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■ Creating a Good-jobs City

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1. Introduction

The Hong Kong economy faces three pressing problems: stagnant growth without new engines, rising living costs without increasing incomes, and widened inequality with a hollowed-out middle class. A remedy to these intertwined problems is the creation of good jobs, which are the pillar of a stable, affluent, and energetic city.

The definition of good jobs is inevitably slippery. Nevertheless, there is still consensus that a good job should generate an income that enables at least a middle-class lifestyle, and provide workers with employment security and clear career paths. In Hong Kong, people who have good jobs are managers, senior administrators, bankers, lawyers, doctors, designers, professional agents, and probably professors in addition to well-to-do business owners. These jobs emerged during the transition of Hong Kong into a modern metropolis and have been the backbone of the Hong Kong economy. However, with the recent technological revolution, changing flows of trade and capital, and transformation of geopolitics, more and more Hongkongers are drifting away from good jobs. In parallel, Hong Kong's economy benefits less and less from these good-jobs sectors. To prevent the decline of economic competency and widening social inequalities, Hong Kong must rebuild a good-jobs city. Centering around two questions—where do good jobs come from? what policy design can help create good jobs?—this article outlines a strategic plan for rebuilding a good-jobs Hong Kong and proposes a number of feasible policies to achieve this goal.

2. Background: Five Myths About Job Creation in Hong Kong

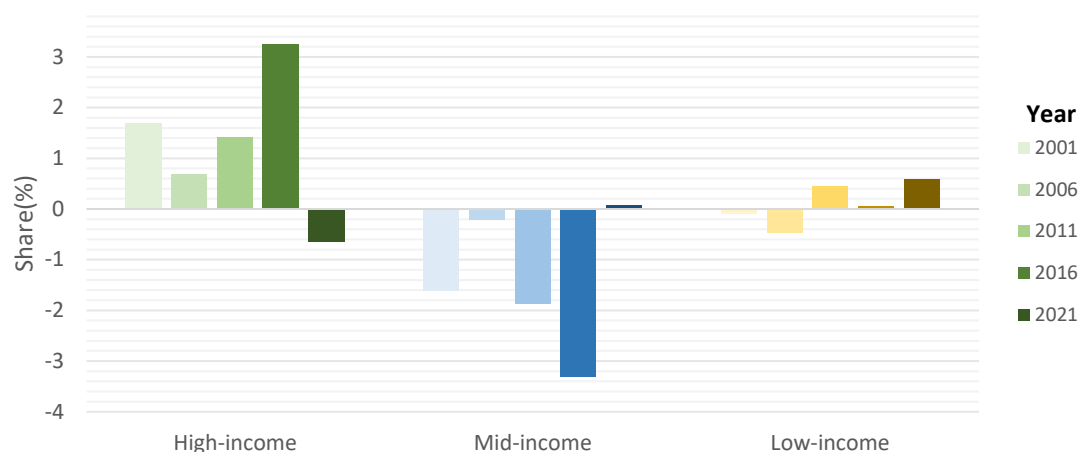
In asking how to rebuild a good-job Hong Kong, the first natural question is: where do good jobs come from? This question was easy to answer decades ago, when ample opportunities presented themselves to Hong Kong as a bridge between the West and China. Good jobs came from where Hong Kong had a comparative advantage over mainland China, and where Hong Kong mediated the international flows of goods, services, and capital. However, answering this question is much more difficult today because Hong Kong's role in the Asian-Pacific economy is no longer distinctively clear cut. Hong Kong's advantages in the good old days may hinder the creation of new good jobs today. To better understand the potential decline of good jobs and answer the question of where good jobs come from in Hong Kong, we demystify five myths about job creation, and more generally, about the entire Hong Kong economy.

Myth 1. Good jobs will recover and expand as long as the Hong Kong economy grows.

