



# PROMOTING DYNAMIC & INNOVATIVE GROWTH IN ASIA: THE CASES OF SPECIAL ECONOMIC ZONES AND BUSINESS HUBS

Edited by  
Hyung-Gon JEONG and Douglas Zhihua ZENG

**Promoting Dynamic & Innovative  
Growth in Asia:  
The Cases of Special Economic Zones  
and Business Hubs**

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Hyung-Gon JEONG and Douglas Zhihua ZENG

**Policy Analysis 16-01**

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**KOREA INSTITUTE FOR  
INTERNATIONAL ECONOMIC POLICY (KIEP)**

Building C, Sejong National Research Complex, 370,  
Sicheong-daero, Sejong-si, Korea  
Tel: (822) 82-44-414-1251 Fax: 82-44-414-1144  
URL: <http://www.kiep.go.kr>

HYUN Jung Taik, President

KIEP Policy Analysis 16-01  
Published November 2, 2016 in Korea by KIEP  
ISBN 978-89-322-1669-0  
978-89-322-1088-9(Set)  
Price USD 12

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## Preface

The global competition to attract foreign investments has rapidly intensified. More and more countries and cities are now attracting foreign investments by providing a better investment environment, targeting job creation, upgrading the industrial structure, and promoting a more innovative and dynamic economic growth. This trend has been accelerated by globalization in the 2000s, lowering of trade barriers and tariffs, generalization of the global value chain (GVC) of firms, and intensifying competition. Now it has become essential to create a business-friendly investment environment in this age of globalization

The special economic zones have been widely recognized as a core method to create the best investment environment. SEZs are zones which are given a powerful administrative authority compared to other areas, enabling the improvement of the investment environment. To utilize the scarce resources of a government, special economic zones are introduced in certain areas. Within the zones, the investment environment is improved and various tax and investment incentives are provided to attract domestic and foreign investment and form industrial clusters.

Recently, SEZs are serving as a testbed for new institutions by removing various restrictions within the zones and promoting reform and experiments with new institutions. Due to the advantages of special economic zones as described above, more and more countries are utilizing such special economic zones.

Special economic zones in the modern sense were first designated in Shannon, Ireland, starting from early 1953. From the early 1970s, countries in Asia and Latin America were using these special economic zones under the name of “export processing zones” to foster export industries. Especially, the special economic zones policies have been very successful in South Korea, Taiwan and China. Until now, the types of the special economic zones have rapidly diversified. Recently around the world, there are 4,300 special economic zones throughout more than 130 countries. There are many special economic zones designated in a number of Asian countries, including China, and many of the success cases are located in the Asian region.

The SEZ policies are widely utilized not only by developing countries which foster export industries based on labor-intensive industries, but also by developed countries which aim to create more jobs through regulatory reform and foreign investment. Among the Asian countries, Korea, China, Hong Kong, Singapore, and even Dubai in the Middle East, are being mentioned as good examples of achieving a dynamic and innovative economy by taking advantage of the SEZ policy and business hubs. As these success stories are being highlighted, a number of developing and developed countries feel an increasing need to learn about the success of the SEZ policy carried out within these countries. Within this context, I and Dr. Hyung-Gon Jeong of KIEP have carried forward this project with a number of authors around the world including SEZ experts from the World Bank and many

Asian SEZ experts. This project was designed to fulfill the rising needs of SEZ policy implications, and especially to provide a fine guide book for many developing countries which will introduce SEZ policies as a measure to realize economic growth.

This report was contributed to by many renowned scholars from around the world. The first is Dr. Hyung-Gon Jeong of KIEP, who planned the direction and content of the full report and conducted the role of an editor for this project. In addition, Douglas Zeng, a senior economist from the World Bank, has conducted the role of co-editor together with Dr. Hyung-Gon Jeong.

In this study, special economic zones are classified into two types, industrial zones and business hubs, analyzing each type's success factors and policy implications. Successful SEZ examples of the industrial zone-type included the Masan Free Trade Zone and Shanghai special economic zone. These zones are the representative SEZs which have functioned as industry and economy boosters, along with the industrial clusters of the areas of the surroundings. The examples in business hub type zones were Singapore, Hong Kong, and Dubai. The Incheon Free Economic Zone in Korea was also considered in the same category, which focuses on switching to the new innovation economy and pursuing the vision of becoming the business hub of Northeast Asia.

Dr. Douglas Zhihua ZENG and Dr. Hyung-Gon JEONG co-wrote "Chapter 1: Are SEZs and Business Hubs the Best Tools for Development? (Introduction)"

and “Chapter 8: Policy Implications of SEZ and Business Hub Development in Asia”. “Chapter 2: Special Economic Zones as a Tool of Industrial Development: The case of Masan FTZ in South Korea” and “Chapter 3: Free Economic Zone as a tool of transition to an innovative economic growth: case of IFEZ in South Korea” were written by Dr. Hyung-Gon Jeong and Jonghun-Pek from KIEP. “Chapter 4: Innovation and Structural Transformation: The Case of Shanghai Free Economic Zones and Free Trade Zones” was jointly authored by professor Guangwen Meng of China Tianjin Normal University and Dr. Douglas Zeng of the World Bank. “Chapter 5: Invitation strategy for cutting edge industries through MNCs and Global Talents: The Case of Singapore” was authored by professor Tan Kim Song of Singapore Management University. “Chapter 6: Hong Kong's Business and Financial Hub Development: Factors, Challenges and Policy Implications” was co-authored by Dr. Yan Dong, Chunding LI, and Hang JIN of the Chinese Academy of Social Sciences. “Chapter 7: Building a Successful Logistics and Production Hub: The Case of Dubai with Special Reference to the Jebel Ali Free Zone” was authored by Sherif Muhtaseb of the World Bank Group.

Every author in this project possesses the best expertise in the field of special economic zones, and they have made the most deliberate efforts throughout several modifications process up to the last step of publication. Once

again, I want to praise the efforts of the authors on this project and hope their efforts and the results be usefully employed by many, especially by policy makers who are interested in successful SEZ policy in developing and developed countries.

Thank you.

Korea Institute for International Economic Policy

HYUN Jung-Taik



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## Chapter 1



# Introduction: Are SEZs and Business Hubs the Best Tools for Development?

Douglas Zhihua ZENG (World Bank)

Hyung-Gon JEONG (KIEP)

- 
1. Special Economic Zones
  2. Business Hubs
  3. Structure
  4. SEZs and Business Hubs are Contextualized Policy Tools

In many Asian economies, special economic zones and business hubs have been effectively used to achieve dynamic and innovative growth. Examples include South Korea, China, Singapore, Malaysia, Vietnam, and Dubai. In some cases, such as Incheon in South Korea, Shanghai in China, and Dubai in the United Arab Emirates, as well as Singapore to some extent, zones are also being used as a catalyst to attract foreign investments and develop business hubs. In these cases, these two instruments effectively reinforce each other. How have the Asian economies managed to achieve success through deploying these instruments? Are the zones and business hubs the best tools for development? Are the lessons learned from Asia applicable to the rest of the world, especially the developing world? This book intends to provide some answers to these questions.

## **1. Special Economic Zones**

Special economic zones or industrial parks can be an effective instrument to promote industrialization if implemented properly in the right context, as exemplified some of the emerging countries, especially those in East Asia. More and more countries have begun to implement or show interest in applying this instrument for their industrialization process, especially as a way of attracting foreign direct investment (so far mostly in the manufacturing sector), creating jobs, generating exports and foreign exchanges, and the like. So far, the results are quite mixed: some countries, such as China, Singapore, Malaysia, South Korea, Jordan, and Mauritius, have been very successful, while others, especially those in sub-Saharan Africa, are still struggling.

There is a big variation of special economic zones (SEZs). The term here covers a broad range of zones, such as free trade zones, export-processing zones, industrial parks, economic and technology development zones,

high-tech zones, science and innovation parks, free ports, enterprise zones, and others.

The basic concept of special economic zone includes several specific characteristics: it is a geographically delimited area, usually physically secured; it has a single management or administration; it offers benefits for investors physically within the zone; and it has a separate customs area (duty-free benefits) and streamlined procedures.<sup>1)</sup> In addition, an SEZ normally operates under more liberal economic laws than those typically prevailing in the country. In general, the parks or SEZs confer two main types of benefit, which in part explain their popularity: static economic benefits such as employment generation, export growth, government revenues, and foreign exchange earnings; and the more dynamic economic benefits such as skills upgrading, technology transfer and innovation, economic diversification, and productivity enhancement of local firms.<sup>2)</sup>

SEZs are typically established with the aim of achieving one or more of the following four policy objectives: attracting foreign direct investment (FDI); serving as “pressure valves” to alleviate large-scale unemployment; supporting a wider economic reform strategy; and acting as experimental laboratories for the application of new policies and approaches. Economists believe that SEZs can also achieve industrial development through a more efficient and effective way.<sup>3)</sup> In particular, investing in SEZs can provide a

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1) World Bank (2008).

2) Douglas Zhihua Zeng, “Building Engines for Growth and Competitiveness in China: Experience with Special Economic Zones & Industrial Clusters,” World Bank (2010).

3) D. Madani, “A Review of the Role and Impact of Export Processing Zones,” World Bank Policy Research Working Paper 2238 (1999); J. P. Cling and G. Letilly, “Export Processing Zones: A Threatened Instrument for Global Economy Insertion?” DIAL/Unite de Recherche CIPRE Document de Travail DT/2001/17 (2001); FIAS, “Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development ,” World Bank (2008); Zeng, “Building Engines for Growth and Competitiveness in China”; (2010)T. Farole and G. Akinci, eds., “Special Economic Zones: Progress, Emerging Challenges, and Future Directions,” World Bank (2011); B. Fuller and P. Romer, “Success and the City:

bundling of public services in a geographically concentrated area; improve the efficiency of limited government funding/budget for infrastructure; facilitate cluster development, or agglomeration of certain industries; and propel urban development - providing conducive living conditions for workers and for diaspora science and technical personnel, and conglomeration of services, including obtaining the economy of scale for environmental services such as water treatment plants, and solid waste treatment plants. Thus the zones can be conducive to job creation and income generation, and potentially, to protecting the environment and promoting green growth and eco-friendly cities.<sup>4)</sup>

Empirical research shows that many SEZs have been successful in attracting FDI and generating jobs and exports and that they demonstrate marginally positive cost-benefit effect.<sup>5)</sup> However, many scholars still view zones as a second- or third-best options for development, whose success is confined to specific conditions over a limited time horizon.<sup>6)</sup> Furthermore, there are some concerns that zones may become “enclaves.”<sup>7)</sup>

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How Chartered Cities Could Transform the Developing World?” MacDonald-Laurier Institute (2012).

- 4) Justin Yifu Lin and Y. Wang, “China-Africa Cooperation in Structural Transformation: Ideas, Opportunities and Finances,” UNU-WIDER working paper 2014/046 (2014).
- 5) J. Chen, “Social Cost-Benefit Analysis of China’s Shenzhen Special Economic Zone.” *Development Policy Review* 11, no. 3 (1993): 261-71; K. Jayanthakumaran, “Benefit-Cost Appraisals of Export Processing Zones: A Survey of the Literature,” *Development Policy Review* 21, no. 1 (2003): 51-65; R. Monge-Gonzalez *et al.*, “Cost-Benefit Analysis of the Free Trade Zone System: The Impact of Foreign Direct Investment in Costa Rica,” OAS Trade, Growth and Competitiveness Studies, Organization of American States, 2005; P. Warr, “Export Processing Zones: The Economics of Enclave Manufacturing,” *World Bank Research Observer* 9, no. 1 (1989): 65-88; Zeng, “Building Engines for Growth and Competitiveness in China”; B. Fuller and P. Romer, “Success and the City (2012).”
- 6) K. Hamada, “An Economic Analysis of Duty-Free Zones,” *Journal of International Economics* 4 (1974); D. Madani, “A Review of the Role and Impact of Export Processing Zones (1999).”
- 7) R. Kaplinsky, “Export Processing Zones in the Dominican Republic: Transforming Manufactures into Commodities,” *World Development* 21, no. 11 (1993): 1851-65.

The first modern industrial zone was established in Shannon, Ireland, in 1959. Since the 1970s, starting in East Asia and Latin America regions, SEZs - initially mostly in the form of export processing zones - have been established to attract FDI in the labor-intensive manufacturing sectors to encourage exports.<sup>8)</sup> This is a divergence from the traditional import-substitution policies. Export processing zones are typically fenced-in estates with strict customs controls and most of the products (generally over 80 percent) produced in the zones have to be exported. This model was successful in many countries, such as South Korea, Taiwan (China), Vietnam, Bangladesh, Mauritius, Dominican Republic, and El Salvador. Many new zones have been set up since, and by 1986, according to the International Labour Organisation, there were 176 zones in 47 countries. By 2015 it was estimated that there are around 4,300 zones in more than 130 countries.<sup>9)</sup>

However, export processing zones, which are called “Zones 1.0,” also have their limitations - they tend to become enclaves without much linkage to the local economy, and they rely heavily on fiscal incentives. Given these limitations and the changing global macroeconomic and regulatory environment, many countries began to move toward the modern concept of SEZs, which are larger and have more linkages with the local economy. They are also multifunctional and less reliant on incentives. Such SEZs are called “Zones 2.0.” Some countries, such as China, even declared a city or a province as a SEZ to test market-oriented economic reforms. Such an approach played an important catalytic role in the rapid economic growth and transformation in China and other Asian tigers. The SEZ record in Africa is more mixed. Except for the Mauritius success story and some modest achievements in Lesotho, Kenya, and Madagascar, the vast majority of SEZs in sub-Saharan Africa have not had a transformative impact.

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8) Thomas Farole, “Special Economic Zones in Africa: Comparing Performance and Learning from Global Experience,” World Bank (2011).

9) “Special Economic Zones: Not So Special,” *The Economist* (April 3, 2015).

With the increasing concern about global climate change and environmental sustainability, a new type of industrial zones has emerged that is heading toward an even more comprehensive and integrated approach. Such an approach synthesizes the experiences of Zones 1.0 and 2.0 and works to create an integrated solution that addresses global new trends in low-carbon or green growth as well as trade and investment policies with domestic institutional frameworks, industries, and communities.<sup>10)</sup> A main manifestation of the “Zones 3.0” is the eco-industrial parks. EIPs cover a wide spectrum of approaches, all of which lead to a more sustainable economic development. Depending on the different priorities of park programs, EIPs may be given different names. These could be influenced by the national industrial estate framework (e.g., industrial zones as opposed to parks) and development priorities of the country or zone developer (e.g., greenhouse gas emission reduction vs. ecology or waste management).<sup>11)</sup> The following is a list of EIPs in different variations.

#### **EIPs: Different Approaches, Similar Goals**

**Low-carbon zone or park** lower carbon emissions within the industrial area through rigorous greenhouse gas emissions calculations and annual target setting. Implementing measures at zone and firm level are focused on largest emissions reduction opportunities.

**Eco-industrial zone or park** ecological improvements in terms of reducing waste and improving environmental performance of firms. South Korea uses this term primarily for its work on industrial symbiosis.

**Green zones** reduce resource use within their infrastructure and tenant firms as in an EIP, and they also focus on generating investments in green manufacturing and services.

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10) “Mainstreaming Eco-Industrial Parks,” World Bank Group (2016).

11) *Ibid.*

**Sustainable industrial area** focus on the management level of an industrial zone or park with the intent to guide the industrial area as a whole to become more sustainable. Although it is not dealing with the individual companies, the sustainability framework on the park level is likely to initiate and promote positive changes on the company level as well. **Eco-towns** refer to an urban planning and environmental management approach where industries located in the designated area pursue synergies in resource utilization, waste management, and environmental preservation; resource efficiency within their manufacturing processes and among the industries; and promotion of industrial and economic development.<sup>13)</sup>

**Circular economy zones (or circular transformation of industrial parks)** aim to promote resource efficiency, waste management, and emissions control in firms, zones, and regions through circular economy patterns.

Source: World Bank Group (2016).

The roots of EIPs go back to as early as the late 19th century in European industrial zones, however, they truly began to develop in the post-World War II period in Denmark, Germany, and Finland. It happened in an unplanned, organic way as a result of resource constraints and high energy costs, mainly taking the form of industrial symbiosis and efficiency measures. In the 1990s, other European countries and non-European developed countries such as the United States, Japan, and Canada started incorporating EIP concepts, partially or fully, in their design of industrial zones. In the 2000s, Japan, China, and South Korea supported EIP efforts with national policies as a means to strengthen their global competitiveness. Hence, in the past five years, EIPs became a prominent global tool for industrial zones and parks

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13) “Development of Eco-Towns in the Asia-Pacific Region,” United Nations Environment Program (2006).

while retrofit activities continued in more than 40 countries.<sup>14)</sup> It is estimated that about a dozen EIPs are under construction and that more than 30 new development retrofit projects are in the pipeline globally.<sup>15)</sup>

Regardless of the specific type, for zones to be successful, the zone programs must be adapted to the host country's local situation and build on its comparative advantages. Under this approach, the key is to make the zones an integral part of the country's long-term development strategy, taking into account the commercial sustainability, target markets and businesses, growth trajectory, infrastructure availability, skills and technology innovation capability, and environment sustainability. This is particularly important because economic transformation can take decades. These initiatives should also be featured in national plans for research and innovation, thus reflecting the importance of parks in innovation policy. Similarly, regions and localities, as important players in industrialization and the knowledge-based economy, should focus on the integration of research and development (R&D) and innovation into their development strategies. In this regard, it is important for policymakers to undertake joint actions to promote synergies and coordination among the different players. Policymakers and practitioners at both the central and local levels need to make concerted efforts to:

- Make economic zones effective in attracting quality investments, especially the anchor investors.
- Ensure that zones are economically viable and deliver positive externalities, including catalyzing economic reforms and facilitating learning, innovation, upgrading, and structural transformation.
- Ensure the sustainability of economic zones from an institutional, social, and environmental perspective.

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14) "Mainstreaming Eco-Industrial Parks," World Bank Group (2016).

15) *Ibid.*

One important aspect worthy of attention is that the impact of parks or SEZs on host societies goes well beyond economic efficiency. Park or zone programs that fail to offer opportunities for quality employment and upward mobility for trained staff, derive their competitive advantage from exploiting low-wage workers, and neglect to ensure environmental sustainability are unlikely to be successful in achieving the possible dynamic benefits, and instead are likely to be forced into a race to the bottom. By contrast, park or zone programs that recognize the value of skilled workers and seek to provide the social infrastructure and working and physical environment in which such workers thrive will be in a position to facilitate upgrading.<sup>16)</sup>

## **2. Business Hubs**

Compared with zones or parks, the concept of a business hub is much more loose and broad. A hub is normally a city or a region with high concentration of business activities and services such as trade, finance, or logistics. A hub is normally not fenced like a delimited zone. However, zones or parks (especially those that are service-oriented) could be effective instruments to facilitate the formation of a business hub in some cases, such as the Incheon Free Economic Zone, which is being positioned as a logistics hub for the Northeast Asia region. Asia is the home of many successful business hubs such as Singapore, Hong Kong, and Dubai, which have all become global centers for business, finance, and logistics through strong agglomeration of business service firms, especially big multinationals.

Hubs often take time to develop. Multinational corporation regional head-quarter hubs, for example, tend to develop after many years of hassle-free

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16) T. Farole and G. Akinci, eds., “Special Economic Zones: Progress, Emerging Challenges, and Future Directions” (2011).

business in a particular location. They often start with an office, then upgrade to a distribution center, to an assembly location, or a regional service or operation center with engineering and R&D activities.<sup>17)</sup> Only after a great deal of trust and a high level of confidence have been built will multinationals or big firms decide to establish a new hub or relocate hub activities to a new location.

For hubs of any kind to develop, they generally need to be supported by two types of infrastructure:

- Hard infrastructure - including information and communication technology (ICT), transportation/logistics infrastructure, quality educational and medical, as well as leisure facilities for expats and their families.
- Soft infrastructure - including widely spoken English, sound legal and regulatory system, conducive role of government, social infrastructure, international culture, competitive financing, and a strong supply of skilled people.<sup>18)</sup>

In Asia, there is no lack of spectacular success stories when it comes to building business hubs. In just 40 years, Singapore transformed itself from a low-income, low-value-added agrarian society into one of the world's most affluent countries. An ex-colony and a strategic entrepôt of Britain in the Far East until its independence in 1965, Singapore has since adopted a developmental approach to boost its export-led growth through intensive trade links with the developed West. As a city-state, it has heavily relied on developed countries for multinational investments, market exports, and, to a substantial extent, transfer of technology and workforce upgrading.<sup>19)</sup>

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17) You-II Lee. and M. Hobday, "Korea's New Globalization Strategy: Can Korea Become a Business Hub in Northeast Asia?" *Management Decision* 41, no. 5 (2003): 498-510.

18) *Ibid.*

Today, Singapore is one of the world's most successful business hubs, boasting financial, trade, and logistics services. It is also a high-value-added petrochemical refining center. All these achievements have been made possible by efficiently implementing educational and training policies that augmented the supply of skills; carefully building the institutions of a market economy; investing strategically in logistics infrastructure - the software as well as the hardware - to keep pace with emerging technologies; and implementing a multitude of actions aimed at improving the business climate.<sup>20)</sup>

Another stunning success is Hong Kong. A great seaport and commercial center, Hong Kong grew to prosperity on the entrepôt trade with China, with its strategic location in the heart of East Asia on China's southeastern coast convenient for transshipment of goods to and from the West. Like Singapore, it has become one of the world's most successful business and financial hubs. That was not always the case. When Hong Kong was acquired by the British in 1841 as a trading settlement, the island was a barren, almost uninhabited rock. Lacking in resources, tillable land, or even adequate water supply, its principal asset was a sheltered deepwater harbor.<sup>21)</sup> Besides its advantageous location, Hong Kong was able to grow and attract commerce from all nations because it offered a stable and clean government, the rule of law, low taxes, a gateway to mainland China, human resources development, and a free economy.<sup>22)</sup> It reverted to Chinese sovereignty in 1997.

Hong Kong today is widely recognized as one of the most open, internationally oriented economies in the world, with free trade at its core. The

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19) T. C. Wong, "The Transformation of Singapore's Central Area: From Slums to a Global Business Hub?" *Planning Practice & Research* 16, no. 2 (2001): 155-70.

20) S. Yusuf and K. Nabeshima, *Post-industrial East Asian Cities: Innovation for Growth* (Washington, DC: World Bank and Stanford Economics and Finance, 2006).

21) Foundation for Economic Education, "Hong Kong - A Success Story," First National City Bank (1960).

22) C. B. Ramon-Berjano, S.X. Zhao, and Y. M. Chan, "Hong Kong's Transformation into a Service Hub," *Asian Survey* 51, no. 4 (2011): 584-609.

Heritage Foundation in the United States has consistently rated Hong Kong as the world's freest economy - ahead of Singapore - since its Index of Economic Freedom was created in 1995. Apart from Hong Kong's location, its continuing economic success derives from numerous factors: a low tax regime, transparent legal system, impartial judiciary, robust financial system, state-of-the-art infrastructure, free flow of capital and information, entrepreneurial spirit, clean government, and commitment to free trade and free enterprise. In addition, the local government has created a business-friendly environment by providing support services and infrastructure, as well as encouraging innovation and technological improvements in order to shift toward knowledge-based and high-value-added activities. For example, the capacity for international telecommunications facilities (in cable) has been enhanced 180-fold over the past seven years by the market-oriented government approach.<sup>23)</sup>

Another relatively recent Asian success story in making a global business hub is Dubai. Through a meteoric rise, today's Dubai has become a dynamic regional business hub; a high-tech center that has attracted the likes of Microsoft and Oracle; a world-class leisure destination; a shopping mecca that attracts consumers from around the world; a major conference site that hosted the 2003 World Bank/International Monetary Fund annual meetings to much praise; and a global, cosmopolitan city in the making, where people from more than 180 nationalities live and work. The success of Dubai could be attributed to a good leadership and good governance, a first-class infrastructure, a business-friendly environment that abhors red tape, a willingness to take risks, and a business culture of innovation and change that has attracted talent from all over the world.<sup>24)</sup>

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23) *Ibid.*

24) A. Molavi, "Dubai Rising," *Brown Journal of World Affairs* 12, no. 1 (2005): 103-10.

