovative technologies to enhance their competitiveness, instead of expecting the "Rent or Loan Support" as usual. This policy paper presents our thoughts after a series of discussions with a multitude of stakeholders. We hope, by publishing this paper, that we can attract more interested parties to get involved in the discussion of this important subject.

2. The manufacturing industries hope to revive the past glory

The manufacturing industries in Hong Kong have moved north since the 1980s. Their share of Hong Kong's GDP has dropped from about 20% to about 1% at present. As of 2017, the number of employees in the manufacturing industry in Hong Kong was only about 92,000, accounting for about 2% of the overall workforce. Table 1 shows the situation of Hong Kong's manufacturing industry. According to the classification of the Census and Statistics Department of the Government, "Food, Beverage and Tobacco Manufacturing" and "Metal Products, Machinery and Equipment" are the two largest sectors of Hong Kong industrial manufacturing. The added value of the two categories accounted for more than half of the total, with more than 52,000 employees. The remaining added value accounted for more than double digits in "Chemical, Rubber, Plastic and Non-metallic Mineral Products" (accounting for 17.5%) and "Paper Products, Printing and Reproduction of Recorded Data Media" (accounting for 10.8%). As for Hong Kong's historically most popular "Textiles and Garments", since most of the processes have moved northward, it only accounted for 4%.

The manufacturing industries in Hong Kong have shrunk mainly because their added value are too low, which have led to the elimination of their related industries in the process of economic transformation. Table 1 divides the value added of the manufacturing industries by the number of employees. In 2017, the per capita value added was approximately HK\$377,000, which was more than 30% lower than the amount of HK\$551,000 from one of Hong Kong's four pillar industries, "Professional Services and Other Industrial and Trade Support Services".

In the absence of competitiveness, when land and labour costs in Hong Kong increase, the manufacturing industries are being gradually marginalized.

Table 1. Ranking of Value Added of Hong Kong's Manufacturing Industries in 2017

		Person Employed		Value Added (HK\$1,000)		Per Capita Value Added (HK\$1,000)
1	Food, beverage and tobacco manufacturing	33,486	36.5%	11,061,118	31.9%	330.32
2	Metal products, machinery and equipment	19,467	21.2%	8,855,278	25.6%	454.89
3	Chemical, rubber, plastic and non-metallic mineral products	10,302	11.2%	6,066,474	17.5%	588.86
4	Paper products, printing and reproduction of recorded data media	13,395	14.6%	3,748,906	10.8%	279.87
5	Textile products and garments	5,536	6.0%	1,370,556	4.0%	247.57
6	Electrical, electronic and optical products	3,673	4%	1,346,573	3.9%	366.6
7	Other manufacturing industries	5,953	6.5%	2,179,798	6.3%	366.17
All manufacturing industries		91,811	100%	34,628,702	100%	377.17
Professional services and other industrial and trade support services		520,500		287,200,000		551.78

Source: Census and Statistics Department, The Government of the Hong Kong Special Administrative Region

We understand that the industry is full of expectations for the "Re-industrialization" policy proposed by the Government, believing that the Government will assist the relatively important industrial categories shown in Table 1 to increase productivity and revive its past glory. The Chinese Manufacturers' Association of Hong Kong (CMA) proposed⁴ in June 2016 to urge the government to activate traditional industries in addition to creating new industries. For example, given that "Food, Beverage and Tobacco Manufacturing" ranks first in Hong Kong's manufacturing industry, the Government should follow suit South Korea to establish a food industrial park to further shape the regional brand image of "Made in Hong Kong", thereby enhancing competitiveness of the local food industry.

Some people in the industry seem to consider that "Re-industrialization" is equivalent to Hong Kong being able to manufacture "physical" products again, or whether it should set an indicator so that industrial added value reaches a certain percentage of GDP and employs a certain level of labour force, so that Hong Kong's industry "will no longer be hollowed out." Among them, the CMA believes that high operating costs are not necessarily a natural barrier for manufacturing. Even in Europe, the United States and the other Asian three dragon regions, manufacturing accounts for a considerable proportion of GDP⁵.