The COVID-19 pandemic has generated a substantial negative shock to the Hong Kong economy. Unemployment has intensified, and many good jobs cut. The Hong Kong government has used fiscal stimulus to avoid a demand crisis and resist a looming recession. An optimistic view is that after the economy recovers from the pandemic shock, good jobs will return and expand with economic growth. However, the main problem with job creation in Hong Kong is structural and distributional. Economic growth does not guarantee the abundance of good jobs. The last two decades have witnessed a trend of job polarization and the overall decline of good jobs in Hong Kong.

Figure 1 plots the dynamics of the Hong Kong job market by occupations. Most strikingly, the share of middle-income jobs—which include administrators, production workers, and even sales professionals—was disappearing, while the shares of both high- and low-income jobs increased. According to the latest micro data from Hong Kong’s Population Census, the growth of low-income jobs measured in changes in the share of total employment even surpassed the growth of high-income jobs over the past decade.

Figure 1: Changes in the Share of Employment by Occupations (%)



Source: Hong Kong’s Population Census

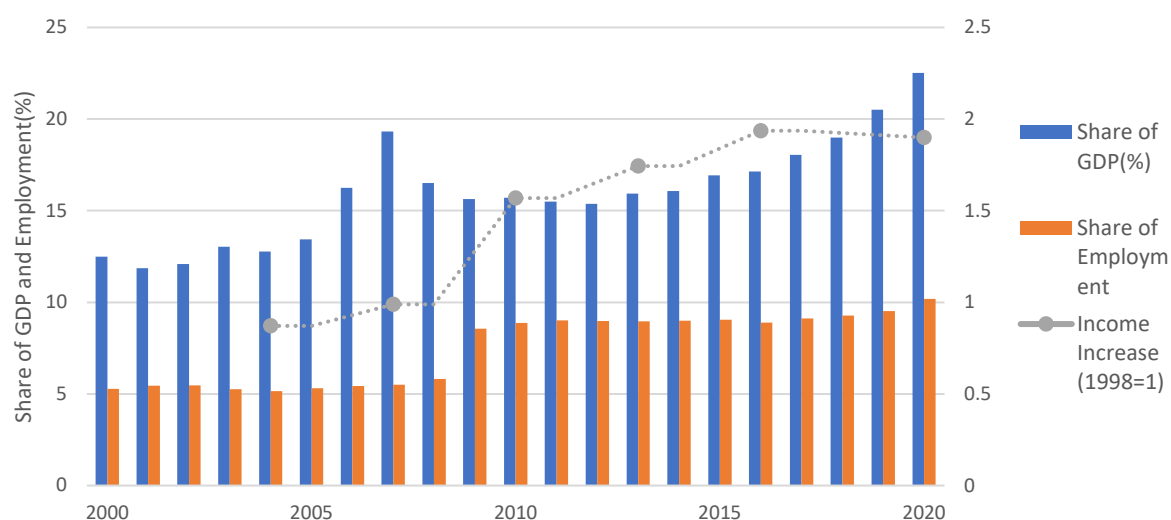
Note: The “high-income” group includes employment in the occupations of managers, administrators, professionals. The “mid-income” group includes employment in the occupations of associate professionals, clerks, and craft and related workers. The “low-income” group includes employment in elementary occupations, service and shop sales workers, and plant and machine operators and assemblers. Changes in share of employment are calculated by the year’s employment share minus the previous year’s employment share.

The tendency of job polarization in Hong Kong bears some resemblance to the pattern in the US and other advanced economies (e.g., Autor 2019). It is deep rooted in the technological revolution, which favors top talent and replaces middle-ranged skills, as well as in regional specialization due to globalization. Therefore, Hong Kong faces a two-folded problem: (1) whether it can maintain a large share of high-income jobs; and (2) whether these jobs can generate sufficient spillovers to revive the return to mid-level skills and thus expand the middle-income jobs.

Myth 2. A booming financial sector can create sufficient good jobs.