### 3. Structure

This book is organized in the following structure: it starts with this introductory chapter, and a brief introduction of each of the cases:

- Chapter 2 and 3 discusses how South Korea has introduced different types of SEZs at different development stages to promote its industrialization and economic growth, with a focus on two types of zones: free trade zone (FTZs), with the example of Masan FTZ, which has been considered a great success story of South Korea's SEZ policies, though it faces challenges for continuing its success today; and free economic zones, which aim to build international business hubs by attracting high-tech and service industries.
- Chapter 4 examines the case of Shanghai economic zones, including the Shanghai Free Trade Zone. Depending on the development stages and external and internal environments, Shanghai has used different forms of economic zones to test reforms and new policies and to continuously upgrade its industrial structures. The most recent Shanghai Pilot Free Trade Zone is intended to test reforms in trade, finance, and other service sectors through the negative list, which is a great step forward in China.
- Chapter 5 sheds light on how Singapore effectively attracted FDI to build up its cutting-edge industries. The country achieved the transformation first by being a hub for multinational corporations and relying on foreign direct investment as the main driver for growth. Later, as a global city, it attracts creative talent from around the world to help it build up the innovative capacity of the economy. The pragmatic and entrepreneurial approaches of the government have played a crucial role in its success.
- Chapter 6 analyzes Hong Kong's experience of becoming a global busi-

ness and financial center, and the policy implications of that. Key factors for Hong Kong's success include a conducive business environment that encourages free trade and free capital flow, liberal and non-interventionist policy, a well-established legal system, low taxation system, sophisticated physical infrastructure, an educated workforce and professional talent, and close economic relations with mainland China. Today it also faces fierce competition from other Asian rivals, especially Singapore.

- Chapter 7 focuses on the Jebel Ali Free Zone within the context of Dubai's overall development story. It assesses the key factors that have made JAFZ a success, its role in positioning Dubai as a global logistics hub, and its contribution to growing Dubai's production base, as well as the challenges and policy decisions faced along the way. Key success factors for JAFZ include its strategic location, a pro-business environment with transparent legal system, first-class infrastructures, well-established global connectivity, and efficient supply chain management, among others. At the same time, it is confronted with challenges to diversify its export sectors, upgrade its value chains, and attract more high-end talent.

## **4. SEZs and Business Hubs are Contextualized Policy Tools**

All of these case studies show that successful industrial policies and a catalyst role of government will indeed help countries, regions or cities to achieve competitiveness and structural transformation, especially at the early stage of development. This is particularly evident in East Asia. However, while business hubs tend to induce a better business environment in a broad-

er area, and in some cases less restrictive on sectors, SEZs tend to have a narrower focus both in terms of area and sectors. It is important to understand that SEZs are not a panacea and should be developed with caution. Just as there are many successful SEZs, there are many failed examples as well.

The global best practice is to use SEZs to address market failures or binding constraints that cannot be addressed through other options such as nationwide or sector-wide reforms. Such constraints may include issues related to land, infrastructure, or trade logistics. If the constraints can be addressed through country-wide reforms, sector-wide incentives, or universal approaches, an SEZ might not be necessary. That is why many scholars call it the “second-best option.” However, for countries that have no better ways to overcome the binding constraints in a specific context, SEZs could be regarded as the “best option.” Examples of this are China and Vietnam, where SEZs were the only way to pursue market-oriented reforms at the initial stage.

Since an SEZ is a very expensive undertaking and involves very careful and skilled planning, design, and management, it should not be taken lightly. China leveraged the SEZ as a breakthrough toward a market-oriented growth model in an overall very constraining environment and achieved transformative impact. Its first SEZ - Shenzhen - achieved stunning success, mainly because it was the testing ground for many of the economic reforms dubbed as the reform and open-door policies. It set a standard for other SEZs that emerged later in China, such as the Shanghai Pudong New Area, China-Suzhou Industrial Park, and Tianjin Binhai New Area.

At the same time, it should be pointed out that in an extreme environment in the late 1970s and early 1980s, China offered generous fiscal incentives besides good infrastructure and efficient public services to lure foreign investors. However, today’s macro-environment is different, and many African countries have become the destination of industrial transfer from

East Asia. Instead of focusing too much on tax incentives, they should put more effort into improving the business environment, including infrastructures, and consider implementing “smart incentives” that encourage skills training, technology transfer/upgrading, and local economic linkages.<sup>25)</sup>

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25) Douglas Zhihua Zeng, “Global Experiences with Special Economic Zones: Focus on China and Africa,” World Bank Policy Research Working Paper no. 7240 (April 2015).


## Chapter 2



# Special Economic Zones as a Tool of Industrial Development: Case of Masan FTZ in South Korea

Hyung-Gon JEONG (KIEP)

Jong-Hun PEK (KIEP)



1. Introduction

2. Export Processing Zone as a Tool of Industrialization: Case of Seven Zones in South Korea

# 1. Introduction

The Republic of Korea has achieved remarkable economic growth in the past several decades as the country has become one of the fastest-growing, dynamic economies in the world. From 1962 to 2015, the South Korean GDP increased by 321 times and per capita GDP rose from \$87 to \$27,964. The nominal GDP also grew by 613 times and rose from \$2.3 billion to \$1,410 billion.<sup>1)</sup> Today South Korea is the 11th-largest economy in the world. With the development of its economy and concomitant industrialization, the country has shifted its industrial production from one that is labor-intensive to a high-technology industry, which is usually composed of information technology (IT) and electronics, steel, shipbuilding, auto industry, and chemicals. Tertiary industry accounts for a continuously rising share of the ROK's GDP, from 55.7 percent in 1970 to 59 percent in 2015. The counterpart of this expansion was a fall in the share of primary industry, from 26.2 percent to 2.0 percent during this period. The share of secondary industry in GDP was 38 percent in 2015.<sup>2)</sup>

South Korea's industrialization began a few years after the Korean War. The country was devastated by the war, and its economy did not recover until the end of the 1950s. Until 1962, most of the population was active in agriculture and the clothing industry, which were labor-intensive. By the early 1960s, the economic development strategy was characterized predominantly by policies of import substitution with an emphasis on production of consumption goods. But with the establishment of a military government, the policy shifted to export-led industrialization, and as a result, the trade regime was heavily biased in favor of exports during this period. At this early stage of economic development, exports were recognized as the main conduit of

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1) Bank of Korea, Economic Statistic System, <http://ecos.bok.or.kr/> (accessed December 19, 2015).

2) World Bank, "World Development Indicators 2015" (Washington, DC: World Bank, 2015), 7.

foreign exchange receipts, which in turn could be used to purchase intermediate goods for domestic production and exports.

An export processing zone (EPZ) policy was introduced in South Korea in the early 1970s as part of the export-oriented economic development strategy. The idea of establishing EPZs was initially suggested by the members of the Federation of Korean Industries, an association of large South Korean conglomerates, during its monthly “export situation room” meeting.<sup>3)</sup> The government established its first EPZ at Masan in 1970, followed by one in Iksan in 1973. Their designation was enabled by the Free Export Zone Establishment Act. The government provided very favorable incentives and business environments to foreign investors within the EPZs (renamed as free trade zones, or FTZs, in 2000). Today there are 13 such zones.

Meanwhile, as of 2016, there are various types of special economic zones (SEZs) in South Korea. Masan FTZ has contributed a lot to the development of the ROK’s export industry by acquiring foreign technologies, engaging in foreign exchanges, and creating employment. It is regarded worldwide as a successful and representative of SEZs in South Korea. In fact, the World Economic Processing Zones Association has chosen Masan Free Trade Zone as the successful model for promoting developing countries’ foreign investment policy.

However, Masan has recently faced new challenges due to the drastic industrial structure changes in the ROK economy and global economic environment changes such as the acceleration of tariff reduction according to free trade agreement (FTA) contracts. Since the 1990s, various kinds of special economic zones had been proposed along with industry accelerations as

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3) Then South Korean President Park Chung-hee presided over this meeting between high-ranking government officials and the leaders of the private sector in 1965. The basic purpose of the meeting was to regularly review export performance and to remove bottlenecks based on suggestions from the private sector.

well as changes in the internal and external economic environment. After South Korea's foreign exchange crisis in 1997, foreign investment zones were introduced with the purpose of attracting foreign direct investment (FDI). The Foreign Investment Promotion Act established two separate kinds of foreign investment zones: complex-type foreign investment zones and individual-type foreign investment zones.<sup>4)</sup> South Korea currently has 20 complex-type foreign investment zones.

Since the turn of the century, South Korea has been introducing more types of special economic zones. Most of them were introduced because of economic needs; however, there were also political motives with such strategies. As a result, a number of identical special economic zones have been spread out all over the nation.

Since the turn of the century, South Korea has introduced free economic zones (FEZs) for the purpose of attracting the world's leading companies and establishing its status as a financial center, under the banner of "Business Hub for Northeast Asia." In the wake of globalization and the rise of China, the objectives were attempting industrial transformation by developing high value-added industries such as logistics and IT and finance as well as building the ROK into a business hub for the region. In particular, free economic zones were pursuing high value-added manufacturing, especially regulation-free zones, to strengthen the competitiveness of the service industry. Free economic zone policy was an important milestone in South Korea's SEZ policies. As indicated, it was introduced to help transform from a manufacturing-based industry to one with high value added. However, partially because of political motives, too many free economic zones have been

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4) Complex-type foreign investment zones were introduced in 1994 as a way to promote foreign investment by foreign companies having advanced technologies and state-of-the-art high-technologies. Individual-type foreign investment zones were also introduced for the purpose of promoting foreign investments. The zones were designated according to the needs of the foreign investors.

introduced. In 2003 there were only three free economic zones in South Korea - Busan, Incheon, and Gwangyang - but now there are eight. As a result, financial support from the central government has been more dispersed, and it has become harder for the free economic zone policy to be successful.

In addition, as described above, South Korean government is running many other kinds of special economic zones besides the free trade zones and free economic zones with the purpose of fostering strategic industries and developing rural areas. Special economic zones for “balanced development policy” include special economic zones for regional development, enterprise city, and innovation city, whereas special economic zones for “fostering specific industries policy” include Innopolis and High-tech Medical Complex. In addition, similar to the free economic zones, Saemangeum-Gunsan Free Economic Zone is being developed with the strong support of the central government. Special economic zones for regional development are being designated in 166 places, and the development projects are being carried out by local governments (See Table 2-1).

**Table 2-1. Current Status of South Korean Special Economic Zones**

SEZ type	Region	Area (thousand square meters)	% of total SEZ area
<b>Enterprise City</b>	Chungju, Wonju, Taean, Yeungnam, Haenam	61,390	4.0
<b>Saemangeum</b>	Saemangeum	409,200	26.5
<b>Innopolis</b>	Daedeok, Gwangju, Daegu, Busan, Chonbuk	139,235	9.0
<b>Int. Science-Business Belt</b>	Yuseong, Sejong, Cheongju, Cheonan	3,963	0.3

**Table 2-1. Continued**

SEZ type	Region	Area (thousand square meters)	% of total SEZ area
<b>Free Economic Zone</b>	Incheon, Busan-Jinhae, Gwangyang Bay, Yellow Sea, Daegu-Gyeongbuk, Saemangeum, East Coast, Chungbuk	335,900	21.7
<b>Foreign Investment Zone</b>	Complex type (20 zones)	8,711	0.6
<b>Free Trade Zone</b>	Masan, Gunsan, Daebul, and 10 others (13 zones)	31,215	2.0
<b>Special Economic Zone for Regional Development</b>	(166 zones across the country)	556,415	36
<b>Total</b>		1,546,029	100

Source: South Korean SEZ development authorities.

As described above, various types of special economic zones have been operating in South Korea since the 1970s (Masan EPZ). In most cases, each special economic zone has been introduced according to the needs of the ROK economy at a given time, however, at the same time, more SEZs have been designated than are actually needed, eventually weakening SEZs' roles and functions. In this chapter, two of the eight types of special economic zones will be examined in more details.

First, free trade zone (FTZ) policies will be further analyzed with the example of Masan FTZ, which has been considered a success story of South Korea's SEZ policies. Second, the free economic zone policies, which aim to make South Korea into an international business hub by attracting high-tech and service industries, will be studied in detail. The reason the two cases

were chosen is that FTZs and FEZs have something in common: both have been the means of structural changes in South Korea industry through attraction of FDI. Furthermore, they will continue to serve a similar purpose in the future.

In particular, Masan FTZ was designed for boosting labor-intensive industries during the initial industrialization of South Korea, and it was a big success in terms of technology transfer, acquisition of foreign currencies, and creation of jobs. In this respect, Masan has become a role model in the SEZ policy for developing countries. Meanwhile, the Incheon Free Economic Zone, as one of the eight FEZs, was intended to build an economic hub in Northeast Asia by promoting service industries and attracting FDI in high-tech industries. Incheon has a huge locational advantage in that regard by being close to the Incheon International Airport and being highly accessible to China, Japan, and major East Asian cities. In particular, Incheon has a bright future as an FEZ due to the aggressive deregulation policies of South Korea and encouragement of biotechnology industries; because of that, for example, it has attracted Samsung Biologics. In South Korea's industrialization process, Masan FTZ had played a great role in the country's transformation from an agricultural economy to industrialization. Likewise, IFEZ is expected to play an important role in the transformation from manufacturing industries to service industries. In the following sections, we are going to focus on the two special economic zones in detail and discuss how they have contributed to the industrialization of the South Korean economy, the critical factors for their success, and the failures in developing and managing the two zones.

## **2. Export Processing Zone as a Tool of Industrialization: Case of Seven Zones in South Korea**

### **2-1. Background**

As mentioned, Masan Export Processing Zone was established in January 1970 based on the Export Zone Establishment Act as the first foreign exclusive industrial complex in South Korea. It was aimed at enhancing the national and regional economies by attracting foreign investment, promoting exports, creating jobs, and transferring foreign technology to domestic companies. In 1973, Iksan was designated as an export processing zone, and a total of 11 FTZs were designated since the early 2000s. Masan was administered as a free export zone based on the manufacturing and processing industry from 1970 to July 2000, however, on July 13, 2000, it was reorganized as a comprehensive free trade zone to guarantee tenant business activities by providing various incentives according to the amended laws. Since then, logistics, warehouse, transport and cargo, packing, exhibition, merchandising, the data processing industry, and more have been also encouraged in the zone.<sup>5)</sup>

As of February 2016, there are 302 tenant companies in 13 FTZs in South Korea: 214 of them are foreign and the other 88 are domestic. Most of the investors are in the electric, electronics, and precision machinery-related industries. The total area of FTZs is 31.2 square kilometers. Seven of the 13 FTZs are located in industrial parks, and the other six are located either in a harbor or at an airport. Tables 2-2 and 2-3 show the status of FTZs in South Korea.

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5) Source: Masan Free Trade Zone Office website, <http://www.ftz.go.kr/eng/masanFTZ/aboutMFIZ.jsp> (accessed February 22, 2016).

**Table 2-2. Current Status of South Korean Free Trade Zones**

Type	Quantity	Area (thousand square meters)	Number of Entities (Operating Companies)
Industrial complex type	7	5,790	176 (foreign: 118, domestic: 58)
Seaport-type	5	22,410	105 (foreign: 90, domestic: 15)
Airport-type	1	3,015	21 (foreign: 6, domestic: 15)
Total	13	31,215	302 (foreign: 214, domestic: 88)

Source: Ministry of Trade, Industry, Energy (2015), p.

**Table 2-3. Current Status of Production-oriented Free Trade Zones**

		Masan	Gunsan	Daebul	East Coast	Yulchon	Ulsan*	Gimje*
Designation date		Jan. 1970	Oct. 2000	Nov. 2002	Dec. 2005	June 2005	Aug. 2008	Jan. 2009
Investment Enterprises	Production (in million KRW)	1,944,514	617,297	814,753	17,568	42,726	-	169,540
	Export (in thousand \$)	1,164,518	463,521	707,687	9,867	39,715	18,694	11,590
	Number of Contractors: Residents (Sum)	101	29	34	14	10	27 (33)	3 (5)
	Number of Foreign Investment Companies (Sum)	58	12	23	8	9	6 (12)	2 (4)
	FDI (in thousand \$)	106,466	31,861	38,502	2,967	2,732	10,587	273
	Total Investment (in million KRW)	187,786	48,199	45,150	13,936	16,362	12,516	4,800 -24,150

**Table 2-3. Continued**

		Masan	Gunsan	Daebul	East Coast	Yulchon	Ulsan*	Gimje*
Employment		6,157	1,301	2,715	105**	145	186	80 (116)
Progress of Development	Completion	Done	Done	Done	Done	Done	In Progress	In Progress
	Designated Area (in thousand square meters)	1008	1256	1838	248	344	827	991
	Parceled-out Area (in thousand square meters)	758	1081	1033	192	269	485	764
	Sales Rate (%)	100	85.3	95.4	23.4	48.7	77.4	91.6
Total Expenses (Planned, in hundred million KRW)		3,025	1,301	2,715	588	762	2,433	1,314

Notes: \* Ulsan and Gimje: ( ) is given as of the first half of 2015.

\*\* Employment of East Coast is given as of September 2015.

Source: Ministry of Trade, Industry, Energy (2015).

Among the seven FTZs located in the industrial parks, the one in Masan is the most successful in terms of FDI attraction, export volume, number of tenant companies, amount of production, and other measures. In the early stage, the majority of foreign investment was in light industry, but it gradually changed to electric, electronics, and precision machinery-related industries. Due to solid infrastructures, such as airport, seaport, and highways, as well as the availability of related industries and workforces in adjacent cities, Masan has achieved the highest volume of foreign investments in South Korea.<sup>6)</sup>

6) Hyung-gon Jeong, *et al.*, "The Project for Export Promotion and Special Economic Zones Improvement in Kazakhstan," Policy Research Issues of KOICA (ROK) (August 2009).

## 2-2. Evaluation of the FTZ Policy in South Korea

What follows are evaluations of the seven industrial complex-type FTZs and their outcomes. The indicators for the evaluation on the performance of FTZs are employment effects, export production, and foreign investment and number of foreign-invested enterprises. The variables are converted into indexes by unit (square kilometers) and are used for efficiency evaluation.

### 2-2-1. Employment

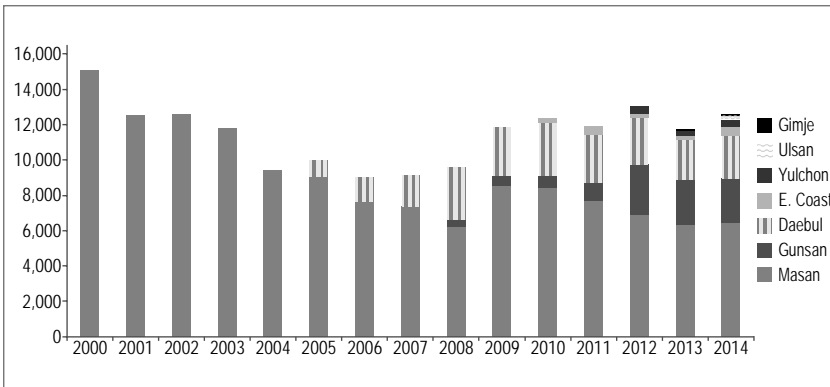
Masan is far superior to other FTZs in terms of employment outcomes. When the FTZs are compared to the average level of employment effect (persons per square kilometer) of all the industrial complexes in South Korea, the outcomes of all FTZs are lower than the average, with the exception of the Masan and Daebul zones.<sup>7)</sup> Looking at the employment trends in FTZs, Masan shows continual decreasing in the 2000s in employment per unit, but some FTZs that were introduced recently, such as Gunsan area, have exceptional employment outcomes. This can be explained by the reduction of labor-intensive industries in accordance with the change of the industrial structure. As shown in Figure 2-1, the peak of Masan FTZ's employment was in 1986, when the total employment reached 34,883. Since then, it began to fall sharply. From 1971 to 1986, the share of wages in total exports was 6.4 percent; from 1971 to 2016, it reached 19 percent. The lowered share of wages despite the increase in total production and exports was due to changes in the industrial structure. In particular, Masan FTZ faced changes in the production structure as well as the gender structure of employment in the 1990s. As seen in Figure 2-2, the proportion of female employees began to decrease rapidly in late 1980s, and finally in 2007 the

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7) Hyung-gon Jeong *et al.*, "A Study on Korean SEZs: Fact-revealing and Improvement Plans for Korean Special Economic Zones" (Seoul: Ministry of Strategy and Finance, 2015). (in Korean)

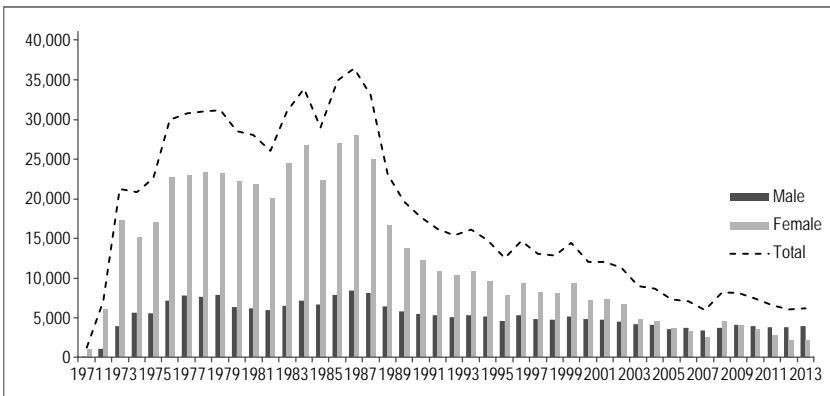
number of male employees began to surpass the number of female employees. This corresponds with the change of the industrial structure of Masan FTZ, from labor-intensive industries to skilled worker-oriented industries.

**Figure 2-1. Employment Trend of FTZs (persons/square kilometer)**



Source: Free Trade Zone Office, “Effective Ways for FTZ Management” 2015, <http://www.ftz.go.kr/kor/Morgue/Total/totalEmployment.jsp> (accessed December 17, 2015, in Korean).

**Figure 2-2. Employment Trend of Masan FTZ by Year**

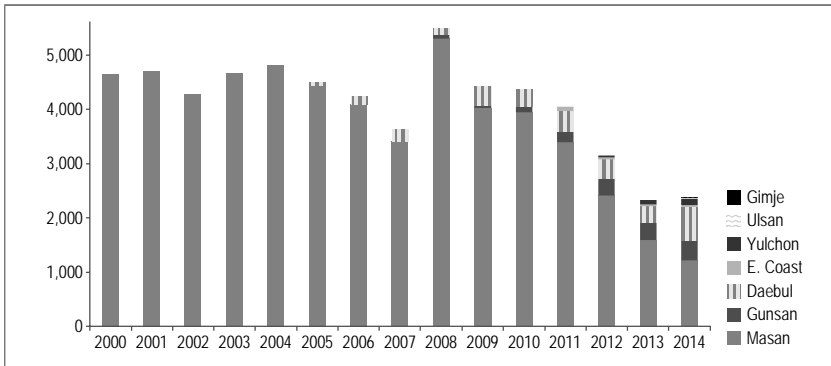


Source: Free Trade Zone Office, 2015, <http://www.ftz.go.kr/kor/Morgue/Total/totalEmployment.jsp> (accessed December 17, 2015).

## 2-2-2. Export Promotion

When comparing the export data for FTZs, Masan stands out as an outstanding performer. (See Figure 2-3) Despite the slight increase in the export figures of Daebul and Gunsan FTZs, they remain very low compared to Masan FTZ. The total export of FTZs shows a downward trend after hitting the peak in 2008.

**Figure 2-3. Export Trend of FTZs (per unit area)**  
(Million USD/square kilometer)



Source: Free Trade Zone Office, “Effective Ways for FTZ Management” 2015, <http://www.ftz.go.kr/kor/Morgue/Total/totalEmployment.jsp> (accessed December 17, 2015, in Korean).

Masan’s exports constantly increased since the early phase its designation as a free trade zone, with the increase particularly pronounced during the 2000s. After hitting a record of \$5 billion in 2008, however, the zone’s exports began shrinking rapidly. This sharp drop can be attributed to the failure of Nokia, which used to be the core business in the area, and its subsequent withdrawal from the zone. Nokia was established in Masan FTZ in 1984 under a joint investment agreement between the U.S.-based Tandy Corporation and Finland’s Nokia Oyj for the purpose of the production and

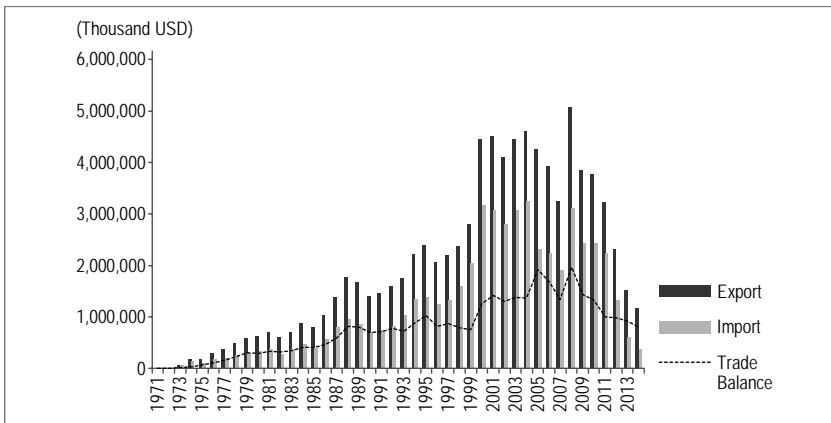
sale of mobile telephones and related electronics. Nokia hired around 2,000 employees during the mid-2000s and at one time accounted for about 80 percent of the total export in Masan FTZ. However, the company struggled in the global market, forcing it to undergo restructuring; by 2013, the number of employees was reduced from around 900 to 203, with the factory starting to produce only core products (such as smartphone modules) instead of finished products. Nokia attempted to cut the manufacturing cost by moving its production facilities to China, where it could take advantage of lower wages. Nevertheless, such efforts were unable to prevent the company from failing, which eventually brought an end to Nokia's presence within Masan FTZ.