⁴ For details, refer to the website of the Chinese Manufacturers' Association of Hong Kong: "The Way of Hong Kong's [Re-industrialization]: Searching Up and Down" https://www.cma.org.hk/uploads/ckfinder/files/Research/CommentandAnalysis/20160607161030201600607_%E9%A6%99%E6%B8%AF%E3%80%8C%E5%86%8D%E5%B7%A5%E6%A5%AD%E5%8C%96%E3%80%8D%E7%9A%84%E8%B7%AF%E5%90%91%EF%BC%9A%E4%B8%8A%E4%B8%8B%E6%B1%82%E7%B4%A2.pdf.

⁵ As of the 2010s, the US manufacturing industry accounted for 12% of GDP; Germany accounted for 23%; Japan accounted for 18%; Singapore accounted for 17.4%; Taiwan accounted for 29.6%; South Korea accounts for 27.6%.

However, the reindustrialization policy promoted by the Government in recent years does not appear to have benefitted the traditional industries. The Innovation and Technology Bureau of the Government stated clearly that due to the limitations of land and labour resources, Hong Kong cannot accommodate labour-intensive or land-intensive manufacturing industries. Therefore, the government's goal is to attract high-end manufacturing industries that use advanced technologies and do not require too much labour or land, thereby promoting the diversified development of the local economy, reducing reliance on the service industry, and providing high-quality talents for innovation and technology in Hong Kong, especially providing employment opportunities for young people⁶.

The preset expectations have not been fulfilled. Individuals in the sector have not shied away from saying that it has been three years since "Re-industrialization" was proposed, including in the Chief Executive's 2019 Policy Address. There are, however, very few measures to facilitate the transformation of traditional industries to advanced manufacturing industries. The initial expectation has gradually turned into disappointment⁷.

3. "Re-industrialization" or the development of new industries?

The Government's measures to support innovation and technology and re-industrialization are mainly divided into three categories: one is directly funded by the Government (and its designated institutions); the other is the HKSTP taking the lead in providing enterprises with cheaper industrial land than the market (including the construction of the Advanced Manufacturing Centre) and support services; third, through grants to public institutions such as the Hong Kong Applied Science and Technology Research Institute to assist enterprises in research and development (R&D) to improve efficiency.

Table 2 below summarizes the Government's funding to eligible organizations through various programme⁸. Among the total funding of HK\$11.75 billion, the funding involving "Electrical and Electronics" was the largest, reaching HK\$3.7 billion, accounting for 31.5% of the total. Together with the HK\$2.88 billion of "Information Technology", the two categories have accounted for 55% of the total funding. Dividing the total funding by the number of applications, the average approved amount for each application in the "Electrical and Electronic" category is also the largest, reaching HK\$4.22 million. The average funding for IT applications was also HK\$3.24 million, which is far higher than other applications. The approved amount of the category is 30% to 70% higher.

Table 2. Distribution of approved projects of Innovation and Technology Fund among

⁶ Refer to the Legislative Council document: <https://www.legco.gov.hk/yr18-19/chinese/panels/ci/papers/ci20190521cb1-1046-3-c.pdf>

⁷ See "Policy Address Focusing on the Inadequate Direction of Reindustrialization of SMEs" by Mei Jing (梅荊「施政報告着墨中小企再工業化欠方向」) published in Wen Wei Po on December 17, 2019.

⁸ Including but not limited to the Innovation and Technology Support Programme, Mainland-Hong Kong Joint Funding Scheme, Guangdong-Hong Kong Technology Cooperation Funding Scheme, Partnership Research Programme, Midstream Research Programme for Universities, University-Industry Collaboration Programme, Small Entrepreneur Research Assistance Programme, Enterprise Support Scheme and other general support schemes.

different industrial sectors (As of October 31, 2019)

		Number of Cases		HK\$ Mn		Average HK\$ Mn
1	Electrical and electronic	880	22.03%	3709.4	31.56%	4.22
2	Information technology	889	22.26%	2881.4	24.51%	3.24
3	Foundation industries	1034	25.89%	2523.3	21.47%	2.44
4	Biotechnology	587	14.70%	1190.1	10.12%	2.03
5	Textiles/Clothing/Footwear	174	4.36%	446.6	3.80%	2.57
6	Environmental Protection	173	4.33%	349.9	2.98%	2.02
7	General (Cross-industry)	130	3.25%	333.6	2.84%	2.57
8	Others	127	3.18%	320.0	2.72%	2.52
	Subtotal	3994	100%	11754.3	100%	2.94

Source: Innovation and Technology Bureau, The Government of the Hong Kong special Administrative Region

Comparing Table 1 and Table 2 to Table 3, it is noted that "Electrical, Electronic and Optical Products" account for a small share (3.9%) of Hong Kong's manufacturing industry, but they have received a large amount of funding (31.56%). "Food, beverage and tobacco manufacturing" (31.9%) and "metal products, machinery and equipment" (25.6%) accounted for nearly 60% of the total fund. Instead, the funds received are not listed separately.