As in London and New York, the financial sector produces a cluster of high-pay jobs. Figure 2 shows the share of GDP, share of employment, and income increase of the financial sector in Hong Kong from 2000 to 2020. Since 2009, while the share of finance in GDP has increased from 15% to 20%, the financial sector has accounted for approximately 10% of the employment. This suggests that financial growth does not necessarily translate into employment expansion. Moreover, the slowdown of income increases after 2016 will constrain the flow of talent into finance. Another factor that may limit the employment expansion of the finance sector is the rapid adoption of AI technology in finance, which is likely to replace many finance-related jobs. Overall, without purposeful and directed development of the financial sector, its capacity for generating good jobs will have reached its limit.

Figure 2: Financial Sector in Hong Kong (2000 – 2020)



Source: Hong Kong's Population Census

Unlike manufacturing, in which the expansion of an upstream firm directly generates demand and jobs for its downstream supplier, finance jobs do not have this multiplier effect. In other words, the supply chain in the finance sector is rather short. The employment spillover effect of a booming finance sector on other sectors is rather

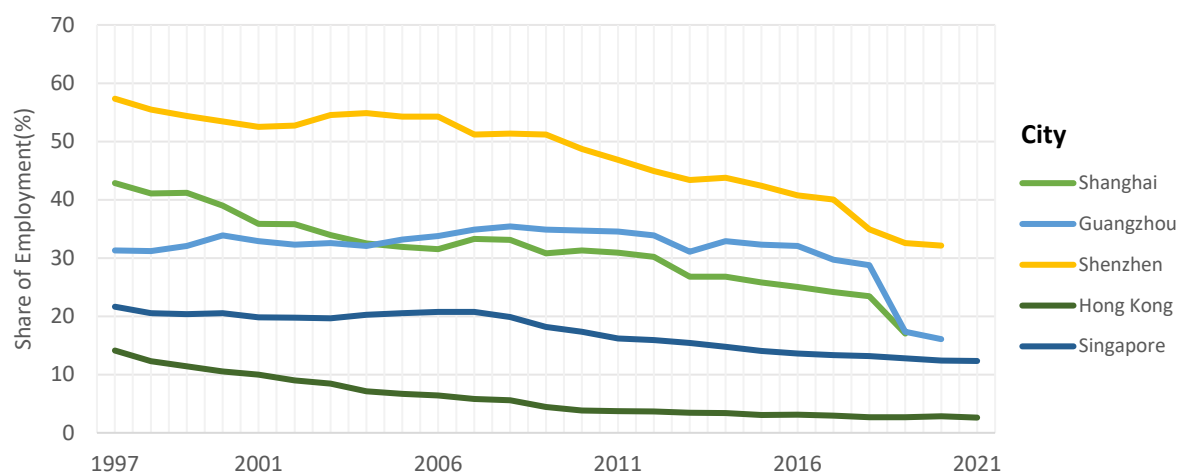
indirect, primarily through the demand for goods and services. In this aspect, the finance sector is unlikely to produce a large number of good jobs in the rest of the economy.

Myth 3. It is important to bring manufacturing jobs back to Hong Kong.

Because of manufacturing firms' ability to generate jobs, bringing manufacturing back has been a popular solution to aggregate employment problems in regions where manufacturing, after a glory period, moved to other regions. It is well known that Hong Kong was transformed into a manufacturing-led economy in the 1960s, and then gradually transferred to a service economy dominated by finance, logistics, and real estate after 1980s. The employment share of manufacturing declined continuously from slightly above 10% in 2000 to below 4% in 2020. Somewhat surprisingly, the return to manufacturing jobs—measured by the median monthly income in the sector—has gradually increased since 2010. Given this history, it is tempted to propose bringing manufacturing jobs back to Hong Kong for the sake of creating more good jobs and stabilizing the middle class. However, such a solution is neither necessary nor sufficient.

The decline of manufacturing and the rise of service industries is inevitable with economic advancements. Figure 3 demonstrates the time series of manufacturing share of employment from 1997 to 2021 in Hong Kong compared with four other Asian metropolitan cities: Singapore, Shanghai, Guangzhou, and Shenzhen. With the exception of Guangzhou, the share of manufacturing jobs in these cities all exhibits a significant downward trend. Clearly, there is no correlation between the size of the manufacturing industry and the number of good jobs in an economy.