While Nokia's withdrawal is the direct reason for the decline of export, production, and employment within the region, the zone's competitiveness has been recently under incessant pressure as well. The decline in the competitiveness can be explained by the failure to upgrade outdated industrial infrastructures, which were mostly built in the 1970s, and the reduction in incentives for foreign investors making long-term investments. Furthermore, the East Coast, Yulchon, and Gimje SEZs - all of which were newly designated in the 2000s - weren't able to function as a substitute for the deteriorating Masan FTZ. As a region, they lacked both nearby industry presence and transportation infrastructures, which undermine the area's competitiveness from the start. Their designation as FTZs was based on requests from local governments under the agenda of balanced regional development; economic considerations were a secondary issue. This explains the lack of competencies faced by several FTZs.

The export figures of each industry located within the FTZs are on the decline as well, as companies facing rising wages and other production costs are moving out of the region in search of cheaper places such as China. Another reason behind the declining export and production of FTZs can be found in the global trend of trade liberalization and FTA agreements, which led to

lower tariffs and lower trade barriers. That caused firms to opt for places where they can easily connect with their partner companies, which reduced the importance of FTZs. According to the National Customs Service, 2014 exports from South Korean FTZs totaled \$610 million, which accounted for only 0.1 percent of the nation's annual exports. For bonded factories, which offer fewer benefits than FTZs, the export figure is \$154.6 billion, or 27 percent of the national exports.<sup>8)</sup> This illustrates the tendency for exporting companies to prefer locations close to big South Korean corporations and industrial clusters, which facilitates cooperation efforts with their partnering companies, instead of locations in FTZs that offer tariff exemptions. This tendency explains why FTZs are becoming less important over the years. Focusing on Masan FTZ, the zone's exports consistently increased since its creation in the 1970s, with the growth rate at one point exceeding the nation's export growth rate. (See Figure 2-4) Today, Masan FTZ needs to find new development strategies to shift its direction to better accommodate the changing economic environment.

**Figure 2-4. Export Growth in Masan EPZ (Million USD)**



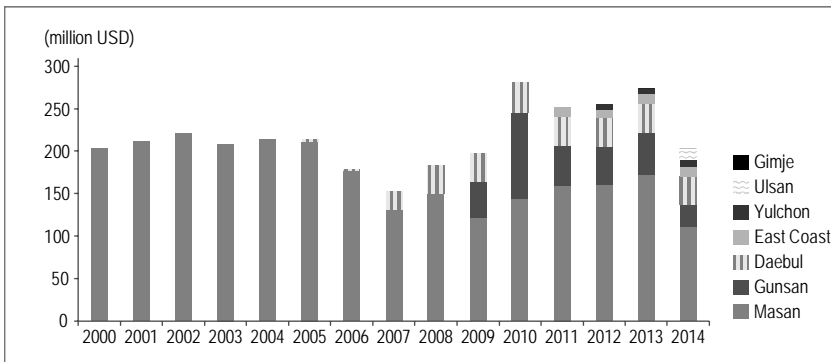
Source: Administration Agency of Masan Free Trade Zone, <http://www.ftz.go.kr/kor/Morgue/Total/totaILC.jsp> (accessed November 27, 2015).

8) *Ibid.*

### 2-2-3. Foreign Direct Investment and Earning Foreign Exchange

Of the seven FTZs in South Korea, Masan has the highest concentration of foreign-invested enterprises. Masan FTZ does considerably better than other regions in terms of attracting foreign investment. (See Figure 2-5) The relatively high foreign investments in Masan can be explained by its geographical advantage over other FTZs: good connection with highways along with being adjacent to the Busan port and airport. The integration with nearby industrial clusters was another boon for drawing foreign capital. In contrast, the Iksan EPZ was unable to attract domestic and foreign investments and consequently canceled its SEZ status in the 2000s.

**Figure 2-5. FDI Trend of FTZs (per unit area) (USD per square kilometer)**

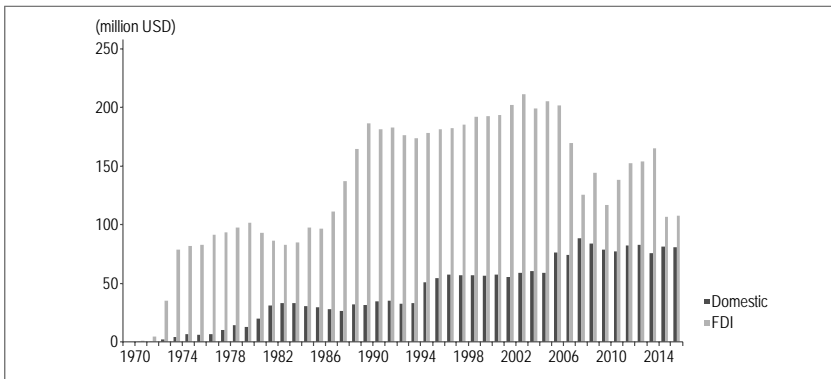


Source: Free Trade Zone Office, “Effective Ways for FTZ Management” 2015, in Korean (accessed November 27, 2015).

Figure 2-6 illustrates how much foreign capital Masan FTZ was able to draw in, on a year-by-year basis. Domestic investment was insignificant from the start, while 90 percent of the investments came from foreign companies. The initial investment was \$1.23 million - as of 2014, the total investment accrued up to \$6.1 billion, a 4,951-fold increase in about 40 years. In 2002 Masan had its highest annual average foreign investment, with \$211.4 million worth of investment directed into the area. The figure slowly declined after that, with

foreign capital consisting of only 60 percent of total investment in recent periods. Despite having been regarded as the most successful domestic SEZ in terms of attracting foreign capital, Masan FTZ has faced serious challenges in 2000s due to the changes in global economic environment. The biggest investors in Masan FTZ in the early 1970s were mainly Japanese companies. As of 2015, 35 Japanese companies were in the zone, with their investment amounting to \$86 million. Also in the zone are 11 U.S.-based companies and four EU-based companies, while the remaining eight are from other countries. Forty-four South Korean companies are situated in the zone as well.

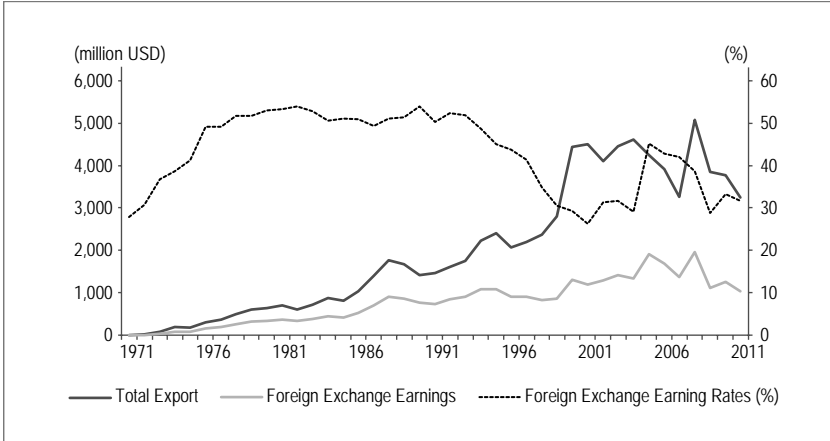
**Figure 2-6. FDI and Domestic Investment Trend of Masan FTZs by Year**



Source: Masan Free Trade Zone Office, etc. (2015) (accessed November 27, 2015).

Figure 2-7 shows Masan FTZ's foreign exchange earning rate. In 1971, the zone was able to earn only \$0.238 million in exports. The number peaked in 2008 with \$1.96 billion, but since then it has been constantly declining. The foreign exchange earning rate was initially around 27.8 percent and rose to around 50 percent in 1976. The trend continued until the early 1990s before declining. The reason for the downturn - even as exports were on the rise - can be explained by the rise in wages, increase in production costs, and global outsourcing prompted by globalization, all of which led to a decrease in value added within South Korea.

**Figure 2-7. Total Exports, Foreign Exchange Earnings, and Foreign Exchange Earning Rates**



Source: Masan Free Trade Zone Office (<http://www.ftz.go.kr/kor/Morgue/Total/totalHoldingCond.jsp>, (accessed September 8, 2016).

According to the Masan Free Trade Zone Office, on average, 43 percent of annual exports is realized through foreign currencies. The acquired foreign currencies are transferred to the region by purchasing domestic raw materials, paying employees and suppliers, and public fees. As we can see in Figure 2-7, during 1971 to 1999 Masan achieved 46.5 percent of the foreign exchange earnings rate compared with 25 percent of most countries.<sup>9)</sup> This shows the importance of multinational corporations in the success of Masan FTZ. Breaking down the nationalities of firms situated in Masan FTZ, the 35 Japanese companies invested \$85.9 million, whereas the four EU companies and 11 U.S. companies invested \$17.6 million and \$15.2 million, respectively. The rest of the foreign companies invested \$27.1 million, while the 44 domestic companies' investment totaled \$80.7 million.<sup>10)</sup>

9) Hyung-gon Jeong, *et al.*, "The Project for Export Promotion and Special Economic Zones Improvement in Kazakhstan," Policy Research Issues of KOICA (ROK) (August 2009).

10) "Foreign exchange earnings of Masan FTZ," <http://www.ftz.go.kr/kor/Morgue/Total/t>

## 2-3. The Success Factors of Masan FTZ<sup>11)</sup>

As analyzed above, Masan FTZ had been successfully operated from 1971 to 2000 under the name of Masan Export Processing Zone. By end of the 1990s, 52 of the 94 companies in Masan EPZ were established by FDI. Masan EPZ was a highly concentrated industrial complex that produced 13 to 15 percent of overall South Korean foreign exchange earnings, although its size was only 0.2 percent of the South Korean industrial complex area up to the 1990s. Due to its great achievement, Masan SEZ was considered together with Kaohsiung EPZ in Taiwan to be one of the best EPZs in the world and was chosen by the World Economic Processing Zone Association as the model for promoting foreign investment policy in developing countries. However, the Masan zone has been facing many challenges in the 2000s due to the drastic changes in the global economic environment, and the performance of other FTZs that were introduced after 2000 has also been poor. In the following sections, the success factors of Masan FTZ and the causes of failures of the other FTZs will be analyzed, and policy implications for operating FTZs will be derived as well.

### 2-3-1. Superior Location

Masan FTZ has an advantageous location, with a concentrated harbor, excellent labor resources from surrounding cities, and proximity to related industries and highly developed infrastructures, including transportation, power, and communication facilities. It is a seaside industrial complex located on the southeast tip of South Korea and is next to highways, railways, and particularly seaports. It is near Masan ports and within one hour's travel time to

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otalHoldingCond.jsp.

11) This chapter is based on Siwook Lee, "Operation System and Policies for the Success of Navoi FIFZ," in Hyung-gon Jeong *et al.*, eds., *Development of Navoi Free Industrial Economic Zone in Uzbekistan* (KDI, 2010).

the Port of Busan and Gimhae International Airport. The Busan port serves as a gateway connecting more than 100 nations and 500 seaports around the world, and it accommodates more than 40,000 incoming vessels annually. Also, Gimhae airport had accommodated about 12 million passengers and about 3.5 million tons of cargo in 2015. It provides a nonstop air route to China, Japan, Russia, Taiwan, and domestic cities. In addition, Masan FTZ is strategically located with easy access to large cities and close to the Changwon, Busan, and Gwangyang industrial complexes. Such superior location provides easy access to vast labors and related services from the neighboring industrial complex. Changwon industrial complex, which is 10 minutes' driving distance from Masan FTZ, is the nation's largest industrial complex with 1,200 companies involved in machinery, metal, electronics, and the automobile industry.

In contrast, the Iksan EPZ faced high logistics costs for import of raw materials and export of finished products because it was located far away from ports. Moreover, it had difficulties in outsourcing of raw materials or intermediate products from the domestic market because of the absence of an industrial cluster nearby. In addition, the textile industry, which is a labor-intensive industry, was the major industry of the Iksan EPZ. The textile industry fell into decline, and the Iksan EPZ failed to transform its major industry. Most of the companies in the EPZ are small and medium-sized enterprises, and there was little investment in research and development (R&D) or marketing. For this reason, the Iksan EPZ showed poor performance, and six of the foreign companies pulled out of the zone in the late 1990s. Eventually, in 2000, the Iksan EPZ was de-designated. As indicated above with the examples of Masan and Iksan, location is one of the key success factors of a SEZ on the basis of economic feasibility. That point is also proved by the examples of five other FTZs that had been introduced in the 2000s but showed very poor performances compared to Masan FTZ. The cause of the failures was that the zones were located in economically in-

appropriate areas, and they were pushed by the government's balanced development policy in a supply-driven manner.

### **2-3-2. Strong Incentives for Free Trade Zones**

Central government leads the development and operation of FTZs, and its strong support ensures an advantageous environment for corporate investment by providing inexpensive rent of sites to companies in the SEZ and offering other incentives, such as tax breaks. (See Table 2-4) Although FTZs do not sell factory sites, the government lends the factory sites at low rental rates to tenants of about 34 to 198 won (about \$0.03 to \$0.17) per square meter per month. Also, foreign-invested enterprises that invest more than \$10 million are exempted from the full cost of their rent. Businesses that feature advanced technology and provide industry support service with a new foreign investment of more than US\$1 million are eligible to lease factory sites and standard factory buildings. Leases are available for 10 years from the date of entry and are renewable.

Tenants within Masan FTZ are allowed to trade imported goods and equipment with one another and to take raw materials into the zone from outside for export with zero value-added tax (VAT). Also, there is another great tax break for foreign-invested enterprises in Masan FTZ: manufacturing companies that invested more than \$10 million and distribution companies that invested more than \$5 million are exempted from income tax and corporate tax for five years commencing the first taxable year inclusive of the startup, and a 50 percent reduction for two years after that. According to the tax exemption law, various tax incentives, such as a reduction in land tax, corporate tax, and income tax, are equally applied to free economic zones and foreign investment areas, as well as free trade zones. In Masan FTZ, companies are also exempted from acquisition tax and registration tax for up to 15 years based on the provincial regulation. To encourage technology-intensive industries for strengthening the nation's competitiveness, for foreign-invested companies

establishing new plans or an R&D facility, an extended cash grant is available for land costs, construction, machinery, materials and business setup, and other startup expenses. Last but not least, national and local governments offer financial support not only for developing technology and human talents but also for investing in medical treatment, education, and housing, the so-called soft infrastructure to cater to employees.<sup>12)</sup>

**Table 2-4. Major Incentives for Free Trade Zones**

Legal Foundation	<ul style="list-style-type: none"> <li>• Act on Designation and Management of Free Trade Zones</li> </ul>
Purpose	<ul style="list-style-type: none"> <li>• Foreign investment, trade encouragement, and local development</li> </ul>
Location	<ul style="list-style-type: none"> <li>• Near harbor, airport, industrial complex</li> </ul>
Local Characteristics	<ul style="list-style-type: none"> <li>• Free customs zone</li> </ul>
Designator	<ul style="list-style-type: none"> <li>• The minister of commerce, industry, and energy</li> <li>- Inspected by SEZ committee</li> </ul>
Qualification	<ul style="list-style-type: none"> <li>• Manufacture</li> <li>• Wholesale, logistics</li> <li>• Supporting</li> </ul>
Condition of Tax Exemption	<ul style="list-style-type: none"> <li>• Masan, Iksan: foreign investors</li> <li>• Other areas (Gunsan, Daebul, East Coast, Yulchon) <ul style="list-style-type: none"> <li>- Manufacture: More than \$10 million of foreign investors</li> <li>- Logistics: More than \$5 million of foreign investors</li> </ul> </li> </ul>
Tax Exemption	<ul style="list-style-type: none"> <li>• Value-added, tax, special sales tax, traffic tax, residence tax <ul style="list-style-type: none"> <li>- Applying the value-added tax as civil ratio</li> <li>- Exemption of special sales tax, traffic tax, residence tax</li> </ul> </li> <li>• Corporation tax, income tax <ul style="list-style-type: none"> <li>- Masan, Iksan: 100% for 5 years, 50% for 2 years</li> <li>- Other areas: 100% for 3 years, 50% for 2 years</li> </ul> </li> <li>• Acquisition tax, registration tax, asset tax, land tax: 15 years (the exemption ratio shall follow the local government's regulation)</li> </ul>

12) "Incentives of Masan FTZ," Masan Free Trade Zone Office, <http://www.ftz.go.kr/eng/investment/incentive.jsp> (accessed November 27, 2015).

**Table 2-4. Continued**

Customs	<ul style="list-style-type: none"> <li>• Customs for foreign items and partial Korean items that are being used in the zone can be exempted or returned</li> </ul>
Rental fee	<ul style="list-style-type: none"> <li>• 1% of the land price (It will be determined after discussion)</li> </ul>
Tax Relief (National Tax)	<ul style="list-style-type: none"> <li>• Corporate tax, income tax: 100% for 5 years, 50% for 2 years               <ul style="list-style-type: none"> <li>- Manufacture: More than \$30 million</li> <li>- Logistics: More than \$10 million</li> <li>- R&amp;D: More than \$2 million (master's degree, 3 years, 10 people)</li> </ul> </li> <li>• Corporate tax, income tax: 100% for 3 years, 50% for 2 years               <ul style="list-style-type: none"> <li>- Manufacture: More than \$10 million</li> <li>- Logistics: More than \$5 million</li> <li>- R&amp;D: More than \$1 million</li> </ul> </li> </ul>
Tax Relief (Local Tax)	<ul style="list-style-type: none"> <li>• Acquisition tax, registration tax, property tax,: 100% for 15 years, 100% for 10 years, 50% for 3 years, respectively               <ul style="list-style-type: none"> <li>- Manufacture: More than \$10 million</li> <li>- Logistics: More than \$5 million</li> <li>- R&amp;D: More than \$1 million</li> </ul> </li> </ul>
Customs	<ul style="list-style-type: none"> <li>• Customs: Free on all imported goods</li> <li>• Customs: Refund on carry-in reported domestic goods               <ul style="list-style-type: none"> <li>- Machinery, facilities and equipment/parts</li> <li>- Raw materials, lubricants, desktop computers, and construction materials</li> </ul> </li> </ul>
Zero Tax Rate on VAT	<ul style="list-style-type: none"> <li>• VAT-free on raw materials and machine equipment for factory construction (Machinery, facilities and equipment/parts of the carry-in reported domestic goods of FTZ) (Raw materials, lubricants, desktop computers, and construction material) (Foreign goods and services provided between enterprises in FTZ)</li> </ul>
Low-cost Rent Fee	<ul style="list-style-type: none"> <li>• Rent provided in cheap prices (about 1% of the publicly notified individual price)</li> </ul>

Source: Korea Institute for Industrial Economics and Trade, "Reinforcing methods for Korean SEZs for FDI attractions" (2013, in Korean).

### 2-3-3. Strong Government Support for Export Industry and Efficient One-Stop Service

Export was always the number one priority for the ROK government during the industrialization period. To this end, the government created a great number of policy instruments for facilitating the export industry. One of the key policy measures was financial support for export industries. Companies in Masan FTZ enjoyed these benefits as well. Besides the financial support system that applies to all the SEZs in the ROK, Gyeongsangnam-do funding for small and medium businesses is a separate means of financial support system in Masan FTZ. Its support project includes technical development, informatization, business transitions, large enterprise collaboration, setup of enterprises, small business development, and the like. The support comes as loans for facilities, funding up to \$300 million to \$600 million, or as a working fund less than \$300 million, with a 2 percent discount from the going money market rate. The term of loan for each business is one year of deferment and two years' amortization, or three years' deferment and five years' amortization.<sup>13)</sup>

One of the benefits for the free trade zones is the simplified customs procedure. Having to do customs declaration only for incoming-outgoing foreign goods saves a significant amount of time and money. In order to attract foreign investments to the free trade zones, the South Korean government has also provided many other customs incentives such as customs waiver, tariff delays, and elimination of refund procedure. "When foreign materials and equipment are brought into a Free Trade Zone, no Customs duty is owed. However, Customs duty will be imposed only if imported goods are brought into domestic market without going through FTZ. Generally, no customs duty is imposed to companies in FTZ importing and keeping the items that are subject to general import tariff. Companies in

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13) Hyung-gon Jeong *et al.*, "25 Years of Masan Free Export Zone," Masan Free Export Zone Authority (March 2007a). (in Korean)

FTZ are allowed to hold imported goods until the period when they decide to bring the items into domestic market, from that point, Customs formalities procedure will be required and tariff will be imposed. This will facilitate cash flow distribution by granting time control to companies in FTZ. Usually, if re-export is a precondition when importing the foreign goods, tariff should be paid first, and tariff will be refunded when re-export commences. However, in FTZ, there is no need to go through complex refund procedure, because there is no tariff imposed from the beginning. From the money management perspective, this is another significant advantage in that there is no need to hold cash until refund is received.”<sup>14)</sup> Sometimes imported goods are subjected to quota restrictions, but again, such cases do not apply to FTZs, because according to the customs laws, Masan FTZ is considered to be a foreign region. Thus, it is not subject to the import-export regulation, such as the import quota system, that the customs laws controls.

In addition, the government provides one-stop-shop services, such as investment consultation, advice, and approval of business, through the FTZ authority. To facilitate export, the government also provides trade bills system, import financing for raw materials used for exports, deferred export promotion regulations, and an aggregate ceiling trade finance system.<sup>15)</sup>

#### **2-3-4. Interlinkage Between the Local Industries and Investors in the FTZs**

As far as policy concerns, there are a number of policy measures as to how the ROK economy was transformed from a labor-intensive industry to a modern, dynamic, industrialized economy. What Masan FTZ has contributed to that was the FTZ administration’s active promotion of interlinkage between local industries and investors in the FTZ. FTZ firms in the

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14) *Ibid.*

15) For detailed information about these individual policy measures, please refer to Jeong 2009.

ROK have linked with the local economy through subcontracting and domestic purchases and have performed positively in generating net exports and spillover effects. By doing so, the zone authority allowed preferential access to intermediate goods and raw materials to local companies supplying FTZ firms. In addition, the zone administration provided technical assistance to subcontracting firms. FDI in an FTZ also had a “demonstration effect” by serving as a role model for replication by local entrepreneurs.<sup>16)</sup> Engman et al. convincingly argue that “granting ‘equal footing’ to local suppliers of capital and intermediate goods and the usage of subcontracting mechanisms from zone enterprises to local producers were among the most effective measures.<sup>17)</sup> These methods, combined with overall trade and investment reforms, fostered successful export oriented zones and backward/forward linkages from the EPZ and the local economy.” This policy has greatly contributed to the transition of the ROK economy from a labor-intensive economy to an industrialized economy.

Furthermore, the South Korean companies could participate in global value chains through cooperation with foreign enterprises in the FTZ. In doing so, local firms have enjoyed many benefits such as the increase of trade opportunities as well as multinational companies’ transfer and dissemination of advanced technology and management system. This helps to strengthen the capacity of local firms and helps to move the national economy from the labor-intensive stage in the 1970s to a more advanced industrial stage in the 1990s.

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16) M. Engman, O. Onodera, and E. Pinali, “Export Processing Zones: Past and Future Role in Trade and Development,” OECD Trade Policy Working Paper No. 53 (2007).

17) *Ibid.*

## 2-4. Challenges Regarding Continued Success

From the 1970s to the late 1990s, Masan FTZ showed outstanding accomplishment and received international acclaim. However, its feat was seriously undermined after the 2000s, and newly designated free trade zones did not fare well either. Six FTZs excluding Masan fared worse than the average of national industrial complexes in terms of gross production, export, and employment, which calls into question the value of SEZs. Referring to an earlier analysis, the employment statistics of Masan FTZ have also been on the decline since 2009. Export figures show a downward trend as well, meaning Masan FTZ has lost its functions as a SEZ. According to the National Customs Service, 67.5 percent of firms within SEZs handle only domestic products as of 2015.<sup>18)</sup> The proportion of firms not partaking in trade activities is 63.8 percent for Masan FTZ, 84.6 percent for Daebul FTZ, and 75 percent for Ulsan.<sup>19)</sup> This illustrates that FTZs are being managed in a direction divergent from the initial objectives. FTZs - not only in South Korea but all over the world - confront challenges in a global environment where bilateral and multilateral FTAs have become frequent. As globalization is lowering tariff barriers across borders and FTA agreements are indicating the long-term disappearance of tariffs, FTZs, which were based on guaranteed freedom from tariffs, are becoming less and less salient. To add to the problem, FTZs in South Korea practically function as bonded factories, yet their achievements of late are far from satisfactory. According to the customs service, 190 bonded factories in the country perform better than companies within FTZs in terms of export and employment. Such a situation points out that FTZs have become both unimportant and dysfunctional. As the decline of FTZs can be largely attributed to the recent changes in global trade, investments, and logistics, SEZ policies going forward need to be

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18) Free Trade Zone Office, "Effective Ways for FTZ Management" (2015). (in Korean)

19) *Ibid.*

more responsive to domestic economic development and foreign economic conditions alike, along with finding corresponding development strategies.