Table 3. Comparison of the Proportion of Industrial Production and the Allocation of Innovation and Technology Fund

	Industrial Production - Value Added (HK\$ 1,000)		Allocated Innovation and Technology Fund (HK\$ Mn)	
Food, beverage and tobacco manufacturing	11,061,118	31.9%	Not Separately Listed	
Metal products, machinery and equipment	8,855,278	25.6%	Not Separately Listed	
Chemical, rubber, plastic and non-metallic mineral products	6,066,474	17.5%	Not Separately Listed	
Paper products, printing and duplication of recorded data media	3,748,906	10.8%	Not Separately Listed	
Textile products and garments	1,370,556	4.0%	446.6	3.80%
Electrical, electronic and optical products	1,346,573	3.9%	3709.4	31.56%
Information technology	Not Separately Listed		2881.4	24.51%
Biotechnology	Not Separately Listed		1190.1	10.12%

Source: Census and Statistics Department and Innovation and Technology Bureau, The Government of the Hong Kong special Administrative Region

The Innovation and Technology Fund focuses on enhancing the R&D intentions and capabilities of local enterprises and research institutions, but has not provided enough support at the same time to transform R&D results into applied products. Many R&D projects' deliverables have not been "commercialized" in the end, failing to best promote each manufacturing sector which can improve its productivity. Many industries pointed out that in order to apply R&D results of research institutions to the real world, a group of industrialists and technocrats with industrialization skills are required to transform the university's R&D results to commercialized products taking production cost advantages, and products that can realize "mass production" in factory at the end.

Looking at it from another angle, Table 4 shows the rental status of the three Industrial Estates under the HKSTP in four quarters. Although it does not show the supporting tendency of the Innovation and Technology Fund as shown above, it is noted that the rental is biased towards the electronics industry, but similarly in these Industrial Estates, at present, the categories with the highest industrial production value-added ratio in the manufacturing industries (for instance, items 1, 5, 6, 7 and 8 in Table 4) still account for less than half of the total leased area. At the same time, after the HKSTP has completed the renovation of lettable factories in Tai Po Industrial Estate as a Precision Manufacturing Centre in March 2017, it also plans to build an Advanced Manufacturing Centre and Data Technology Hub in Tseung Kwan O Industrial Estate to promote high value-added manufacturing. The smart production and advanced assembly are in line with the growing demand for data traffic flow in Hong Kong. The target tenants of these newly-built manufacturing centres would not be enterprises of Hong Kong's existing mainstream manufacturing categories.

Table 4. Classification of Enterprises in Industrial Estates under HKSTP in 2018

		Number of Enterprises			Total (%)
		Tai Po Industrial Estate	Yuen Long Industrial Estate	Tseung Kwan O Industrial Estate	
1	Food and drinks	22	5	4	31 (19.5%)
2	Biotechnology and pharmaceuticals	9	14	0	23 (14.5%)
3	Support services	6	6	3	15 (9.4%)
4	Information and telecommunications	3	0	11	14 (8.8%)
5	Machinery and parts	6	5	1	12 (7.5%)
6	Printing and publishing	4	4	3	11 (6.9%)
7	Metal parts and products	8	0	0	8 (5.0%)
8	Plastic resin and plastic products	4	3	0	7 (4.4%)
9	Green technology	0	3	2	5 (3.1%)
10	Broadcasting	2	0	2	4 (2.5%)
11	Others (e.g. building materials, chemicals and gas, electronic parts and paper packaging)	14	9	6	29 (18.2%)
Total		78	49	32	159 (100%)

From the above statistics and analysis, we can see that the Government's "Re-industrialization" policy goal is to nurture high-end manufacturing. Given the scarcity of land in Hong Kong and the high cost of human resources, it seems that there is no policy intention to "re-activate" Hong Kong's existing mainstream manufacturing industries.