Figure 3: Shares of Employment in Manufacturing (%): Asian Metropolitan Cities



Source: Hong Kong's Population Census, Singapore Department of Statistics, National Bureau of Statistics of China.

It is true that the other cities still maintain a sizeable manufacturing sector while manufacturing in Hong Kong is almost completely hollowed out. This distinct feature of Hong Kong, in contrast with the other Asian Tigers (Singapore, Taiwan, and South Korea) and metropolises in mainland China (Shanghai, Guangzhou, and Shenzhen), derives from its unique advantage not only as a hub of international trade and capital flow, but also as a gateway for Western firms to enter the Chinese market.

Basic economics principles tell us that, given the high living and labor costs, to bring manufacturing jobs back to Hong Kong, two conditions have to be met. First, manufacturing firms in Hong Kong must be able to adopt advanced technology (and appropriate managerial practices) to boost their total factor productivity. Second, there must be sufficient supply of high-skilled labor to exploit the complementarity between human capital and physical capital. Without these conditions, products made in Hong Kong will not survive fierce market competition, and good manufacturing jobs, even if created, will not be sustainable. Unfortunately, these two conditions are unlikely to appear in the near future. In the short- to medium-run, it is unrealistic to rely on the manufacturing sector to produce streams of good jobs in Hong Kong.

Myth 4. Good jobs in Hong Kong are stolen by mainland cities.

It is true that a large number of good jobs are created on the mainland because businesses operated by Hong Kong entrepreneurs or originated from Hong Kong move to mainland cities, especially those in the Greater Bay Area (GBA). However, there is neither solid evidence nor sound logic to support the substitution between good jobs in Hong Kong and those in mainland cities.

In the 1980s, when manufacturing jobs moved to the mainland en masse, Hong Kong did not lose good jobs. Instead, service jobs with higher pay and greater mobility proliferated. This is the power of specialization on the basis of comparative advantage. Nowadays, Hong Kong's advantages over mainland cities are less clear cut, and the regional specialization within mainland China tends to create competitive pressure on Hong Kong. The oft-cited case is the rise of Shanghai as a competing finance center in Asia. If within the same industry and facing the same market, Hong Kong loses its edge to mainland cities, lucrative business opportunities and associated good jobs will likely drain out from Hong Kong. However, this is not happening; the structure of the Hong Kong economy is so distinctive that no mainland cities can replicate and replace it. To the extent that firms in Hong Kong cooperate with their mainland business partners, the integration of the Hong Kong economy into the GBA will facilitate the creation of new good jobs in Hong Kong.

Myth 5. Investment in higher education does not pay off in Hong Kong.

It has been puzzling to outsiders that despite the relatively low cost of receiving higher education, the number of young Hongkongers with a bachelor's degree is disproportionately low compared to the abundance of positions offered by numerous universities in Hong Kong. In most PhD and master programs, rarely can we see the presence of local students. One popular answer to this puzzle is that education is not important to make money in Hong Kong, and investment in higher education does not pay off. This answer would have made sense twenty years ago when business opportunities abounded and the skills for being good merchants and businessmen were more valuable than formal education.