## Chapter 3



# Free Economic Zone as a Tool of Transition to an Innovative Economic Growth: Case of IFEZ in South Korea

Hyung-Gon JEONG (KIEP)

Jong-Hun PEK (KIEP)

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- A background graphic showing a globe with a network of nodes and lines overlaid on it, symbolizing global connectivity and innovation. The globe is semi-transparent, and the network consists of various sized grey circles connected by thin grey lines.
1. Introduction
  2. Incheon Free Economic Zone: Its Performances and Future
  3. Evaluation of Incheon Free Economic Zone (IFEZ)
  4. Possible Measures for Success of IFEZ
  5. Key Lessons Learned from Korean Special Economic Zone Policies

# 1. Introduction

In the late 1990s, the need for a shift in the Republic of Korea's economic paradigm was raised after the nation experienced the worst economic crisis in its history. The 2000s saw the advent of globalization along with intensifying competition for business hubs, which forced the ROK to make its investment environment more attractive. The 1997 Booz Allen Hamilton report fueled the sense of crisis by projecting that South Korea could likely face a "nutcracker" situation sandwiched between No. 2 economic powerhouse Japan and a rapidly rising China. The government sought change by actively promoting a logistics and financial hub policy under the slogan "Business Hub for Northeast Asia."

The objective for the business hub is to fully utilize the ROK's geographical advantage as a nation located between Japan and China and to promote an open-door policy more actively than its neighbors, along with creating an environment more friendly toward foreign companies in order to become the economic center for the Northeast Asian region. The plan also meant to transcend the limits of land and workforce by using the neighboring countries' territory and labor force to stimulate South Korea's economic growth.

To achieve this goal, the government had to do two things: promote the nation's major ports as major logistics hubs of Northeast Asian region and enhance the investment environment to make the nation the regional hub for major manufacturing and service companies to invest in. Especially concerning the ports, the government planned to upgrade logistics infrastructure using the nation's world-class information technology (IT) industry. The strategy was meant to break from the traditional manufacturing-based economy and further develop the service sector, which would help increase the value added for the manufacturing industry as well. In 2003, free economic zones (FEZs) were set up in Incheon, Busan, and Gwangyang, then in

Daegu-Gyeongbuk, Yellow Sea, and Saemangum in 2008, followed by Chungbuk and the East Coast region in 2013. Yet, as of 2016, other than in a few regions, the initiative has met with little success. The fundamental reason for this limited success hinges upon the government's special enterprise zone (SEZ) policies being marred by political agendas such as balanced regional developments, which often overshadowed economic rationales.

Table 3-1 shows FEZs and their respective situations in 2016. Korea's FEZs consist of eight areas containing 95 specific development districts, and they are evenly distributed across the nation. In November 2015, the designated area totaled 333.12 square kilometers (km<sup>2</sup>), with government sup

**Table 3-1. Designations of FEZs**

(Unit: 10,000 people, trillion KRW, quantity) / \*Total expense: in million USD (1\$:1000KRW)

Type	Period	Area (km <sup>2</sup> )	Total Expense (million USD)	Invested				Development Situation				
				National	Local	Private	Total	Undeveloped	Developing	Completed	Total	
1st ('03)	Incheon	2003-20	132.91	89.2	0.32	2.02	23.81	26.15	13	11	9	33
	Busan/Jinhae	2003-20	52.98	9.8	0.47	0.28	5.39	6.14	4	8	8	20
	Gwangyang Bay	2003-20	77.69	13.2	1.00	0.86	2.18	4.04	9	8	4	21
2nd ('08)	Yellow Sea	2008-20	4.39	1.6	0.00	0.00	0.22	0.22	1	1	-	2
	Daegu/Gyeongbuk	2008-20	19.71	5.8	0.45	0.26	3.44	4.15	2	3	3	8
	Saemangeum/Gunsan	2008-20	28.40	3.6	0.01	0.00	0.37	0.38	2	1	-	3
3rd ('13)	East Coast	2013-24	7.96	1.3	0.00	0.01	0.00	0.01	4	-	-	4
	Chungbuk	2013-20	9.08	2.0	0.00	0.05	0.62	0.67	2	3	-	5
<b>Total</b>		<b>333.12</b>	<b>126.5</b>	<b>2.25</b>	<b>3.48</b>	<b>36.03</b>	<b>41.76</b>	<b>37</b>	<b>35</b>	<b>24</b>	<b>96</b>	

Notes: \* Total area reaches 0.33 percent of South Korea's territory (100,284 km<sup>2</sup>).

Source: Ministry of Trade, Industry, and Energy - Free Economic Zone Planning Office (2015).

port of \$1.8 billion (over the period 2004–2015), suggesting the great importance that the government has placed on this project. Given the excessive FEZ designation, the government began to crack down on this initiative, and of the original 571 km<sup>2</sup> total area of FEZs, 137 km<sup>2</sup> (23.5 percent) lost their FEZ status in 2011, with a further reduction of 92.53 km<sup>2</sup> (21.6 percent) in 2014. Only 24 of 95 designated sites were completely developed, with 141 km<sup>2</sup> (42.2 percent) of the entire area still undeveloped. The Ministry of Trade, Industry, and Energy is in charge of the development, operation, and management of FEZs. The ministry also plans and drafts FEZ-related policies, promotes FEZs, and helps to enhance the living conditions of foreign expatriates.

While the Masan FTZ, discussed in Chapter 2, can be interpreted as an effort toward a shift from labor-intensive industries to capital-intensive industries, free economic zones are intended to foster a shift from traditional capital-intensive industries to high value-added, service-based, and knowledge-intensive industries. This is Seoul's strategy to promote more dynamic and innovative growth. Among the eight FEZs in South Korea, IFEZ is the representative SEZ and has been receiving most attention. In the following paragraph, the history, factors, and tasks for the success of the ROK's free economic policy are discussed on the basis of Incheon Free Economic Zone.

## **2. Incheon Free Economic Zone: Its Performances and Future**

As mentioned, the Incheon Free Economic Zone (IFEZ) is one of the Korea Free Economic Zones. IFEZ is located in Incheon, South Korea, and has three core areas: Songdo, Cheongna, and Yeongjong Island. IFEZ has

various kinds of innovative clusters, specifically a high-tech cluster, distribution cluster, international business cluster, and culture tourism cluster. IFEZ was designated by the central government in 2003, and the area has been dramatically transformed as a hub for international business, logistics, and tourism. Below are IFEZ's attractions, incentives for foreign direct investment (FDI), and development directions, as compared to other free economic zones in Korea.

### ■ Attractions of IFEZ (IFEZ's investment merits)

IFEZ has been quite successful in drawing global attention. Incheon got credit from BBC, which described it as “a city that acts more like a living organism, a city that can respond to your needs.”<sup>1)</sup> ABC described New Songdo City as “the example of a futuristic city,”<sup>2)</sup> while the *Wall Street Journal* counted it as a “testing grounds for the latest in green technologies.”<sup>3)</sup>

These media reports prove that the world is paying attention to Incheon Free Economic Zone. In addition, the Economist Intelligence Unit in its 2013 “Hot Spots 2025” Report selected Incheon as “the second biggest mover in the 2025 City Competitiveness Index.”<sup>4)</sup> In fact, Incheon is within only a three-hour flight of 2 billion people (147 cities having more than 1 million populations). Incheon itself has 3.98 million people (5.8 percent of

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1) BBC News, August 2013, “Tomorrow’s cities: Do you want to live in a smart city?” (<http://www.bbc.com/news/technology-22538561>)

2) Business Wire, July 2010, “ABC ‘Good Morning America’ Selected Incheon Songdo International Business District as the High-Tech Futuristic City.” (<http://www.businesswire.com/news/home/20100715005687/en/ABC-%E2%80%98Good-Morning-America%E2%80%99-Selected-Incheon-Songdo>)

3) The Wall Street Journal. September, 2011, “How to Build a Greener City.” (<http://www.wsj.com/articles/SB10001424053111904009304576535113877346554>)

4) The Economist Intelligence Unit, 2013, “Hot Spots 2025: Benchmarking the future competitiveness of cities.” (<http://www.citigroup.com/citi/citiforcities/pdfs/hotspots2025.pdf>)

the total population) and the area reaches 1,048 km<sup>2</sup> (1.7 times the size of the capital city, Seoul). Its gross regional domestic product has reached about 64.6 trillion KRW (4.5 percent of entire South Korean economy), and the economic activity rate as well as the employment rate of Incheon were the lowest among every metropolitan city in South Korea in October 2015.

Basic locational attractions of IFEZ are as follows:<sup>5)</sup>

- Air: a leading hub airport (specialized for future key industries), with 87 airlines flying to 53 countries and 194 cities in 814 daily flights on average; World No.1 service quality; World No. 8 international passenger traffic
- Port: best base port in the Yellow Sea area and a leading port for international business, tourism and leisure, with 43 routes to China, Southeast Asia, the United States, and Africa and a berthing capacity of 123 lines (48 inner harbors, 75 outer harbors)
- Transportation: connected to the first, second, and third Kyung-In Highways, the West Coast, Yeongdong and Outer Circular Highways, Incheon International Airport Highways, Seoul Subway Line No. 1 and 7, Incheon Subway Line No. 1 and 2, KTX, airport railroad, Suin Line (Suwon-Incheon Line), Cheongna-Gangseo BRT, Jamsil-Songdo GTX (planned), Incheon Bridge, Yeongjong Bridge

In addition, as a strategic area for future national development, Incheon has the following attractions:

- Leader of eight FEZs in South Korea (IFEZ has attracted 94 percent of total FDI to South Korean FEZs)
- Service industry hub: Hana Town construction commencement (2015), early construction commencement of Shinsegae shopping complex

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5) Ministry of Trade, Industry, and Energy - Free Economic Zone Planning Office, 2015

Cheong town (expected 2016), Songdo Street Mall construction commencement (2015), school established (Ghent University and University of Utah), memorandum of understanding signed with the Fashion Institute of Technology (New York)

- Bio-industry hub: secured world-class bio-pharmaceutical production capacity as a single city (33 ℓ (litre) capacity (annual production) in Songdo, compared with 24 ℓ of San Francisco and 16 ℓ of Singapore<sup>6)</sup>); established investment and cooperation relationship with global pharmaceutical companies (Johnson & Johnson, Biogen, Roche, Merck, and others)
- Promoting MICE (Meetings, Incentives, Conferencing, Exhibitions) Industry: second-stage construction of Songdo Convensia (2018), Songdo Convensia two-stage construction (2018), construction of Smart MICE complex (special economic zones for specialized regional development project), integrated resort development, construction commencement of Paradise City (2014)

IFEZ is also competitive as a leading future city model as well as a source of new growth industry as follows:

- Creating a test bed for start-up business: integrating new technologies of domestic and foreign information and communications technology (ICT) companies such as Cisco and LG CNS
- Forming incubation programs for Internet of Things (IoT) companies: the Ministry of Science, ICT, and Future Planning establishing IoT DIY centers
- Building active industry-university-institute collaboration networks: expanding research manpower, commercialization of the development

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6) Dong-A newspaper, June 2015, "Songdo, a new outpost for the global bio-pharmaceutical industry." (<http://news.donga.com/3/all/20150622/72053215/1>)

- solutions, promoting demonstration projects in connection with IFEZ
- Opening the Creative Economy Innovation Center (2015): cultivating smart logistics ventures by technology convergence of logistics and IT, creating new growth business (high value-added) by utilizing aircraft engine technologies, strengthening competitiveness by operating public-private joint logistics consulting services
  - Developing export and import commerce platforms for business-to-business and business-to-consumer transactions

Furthermore, a number of international organizations recently moved into IFEZ. A UN-affiliated organization, the United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development, was established in Songdo in 2006. In succession, in 2013 the executive office of Green Climate Fund moved to Songdo, too. The World Bank's South Korea office was also successfully settled down in Songdo in 2013. In 2015, the International Letter Museum chose Songdo for its location.<sup>7)</sup> Its project cost is approximately 95 billion KRW, and it is scheduled to be opened in 2020. The museum is expected to be a base for knowledge exchange of the world's letters. In 2013, the Association of World Election Bodies (A-WEB) was also successfully invited into Songdo, IFEZ.

### ■ Incentives for Foreign Direct Investment

In terms of the investment merits of IFEZ, there are a number of incentives for the companies in IFEZ, as shown in Table 3-2.

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7) Ministry of Culture, Sport and Tourism, July 2015, "Songdo has finally been chosen as the site of International Letter Museum." (Press Release)

**Table 3-2. Incentives of IFEZ**

Foreign Direct Investment	Condition	<ul style="list-style-type: none"> <li>• Manufacturing (More than \$30 million invested)</li> <li>• Tourism (More than \$20 million invested)</li> <li>• Distribution (More than \$10 million invested)</li> <li>• R&amp;D (More than \$2 million invested / master's degree, 3 years, over 10 people hired)</li> </ul>
Rent & Tax Reduction	Rent	<ul style="list-style-type: none"> <li>• 50 years for state or public land</li> </ul>
	Tax reduction	<ul style="list-style-type: none"> <li>• 100% (5 years) and 50% (2 years) of income tax / corporate tax</li> <li>• Exemptions from tariff (5 years)</li> <li>• 100% of acquisition tax (15 years)</li> <li>• 100% (10 years) and 50% (3 years) of property tax</li> </ul>

Source: IFEZ Korea.

As shown in Table 3-2, there are a number of incentives foreign investors can receive according to the types of the foreign direct investment. In addition, the South Korean government supports rent fees and tax reduction programs for firms in the IFEZ. The firms in the IFEZ are able to rent state or public land for 50 years at 1 percent of the land price. Furthermore, income tax and corporate tax are 100 percent exempted for five years and 50 percent exempted for the next two years. The tariff is also 100 percent exempted for five years. The acquisition tax is exempted up to 15 years, and property tax is 100 percent exempted for 10 years and 50 percent exempted for the next three years. To receive these benefits, foreign investors have to invest at least \$30 million for the manufacturing industry, at least \$20 million for the tourism industry, and at least \$10 million for the logistics industry. Research and developing (R&D) firms have to invest at least \$2 million and must hire more than 10 employees with master's degrees.

**Table 3-3. List of Government Subsidy**

Types	Government Subsidy	Contents	Conditions
Employment subsidy	30 new employees or more (Resident registration within the jurisdiction)	500,000 KRW/month	Max. 600 million KRW
Employment Promotion subsidy	50 regular employees or more including those with over 5 years' experience	500,000 KRW/month	Max. 500 million KRW
Training subsidy	Training 30 employees or more for over 1 month	500,000 KRW/month	Max. 300 million KRW
Rent	Hire 30 employees or more (residents registration within the jurisdiction)	25% of the renting cost	Max. 200 million KRW
Facility subsidy	Invest 5 billion KRW or more	2% of the overcharged cost	Max. 1.5 billion KRW
Large investment subsidy	<ul style="list-style-type: none"> <li>• Invest 100 billion KRW or more and hire 300 regular employees or more</li> <li>• Invest 30 billion KRW or more and hire 100 regular employees or more</li> </ul> For high-tech companies <ul style="list-style-type: none"> <li>• Hire 100 regular employees or more</li> </ul> ※ Local income tax (limited to income)	20% of the local income tax	For 2 years
Support subsidy	Newly established or expanded companies <ul style="list-style-type: none"> <li>- Business within the jurisdiction for over 5 years with 50 regular employees or more</li> <li>- Invest 30 billion KRW or more, hire 50 new employees or more</li> </ul>	2% of the over charged cost	Max. 1 billion KRW

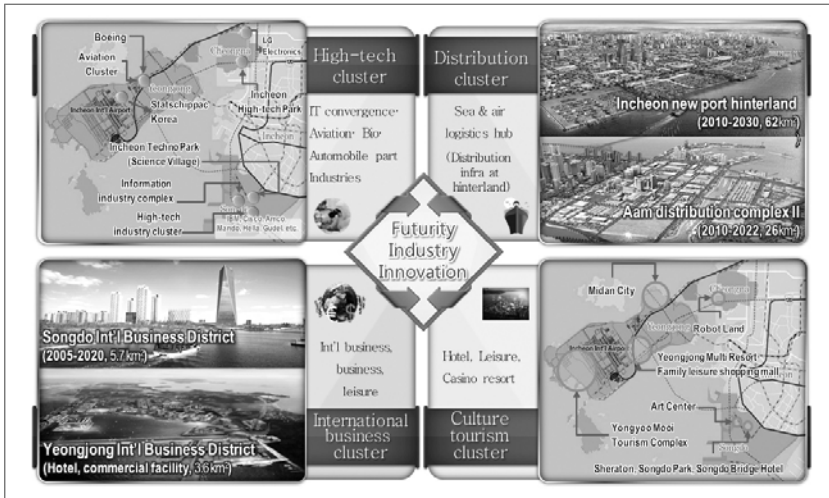
Source: IFEZ, Korea.

As shown Table 3-3, various types of government subsidies are provided to the firms in IFEZ. If more than 30 employees are hired, 500,000 KRW is supported monthly to the firm as an employment subsidy (to a maximum of 600 million KRW). In addition, if more than 50 regular employees with over five years' experience are hired, 500,000 KRW is supported monthly to the firm as an employment promotion subsidy (maximum 500 million KRW). A training subsidy is also given to firms that train more than 30 employees for over one month (500,000 KRW monthly, maximum 300 million KRW). Of the rent fee, 25 percent is supported if more than 30 employees are hired (to a maximum of 200 million KRW). If more than 5 billion KRW is invested by a company, 2 percent of the overcharged cost is supported by the government as facility subsidy (to a maximum of 1.5 billion KRW). Large investment subsidies are also available to eligible companies. If more than 100 billion KRW is invested and more than 300 regular employees are hired, 20 percent of the local income tax is exempted for two years. For high-tech companies, if more than 30 billion KRW is invested and more than 100 regular employees are hired, 20 percent of the local income tax is exempted for two years. For newly established or expanded companies, a support subsidy is available. Businesses in the IFEZ for more than five years and with more than 50 regular employees hired and more than 30 billion KRW invested are supported with 2 percent of the overcharged cost (to a maximum of 1 billion KRW).

## ■ Development Directions

IFEZ has been building up various kinds of innovative clusters in each industry in order to foster superior business environments. The innovative clusters of IFEZ are a high-tech cluster, distribution cluster, international business cluster, and culture tourism cluster. Figure 3-1 shows the specific information on IFEZ clusters.

**Figure 3-1. Industry-specific Innovative Clusters of IFEZ**

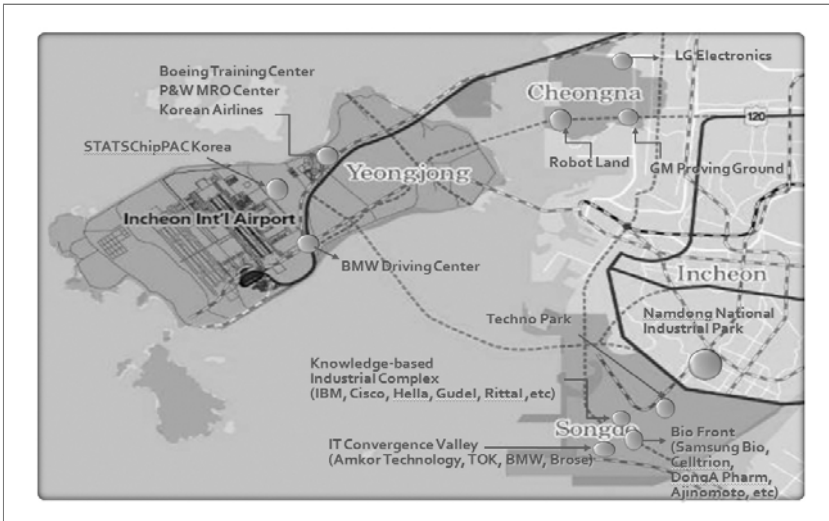


Source: IFEZ Korea.

As indicated in Figure 3-2, IFEZ has four major clusters for the innovation of future industries.

The high-tech cluster fosters IT convergence and the aviation, bio industry, and automobile part industries. Specifically, LG Electronics and Incheon high-tech park are located in Cheongna; Boeing and the aviation cluster are settled in Yeongjong; and Incheon Techno Park, Information industry complex, and the high-tech industry cluster are located in Songdo. The distribution cluster fosters the sea and air and logistics hub. It includes Incheon new port hinterland (2010-2030) and Aam distribution complex (2010-2022). The international business cluster serves the international business and leisure industry. Songdo International Business District (2005-2020) and Yeongjong International Business District are part of it. The culture tourism cluster is for the hotel, leisure and casino resort industries. Midan City, Yeongjong Multi Resort Family Leisure Shopping Mall, Yongyoo Mooi Tourism Complex, Art Center and Songdo Bridge Hotel and Robot Land are located in IFEZ.

Figure 3-2. Location of Clusters and Investors



Source: IFEZ Korea.

A number of innovative enterprises and clusters are situated in IFEZ, and they are the core of the clusters and investors of IFEZ. BMW Driving Center, Boeing Training Center, P&W MRO Center, Korean Airlines, and STATSChipPAC Korea have moved to Yeongjong. Robot Land, GM Proving Ground, and LG Electronics have settled in Cheongna. In Songdo, Namdong National Industrial Park, the Knowledge-based Industrial Complex, IT Convergence Valley, and Bio Front have successfully settled down.

The essential investment procedures include investment inquiry by the investor, investor credit check and investment screening by IFEZ, and a memorandum of understanding between the investor and IFEZ. Major investors in IFEZ include the automotive industry, biomedical industry, and IT and aviation industry. The appendix of this chapter provides more information on major investors in IFEZ.

### 3. Evaluation of Incheon Free Economic Zone (IFEZ)

Below are the assessments of the IFEZ in terms of their developments, attractions of foreign investment, and governance, and more along with other seven free economic zones in South Korea.

#### 3-1. Evaluation of Development

According to the development plan, the South Korean government will finish the development of eight FEZs within 20 years. However, the actual progress lags far behind the initial plan. Incheon Free Economic Zone is no exception. The development project for the IFEZ is very different from the complex type of special economic zones. As can be seen in the case of Hong Kong and Singapore, it normally takes a long time to develop such an international business hub. It takes more time especially in the cases of recently designated FEZs, where the global recession and ensuing economic uncertainties impede development efforts. For six FEZs in South Korea including IFEZ designated earlier, 24 of 86 industrial districts (28 percent) were completed, 32 (38 percent) are under development, and the rest are seriously delayed.<sup>8)</sup> Several reasons are behind this delay.

First, the designated regions tend to contain unsuitable or problematic areas (such as green belt, private land, and cultural heritages) for development, which makes it difficult to select the right developers and complete land acquisition. Besides, while eight FEZs are already excessive, each FEZ contains too many distant districts that render infrastructure provision rather inefficient. The development strategy for each complex lacks consistency, which worsens the inefficiency issue.

Another reason can be attributed to the increasing cost due to the increase

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8) Ministry of Trade, Industry, and Energy.

of land compensation following the SEZ designation, which eventually undermines profitability. According to the Ministry of Trade, Industry, and Energy, expenses including land compensation have risen from 65 trillion won to 70 trillion KRW (\$57.8 billion to \$62 billion). Given that private investment and foreign capital takes up 60 percent of total development funds, the plan obviously is vulnerable to external factors such as financial crisis. The waning profitability had led some established developers to change their development plan and shift the land use toward more lucrative sectors such as residence or commercial real estate. Such changes in land use have become frequent. This is obviously a divergence from the government's initial plan and thus harms the original purpose of SEZ designation.

Global recession and the slowdown of the domestic real estate market had an impact on development efforts as well. With apartments and commercial estates in already developed regions remaining unoccupied, finding developers for undeveloped regions has become a very difficult task. While 83 of 95 districts have designated developers, all of them but 17 found developers before 2008. Some developers are delaying or even giving up development projects under increasing uncertainties and diminishing profitability. In addition, the incompleteness of deregulatory measures combined with compulsory rules to offer industrial and research estates below the market price further pulls down profitability and eventually hinders development.

As can be seen in Table 3-4, IFEZ has the highest total expenditure per square kilometer of all the SEZs, followed by the Yellow Sea FEZ. East Coast FEZ, by contrast, has the lowest cost per square kilometer. IFEZ, despite being in its 12th year, has the highest number of undeveloped districts due to its excessively high development cost per unit of land. Gwangyang Bay FEZ also has a high rate of undeveloped districts.