4. Conclusion: The government needs to define "Re-industrialization" more precisely.

It is observed that although the main production base of Hong Kong's existing mainstream industries, such as food, tobacco, chemicals, textiles, watches, toys, electronics, etc., have moved northward, in fact, not all of the networks on which they operate have left Hong Kong. Many experienced practitioners in the industry are still in Hong Kong⁹. This is also part of the

⁹ For example, the Chinese Manufacturers' Association of Hong Kong has visited more than 200 enterprises. Even though those enterprises have moved their production facilities away from Hong Kong, the interviewees

important foundation on which Hong Kong's "Re-industrialization" policy is based. The sustainable development of these industries in the future will require the use of smart manufacturing, innovative production and operation modes. Attracting new investment requires corresponding policy support and encouragement.

Since "Industry 4.0" was first proposed at the Hannover Messe in 2013, the industries' consensus has become more consistent, and the future industries will be based on highly automated smart production. However, can all industries apply automated and smart production? It seems that there is still no conclusion at this moment. We believe that the Government should communicate more with stakeholders in different sectors and industries to strengthen more positive and interactive attitudes to establish clearer criteria of support for "re-industrialization", such as establishing a positive/negative list of industrial categories; establishing basic environmental standards; listing contribution level of added value per capita/per land area; calculating how much production efficiency can be improved on the proposed basis; the potential of facilitating smart manufacturing/city of Hong Kong etc. We believe that the development of high-end industrial technology can mutually support existing mainstream industries. For example, if the R&D on automatic operation of robots can be applied to food processing, clothing and other industries, new growth points may be achieved. Mastering high-end manufacturing technology to assist the upgrading of existing industries in Hong Kong and Guangdong is also an important role for Hong Kong in the innovation and technology centre of the Greater Bay Area. How to connect the projects supported by the Government with the "traditional" industries and help the industries upgrade will be an important topic that goes beyond the development of traditional industries in Hong Kong but will generate broader positive benefits.

In general, we believe that the concept of "reindustrialization" needs a clearer positioning. Hong Kong has land supply constraints and high labour costs. It is understandable that the Government focuses on supporting the development of high-end manufacturing in its policy. The literal meaning of "reindustrialization" often misleads the industries to believe that the main goal of the policy is to help revive the traditional industries. The direction of Hong Kong's reindustrialization is high-end industries, but this does not mean abandoning the traditional industries, but mutual support and collaborations that could revitalize the traditional industries. We believe that a set of guidelines formulated with the participation of different industrial sectors and relevant professional bodies could clarify the meaning of "re-industrialization", and make the policy more sustainable and operational.

agree that they still need to rely on Hong Kong for "Strategic Management", "Marketing" and "Funds and Finances". As for "Raw Material Procurement" ", "Technology R&D", "Design and Branding". It also tends to rely on Hong Kong. However, it should be noted that the interview results also show that this degree of dependence is constantly weakening. For details, please refer to: [https://www.cma.org.hk/uploads/ckfinder/files/Research/CommentandAnalysis/20160408123454%E8%A9%95%E8%AB%96%E8%88%87%E5%88%86%E6%9E%90_%E7%B6%93%E8%B2%BF%E6%99%82%E4%BA%8B%E7%9F%AD%E8%A9%952016%E5%B9%B4%E7%AC%AC%E4%B8%83%E6%9C%9F\(%E7%B8%BD%E7%AC%AC185%E6%9C%9F\)\(2016%E5%B9%B4%E6%9C%88%E6%97%A5\).pdf](https://www.cma.org.hk/uploads/ckfinder/files/Research/CommentandAnalysis/20160408123454%E8%A9%95%E8%AB%96%E8%88%87%E5%88%86%E6%9E%90_%E7%B6%93%E8%B2%BF%E6%99%82%E4%BA%8B%E7%9F%AD%E8%A9%952016%E5%B9%B4%E7%AC%AC%E4%B8%83%E6%9C%9F(%E7%B8%BD%E7%AC%AC185%E6%9C%9F)(2016%E5%B9%B4%E6%9C%88%E6%97%A5).pdf).