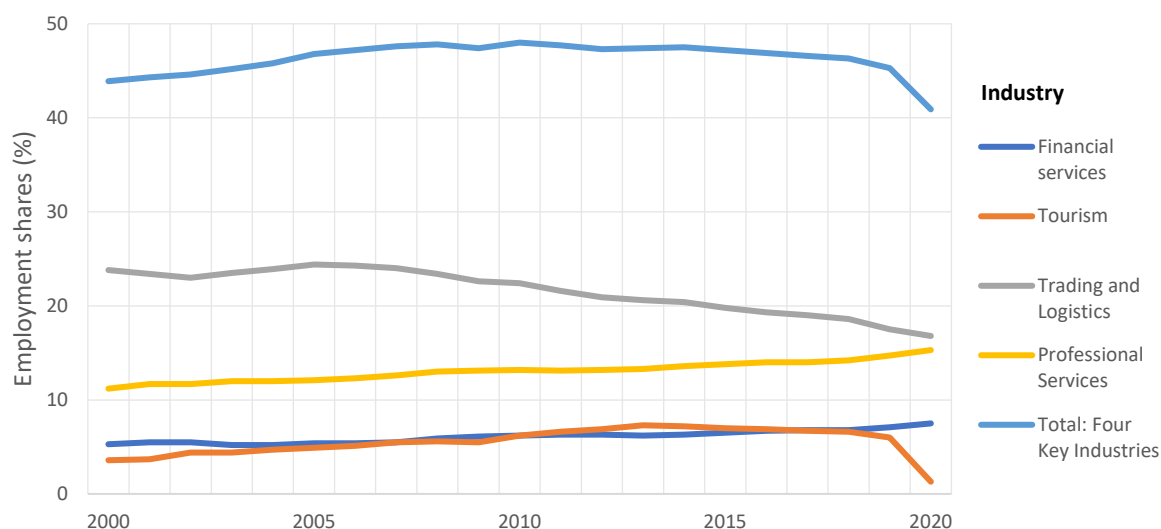
The problem with the relatively lower return to higher education in Hong Kong is structural. The Hong Kong economy is dominated by services, and only a small fraction of service jobs, for instance, in the finance sector, require substantial investment in formal education. Moreover, the Hong Kong labor market is highly localized and rigid. Therefore, the market does not provide sufficient opportunities for science and engineering graduates to apply their knowledge. However, with Hong Kong being transformed into a more-advanced economy and becoming more connected to high-skilled sectors, more and more good jobs require a higher level of general and specific education.

3. Strategic Plan: Three Pillars to Sustain and Expand Good Jobs

In clarifying the above five myths, it may seem that we hold a pessimistic view towards Hong Kong. To the contrary, our intention is to paint a realistic picture to help make a forward-looking and strategic plan for the Hong Kong economy. As we have stressed, Hong Kong is a unique economy with numerous non-imitable strengths. The key for a feasible strategic plan is to leverage these strengths and discover a path towards the goal with minimal disruptions and resistance.

In Hong Kong, the pillars of GDP and employment have been four traditional industries, namely, financial services, tourism, trading and logistics, and professional services. As seen in Figure 4, the employment share of these four pillar industries has been declining since 2011, largely driven by the rapid decline in employment in the “trading and logistics” and “tourism and related services” sectors. Aiming to expand good jobs and boost economic growth, the core of our proposed strategic plan is to upgrade two pillars (finance and professional services) and replace the two deteriorated pillars with a new one (high-tech).

Figure 4: Employment shares of Hong Kong's 4-Pillar Industries (%)



Source: Hong Kong's Population Census

A. Enhanced Financial Sector

The finance sector remains a strong pillar that provides a large quantity of good jobs in Hong Kong. With heightened China-US tensions, many Chinese firms listed in the US stock market have moved back to Hong Kong. This explains the expansion of the financial sector in Hong Kong despite the overall economic contraction. This trend will continue at least in the short run, and it is foreseeable that the finance sector will keep generating good jobs.

To enhance the finance pillar, the Hong Kong finance market should adapt its existing regulatory framework to increase its flexibility and provide higher quality services to attract more firms from mainland China, India, and East Asia. Another booster of the finance sector is fintech, which requires a broader skillset than traditional financial jobs and will generate streams of good jobs. Moreover, fintech is a natural stepping stone for Hong Kong to move onto its high-tech path, and will promote the employment of high-skilled workers in the science and technology sector.

An active venture capital industry significantly enlarges the finance sector. However, while Hong Kong is abundant in hot money and entrepreneurship, it lacks venture capital. This is perhaps caused by the lack of commercialization opportunities in Hong Kong. Thus, the cultivation of venture capital should go hand-in-hand with the development of high-tech industries in Hong Kong.