**Table 3-4. Progress of Development of FEZs**

		Incheon	Busan-Jinhae	Gwangyang Bay	Daegu-Gyeongbuk	Yellow Sea	Chungbuk	East Coast
Total Expenses by Unit Area (in trillion KRW/km <sup>2</sup> )		0.6712	0.1858	0.2291	0.2771	0.3531	0.2203	0.1576
Progress	Not Yet Started (%)	39.4	20.0	42.9	25.0	50.0	40.0	100
	Not Yet Started (Quantity)	13	4	9	2	1	2	4

\*1\$=1,100

Source: Ministry of Trade, Industry, and Energy - Free Economic Zone Planning Office, 2015.

Although the rate of undeveloped property in IFEZ is relatively high, it is still lower than that of other FEZs in South Korea, and even so IFEZ receives the most attention as a highly competitive free economic zone in South Korea. IFEZ also was determined to be the best FEZ performer among the eight FEZs in South Korea by the evaluation committee for the annual performances of FEZs.<sup>9)</sup>

### 3-2. Evaluation of FDI Attraction

From 2004 to 2014 after the designation of SEZs, \$9.95 billion worth of foreign investment has been attracted into the zones. This accounts for 6.9 percent of the total foreign investments the nation received (\$145.9 billion) in the same period, and shows an upward trend since 2009, as shown in Table 3-5. Year 2012 saw the biggest foreign investments ever, largely due to

9) Ministry of Trade, Industry, and Energy, July 2015, “2014 FEZ evaluation result: Incheon was ranked No.1, followed by Gwangyang Bay.” (Press Release)

major projects (such as Universal Entertainment, \$720 million, and LOCG Korea, \$500 million).

**Table 3-5. FDI Attractions in FEZs**

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Amount (in hundred million \$) (%)	1.2 (0.9)	5.8 (5.0)	1.3 (1.2)	3.1 (3.0)	2.3 (2.4)	7.9 (6.9)	9.5 (7.2)	11.5 (8.4)	25.2 (15.5)	13.5 (9.3)	18.2 (10.8)	99.5 (6.9)

Note: %: FDI in FEZs / FDI in South Korea.

Source: Ministry of Trade, Industry, and Energy - Free Economic Zone Planning Office.

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
South Korea (in hundred million \$)	128.0	115.7	112.5	105.2	117.1	114.8	130.7	136.7	162.9	145.5	190.0	<b>1,459.1</b>
FEZ (in hundred million \$) / (%)	1.2 (0.9)	5.8 (5.0)	1.3 (1.1)	3.1 (3.0)	2.3 (2.0)	7.9 (6.9)	9.4 (7.2)	11.6 (8.5)	25.2 (15.5)	13.5 (9.3)	18.2 (10.8)	<b>99.5 (6.9)</b>
Incheon	0.0	0.8	0.7	1.2	1.2	5.2	4.8	5.5	20.7	9.4	17.1	<b>67.7</b>
Busan-Jinhae	0.5	2.3	0.4	0.9	1.1	0.5	1.5	2.5	2.2	1.2	0.82	13.9
Gwangyang Bay	0.6	2.8	0.2	1.0	0.0	0.0	0.3	2.3	1.3	0.5	0.2	9.2
Yellow Sea	-	-	-	-	-	-	-	-	-	-	0.01	0.01
Daegu- Gyeongbuk	-	-	-	-	-	-	0.3	0.2	0.5	0.5	0.03	1.5
Saemangeum -Gunsan	-	-	-	-	-	2.2	2.6	1.0	0.5	1.9	-	8.2
East Coast	-	-	-	-	-	-	-	-	-	-	0.01	0.01

Note: %: FDI in FEZs / FDI in South Korea.

Source: Ministry of Trade, Industry, and Energy - Free Economic Zone Planning Office.

Incheon Free Economic Zone, which was started first, targeted high-quality foreign educational and research institutions. By 2014 the area has attracted two pre-high school institutions, five graduate schools, and six research institutions, along with several memorandums of understanding (five with universities, three with research institutes). By late 2014, 2,029 domestic and 206 foreign companies were present in SEZs, with IFEZ attracting the most (881 companies, or 39.4 percent).<sup>10)</sup> IFEZ also stands at the top of the list in terms of foreign investments, by receiving \$6.77 billion worth of investments by 2014. While Busan-Jinhae FEZ and Gwangyang Bay FEZ attracted investments amounting to \$1.39 billion and \$0.92 billion, respectively, the other zones fared worse in attracting foreign capitals. By statistics, IFEZ has the highest proportion of foreign investments, followed by Busan and Gwangyang FEZ. Nevertheless, even FEZs that started earlier were able to cover only a quarter of their investments via foreign investments.

**Table 3-6. Moved-in Enterprises in FEZs (Quantities)**

	Incheon		Busan-Jinhae		Gwangyang Bay		Yellow Sea		Daegu-Gyeongbuk		Saemangeum-Gunsan		East Coast		Chungbuk		Total		
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Total
Organization <sup>11)</sup>	2,162	76	3,139	69	311	50	5	0	354	10	2	2	68	2	59	2	6,100	211	6,311
Corporation	807	74	744	69	227	47	2	0	199	10	2	2	18	2	30	2	2,029	206	2,235

Source: Ministry of Trade, Industry, and Energy - Free Economic Zone Planning Office.

Despite the recent increase of foreign investments, the figures are below expectations. One reason is the remote location of most FEZs, which leads to the lack of proper infrastructure. This is especially the case when we con-

10) Incheon (881), Busan-Jinhae (813), Gwangyang Bay (274), Saemangeum-Gunsan (4), Daegu-Gyeongbuk (209), Yellow Sea (2).

11) “Organization” includes corporate, private business and local government.

sider Greenfield FDI. Most foreign investments into the ROK tend to concentrate in Seoul and its metropolitan areas, and it may be difficult for foreigners to see the benefits of switching to FEZs. Moreover, 60 percent of foreign investments in South Korea are concentrated in the service sector, which is by nature closely associated with bigger cities or metropolitan areas.<sup>12)</sup> Considering these factors, Incheon Free Economic Zone has considerable advantages since it is located very close to the Seoul metropolitan area.

There have been many successful investments in IFEZ in recent years. Below are some examples.

- Incheon Grand Bridge

The Incheon Grand Bridge Project was the first development project in South Korea by a foreign company. Incheon Metropolitan City had first designated AMEC Foster Wheeler as the project developer in 2003. AMEC Foster Wheeler established KODA Development, a SPC (special purpose company) with Incheon City, chose Samsung JV as a constructor, and used BTO (Build-Transfer-Operate) as a project financing method. The project has been successfully managed by AMEC Foster Wheeler and Incheon Metropolitan City, and the Incheon Grand Bridge has become one of the IFEZ's best landmarks. The bridge remarkably shortened the driving time to only 20 minutes. It received *Euromoney* magazine's "Deal of the Year" Award in 2005 and was named one of the "Ten Wonders of the Construction World" by *Construction News* in the United Kingdom.<sup>13)</sup>

- Samsung Biologics

Samsung Biologics is also considered one of the successful investment

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12) Ministry of Trade, Industry, and Energy, "Foreign Direct Investment Statistics (Statistics approval No. 11520)."

13) The Korea Herald, March 2010, "Incheon Bridge, Songdo's gateway to the world." (<http://www.koreaherald.com/view.php?ud=20090807000037>)

projects in IFEZ. Samsung Biologics and Quintiles established a joint venture in 2011. Quintiles, a global pharmaceutical R&D firm, chose Samsung as the investment partner and decided to invest \$3 million into the project. Samsung, meanwhile, has successfully built up bio-tech as a new growth engine of the company by this project. Incheon Metropolitan City offered 274,000 square meters (m<sup>2</sup>) of rent-free land to Samsung Biologics for 50 years through an investment agreement. Samsung Biologics is expected to be a global outpost of bio R&D, beginning with its consignment production of biosimilars from 2016.

- Incheon Global Campus

Incheon Global Campus is a project promoted by the central government and Incheon Metropolitan City to establish a world-class educational environment. Incheon Metropolitan City and the government have invested \$1 billion on this project. Incheon Global Campus provides various incentives to schools and universities from abroad to offer programs there. The foreign universities can operate academic programs without spending the physical establishment costs. In addition, some schools can be supported by the project, saving some of their operation expenses for academic programs. Participating universities from abroad include George Mason University, the University of Utah, and SUNY Korea. Through this project, Incheon Global Campus can provide international educational environments to talented students in South Korea as well as establish the best global education hub in Northeast Asia. The foreign universities, meanwhile, are able to build overseas campuses in IFEZ, strengthening their global competitiveness.

- BMW Driving Center

BMW Driving Center in IFEZ is a car driving center established by BMW Group, a world-leading automobile and motorcycle manufacturer. In addi-

tion, BMW established an R&D Center and Service & Exhibition Center in Yeongjong Island, Incheon. BMW Group has invested \$75.5 million in the driving center. Its gross area is 240,000 m<sup>2</sup> and it is as large as 33 soccer fields. This is the company's first driving center in Asia, and it provides various facilities such as driving tracks, an exhibition center, junior campus, event hall, and restaurants.

- General Motors

General Motors, a global automobile company, has established GM Proving Ground and GM R&D Center in Cheongna, Incheon. The facility was opened in 2008, and its total area reaches 508,228 m<sup>2</sup>. More than 500 researchers are now working in the facility. It is a key GM facility for developing new technologies and automobiles.

The overlapping of eight FEZs is another problem. Each FEZ's strategic industries seem to duplicate each other's due to the resemblance of their development plans. For six FEZs developed earlier, 50 of the 86 districts (58 percent) chose logistics, high-tech industries, and tourism and leisure as their core industries. The existence of similar functioning economic zones such as free trade zones, foreign investment zones, industrial complex, and R&D complex add to the difficulties of FEZs in attracting foreign capital.

All in all, of most FEZs, Incheon Free Economic Zone is once again the exception. It did not succeed in creating an investment-friendly environment sufficient to host global companies, with limitations in forming industrial clusters. What differentiates FEZs from other special economic zones or industrial clusters is alleviation of regulatory measures to attract foreign investments. Yet deregulation faces difficulties due to opposition from domestic stakeholders, while an effort to improve settlement conditions to attract foreign tenants was mostly disappointing. Despite legislative foundations for establishing for-profit medical institutes, the project was forestalled

by opposition.

Lack of proper incentives and regulations compared to other international cities acts as an impediment to hosting world-class foreign educational institutions. With respect to housing facilities, a shortage of inexpensive housing for short-time visitors and systematic difficulties in renting houses remain an issue to be solved. Moreover, because most FEZs are located away from city centers, residents face a dearth of urban and cultural amenities. While the government can address the issues through budget support, how to choose among eight FEZs would be a political challenge in itself. In conclusion, the lack of foreign investment could become a long-term complication unless the government decides to enact bold restructuring and concentrate on more promising regions.

## **4. Possible Measures for Success of IFEZ**

As mentioned in the previous sections, FEZs had several problems and weaknesses that obscure its accomplishments. This section will discuss central issues that should be resolved for IFEZ along with other South Korean FEZs to become more competitive and thus enhance their functions as successful SEZs.

### **4-1. Improving Competitiveness by Attracting More Domestic Firms**

The problem with the ROK's investment attraction policy is that it overly focuses on foreign direct investments. This calls for a shift in the policy paradigm: free economic zones should not focus exclusively on attracting foreign companies; rather, first they should prioritize attracting domestic firms to

maximize their domestic potential and competitiveness. FEZs put excessive emphasis on attracting foreign capital, causing reverse discrimination against domestic companies. Attracting domestic companies, however, may function as an anchor to bring in foreign investment companies, and at the same time foster interaction between South Korean and foreign companies in diverse areas - human resources, management, technology, marketing, and so forth - that would further augment the benefits of drawing in foreign capital. Major special economic zones around the globe (Singapore, Hong Kong, China, Dubai) do not discriminate based on companies' nationality and maintain equal treatment between domestic and foreign firms.

In 2008, China switched the eligibility of tax benefits from foreign companies to designated sectors (high-tech industries), thereby offering equal tax incentives for domestic and foreign companies alike. The switch was motivated by the desire to forestall reverse discrimination against domestic firms and to selectively attract foreign capital to promote quality development.

Foreign companies investing in South Korea are especially sought for market prospects in conjunction with domestic firms, access to Northeast Asian markets, and favorable foundations in human resources. This calls for a strategy to first attract domestic investment companies. If equal benefits were assured for domestic companies within strategically designated sectors in FEZs, it may be possible to channel some of the outbound FDI toward domestic investment, which would in turn facilitate attracting related foreign capital.

## **4-2. Consolidation through De-designation**

The most serious issue regarding FEZs is the over-designation of FEZs that lack economic rationale. Development of FEZs has debased into a political business under the agenda of balanced regional development, while economic considerations have become a lower priority and thus received in-

sufficient attention. Government officials were aware of the problem, which propelled them to introduce legal foundations to revoke FEZ status - specifically, Article 8 of the Special Act on Designation and Management of Free Economic Zones contains de-designating FEZs.<sup>14)</sup> Nevertheless, such measures are difficult to carry out in the short term due to the complicated nature of the procedure and the vested interests. Therefore, it would be more sensible for the government to induce competition among the eight FEZs and selectively support those with better outcomes, thereby restructuring FEZs based on their economic viability. The government should create a system with a results-based support scheme, which would naturally force low-performing, less competitive regions to close. This should allow natural consolidation of politically designated SEZs by economic outcomes. Nevertheless, actual implementation of the plan would necessitate subjective and transparent evaluation, and an independent evaluation committee including private sector experts could be one solution.

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14) Special Act on Designation and Management of Free Economic Zones, Article 8 (Revocation of Designation of Free Economic Zones):

- 1) Where it has become impossible to develop a free economic zone for a substantial period due to reasons, such as restriction on development activities under other statutes or evasion of participation in a project by a development project operator, etc.;
- 2) Where it is impractical to develop and manage a free economic zone because such zone is also designated as a development zone, area, district, etc. under other statutes;
- 3) Where it is impossible or unlikely to achieve the objectives of the designation of a free economic zone due to reasons such as poor records of foreign investment;

Article 8-2 (Designation of Free Economic Zones Deemed Revoked)

(1) Where application for approval of an implementation plan under Article 9 (1) for all or part of the relevant free economic zone is not filed within three years (where the period for approval is extended pursuant to Article 9 (3), four years) from the date (where the development of a free economic zone is implemented in phases pursuant to Article 4 (7), the date prescribed by Presidential Decree) on which the free economic zone is designated and publicly announced pursuant to Article 4 (8), the designation of a free economic zone shall be deemed revoked on the day following the expiration date of such period.

### **4-3. Strengthening Linkage between SEZ Policy and Overall Industrial Development Policy**

The creation and development of Masan Export Processing Zone in 1970 were very much in conjunction with the government's overall industrialization policy. Masan EPZ's administrative system was directly managed by the central government, including a one-stop service and policy determination from the central government to actively engage to solve any managerial or operational problems. By employing an export guarantee scheme and linking foreign and domestic companies within the zone, the government sought to improve domestic firms' technological capabilities. Moreover, linkages were developed for foreign companies to source locally. However, the zone was renamed the Masan FTZ in the 2000s, and with several other free trade zones being set up, Masan FTZ's infrastructure kept deteriorating and wasn't able to be properly upgraded. Several types of special economic zones - free economic zones, foreign investment zones, Innopolis, and Enterprise City, to name a few - were set up by local governments after the 2000s, yet the effects of such designations were offset by their lack of consistency with the central government's overall industrial policy strategy. Such issues result in an overlap in investments, excessive competition for investors, and wasteful development.

Therefore, it is crucial to align the objectives of special economic zones with the government's overall industrial policy, which would in turn maximize the contribution of SEZs to the South Korean economy. This requires radical measures to change the current SEZ managerial governance. Ireland and Singapore can be viewed as exemplary nations for establishing efficient SEZ governance systems. Ireland's Forfás (disbanded recently) and Singapore's Economic Development Board are in charge of industries and firms that belong to the central government. Not only do both organizations supervise overall management of SEZs and create suitable business environ-

ment, but they also seek to attract foreign investments in an advanced way by creating an ecosystem including education and science infrastructure, a skills training program, and a conducive innovation system. Since knowledge-based industries tend to develop in clustered zones rather than scattered areas, strategic effort is necessary to create such clusters. However, South Korea's special economic zones lack the capacity to create and share knowledge. This suggests the need for FEZs to function as clusters for future knowledge industries that require synergies among three elements - industry, education, and R&D - and thereby differentiate themselves from traditional industrial complexes. Furthermore, FEZs should function as an experimental zone that should offer regulatory and cultural environment conducive to foster knowledge-based industries. This would require a series of deregulatory measures and incentives for knowledge-creating functions such as R&D centers and educational institutes, as well as regulatory reforms to encourage knowledge-intensive investments.

## **5. Key Lessons Learned from Korean Special Economic Zone Policies**

This section discusses in detail the achievements and challenges of the free economic zones and free trade zones, which are the typical special economic zones in South Korea. The Masan Free Trade Zone, which had been considered a great successful model in its early stages, is now confronted with challenges due to its lack of timely response to the internal and external economic environment changes, as described in Chapter 2. Free economic zones, which were introduced for the development of innovative industries and service sectors, are also drifting away from their original objectives due to the balanced development policy, resulting in excessive supply and in-

appropriate designation of the free economic zones. The following section summarizes the key lessons learned from South Korea's FTZ and FEZ policies, which could be useful for other countries carrying out SEZ initiatives.

### **5-1. Offering Overarching Development Strategy and Vision for SEZs**

There needs to be a comprehensive SEZ development strategy and plan for industrial promotion and development as well as tailored specific plans for each category of SEZs. The SEZ legislation needs to include regulations in which mid- to long-term development plans and visions and review plans on a three-year basis should be included. This would allow SEZ policy to operate in a more rational and future-oriented manner. As mentioned, Korean FTZs, once regarded as world-class examples, are in a stagnant phase after they failed to promptly adapt to the changing economic environment since the 2000s. The government needs to fully consider the dynamic economic conditions in establishing new forms for SEZs, while attempting to constantly upgrade industries within SEZs. Moreover, the central government's development plan, tailored for each type of SEZ, should be shared with the local governments that develop and operate SEZs, and an effective coordination mechanism needs to be set up between the central government and local governments.

### **5-2. Designation of SEZs Should Be Based on Economic Demand**

The most important factor for an SEZ's success is the choice of its location and whether that choice is based on economic demand. The location should be close to the basic infrastructures and easy for the industry cluster

formation, and it should also be validated through a sound economic feasibility study. In 1970s, when Masan Free Trade Zone was introduced, Masan was considered the best place for attracting Japanese investments because of its superior proximity to a maritime facility and airport. The result was indeed successful. After Masan, Iksan Export Processing Zone was introduced in 1973, but it was canceled in 2000 due to its bad performance. One of the reasons was its poor location. Another reason was the excessive supply of SEZs beyond the country's economic demand. Many countries have introduced SEZs due to political needs, and those SEZs typically fail. The biggest problem in South Korea's special economic zones policy was that many of the SEZ projects were driven by local governments for a balanced development strategy, not because of their economic feasibility. As a result, an excessive number of SEZs has been designated all over the nation, and many of the SEZ projects have become political projects that are misused by the local governments. To make matters worse, the local governments continue to request various types of SEZs from the central government, and each government ministry is carrying forward its own SEZ initiatives. This practice has to be stopped.

### **5-3. Reducing the Overlaps among SEZs**

The excessive number of SEZs in South Korea has resulted in inefficiency: there are currently a number of similar SEZs throughout the country. For example, the Ministry of Science, ICT, and Future Planning is running Innopolis and the International Science and Business Belt. The two SEZs bear a lot of similarities to each other and are run by different agencies. Foreign investment zones, free economic zones, and free trade zones are all under the jurisdiction of the Ministry of Trade, Industry, and Energy, but they are all designed for FDI attraction. At first, the free economic zones were introduced as test beds for deregulation. Now the concept of dereg-

ulation has faded while FEZs have been extended to eight locations throughout the country. The Ministry of Land, Infrastructure, and Transport runs Saemangeum Special Economic Zone as well as Enterprise City. Besides, there are other types of SEZs, including industrial complex and Techno Park. The problem is not only the overlapping of SEZs' functions, but also the spread of similar SEZs all over the nation beyond the market demand. There are currently five Innopolis, four International Science and Business Belts, eight FEZs, 20 complex-type foreign investment zones, and 13 free trade zones (industrial complex-type and seaports and airport-type) in South Korea. The overlap and overdevelopment of different types of SEZs cause excessive competition and inefficient use of resources. To prevent this problem in the future, it's important to clarify each SEZ's objective and its target industries before it wins an SEZ designation.

#### **5-4. Establishing an Efficient Governance System**

Putting in place a competitive and efficient governance system is critical to the success of SEZ projects. SEZ governance issues in South Korea stems from the dual authority system of SEZ designation and management. The designation of SEZs is propelled by the needs of the central government or requests from local governments, but the management of SEZs is mostly implemented by the local governments or the representatives from the local governments, even though they lack enforcement power, a legal mandate, and autonomy as well as experience and expertise.

Therefore, an overarching SEZ body in charge of SEZ plans and strategy, as well as well empowered implementation agencies are essential for the success of SEZ projects. South Korea has no such administrative system today, and the function of each SEZ implementation committee is quite weak. Each committee consists of ministers from each administration branch, but the role of the committee is limited to the consideration and decision for

designation, de-designation, and development. To resolve this problem, establishing a SEZ implementation committee for the general jurisdiction of each SEZ and enacting a legal basis for the empowerment of the committee are needed. In addition, more involvement of private sector executives in discussing long-term strategy and business plans are also critical.

## **5-5. One-Stop-Shop Service and Customized Support**

Customized support and one-stop-shop service are essential to enhance the administrative efficiency of SEZs. Generally, SEZ administrative organizations should be given more authority than their general governmental counterparts. Not doing so would prolong the administrative process and lead to great inefficiency. Imagine a situation where one would need to ask the Ministry of Trade, Industry, and Energy for development application; local government for construction approval; the Ministry of Strategy and Finance for tax benefits; local tax service for establishing foreign branches; and after all that, consult with foreign capital attraction agencies on specific issues. Such a cumbersome situation would deter the investment attraction process. This kind of problem calls for a one-stop-shop service so that administrative processes such as applications and reviews could be minimized. An integrated system for SEZ operation should be set up to facilitate one-stop-shop services.

Another important point is the zone-customized support such as deregulatory benefits (tailored for the purpose of different SEZs) and cash grants. For instance, setting a minimum investment threshold for tax and finance incentives (such as \$30 million for the manufacturing sector) by law would prevent unnecessary discretions, and incentives should be tailored for different types of SEZs to better suit their initial purposes.

## **5-6. Building an Outcome Evaluation and Exit System**

Most countries operating SEZs lack a mechanism to regularly monitor and evaluate SEZs' performance. Such an absence may result in SEZs being diverged from their initial purpose. It is also important to implement an exit system in case a SEZ is not performing well. In South Korea, where SEZs were designated without a thorough demand study, the oversupply of SEZs has resulted in many development delays and unoccupied spaces. A legislative system that specifies the evaluation criteria of SEZ outcomes and conditions for de-designation is necessary to address the oversupply issue. While South Korea does have conditions for de-designation for specific SEZs such as Innopolis and FTZs, the actual implementation faces challenges due to opposition from local governments. Meanwhile, measures need to be taken to deal with the low entrance barrier problem. To ensure policy efficacy, the economic feasibility of SEZs should be evaluated before they are set up and the outcomes should be studied after they are established, with incentives tailored to match their performances.

## Appendixes

Table A3-1. Automotive Industry in IFEZ

Company	Business	Investor
<b>GM</b>	Auto R&D and Manufacturing	GM
	Proving Ground	
<b>LG Electronics</b>	Electric Auto Parts R&D	LG electronics
<b>Mando-Hella Electronics</b>	ECU (electronic control unit) R&D and Manufacturing	Hella
<b>Mando-Brose</b>	Motor (electric power steering) R&D and Manufacturing	Brose
<b>BMW Group</b>	Driving Center	BMW
	Service & Exhibition Center	
<b>Kyungshin</b>	Auto Parts (engine, control harness) R&D and Manufacturing	Sumitomo Electric
<b>Piolax</b>	Auto Parts (open and close mechanism, harness) R&D and Manufacturing	Piolax
<b>HellermannTyton</b>	Auto Parts (clips, connecting) and Manufacturing	HellermannTyton

Source: IFEZ, Korea.