B. Upgraded Service Sector

The services sector accounts for the lion's share of employment in Hong Kong. However, a large portion of service work is oriented to local consumers and does not benefit much from either technological progress or globalization. The shrinking middle class will hurt providers of local services even further. Service jobs oriented to outsiders, particularly tourists, are sensitive to external factors and unstable in a changing environment. Therefore, Hong Kong faces the urgent need of upgrading its services sector as an engine of generating good jobs.

Among traditional service jobs, those providing professional services (e.g., legal, accounting, and consultancy) for local business activities belong to the good-job category. The economic integration of Hong Kong into the GBA provides ample opportunities for Hong Kong professionals to expand the scope of their services. Two particularly attractive areas of services are healthcare and higher education. These are two pivotal sectors that will have a long-term impact on the creation of good jobs for Hongkongers.

C. Emerging High-tech Sector

In the last decade, the contribution of the information technology sector to employment has increased. Although the share is still small (around 4% in 2021), it shows some sign that Hong Kong is moving towards the high-tech trajectory. The emergence of a sizeable high-tech sector is crucial to the future of Hong Kong, in terms of both economic growth and job creation.

Globally, high-tech jobs pay well. This is the undeniable triumph of science and technology. Moreover, economic research has shown that creating high-tech jobs has a strong multiplying effect on other job markets, including those in non-tech industries. Specifically, Moretti (2012) finds that in the US, a high-tech job created can lead to five other positions added in the economy, including those in high- and low-skilled service sectors. In this regard, creating high-tech jobs can expand the diversity of jobs and foster inclusive economic growth.

One may wonder what comparative advantages Hong Kong has in high-tech industries. Hong Kong's comparative advantage outside high-skilled services are probably in finance- and medical-related fields. The city has the potential to be a manufacturing and design hub for high-tech products in medical, biotech, pharmaceutical, and financial sectors. So far, the government, the Monetary Authority, and industry have pledged to develop fintech, which uses artificial intelligence and big data. In the healthcare and biotech sectors, digitalization and the adoption of artificial intelligence will also be key trends. There should be constructive cross-overs between the healthcare and IT sectors.

4. Government's Helping Hand: Four Policy Proposals

In the strategic plan described above, the essential idea concerns the redistribution of jobs across sectors. Such redistribution will not happen automatically. In a free market economy, it will be guided by the returns to human capital and talent across occupations and industries, which in turn depend on existing comparative advantages and the pace of technological adoption. Moreover, all sorts of market frictions will hinder the redistribution of jobs. Therefore, to facilitate the process of creating good jobs, government intervention is called for.

There are two traditional ways of government intervention. One is the Keynesian way of demand management, through which the government stimulates demand for certain goods and services and thus creates jobs in the target sector. The other way involves the design of industrial policies that directly reallocate resources towards the target industries. Both methods of government intervention raise concerns of inefficient use of public money and the distortion of resource allocation, and as such will likely face substantial resistance in Hong Kong. We propose a third way of government intervention: the government offers a helping hand to facilitate the accumulation of critical resources and relaxation of constraints in target sectors.

The intellectual origin of our proposed government intervention comes from Albert Hirschman's idea of deliberate unbalanced growth (Hirschman, 1958) and, more recently, Dani Rodrik's advocacy of inclusive growth (Rodrik and Sabel, 2019). They view the problem of stagnant growth and rising inequalities as a problem of gross economic inefficiency and mismatch between private pursuits and social consideration. Thus, the government should intervene to internalize the positive externalities of desirable economic activities (good jobs) and limit the negative externalities of undesirable economic activities (bad jobs). Based on this basic idea, we propose the following four policy suggestions.

Proposal 1. Talent strategy. *The Hong Kong government should adopt a grand talent strategy to attract and retain top talents, enlarge the talent pool, and improve labor mobility.*

In today's world, top talents are critical resources for many advanced economies and have become a highly mobile class. Any unfavorable factor could trigger a massive outflow of talents. For instance, given the rising tension between China and the West (the U.S. in particular), some leading science and technology experts in the West may be encouraged by certain push factors to consider opportunities in Asia. This provides good chances for Hong Kong and other Asian metropolises. Besides financial incentives and living conditions, top talents pay particular attention to whether there is a competent peer group to co-create ideas and products and whether there are complementary human resources to boost their productivity. Without a sufficiently

large talent pool, Hong Kong will encounter significant difficulties of keeping top talents. Therefore, attracting top talents and building a talent pool are two sides of the same coin. The problem is that Hong Kong does not have a sufficiently large talent reservoir.

To solve the talent shortage problem, the Hong Kong government should take measures to attract more foreign talents as well as to extend the talent market to mainland China. Regarding policies to attract foreign talents, the Hong Kong government should consider fine-tuning and expanding the scale of existing plans. For instance, only 321 skilled workers have come to Hong Kong since 2018 through the Technology Talent Admission Scheme (TechTAS), far below the expected 1,000-person target. While it is likely related to Hong Kong's economic instability in recent years, certain inflexible aspects of the plan may be partly to blame. For example, the two-year fixed term employment contract for foreign skilled workers and the bundled arrangement to employ at least one local staff per foreign worker hired at a related position are some of the reasons that have discouraged companies to use the plan.

Extending Hong Kong's talent market to mainland China should focus on enhancing labor mobility across borders rather than arranged talent flows. On the Hong Kong side, the Hong Kong government should substantially reduce barriers to the inflow of talents from mainland China. On the mainland side, the Hong Kong government should collaborate with local governments and firms to enhance the two-way flows of talents.

Proposal 2. Public-private R&D partnership. *The Hong Kong government should develop a new model of public-private collaboration to increase R&D expenditure in critical sectors.*

In 2020, R&D expenditure accounts for approximately 1% of the GDP for Hong Kong. Although this is a notable improvement from 0.5% in 2001, it remains significantly lower than most developed economies' counterparts (e.g., 1.94% for Singapore, 4.55% for South Korea, 3.26% for Japan, 2.82% for the U.S.) and many mainland cities (e.g., 6.3% for Beijing, 4.1% for Shanghai, 4.2% for Shenzhen, and 3.2% for Guangzhou).

One barrier limiting the expansion of R&D investment in Hong Kong is the government's lack of determination and policy tools to effectively distribute the R&D expenditure. In the government's 2017 policy address, then-chief executive Carrie Lam proposed to increase the share of R&D in the city's GDP to 1.5% (approximately HKD 45 billion or USD 5.8 billion per year) by 2022. Compared with the government's multiple epidemic relief measures totaling HKD 300 billion, the HKD 45 billion pledge as a long-term annual investment target is not ambitious. But the government still fell short of the scheduled target.

Other than making binding commitments to public R&D expenditure, the Hong Kong government should actively collaborate with the private sector to increase overall R&D investment and the efficient use of R&D resources. To this end, the government may consider using part of the substantially increased R&D expenditure to form partnerships with private firms to establish scientific research institutions for technological innovation and product design. Pilot areas include biotechnology, medical science, and financial technology, which are some of Hong Kong's existing comparative advantages. The government can also contract with local firms in its procurement of high-tech products and services. In addition to these quantity-based tools, the Hong Kong government should also flexibly use price-based tools, such as credit and tax incentives, to increase private firms' propensity for R&D investment, and importantly, improve specific innovators' initiative.

Proposal 3. Strategic cooperation with mainland cities. *The Hong Kong government should cooperate with governments in major mainland cities to co-expand business opportunities and co-create good jobs.*

As discussed before, because of its distinct economic structure and unique advantages, Hong Kong does not directly compete with mainland cities. Rather, Hong Kong will benefit tremendously from its booming neighbors. Integration into the GBA provides a promising path for Hong Kong to relax its resource constraints and upgrade its economy. The Hong Kong government should provide economic incentives to attract overseas and mainland Chinese new-economy companies to set up affiliates in Hong Kong. The goal is to transfer technology and knowhow, and to ultimately create high-tech jobs in Hong Kong. Policies such as subsidizing the labor costs of firms that can create good jobs will not only solve the shortage of talent supply but also help increase local demand for technology workers.