**Table A3-2. Biomedical Industry in IFEZ**

Company	Business	Investor
<b>Celltrion</b>	Bio Pharmaceutical (antibody bio-similar) R&D and Manufacturing	Temasek Holdings
<b>Samsung Biologics</b>	Bio Pharmaceutical (antibody cancer drug) R&D and Manufacturing	Samsung Biologics
<b>Samsung Bioepis</b>	Bio Pharmaceutical (antibody bio-similar) R&D and Manufacturing	Biogen Idec
<b>Dong-A Pharm</b>	Bio Pharmaceutical R&D and Manufacturing	Meiji
<b>Ajinomoto Genexine</b>	Cell Media R&D and Manufacturing	Ajinomoto
<b>i-SENS</b>	Blood Glucose Testing Device R&D and Manufacturing	Arkray
<b>Berna Biotech Korea</b>	Vaccine R&D and Manufacturing	Johnson & Johnson
<b>Utah-Inha DDS</b>	Drug Delivery Systems and New Drug Tech Research Center	University of Utah
<b>Olympus K-TEC</b>	Medical Device Training and Service Center	Olympus

Source: IFEZ Korea.

**Table A3-3. IT, Aviation, and Other Industries in IFEZ**

Company	Business	Investor
<b>Amkor Technology Korea</b>	Semiconductor Packaging/Test R&D and Manufacturing	Amkor Technology
<b>TOK Advanced Materials</b>	Photoresist for Semiconductor R&D and Manufacturing	TOK
<b>Kyobo-IBM Data Center</b>	IT Outsourcing, Electronic Information Processing and Server Hosting Services	IBM
<b>Rittal</b>	Industrial Enclosure R&D and Manufacturing	Rittal
<b>StatsCHIPPac Korea</b>	Semiconductor Packaging/Test R&D and Manufacturing	StatsCHIPPac
<b>Huneeed Technologies</b>	Communication & Data Link System R&D and Manufacturing	Boeing
<b>Boeing</b>	Pilot Training Center	
<b>Korean Air</b>	Maintenance, Repair and Overhaul Service for aircraft engine	United Technologies
<b>U-City Corporation</b>	Ubiquitous technology to developing and managing a smart city	Cisco
<b>Veolia Water Training Center</b>	Water Treatment Technology Training Center	Veolia

Source: IFEZ Korea.

## Chapter 4



# Innovation and Structural Transformation: The Case of Shanghai Free Economic Zones and Free Trade Zones

Guangwen MENG (Tianjin Normal University)

Douglas Zhihua ZENG (World Bank)

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1. Economic Development in Shanghai
  2. Development of Shanghai Free Economic Zones
  3. Successes and Challenges of Shanghai FEZs
  4. The Major Lessons Learned

# 1. Economic Development in Shanghai

Shanghai is located in the Yangtze River Delta, covering an area of 6340.50 square kilometers (km<sup>2</sup>), administering 15 districts and one county, with a resident population of 24.2 million in 2015. As one of the four autonomous municipalities in China, Shanghai is the largest port city and one of the earliest coastal cities to be opened up in China. Despite ups and downs in its economic development, Shanghai has been the economic center of China and Asia since modern times.

## 1.1 The Rapid Growth of Economy

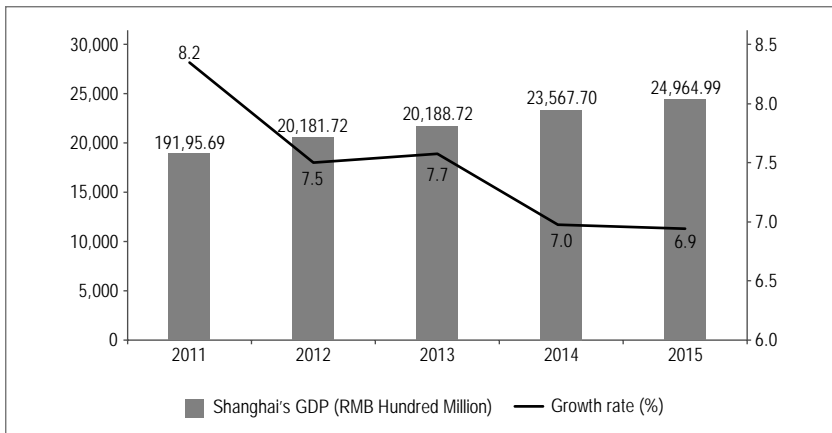
Shanghai, as the Far East's economic and financial center, has been the economic center of China since the opening up of Pudong New Area in the 1990s. It is now gradually upgrading to the world center of economy, finance, trade, shipping, and innovation.

In 2014, Shanghai reached 2.50 trillion yuan (about US\$375 billion) in GDP with a growth rate of 6.9 percent over the previous year (see Figure 4-1), ranking 12th in the nation (Beijing and Tianjin ranked 13th and 19th, respectively). According to the 6.12 dollar-yuan average exchange rate in 2014, the GDP of Shanghai and Beijing each exceeded that of Hong Kong by about one-third. (See Table 4-1) Calculated by resident population, the per capita GDP of Shanghai is 97,561 yuan (about US\$15,941), ranking third after Tianjin and Beijing. In 2014, Shanghai ranked fourth in foreign investment, and third in the total volume of import and export.

Shanghai also boasts first-class trade infrastructures. In 2015, the Port of Shanghai ranked second in terms of container throughput both in China and globally, and first in terms of port throughput. (See Table 4-1) In 2015, Shanghai Pudong International Airport ranked second, right behind Beijing, in total air-

port passenger and cargo traffic; it is also second after Hong Kong in terms of national cargo traffic. Pudong airport was ranked third globally in terms of cargo volume, according to the global airport passenger and cargo traffic ranking released by Airports Council International in 2014. (See Table 4-2)

**Figure 4-1. Shanghai's GDP and Its Growth Rate (2011-2015)**



Source: Shanghai Statistical Yearbook of Economic and Social Development (2015).

**Table 4-1. Comparison of Major Economic Indicators in Shanghai, Beijing, and Tianjin (2014)**

	Whole Country	Tianjin	Beijing	Shanghai	Hong Kong
GDP (100 million yuan)	636,139	15,727	21,331	<b>23,568</b>	17,803 (US\$291billion)
National Ratio (%)	100	2.50	3.40	<b>3.70</b>	-
National Ranking	-	17	13	<b>12</b>	-
Per capita GDP (yuan)	46,531	106,810	100,855	<b>97,561</b>	245,834 (US\$40,169)
National Proportion (%)	100	230.00	217.00	<b>210.00</b>	-
National Ranking	-	1	2	<b>3</b>	-
Foreign Investment (US\$100 million)	1,196	211	130	<b>185</b>	1,030

**Table 4-1. Continued**

	Whole Country	Tianjin	Beijing	Shanghai	Hong Kong
National Proportion (%)	100	17.67	10.87	<b>15.34</b>	-
National Ranking	-	3	9	<b>4</b>	-
Total Imports and Exports (100 million Yuan)	264,334	8,226	25,524	<b>28,655</b>	68,619 (US\$1,125 billion)
National Proportion (%)	100	3.11	9.66	<b>10.84</b>	-
National Ranking	-	8	4	<b>3</b>	-
Port Throughput (100 million tons)	-	5.40	-	<b>7.55</b>	5.95
National Ranking	-	3	-	<b>2</b>	-
Container Throughput (10,000 TEU)	-	1,405	-	<b>3,529</b>	2,220
National Ranking	-	6	-	<b>1</b>	-

Note: Hong Kong is not included in the national data. The total volume of Shanghai customs imports and exports is 5.08 trillion yuan.

Source: Based on the Statistical Yearbook of the cities and provinces of China.

**Table 4-2. World Top 10 Port and Container Throughput and Airport Passenger and Cargo Traffic (2015)**

Throughput	Ranking
Port Throughput	Ports of Ningbo-Zhou Shan, <b>Shanghai</b> , Singapore, Tianjin, Suzhou, Guangzhou, Tangshan, Qingdao, Rotterdam, Port Hedland
Container Throughput	Ports of <b>Shanghai</b> , Singapore, Shenzhen, Ningbo-Zhou Shan, Hong Kong, Busan, Qingdao, Guangzhou, Dubai, Tianjin.
Airport Passenger Traffic	Atlanta, Beijing, London Heathrow, Tokyo Haneda, Los Angeles, Dubai, Chicago O'Hare, Paris Charles de Gaulle, Dallas, Hong Kong
Airport Cargo Traffic	Hong Kong, Memphis, <b>Shanghai Pudong</b> , Incheon, Anchorage, Dubai, Louisville, Tokyo Narita, Frankfurt, Taoyuan

Source: [http://www.zgsyb.com/html/content/2016-02/01/content\\_328416.shtml](http://www.zgsyb.com/html/content/2016-02/01/content_328416.shtml); <http://www.sinotf.com/GB/Logistics/1121/2016-02-18/xNMDAwMDE5NzgxNw.html>.

## 1.2 Service-oriented Industrial Structure

Due to the government's industry policies and the industrial evolution, the general feature of Shanghai's industrial structure is rapidly moving toward the service sector, and it is supplemented by stable manufacturing, while the agriculture sector's economic position is declining.

Based on an industry's value added, it can be seen that tertiary industry in Shanghai enjoyed a rapid growth, while the second industry has a relatively stable development. In 2014, Shanghai's tertiary industry accounted for 64.82 percent, 34.66% higher than the second industry, while the primary sector accounted for only 0.53 percent. (See Tables 4-3 and 4)

**Table 4-3. The Industrial Structure Comparison of Shanghai, Beijing, and Tianjin (2014)**

Index	Shanghai	Proportion (%)	Tianjin	Proportion (%)	Beijing	Proportion (%)
GDP (billion yuan)	<b>2,356.7</b>		1,572.7		2,133.2	
Primary Industry	<b>12.4</b>	<b>0.53</b>	20.2	1.28	15.9	0.75
Second Industry	<b>816.8</b>	<b>34.66</b>	776.6	49.38	454.5	21.31
Tertiary Industry	<b>1,527.6</b>	<b>64.82</b>	775.9	49.34	1,662.7	77.95

Source: Based on the Statistical Yearbook of the cities and provinces of China.

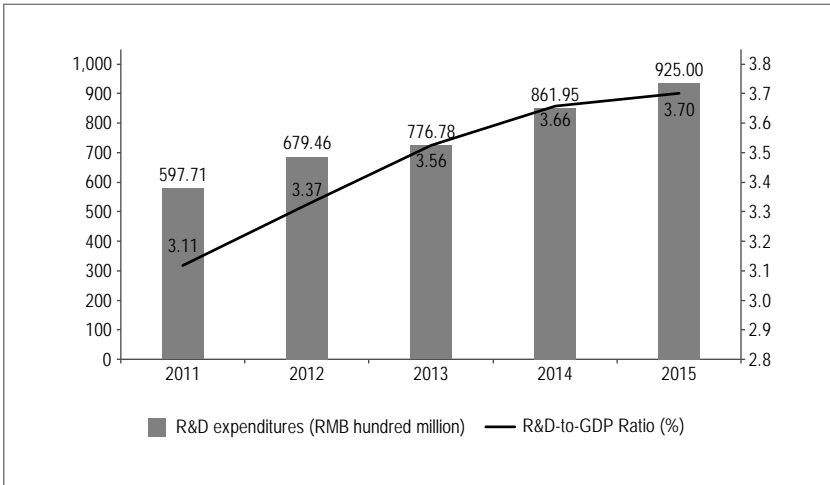
**Table 4-4. The Industrial Structure Comparison of Shanghai, Beijing, and Tianjin (1990-2014)**

time	GDP (100 million yuan) and Ratio of Industrial Structure (%)					
	Shang-hai's GDP	Ratio of three industries	Tianjin's GDP	Ratio of three industries	Beijing's GDP	Ratio of three industries
1990	781.66	4.4 : 64.7 : 30.9	310.95	8.8 : 58.3 : 32.9	500.8	8.7 : 52.3 : 39.0
1995	2,499.43	2.4 : 56.8 : 40.8	931.97	6.5 : 55.7 : 37.8	1507.7	4.8 : 42.7 : 52.5
2000	4,771.17	1.6 : 46.3 : 52.1	1701.88	4.3 : 50.8 : 44.9	3161.7	2.4 : 32.6 : 65.0
2005	9,247.66	1.0 : 47.4 : 51.6	3905.64	2.9 : 54.6 : 42.5	6969.5	1.2 : 28.9 : 69.9
2010	17,165.98	0.7 : 42.0 : 57.3	9224.46	1.6 : 52.4 : 46.0	14113.6	0.9 : 23.6 : 75.5
2014	23,567.7	0.5 : 34.7 : 64.8	15726.93	1.3 : 49.4 : 49.3	21330.8	0.7 : 21.4 : 77.9

Source: Data from Shanghai Statistical Yearbook (2015), Tianjin Statistical Yearbook (2015), Beijing Statistical Yearbook in 2015, China Statistics Press.

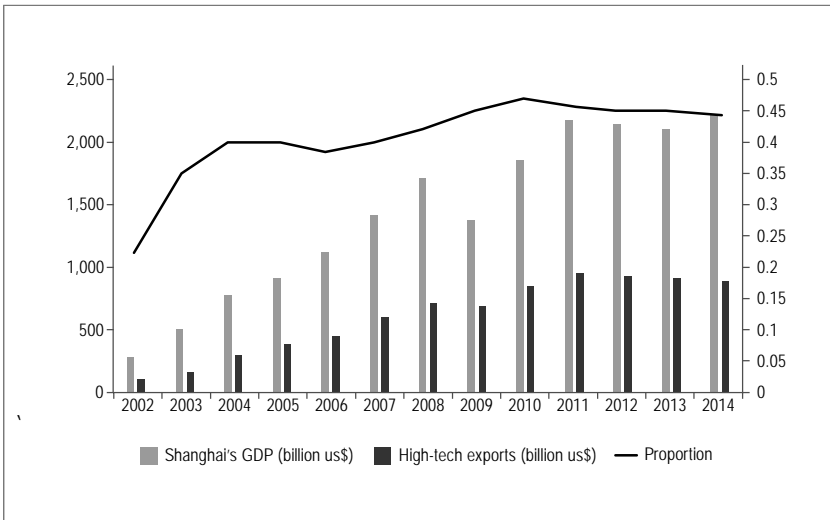
Shanghai has become China's financial center as well. In 2015, the added value of finance in Shanghai was 405.223 billion yuan, an increase of 22.90 percent compared with 2014, including banking, securities, futures, and insurance. Shanghai's manufacturing has six pillar industries: electronic information, automobiles, petrochemicals and fine chemicals, fine steel, equipment, and biomedicine. In addition, Shanghai focuses on fostering strategic emerging manufacturing sectors, including the new generation of information technology, biomedicine, high-end equipment, new energy, new materials, and new energy automobiles. Moreover, Shanghai's science and technology investment has increased over the years. The research and development (R&D) expenditure in 2015 was 92.5 billion yuan, equivalent to 3.66 percent of Shanghai's GDP (see Figure 4-2), ranked second nationwide, lower than that of Beijing (5.95 percent), but higher than that of Tianjin (2.96 percent). The ratio of high-tech exports in Shanghai increased from 22.33 percent in 2002 to 42.35 percent in 2014. (See Figure 4-3)

**Figure 4-2. R&D-to-GDP Ratio in Shanghai (2011-2015)**



Source: Shanghai Statistical Yearbook of Economic and Social Development (2015).

**Figure 4-3. High-tech Exports-to-GDP Ratio in Shanghai**



Source: Shanghai Statistical Yearbook (2003-2015).

## 2. Development of Shanghai Free Economic Zones

There are many terms for the various economic zones, such as special economic zone, export processing, science-based park, free trade zone, and the like.<sup>3)</sup> For the purpose of this study, the generic term “free economic zone” is used to refer to the various economic zones in Shanghai, such as the economic and technological development zones (ETDZs), Pudong New Area (special economic zone), EPZ, high-tech industrial park, bonded zone, pilot free trade zone, and so on.

As a policy tool implemented by Shanghai to achieve its development objectives, different types of FEZs were established in respective phases of its development. The development of Shanghai FEZs can be generally divided into three stages: economic and technological development zones, comprehensive free economic zones, and pilot free trade zones in terms of the time sequence. The development and evolution of different types of FEZs will be analyzed and evaluated from the perspectives of such issues as domestic and overseas political and economic backgrounds, and Shanghai’s own development objectives and demands.

### 2.1 Phase of ETDZs (1984-1990)

#### 1) Domestic and Overseas Background

In the 1980s, the international division of labor and industrial transfer driven by the revolution of new technologies and economic globalization provided opportunities for developing economies. East Asia formed an industrial division called the “Echelon Model,” led by Japan and followed by the Four Asian Tigers (Hong Kong, Singapore, South Korea, and Taiwan).

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3) Meng Guangwen, “The Theory and Practice of Free Economic Zones: A Case Study of Tianjin, People’s Republic of China,” Germany : Peter Long (2003).

Thus, FEZs and EPZs alike enjoyed prosperity in Asia.

Prompted by both international and domestic factors, China shifted its development strategy from domestic-oriented “self-dependence” to export-oriented “reform and opening up.” By reforming the economic system, China combined its comparative advantages of low-cost labor, cheap land, standardized infrastructure, and loose environmental policies with foreign capital and advanced technological and managerial experience. The result was that China was able to produce labor-intensive products for export, earn foreign exchanges, and achieve economic development and structural transformation.

Under the closed economic system and overall constraining environment, China adopted the special economic zone approach in order to pilot the market-oriented economic reforms and attract foreign investment. By August 1980, Shenzhen, Zhuhai, and Shantou in Guangdong Province were designated as special economic zones, followed by Xiamen in Fujian Province in October 1980 (Hainan became the fifth in 1988). The five SEZs were quite similar in that they comprised large areas within which the objective was to facilitate broadly based, comprehensive economic development, and they all enjoyed special financial, investment, and trade privileges. They were encouraged to pursue pragmatic and open economic policies that would serve as a test for innovative policies that, if proven successful, would be implemented more widely across the country.<sup>4)</sup>

The initial opening to trade and investment having proved successful, China resolved to open its economy further. In 1984, the central authorities created a variant of SEZs, which they dubbed economic and technological development zones (ETDZs), informally known as China’s national industrial parks. The difference between the comprehensive SEZs and the ETDZs is the scale and the industrial structure.<sup>5)</sup> Fourteen cities including

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4) Douglas Zhihua Zeng, “Global Experiences with Special Economic Zones: Focus on China and Africa” World Bank Policy Research Working Paper no. 7240 (April 2015).

Shanghai were further opened up in 1984. Since then, the initial ETDZs have become an important means of reform and opening up for these 14 coastal cities.<sup>6)</sup>

## 2) Transformation of Strategic Objectives for Shanghai's Development

Before World War II, Shanghai was the largest economic, trade, and financial center in the Far East, competing with Tokyo, Singapore, and Hong Kong. However, after the war, under the planned economic system, Shanghai became an internal-oriented “production” city. In the 1980s, following the reform and open-door policy, Shanghai got the opportunity to revitalize itself. In February 1985, the State Council officially approved the Outline of the Report of Shanghai's Economic Development Strategy, which says “... strive to build Shanghai into a socialist modern city which is open, multifunctional and boasts rational industrial structure, advanced science and technology and civilization.” In 1986, on the reply to Shanghai's Overall Planning Program, the State Council clearly defined Shanghai as “one of the largest economic and trade center in the western Pacific Rim.” Furthermore, the central urban area's population and industries of Shanghai were overcrowded, so that its economic, financial, trade, and circulating function were considered insufficient, and infrastructure and public services were not complete.<sup>7)</sup>

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5) Douglas Zhihua Zeng, “How Do Special Economic Zones and Industrial Clusters Drive China's Rapid Development?” World Bank Policy Research Working Paper no. 5585 (March 2011).

6) Yafang Ma, “The Development of Shanghai Development Zone and the Evolution of Urban Space Structure,” East China Normal University (2014).

7) Zou Ronggeng, Dujie, “Discussion on the Change of Shanghai Urban Function and the Reason.” *Party History and Building of Shanghai*, no.12 (December 2001): 26–30.

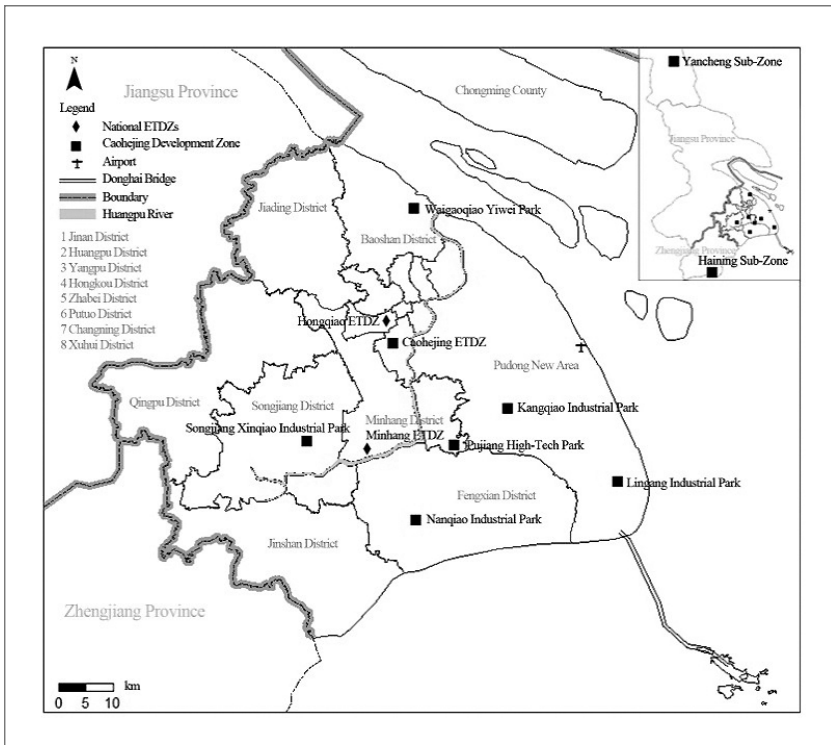
### 3) Establishment and Development of ETDZs

In 1983, the Shanghai municipal government officially set up Minhang Development Corporation to start the establishment of Minhang Development Zone. In 1984, the government set up Caohejing Electronic Industrial Zone, and in 1985, it started Shanghai Hongqiao United Development Company to take charge of the construction and management of Hongqiao Development Zone. After the central government's policy of further opening coastal cities and gradually establishing ETDZs, Shanghai Minhang Economic and Technological Development Zone and Hongqiao Economic and Technological Development Zone were approved as national lever ETDZs in 1986. Two years later, Caohejing ETDZ was also approved. They were granted many preferential policies from both the central and local governments in the areas of land and infrastructure utilization as well as taxes and other critical needs. (See Figure 4-4)

Being among the first 14 national ETDZs, the three development zones in Shanghai have prominent features in terms of management model, development pattern, and industrial types. First, all three adopted a highly efficient, corporation-like management model, under which a development corporation is responsible for the planning, development, and management of the zones. To enhance the efficiency of funding and land development, the zones were developed in a phased approach. Second, the zones were well integrated with city planning, so they not only support the industrial development, but also municipal infrastructures, and they promote the development of the New District and the transformation of the Old District. Third, the differential positioning for the zones fits well with the demand of urban renewal and also helps to diversify the industries (from export processing to new and high-tech industries), and avoid vicious competition among the zones. Though being both a traditional processing zone and a manufacturing zone, the Minhang development zone aims at absorbing foreign investment and developing export-oriented industries, while the Caohejing development

zone focuses on introducing technologies and cultivating new and high-tech industries. As the only business development zone dedicated to the upgrading of urban service sectors in Shanghai, Hongqiao Development Zone mainly encourages foreign investors to carry out commercial real estate projects, such as hotels, trade centers, and consular areas. The final goal is to build an international community featuring foreign trade and tourism, to enhance the city's trading function and promote the reconstruction of central urban area. (See Table 4-5)

**Figure 4-4. Locations of Shanghai Economic and Technological Development Zones**



**Table 4-5. Basic Information of the Three National ETDZs in Shanghai in the 1980s**

Name	Time of Establishment	Planning Area (Km <sup>2</sup> )	Functions	Development Objectives
Hongqiao	1986	0.65	Commercial and trade zone focusing on consulate, foreign trade, and tourism	Becoming a modern new district, promoting the reconstruction of central urban area
Minhang	1986	3.50	Industrial park focusing on export processing industry	Utilizing foreign investment and boosting export
Caohejing	1988	5.00	Industrial park focusing on high-tech industry	Promoting the upgrading and transition of the economy

Source: Ma, Yafang, “The Development of Development Zones and Spatial Structure in Shanghai [D],” East China Normal University, Shanghai (2014), 23.

Because of the clear objectives, appropriate location and highly effective management and development model, the three development zones formed an attractive investment environment and achieved excellent development effects in a short period of time. Taking shape by 1990, Minhang, Hongqiao, and Caohejing ETDZs boasted a gross industrial output value (GIOV) of RMB 3.51 billion (see Table 4-6), accounting for 2.20 percent of the city total. By the end of 1990, Caohejing and Minhang ETDZs had attracted a total foreign direct investment of US\$588 million and earned US\$230 million worth of foreign exchange through exports, which accounted for 31.24 percent of the gross output value of foreign enterprises and 46.0 percent of the total foreign exchange in Shanghai. Nevertheless, given the imperfect domestic investment environment at the time, big international players remained sidelined. The foreign industries attracted to the zones were small in scale and rather low in terms of their technological level.

**Table 4-6. Major Economic Indicators of Caohejing, Minhang, and Hongqiao ETDZs in 1990**

Name	GIOV (billion RMB)	Sales Revenue (billion RMB)	Tax Revenue (billion RMB)	Actual Utilized Foreign Investment (billion USD)	Foreign Exchange Earned by Export (billion USD)
Caohejing	2.35	2.39	0.30	0.33	0.08
Minhang	1.08	1.17	0.23	0.26	0.15
Hongqiao	0.09	0.09	0.01	-	-

Note: Actual Utilized Foreign Investment and Foreign Exchange Earned by Export are statistics from 1991.

Source: Data from Shanghai Statistical Yearbook 1991, Shanghai Statistical Publishing House.

#### 4) Development and Evolution of Shanghai ETDZs

Since 1990s, the original three development zones have not only maintained economic growth and yielded fruits in institutional innovation, but they have also undergone transformation and diversified development in spatial structure. Today the development zones remain one of the pillars supporting the social and economic development and reform and opening up of Shanghai.

The Caohejing zone maintained its direction of becoming an export-oriented, multifunction, and high-tech zone. The Minhang zone featured “small in scale yet high in performance with fewer but larger projects,” which made it an export-oriented, intensive, and transnational corporation clustered modern industrial park. The Hongqiao zone, as an emerging trade zone featured in foreign trade, led by exhibitions, and focused on modern service industry, became one of the international trade centers of Shanghai. (See Table 4-7) The Caohejing zone excelled among the three zones because its gross industrial output value, tax revenue, export value, and import value are, respectively, 1.5, 0.5, 6, and 2 times of the total of the other two zones,

except for the actual utilized foreign investment. In addition, compared with 1990, the major economic indicators of the three zones enjoyed tremendous growth in 2010. For example, the decade witnessed a 52-fold increase in the gross industrial output value of the Caohejing zone and a 21-fold increase in its tax revenue. In the Minhang zone, the gross industrial output value increased by 36 times and the tax revenue by 15 times. The sales and tax revenue of the Hongqiao zone increased by 106 and 89 times, respectively.

**Table 4-7. Major Economic Indicators of Caohejing, Minhang, and Hongqiao ETDZs (2002, 2010)**

Name	GIOV (billion yuan)	Tax Revenue (billion yuan)	Actual Utilized Foreign Investment (billion US\$)	Total Export Value (billion US\$)	Total Import Value (billion US\$)
Caohejing	27.28	1.21	0.18	1.33	0.95
	123.74	6.73	0.15	12.73	5.29
Minhang	19.83	1.69	0.03	0.40	0.35
	40.10	3.69	0.08	1.70	1.53
Hongqiao	5.13	0.28	0.07	0.19	0.13
	9.61	0.90	0.08	0.07	-

Note: The gross industrial output value of Hongqiao Development Zone is its sales revenue.

Source: Data from Statistical Yearbook of China Development Zone (2011), China Financial and Economic Publishing House, and the website of Shanghai Chorography.

Among these three development zones, Caohejing is the most representative one in terms of economic scale, and industrial and spatial structure. Its development can be divided into three phases (see Table 4-8): the start-up phase of manufacturing and the central zone (1988-1994); development phase of one central zone and two subzones (1995-2003); and transformation phase of diversified industries and one central zone and 6+2 sub-zones (2004 to present) 4.8)

**Table 4-8. Expansion of Caohejing Development Zone in Land Use**

Time	Expansion in Land Use
1984	Shanghai Caohejing Microelectronic Industrial Park
1988	Caohejing ETDZ
1991	National High-Tech Zone
1995	Construction of "the enclave," Songjiang-Xinqiao Industrial Park, covering 0.112 km <sup>2</sup>
2003	Shanghai Caohejing EPZ (Phase I: 0.9 km <sup>2</sup> )
2004	Construction of the 8.3 km <sup>2</sup> Pujiang High-Tech Park in Pujiang Town, Minhang District
2005-2009	Establishment of Caohejing Development Zone, Waigaoqiao Yiwei Park, Caohejing New Economic Park, Lingang Industrial Park, and Caohejing Science and Technology Oasis Kangqiao Industrial Park
2009	Establishment of Caohejing Yancheng Subzone (10.5 km <sup>2</sup> ) and Caohejing Haining Subzone (15 km <sup>2</sup> )

Source: Data from Reference Shao Jiaying (2014), "Research on Spatial Expansion and Governance of Development Zone - Exemplified by Shanghai Caohejing New Technological Development Zone." East China Normal University and the website of Shanghai Caohejing Development Zone Economic and Technology Development Co., Ltd.

## 2.2 Phase of Comprehensive FEZs (1991-2012)

### 1) Domestic and Overseas Political and Economic Backgrounds

Though a great success, the Chinese reform and opening-up policy was still confronted with problems such as corruption and political opposition. In 1992, after the famous speeches given by Deng Xiaoping during his southern tour in China, the central government determined that China would adhere to the opening-up and reform policy, which reassured international investors.

Meanwhile, by utilizing their own advantages and the preferential policies

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8) Shao Jiaying, "Research on Spatial Expansion and Governance of Development Zone - Exemplified by Shanghai Caohejing New Technological Development Zone," East China Normal University, 2014.

from the central government, China's SEZs enjoyed a surge in their economy and economic strength. In 1980, the GDP of the four major SEZs (Shenzhen, Zhuhai, Shantou, and Xiamen) was merely RMB 4.13 billion, making up 0.91 percent of the national figure. By 1990, the GDP of the five major SEZs (including Hainan) reached RMB 44.51 billion, accounting for 2.39 percent of the national GDP, which is nearly a two percentage point raise in only one decade. Moreover, the experiences of the SEZs in the price policy, project bidding, labor and employment system, social insurance, joint stock system, and land auction were copied nationwide. Such a background precluded the rapid development of Chinese FEZs. In addition to national FEZs, province- and county-level development zones were established. Prior to 1992, there had been 1,874 development zones of all types. Besides SEZs and ETDZs, there emerged some new types of development zones, such as comprehensive development zones, high-tech zones, bonded zones, EPZs, and border trade zones.<sup>9)</sup>

## 2) Shifts in the Strategic Development Objectives of Shanghai

Since 1990s, the reform and opening up in China formed a T-shape pattern, along the coast from south to north and along the Yangtze River from east to west. Located in the center of this T-shape pattern, Shanghai was in a strategic position to lead the whole country economically, and more space was needed for its further development to become an international metropolis and for the Yangtze River Delta to become an urban agglomeration integrated with the world economy.

The Report of the 14th National Congress of Communist Party of China made it clear that “the development and opening up of Pudong (Shanghai) shall lead the economic development of Yangtze River Delta and the whole Yangtze River Basin and Shanghai is to become the world economic, finan-

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9) Meng Guangwen, “The Theory and Practice of Free Economic Zones: A Case Study of Tianjin, People’s Republic of China,” Germany : Peter Long, 2003.

cial and trade center.” The results of the three national ETDZs in Shanghai gave the municipal government of Shanghai great confidence and experience in developing Pudong New Area.

To fulfill the new development objectives given by the central government and its own development needs, Shanghai began to develop and construct Pudong New Area in 1990. As a comprehensive FEZ, it consists of financial development zones, bonded zones, new and high-tech industrial parks, EPZs, and more.

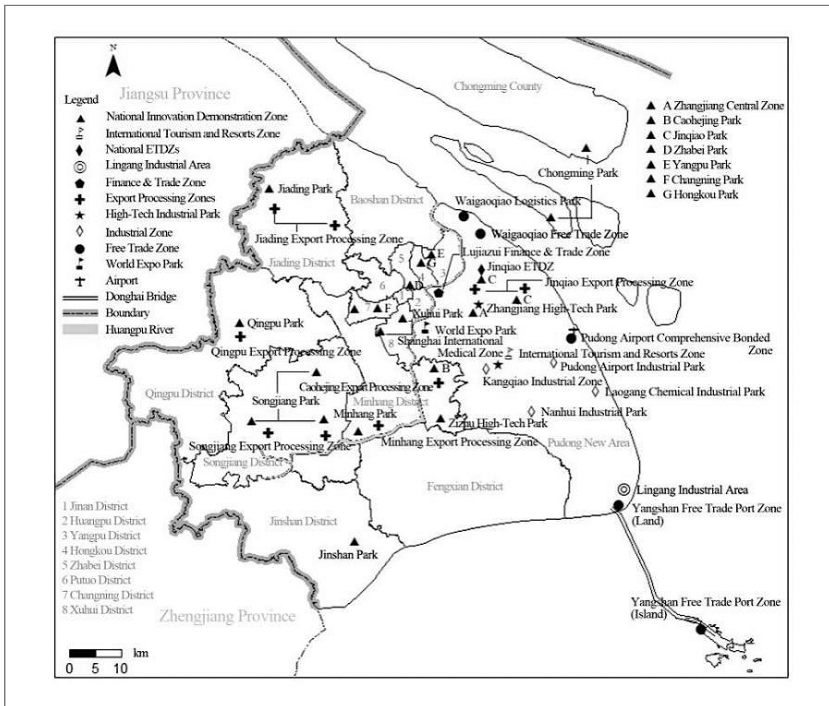
### **3) Development and Opening Up of Pudong New Area in Shanghai**

As the largest development zone in China, the 350-square kilometer Pudong New Area opened in April 1990. According to the construction of different types of FEZs, the development of the New Area can be divided into three phases: multi-type start-up development zone (1990-2003); bonded port zone and tourism-leisure development zone (2004-2012); and pilot free trade zones (2013 to present).

In 1990, the State Council approved the establishment of Shanghai Lujiazui Finance and Trade Zone (with foreign investment allowed in the tertiary industry), Shanghai Waigaoqiao Free Trade Zone, and Shanghai Jinqiao Economic and Technological Development Zone. Shanghai New and High-Tech Industrial Park, the present Zhangjiang High-Tech Park, was also approved for construction in 1991. These four development zones went into operation as the pilot zones of the development of Pudong. The year 2004 and 2009 witnessed the establishment of Shanghai Waigaoqiao Logistics Park, Yangshan Free Trade Port Zone, and Pudong Airport Comprehensive Bonded Zone, as well as Lingang Industrial Area. The World Expo Park and International Tourism and Resorts Zone were constructed in 2010 and 2011, respectively. By 2012, Pudong New Area had formed a “4+3” functional pattern, which consisted of the bonded zones

(four special areas supervised by the customs, Shanghai Waigaoqiao Free Trade Zone, Shanghai Waigaoqiao Logistics Park, Yangshan Free Trade Port Zone, and Pudong Airport Comprehensive Bonded Zone), the Lujiazui Finance and Trade Zone, the Jinqiao Economic and Technological Development Zone (including Jinqiao ETDZ, Nanhui Industrial Park, Pudong Airport Industrial Park, Laogang Chemical Industry Park), the Zhangjiang High-Tech Park (including Zhangjiang High-Tech Park, Kangqiao Industrial Zone, Shanghai International Pharmaceutical Zone) and Lingang Industrial Area, as well as the World Expo Park and International Tourism and Resorts Zone. More recently, China (Shanghai) Pilot Free Trade Zone Phases I and II were established in 2013 and 2015, respectively. (See Figure 4-5 and Table 4-9)

**Figure 4-5. Locations of Shanghai Free Economic Zones**



**Table 4-9. FEZs Established in Pudong New Area Since 1990**

Name	Type	Founding Time	Area (km <sup>2</sup> )
Waigaoqiao Free Trade Zone	National Bonded Zone	June 1990	11.03
Lujiazui Finance & Trade Zone	National Finance & Trade Zone	June 1990	31.78
Jinqiao ETDZ (EPZ)	National ETDZ	Sept. 1990	19.94
Shanghai New and High-Tech Industrial Park (Zhangjiang High-Tech Park)	National New and High-Tech Industrial Development Zone	March 1991	22.13
Waigaoqiao Logistics Park	National Bonded Logistics Park	April 2004	1.03
Yangshan Free Trade Port Zone	National Bonded Port Zone	Oct. 2005	8.14
Lingang Industrial Area	Provincial Development Zone	2004	241.00
Pudong Airport Comprehensive Bonded Zone	National Comprehensive Bonded Zone	July 2009	3.59
World Expo Park	Provincial Development Zone	2010	5.28
International Tourism and Resorts Zone	Provincial Development Zone	2011	7.50
Pilot Free Trade Zone Phase I	National Free Trade Zone	Sept. 2013	28.78
Pilot Free Trade Zone Phase II	National Free Trade Zone	Apr 2015	120.72

Note: Lingang Industrial Area, World Expo Park, and International Tourism and Resorts Zone don't belong to national development zones, thus will not be included in this chapter.

Source: Data from References Ma Yafang (2014), "The Development of Shanghai Development Zone and the Evolution of Urban Space Structure." East China Normal University. ] and official websites.

Thanks to its strategic location, good management, diversified industries, and various preferential policies, Pudong New Area became the core zone of

social and economic development and policy innovation in Shanghai since its establishment. Major economic indicators of Pudong New Area had multiplied, accounting for an increasing proportion in the city. From 2000 to 2014, Pudong New Area's GDP had increased by 6.7 times, tax revenue by 21 times, and import and export value by 9.5 times. Moreover, its proportion in Shanghai's GDP, tax revenue, and import and export increased by 7.48 percentage points; its share of Shanghai's tax revenue increased by 15.33 percentage points; imports by 11.07 percentage points; and exports by 10.07 percentage points. (See Table 4-10)

**Table 4-10. Proportion of Pudong New Area in Economic Indicators of Shanghai (2000-2014)**

Time	PNA's GDP (billion yuan)	Proportion in Shanghai's GDP(%)	Tax Revenue (billion yuan)	Proportion in Shanghai's Tax Revenue (%)	Import Value (billion US\$)	Proportion in Shanghai's Import (%)	Export Value (billion US\$)	Proportion in Shanghai's Export (%)
2000	92.35	34.07	10.32	8.68	15.91	54.18	9.58	37.78
2005	210.88	46.34	49.49	14.05	52.26	54.66	37.21	41.09
2010	470.75	50.05	204.62	25.57	112.68	62.33	73.88	40.87
2011	548.44	49.77	225.61	23.51	137.10	65.35	88.90	42.37
2012	592.99	46.50	236.08	22.68	145.91	70.55	93.98	45.44
2013	644.85	41.88	276.28	25.30	153.78	64.85	95.83	46.92
2014	710.97	41.55	290.08	24.01	167.26	65.25	100.61	47.85

Source: Data from Pudong New Area Statistical Yearbook (2015, 2014, 2013, 2012, 2011, 2000), China Statistics Press; Shanghai Economic Yearbook 2001, China Statistics Press; State Administration of Taxation Shanghai Bureau website (<http://www.tax.sh.gov.cn/pub/>, 2014, 2013, 2012, 2011, 2010, 2005).

#### 4) Zhangjiang Indigenous Innovation Demonstration Zone

To encourage indigenous technology innovation and industrial upgrading, Shanghai also set up several high-tech parks, one of which is the Zhangjiang

Indigenous Innovation Demonstration Zone (also called Zhangjiang High-Tech Park). It has undergone rapid growth in economic scale and profits, as well as industrial structure upgrading and spatial expansion since its establishment in 1991. From 2005 to 2014, the gross industrial output value, export, tax revenue, and employment of Zhangjiang High-Tech Park had increased by 0.8, 0.8, 2.9, and 0.6 times, respectively. (See Table 4-11) Moreover, high-tech production and R&D capabilities have been strengthened. By the end of 2011, more than 20,000 new and high-tech enterprises (222 of which are in the Fortune Global 500) and 800-plus R&D institutions were occupying 296 km<sup>2</sup>, constituting one zone with 13 subzones.<sup>10)</sup>

**Table 4-11. Economic Indicators of Zhangjiang National Indigenous Innovation Demonstration Zone (2005-2014)**

Time	GIOV (billion yuan)	Actual Foreign Investment (billion US\$)	Export (billion yuan)	Tax Revenue (billion yuan)	Employment (thousand people)	Proportion in Shanghai's GIOV (%)	Proportion in Shanghai's Export Value (%)	Proportion in Shanghai's Tax Revenue (%)
2005	42.21	1.06	15.15	4.37	147.7	2.50	1.10	1.24
2010	60.81	1.05	23.57	10.99	173.8	1.96	1.98	1.37
2011	55.57	0.93	21.08	13.27	189.5	1.64	1.53	1.38
2012	58.39	0.97	21.44	14.98	209.8	1.76	1.56	1.44
2013	61.97	1.01	22.12	15.96	226.5	1.83	1.65	1.46
2014	75.84	1.03	26.60	16.98	239.9	2.23	1.94	1.41

Source: Data from Shanghai Pudong New Area Statistical Yearbook (2015, 2013, 2012, 2006), China Statistics Press; the website of State Administration of Taxation Shanghai Bureau (<http://www.tax.sh.gov.cn/pub/>, 2014, 2013, 2012, 2011, 2010, 2005); the website of Shanghai Committee of Commerce ([http://www.scofcom.gov.cn/wsbs/businessStatistics\\_toSWIJ.do](http://www.scofcom.gov.cn/wsbs/businessStatistics_toSWIJ.do)).

10) (Lv 2012) Lü Beike, "Research on Transition of Management System in China's High-Tech Park-Exemplified by Shanghai Zhangjiang Zone." East China University of Science and Technology, 2012.

The development of Shanghai Zhangjiang National Indigenous Innovation Demonstration Zone can be divided into three phases: Shanghai High-Tech Zone, Zhangjiang High-Tech Zone, and National Indigenous Innovation Demonstration Zone.

**Shanghai High-Tech Zone, Start-up Phase of One Zone with Six Subzones (1991-1998):** In March 1991, Shanghai Caohejing New Technology Development Zone became one of the first national high-tech zones; 1992, Zhangjiang High-Tech Park started construction. Together with Caohejing development zone, it was named Shanghai New and High-Tech Industrial Development Zone (Shanghai High-Tech Zone in short), forming the pattern of “one zone with two subzones.” Since then, Shanghai University Science Park, China Textile International Technology City, Jiading Private High-Tech Concentrated Area, Jinqiao Modern High-Tech Park became part of the Shanghai High-Tech Zone. By 1996, the Shanghai High-Tech Zone comprised one zone with six subzones.

**Zhangjiang High-Tech Zone, Developing Phase of One Zone with Eight Subzones (1999-2010):** In 1999, Shanghai made the strategic decision of “focusing on Zhangjiang, and constructing Shanghai’s 21st century high-tech industrial base.” Under such a decision, constructing Zhangjiang High-Tech Park became the key development objective and a concentration of high-tech industries was encouraged so as to integrate the resources and increase the efficiency of each park. In 2006, the State Council renamed the Shanghai New and High-Tech Industrial Development Zone as Shanghai Zhangjiang New and High-Tech Industrial Development Zone (Zhangjiang High-Tech Zone in short). After that, the Shanghai Zizhu Science Park and Yangpu Knowledge Innovation Base became part of the Zhangjiang High-Tech Zone, which now comprises one zone with eight subzones.

**National Indigenous Innovation Demonstration Zone, Expanding Phase of One Zone with 13 Zones (from 2011 to the present):** In January 2011, the

State Council approved Shanghai Zhangjiang High-Tech Zone to be the third national indigenous innovation demonstration zone after Beijing Zhongguancun and Wuhan Donghu. Currently, Shanghai Zhangjiang National Indigenous Innovation Demonstration Zone is made up of “12+1” parks: Zhangjiang Central Zone, Caohejing, Jinqiao, Zhabei, Qingpu, Jiading, Yangpu, Changning, Xuhui, Songjiang, Hongkou, and Minhang Park plus Zizhu High-Tech Park.

### 5) The Shanghai Bonded Zones

As the platform for Shanghai and China is to deepen the reform and open up the service industry, the Shanghai bonded zones are large-scale, multi-type, and multifunction. Three seaport-based and one airport-based bonded zones have been established since Shanghai Waigaoqiao Free Trade Zone was set up in 1990. Although all types of bonded zones are service-oriented FEZ, having similar functions such as international trade, processing, shipping, and logistics, their development objectives and business models could be different from one another. (See Table 4-12)

**Table 4-12. Functions and Main Business of Shanghai Bonded Zones**

Name	Waigaoqiao Free Trade Zone Waigaoqiao Logistics Park	Yangshan Free Trade Port Zone	Pudong Airport Comprehensive Bonded Zone
Time of Establishment	1990, 2004	2005	2009
Location and Area	Close to the mouth of Yangtze River and adjacent to Waigaoqiao Port Area; planned area covering 10 km <sup>2</sup> , customs closed area covering 8.9 km <sup>2</sup> ; the Logistics Center covering 1.03 km <sup>2</sup> .	Consists of the land part of Shanghai Luchao Harbor, Donghai Bridge and Xiaoyangshan Port Area; planned area covering 14.16 km <sup>2</sup> , customs closed area covering 8.14 km <sup>2</sup> .	Located west of the third runway of Pudong Airport, planned and customs closed area covering 3.59 km <sup>2</sup> .

**Table 4-12. Continued**

Name	Waigaoqiao Free Trade Zone Waigaoqiao Logistics Park	Yangshan Free Trade Port Zone	Pudong Airport Comprehensive Bonded Zone
Functional Orientation	Focus on constructing an international trade demonstration zone, developing service and trade functions such as import and export trade, carrying trade, bonded demonstration, and storage and distribution.	Focus on constructing a pilot comprehensive international shipping development zone, developing international transfer, delivery, procurement, carrying trade, export processing, and so on.	Focus on constructing a pilot airport functional service zone, developing airport logistics, trade and financial services, and the like.
Main Business	Pilot foreign exchange, off-shore trade, commodity distribution, bonded extension, procurement and delivery, product maintenance, bonded market.	International procurement, export LCL, off-shore accounts, transit LCL, bonded future delivery, bonded demonstration, ship chartering, bonded ship registration.	Airport services, international transfer, aircraft leasing.

Source: Data from FuXin (2014), “Study on Influences of China (Shanghai) Pilot Free Trade Zone on the Transformation Development and Value of Port Logistics Enterprises” Shanghai Jiaotong University.

Waigaoqiao Free Trade Zone (WFTZ) has been one of the bonded zones with the largest economic scale and the best performance in China. Launched in September 1990, it is China’s first customs supervised zone with many functions. In 2014, the gross industrial output value of WFTZ reached RMB 57.27 billion, tripled since 2000, while the tax revenue increased by 15.5 times, and import and export increased by 13 times and 12 times, respectively. The shares of WFTZ in Shanghai total in these indicators maintained steady growth except for the gross industrial output value. (See Table 4-13) With the most economic strength and fastest development, Yangshan Free Trade Port Zone has become the core of Shanghai Shipping Center. Compared with 2012, its sales revenue, import, export, tax revenue

and employment in 2014 increased by 2.3, 0.4, 0.12, 1.1 and 1.7 times, respectively. (See Table 4-14) Moreover, Shanghai Waigaoqiao Logistics Park has developed a replicable, widely applied innovative model in the areas of development, construction, foreign investment attraction, and functional innovation, as well as service management.

Since Shanghai Waigaoqiao Free Trade Zone was established in 1990, the development of Shanghai bonded zones can be divided into three phases: Phase I, Bonded Zone Separated from Port (1990-2003); Phase II, Integrated Bonded Port Zone (2004-2009); and Phase III, Comprehensive Airport Bonded Port Zone (2009-2013).

**Table 4-13. Economic Performance of Shanghai Waigaoqiao Free Trade Zone (2000-2014)**

Time	GIOV (billion yuan)	Tax Revenue (billion yuan)	Import Value (billion US\$)	Export Value (billion US\$)	Employment (thousand people)	Proportion of GIOV (%)	Proportion of Tax-Revenue (%)	Proportion of Import Value (%)	Proportion of Export Value (%)
2000	17.84	6.71	5.64	1.98	66.50	2.54	4.53	11.82	3.22
2005	53.24	33.31	25.60	9.67	158.50	3.15	9.45	18.52	4.55
2010	68.00	74.11	59.22	17.80	229.00	2.19	9.26	22.66	9.85
2011	73.99	94.99	71.50	20.00	236.00	2.19	9.90	22.89	9.53
2012	72.50	100.89	80.05	21.80	245.00	2.18	9.69	25.81	10.45
2013	64.62	99.19	75.08	23.86	262.00	1.91	9.08	23.99	11.72
2014	57.27	110.75	78.01	26.26	264.40	1.68	9.16	22.93	12.60

Source: Data from the website of China Free Trade Zone & Export Processing Zone Association (<http://www.cfea.org.cn/>, 2013, 2012, 2011, 2010); the website of State Administration of Taxation Shanghai Bureau (<http://www.tax.sh.gov.cn/pub/>); Shanghai Statistical Yearbook 2014, China Statistics Press; Pudong New Area Statistical Yearbook 2015, China Statistics Press.