Cooperation with mainland cities requires the Hong Kong government to coordinate with and learn from the policymaking of its counterparts, which have developed an inventory of good practices and pilot programs. For instance, Shanghai government's adoption of a comprehensive talent strategy and Shenzhen government's leveraging of the private sector for R&D investment are well-acclaimed. Learning these practices will not only smooth Hong Kong's collaboration with mainland cities but will help Hong Kong's policy design and implementation.

Proposal 4. Leveraging higher-education. *The Hong Kong government should leverage and enhance the ample resources in the higher-education sector to facilitate Hong Kong's economic upgrading and the creation of good jobs.*

Universities play an important role in all the above three proposed policies. Research universities serve as a reservoir of top talents, a platform of materializing public R&D investment, a channel to link the public and private sectors in knowledge-intensive

production, and a factory to assemble and create knowledge distributed across various parts of a society. Proximity to top universities gives firms substantial advantages in technology transfer and innovation. Therefore, besides increasing the supply of mid-level talents, the Hong Kong government should simultaneously increase the quantity and quality of scientists and researchers from local universities.

The combined research and educational resources of all Hong Kong universities are incredibly rich. To better utilize these resources, the Hong Kong government should grant universities more autonomy. For example, the University Grants Committee currently has fixed quotas on the number of postgraduate student intakes in each department of a university. At the University of Hong Kong, this means that the Department of Economics has about 30 full-time research faculty members, but can only accept a maximum of 8-10 doctoral students each year. From the perspective of training and research, the ratio is far from ideal.

It should be noted that most of the doctoral students trained in Hong Kong are from mainland China. Even if the increased supply of doctoral students cannot be absorbed in the local labor market in the short run, many of the doctoral graduates can still choose to work in research institutions, companies, and universities in China. These students will be critical resources for talent mobility between Hong Kong and mainland China.

Similarly, the Hong Kong government should relax the quota of enrollment of non-local undergraduate students, at least in areas where local students are short of supply, for instance, STEM students. More and more mainland students will return to the mainland after receiving their education in Hong Kong. The massive flows of these students will help facilitate the integration of Hong Kong's labor market into the mainland's labor market, which is highly valuable for Hong Kong's economic transition. Moreover, given that the education and training provided by universities in Hong Kong are globally recognized, increasing the supply of "made-in-Hong Kong" students can help raise Hong Kong's soft power and its status as a global knowledge hub.

5. Conclusion

After a long period of "easy" growth, the Hong Kong economy now lags behind the technological revolution led by the rapid adoption of IT and AI, and has lost some of its unique strengths in the global division of economic activities. Hong Kong faces a trio of aggregate, structural, and distributional problems. As economic growth slows down, business activities delivering mid-level incomes hollow out, and social inequalities widen. We propose the creation of a good-jobs city to simultaneously solve these problems.

The importance of creating more good jobs for Hong Kong is not yet well recognized. We clarify five myths with regard to job creation in Hong Kong. Overall, Hong Kong needs to increase industrial diversity, enlarge market size, and improve labor mobility. Instead of advocating drastic changes, we recommend gradual adjustments to enhance the financial sector, upgrade the service sector, and cultivate an emerging high-tech sector. These three sectors will be the basis of producing a large quantity of good jobs in Hong Kong.

We see the creation of good jobs as a result of relaxing resource constraints, improving gross economic inefficiency, and solving economic externalities. The Hong Kong government should not shy away from its role in leading the economic transition and facilitating the redistribution of jobs towards good industries. To help the government carry out this role, we make four concrete policy proposals involving talent strategy, public-private partnership in R&D investment, strategic cooperation with mainland cities, and leveraging the higher-education sector.

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