**Table 4-14. Economic Performance of Shanghai Waigaoqiao Logistics Park, Yangshan Free Trade Port Zone, and Pudong Airport Comprehensive Bonded Zone (2012 and 2014)**

Time	Customs Closed Area (km <sup>2</sup> )	Sales Revenue (billion yuan)	Import Value (billion US\$)	Export Value (billion US\$)	Tax Revenue (billion yuan)	Employment (thousand people)	Proportion of Tax Revenue (%)
2012	1.03	1.68	-	-	0.10	0.80	0.02
	8.14	61.70	5.46	3.86	2.61	11.00	0.25
	3.59	2.19	1.20	0.69	0.52	0.90	0.05
2014	1.03	-	-	-	-	-	-
	8.14	205.97	7.77	4.42	5.37	29.90	0.44
	3.59	3.28	5.17	2.47	1.48	1.80	0.12

Source: Data from the website of China Free Trade Zone & Export Processing Zone Association (<http://www.cfea.org.cn/>, 2013, 2012, 2011, 2010); Shanghai Yangshan Free Trade Port Area Yearbook 2015, China Statistics Press.

## 6) Shanghai Export Processing Zones

Since the first Jinqiao Export Processing Zone was established in 1990 and Jiading Export Processing Zone officially opened in 2008, Shanghai has set up five EPZs and followed the path of increasing processing trade scale, upgrading industrial structure and technological level and broadening the spatial size. EPZs have transformed from the initial single processing trade to combining processing and manufacturing, headquarters economy, R&D, and other productive services, and became new ETDZs and bonded zones. (See Table 4-15)

The transformation of the EPZs were greatly assisted by global industrial transfer and the technology spillover effects of FDIIs, their constant pursuit for higher efficiency through improving business environment, and timely adjustment of industrial structures according to the market needs and development stages. For example, since 2006, on the basis of electro communica-

tion, biological medicine, automobiles and their components, and household appliances (accounting for more than 90 percent of the total output), Jinqiao EPZ has transformed itself toward advanced manufacturing industries and productive service industries (research and development and design, headquarters economy). Meanwhile, the Qingpu EPZ took new and high-tech manufacturing industries and modern productive service industries as the main driving force. Since 2006, in order to further improve the business environment, Songjiang and Minhang EPZs broadened their bonded logistics by “simplifying procedures, convenience and efficiency, online supervision.” At present, custom clearance and logistics process of export and import need just four hours, which has reached the level of developed countries.

**Table 4-15. General Situation of Shanghai Export Processing Zones**

EPZs	Time for Approval	Planning Area (km <sup>2</sup> )	Major Functions and Industries
Jinqiao	1990 2001	27.38: North Zone 19.9, South Zone 7.44	Electronic information, automobiles and components, modern household appliances and biological medicine. Forming the “four centers” of R&D and designing, headquarters economy, productive services, and products services.
Songjiang	Zone A 2000.4 Zone B 2003.3	5.96: Zone A 2.96, Zone B 3.00	Pillar industry: electronic information, new building materials, food, industry of fine chemicals, biological medicine, light industrial machinery. It became an important IT industry production base and first-rate modern industry zone of China and the world.
Qingpu	2003.3 2010.6 Expanding	3.00 13.00	Developing new and high-tech industries (such as precise mechanized equipment, components of automobiles, new materials and electronic information), and modern services industry (such as cultural innovative industries and e-commerce). Meanwhile, it is driving force to develop toward a new type of high-tech manufacturing and modern service industries.

**Table 4-15. Continued**

EPZs	Time for Approval	Planning Area (km <sup>2</sup> )	Major Functions and Industries
Minhang	2003.3	3.00	Focusing on developing new and high-tech industries of mechanical electronic information, optical-electro-mechanical, precise mechanics.
Caohejing	2003.3	3.00	Focus on electronic information product manufacturing industries (such as computer, new electronic components, communication and networking equipment) and biomedical industries.
Jiading	2005.6 (start from 2008.4)	5.96	Focusing on components of automobiles, electronic information, high-end equipment manufacturing, and energetically developing modern service industries such as bonded logistics warehousing, inspection and reparation, R&D and designing, transnational e-commerce, financial settlement, exhibition, commodities trade, and service trade.

Source: Data from: Jinqiao's data collected from <http://www.zxbtz.cn/ZINews3/27573.html>; Songjiang's and Caohejing's data collected from Baidupedia; Qingpu's data from <http://www.zsy88.com/gongyedichan/385.html>; Minhang's data from <http://www.zsy88.com/gongyedichan/387.html>; Jiading's from <http://www.jdepz.com/xiangmujianshe/?type=detail&id=3>.

In October, 2012, approved by the State Council, Jinqiao Development Zone was renamed as Shanghai Jinqiao Economic and Technological Development Zone,” and it formed four key sectors - R&D and designing, headquarters economy, outsourcing productive services, and product services. In addition, some EPZs have transformed themselves into comprehensive bonded zones. For example, the Qingpu EPZ has joined the free trade zone and developed transnational e-commerce pilots, and the Jiading EPZ has strived to build four platforms (transnational e-commerce platform, exhibition and trading platform for automobiles and their components, exhibition and trading platform for food and cosmetics, and offshore financial service platform) to try to follow the policy of FTZs.

In 2013, based on industrial output, the top three EPZs among the five

were Songjiang, Caohejing, and Minhang. Based on tax revenue, the top three were Songjiang, Caohejing, and Qingpu. However, Songjiang and Caohejing, whose economic scale were the largest, were heavily influenced by the downward pressure of macroeconomic development both at home and abroad, and their industrial output was reduced considerably in 2013 compared with that in 2008. (See Table 4-16)

The development of Shanghai EPZs can be divided into three phases: Phase I, processing-oriented development of the original zone (1990-1997); Phase II, manufacturing-oriented development of the central zone with six subzones (1998-2010); and Phase III, the development of the economic and technological development zone and bonded zone (from 2011 to the present).

**Table 4-16. General Situation of Shanghai EPZs Development (2008 and 2013)**

EPZs	Customs Closed Area (km <sup>2</sup> )	Industrial Output (billion yuan)	Foreign Capital in Actual Use (billion US\$)	Fixed Investments (billion yuan)	Tax Revenue (billion yuan)	Amount of Employees (thousand)
Jinqiao	1.55	1.55	0.003	0.009	0.014	1.80
	1.55	2.24	0.015	-	0.386	2.10
Songjiang	4.28	208.22	0.220	1.135	1.149	90.00
	4.28	158.41	0.036	0.306	1.741	87.30
Qingpu	1.60	1.88	0.059	0.025	0.051	3.50
	1.60	4.75	-	0.292	0.475	3.20
Minhang	1.90	6.46	-	0.398	0.010	4.00
	1.90	7.85	-	-	0.261	87.30
Caohejing	0.90	85.63	0.079	1.449	0.647	30.00
	0.90	63.95	-	0	0.718	22.30
Jiading	-	-	-	-	-	-
	1.00	0.59	-	-	0.001	1.10

Note: Jiading EPZ was approved in 2008, so it has no data in 2008.

Source: Data from website of China's Association of Bonded Export Processing Zones (<http://www.cfea.org.cn/>).

## 2.3 Phase of Pilot Free Trade Zones (2013-Present)

### 1) International and Domestic Background

With the global economic slowdown after the 2008 financial crisis and China's rebalancing of its economic development model, it became important to promote the high-end service sectors through further economic reforms. Shanghai was again chosen as a testing ground for this new development model. Establishing the Shanghai Pilot Free Trade Zone (SFTZ) was considered necessary to face the new global economic challenges, deepen reform and opening up, gain experiences for China's industrial upgrading, deal with the "new normal," and promote Shanghai to become an international economy, finance, trade, and shipping center.

#### **External Challenges of New World Trade Rules**

The Trans-Pacific Partnership Agreement (TPP) and the proposed Transatlantic Trade and Investment Partnership Agreement (TTIP) led by United States would significantly change world economic and trade rules, standards, and pattern. Since these two transnational free trade agreements have excluded China, Chinese enterprises will meet new barriers and challenges in international competitions in the future. It is therefore necessary for China to set up wider free trade areas trying new international economic and trade rules and standards; assimilate the experience of participating bilateral, multilateral, and regional cooperation; and formulate China's new rules for participating in international economy and trade competitions.<sup>11)</sup>

#### **Domestic Demands for Economic Transformation**

Since the policy of reform and opening up began in 1978, the Chinese

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11) Meng Guangwen, "Research on Political and Geographical Theory Basis and Mode of Establishing FTZ in China," *Geographical Science*, no. 1 (January 2015a): 19–29.

economy has enjoyed an institutional dividend of reform and global trade dividend of entry into the World Trade Organization. However, facing challenges such as weak internal and external demands, rising labor costs, over-capacity of some industries, regional economic divide, and resources, energy, and environmental constraints, China's original economic growth model supported by investment, export, and domestic demand has lost steam. Under these circumstances, China has to deepen reforms and seek new institutional and global dividends to support its sustained economic development. It also needs to increase the share of services and consumptions in the economy. The recent new strategies such as "One Belt, One Road" and "Going Global" are aimed at transforming China's growth model and helping China to better integrate with the global market.

Implementing these new strategies requires further improvements in the business environment, such as registration, licensing, administrative procedures, trade facilitation, and financial liberalization. Establishing pilot FTZs in the coastal regions can not only promote government function transformation and release reform dividends, but also contribute to the transformation of the Chinese economic growth model and the implementation of "One Belt, One Road" strategy.<sup>12)</sup>

## 2) Transformation of Shanghai's Development Strategic Goal

Different from the last century, Shanghai's Twelfth Five-Year Plan formulated a new goal of "4+1" centers, that is, building Shanghai into a world economic, financial, trade, shipping, and indigenous innovation center. The realization of these five centers requires institutional and managerial innovation and enhancement of Shanghai's ability in investment and trade, finance, shipping, and logistics as well as Shanghai's participation of interna-

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12) Meng Guangwen, "Several Suggestions on the Development of Pilot FTZ in China," Newsflash of Chinese Geography and National Conditions·Policy, no. 1 (November 2015b): 58-61.

tional competitions. The Shanghai Pilot Free Trade Zone thus has become the experimental platform for achieving its goal of five centers.

### 3) Shanghai Pilot Free Trade Zone Phase I (2013-2014)

In 2009, an expert from the Chinese Association of Productivity Science visited Shanghai and investigated the possibilities and necessities of establishing a Shanghai FTZ and reported back to the central government. By the end of 2012, then Premier Wen Jiabao approved it in principle. In July 2013, Premier Li Keqiang presided over the executive meeting of the State Council, where the Overall Plan of Establishing China (Shanghai) Pilot Free Trade Zone was affirmed, and soon after, the plan was officially approved by the State Council.

The general goal of the FTZ is to accelerate the transformation of governmental functions, promote the opening up of service industries and institutional reform of foreign investment management, develop a headquarters economy and new forms of trade, and test the capital account convertibility and financial sector liberalization.

In addition, it should seek to set up classification regulation mode for goods, strive to form a policy supporting system of investment and innovation, cultivate the business environment for internationalization and legalization, and spare no efforts to build Shanghai FTZ into an international one with convenient investment, liberal currency exchange, efficient and easy regulation, and normative legal environment, thus providing new ideas and ways for opening China's economy wider to the outside world.

On September 29, 2013, China (Shanghai) Pilot FTZ was launched officially. It includes four special custom regulation areas: Waigaoqiao Bonded Area, Waigaoqiao Bonded Logistics Park, Yangshan Free Trade Port Area, and Pudong Airport Comprehensive Bonded Area. Together they cover an area of 28.78 km<sup>2</sup> and are formed by four areas and three ports. (See Table 4-17)

**Table 4-17. Scope of China (Shanghai) Pilot Free Trade Zone**

Zones	Area (km <sup>2</sup> )	Function and Industry	Primary Targets	Management Mode
Waigaoqiao Bonded Area	10	International Trade Center	1) Enhancing transformation of government functions and focus on management during and after trading process	Two-level Management Structure
Waigaoqiao Bonded Logistics Park	1.03	Shipping Logistics Center	2) Opening service and financial industries wider	1. Leading group of Shanghai FTZ 2. Management Committee of Shanghai FTZ, consists of Lujiazui, World Expo, Jinqiao, Zhangjiang, and Bonded Zone
Yangshan Free Trade Port Area	14.16	International Shipping Service Area	3) Exploring to set up management mode of negative list	Administrative Bureau. That means managerial system of Management Committee plus Development Companies, "Functional Area plus Management Committee plus Development Companies" and Enterprises-oriented Management System.
Pudong Airport Comprehensive Bonded Area	3.59	International Air Services and Modern Business Functional Area	4) Create legal environment for foreign investment	
Lujiazui Finance and Trade Zone	34.26	Function: Finance and Trade Zone Industries: Financial system led by Chinese and foreign banks, insurance companies, trust and investment corporations, security companies and fund companies.	1) Investment administration system focus on negative list 2) Trade administration system focus on trade facilitation 3) Financial innovation system aimed at opening capital account convertibility and financial service	Ditto

**Table 4-17. Continued**

Zones	Area (km <sup>2</sup> )	Function and Industry	Primary Targets	Management Mode
			4) Supervision system during and after trading process focus on transforming government functions 5) Legal and policy guarantees	
Jinqiao Export Processing Zone	20.48	Function: Base of Processing and Manufacturing Industry under Special Custom Supervision Industries: electronic information, automobile and its components, household appliances and biological medicine.	Ditto	Ditto
Zhangjiang High-Tech Zone	37.2	Function: industrial model combining processing and manufacturing and R&D of new and high-tech products	Ditto	Ditto

Source: Data from Website of China (Shanghai) Pilot FTZ (<http://www.china-shftz.gov.cn/Homepage.aspx>).

After over one year in operation, Shanghai pilot FTZ achieved significant results in economic development and institutional innovation.

### **(1) Economic Growth**

In 2014, compared with 2013, main economic indicators such as total in-

dustrial output, total income, revenue, total volume of exports and imports, tax revenue, FDI, and employment - all except for fixed investments - increased. (See Table 4-18) A total of 160 overseas investment projects are finished each year, and the cumulative investment from Chinese enterprises reached US\$3.8 billion. It also met the intermediate objectives in the areas of investment, trade, and finance.

**Table 4-18. Main Indicators of China (Shanghai) Pilot Free Trade Zone (2012-2014)**

Indicators	Unit	2012	2013	2014
Total Industrial Output	Billion yuan	72.78	64.62	57.27
Total Income	Billion yuan	1,284.97	1,442.44	1,609.46
Total Revenue	Billion yuan	46.45	55.95	63.79
Employees of Enterprises	Thousand people	269.00	286.10	296.10
Volume of Fixed Investments	Billion yuan	4.84	5.10	3.04
Total Volume of Exports and Imports	Billion US\$	113.05	113.43	124.10
Volume of Imports	Billion US\$	86.71	83.93	90.95
Volume of Exports	Billion US\$	26.34	29.50	33.15
Tax Revenue of Tax Department	Billion yuan	42.90	50.83	57.64
Tax Revenue of Customhouse	Billion yuan	98.88	93.77	98.26
Newly built Enterprises	Number	788.00	4,416.00	11,440.00
Projects of FDI	Number	164.00	359.00	2057.00
Amount of Actual FDI	Billion US\$	0.55	0.70	0.62

Source: Data from *Shanghai Statistical Yearbook* in 2015, China Statistics Press.

## (2) Promoting the Reform of Negative List

With respect to investments, foreign investors are treated equally with nationals and governed by the negative list. In 2014, more than 90 percent of new foreign enterprises in the pilot FTZ were set up through the simplified

filing and registration procedure. The first batch of 23 measures aiming at opening up service industries has been implemented, involving 368 projects in total. The second batch of 31 measures is to start now. There were 190 items on the negative list in 2013, but it was reduced to 139 items in 2014, a decrease of 26.8 percent.

### **(3) Promoting Trade Facilitation**

Learning from international experience, this pilot site has carried forward more than 60 innovative measures including maritime affairs and customs inspection and quarantine and provided more efficient customs clearance services, which produced excellent results. For example, integrated circuit manufacturers transferred part of their business into the pilot site to get quicker access to the production and assembling enterprises and market. Meanwhile, the FTZ explored measures for trade facilitation. First, it developed regulatory classification for bonded goods, offshore goods, and non-bonded goods; second, it formed standardized and normalized procedures according to the experience of international trade enterprises; third, it regulated various departments such as business, foreign currency, tax revenue, port shipping and finance, and it built a single window system to provide efficient services for enterprises.

### **(4) Capital Account Convertibility and Opening Financial Service Industry**

The FTZ promotes financial innovation and supports a free trade account system and commodity trading center. Ten banks have started to open free trade account, and many enterprises use a free trade account to develop trade financing, cross-border mergers and acquisitions and RMB cross-border trading settlement, and so on. All of those steps greatly facilitate enterprises going global and RMB internationalization. With the opening of finance, the pilot site has attracted 110 institutions and service enterprises with

financial licenses. Except for banks, it also includes the Shanghai Gold Exchange, Shanghai International Energy Trading Center, and Shanghai International Trading Center for Financial Assets and Commodities Spot Market, and others. Furthermore, it seeks to gain experience in the management of a negative list in the financial field, strengthen supervision during and after trading process, and explore innovative tax system approaches for foreign investments and offshore businesses.<sup>13)</sup>

#### **4) Shanghai Pilot Free Trade Zone Phase II (2015 to the present)**

The initial Shanghai Pilot FTZ has achieved active results and accumulated a lot of experience that could be followed. But because its area is only 28.78 km<sup>2</sup> and it is hard to support further reforms and opening up, it was not sufficient to help realize Shanghai's core goal of five centers. Therefore, China decided to broaden this pilot zone.

On April 30, 2015, the State Council approved the Reform Planning of Further Deepening China (Shanghai) Pilot FTZ. Its general goal is to further improve the investment management system focusing on the negative list, trade supervision system focusing on trade facilitation, financial innovation system aimed at opening capital account convertibility and financial service, and the supervision system during and after trading process focusing on transforming governmental function, to form a world-class business environment to promote finance and trade, advanced manufacturing, and technological innovations.

The expanded SFTZ covers an area of 120.72km<sup>2</sup>, including Shanghai Waigaoqiao Bonded Area, Waigaoqiao Bonded Logistics Park, Yangshan Free Trade Port Area, Pudong Airport Comprehensive Bonded Area - these

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13) Chen Yin, "The Staged Achievements and Direction of Reform in Key Fields of Shanghai FTZ," China's Economic Conference (2015).

four special custom supervision areas total 28.78 km<sup>2</sup> - plus Lujiazui Financial District (34.26 km<sup>2</sup>), Jinqiao Development Area (20.48 km<sup>2</sup>), and Zhangjiang High-Tech District (37.2 km<sup>2</sup>).

Since the area increased by five times, the FTZ's investment and trade policy can benefit not only the service industry, but also the high-tech industries. With the guidance and support of relevant line ministries and commissions of the state, the 2015 negative list is more open than 2013 and 2014 in the areas of services and advanced manufacturing industries. (See Table 4-19) Some 18,269 companies contributed to new business registration in this area in a year; of those, 14,943 are domestic enterprises with 907.8 billion yuan registered capital. The other 3,326 companies own \$39.626 billion in contractual foreign investment. Shanghai's annual FDI investment has reached US\$22.91 billion, accounting for 57.40 percent of whole city.

Now that the capital account convertibility has achieved its first step of establishing a free trade account in the SFTZ phase I, the SFTZ phase II is trying the second step - capital account convertibility. In 2015, 44,186 free trade zone accounts were opened, which hit 1.202649 trillion yuan total cross-border RMB trade settlements, and 6.982 billion yuan cross-border renminbi business overseas loan amount. The total pool of bidirectional RMB cross-border business transactions is 339.207 billion yuan. The International Edition of Gold started to operate, holding an accumulated turnover of 4795 tons, accounting for 14.10 percent of the trading volume in the Shanghai Gold Exchange.

In addition, new explorations are being made in such areas as industrial forecasting, protection of intellectual property rights, information disclosure, scientific and technological innovation, and talent service system. All of these will provide new momentum for Shanghai's dynamic and innovative development.

**Table 4-19. The Negative List of China Pilot Free Trade Zone, 2015 Edition**

No.	15 Industry Categories	50 Fields (122 Items)
1	Agriculture, Forestry, Animal Husbandry and Fishery	(1) Seed industry; (2) Fishery
2	Mining Industry	(3) The exploration and development of the exclusive economic zone and continental shelf; (4) Oil and gas exploration; (5) Exploitation of rare earth and rare metal ores; (6) Metal and non-metal mining and exploitation
3	Manufacturing Industry	(7) Aviation; (8) Shipbuilding; (9) Automobile manufacturing; (10) Rail transportation equipment manufacturing; (11) Communications equipment manufacturing; (12) Mineral smelting and rolling processing; (13) Pharmaceutical manufacturing; (14 ) Other manufacturing
4	Production and Supply of Electricity, Heat, Gas and Water	(15) Atomic energy; (16) Pipe network facilities
5	Wholesale and Retail	(17) Franchise
6	Transportation, Storage and Postal services	(18) Road transportation; (19) Railway transportation; (20) Water transportation; (21) Public air transportation; (22) General aviation; (23) Civil airports and air traffic control; (24) Post
7	Information Transmission, Software and Information Technology Services	(25) Telecommunications transport services; (26) Internet and other related services
8	Finance	(27) Type requirements for banking shareholder institutions; (28) The qualification requirements for the banking sector; (29) Banking share ratio requirements; (30) Foreign banks; (31) Futures companies; (32) Securities companies; (33) Securities investment fund management companies; (34) Securities and futures trading; (35) Establishment of insurance agencies; (36) Insurance

**Table 4-19. Continued**

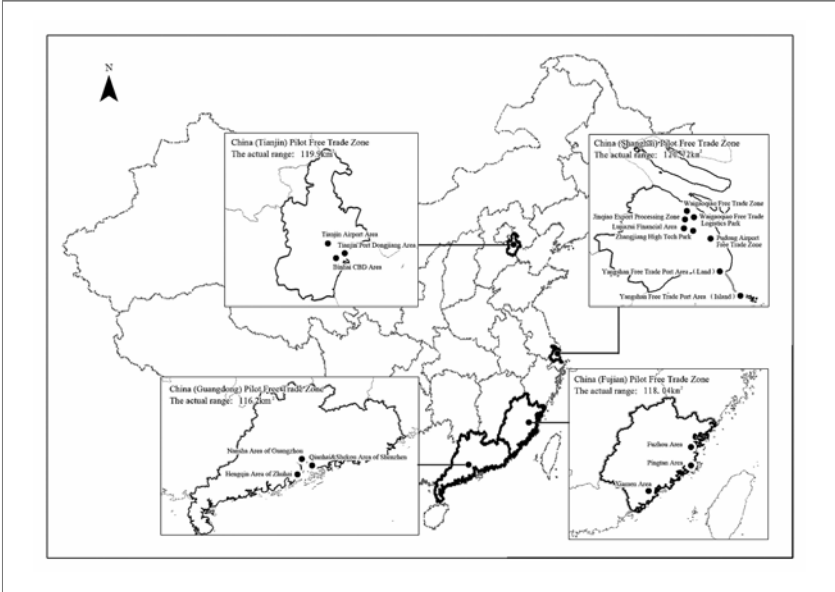
No.	15 Industry Categories	50 Fields (122 Items)
9	Leasing and Business Services	(37) Accounting and Auditing; (38) Legal services; (39) Statistics and Investigations; (40) Other business services
10	Scientific Research and Technical Services	(41) Professional technical services
11	Management of Water Conservancy, Environment, and Public Facilities	(42) Animal and Plant Resource Protection
12	Education	(43) Education
13	Health and Social Work	(44) Medical services
14	Culture, Sports, and Entertainment	(45) Broadcasting, Transmission, Production and Management of Radio and Television; (46) the Press and Publishing, Radio, Film and Television, and Financial Information; (47) Film Production, Distribution, and Screening; (48) the Intangible Cultural Heritage, Cultural Relics, and Archeology; (49) Culture and Entertainment
15	All industries	(50) All industries

Source: General Office of the State Council on the Issuance of the Special Management Measures on Foreign Investment Access to Pilot Free Trade Zones (Negative List), (2015) No. 23.

China has undergone several transitions and reforms, namely, to participate in globalization and regional integration in an active manner rather than in a passive way; to combine economic and administrative reform rather than carrying out economic management reform alone; to open the service industry instead of the manufacturing industry; to trade in both goods and services instead of goods alone; to open up toward developed countries rather than developing countries, so as to meet the goals of environment im-

provement, resources and energy security, middle-income trap breaking, and sustainable economic growth and development. To this end, the Chinese government needs to further expand the scope of reform and opening up under the new normal economy according to the opening strategy 2.0 version. In addition to the expansion of Shanghai Pilot Free Trade Zone, three other pilot free trade zones were licensed to open in Tianjin, Guangdong, and Fujian. Shanghai Pilot Free Trade Zone serves the whole country and the world, while the other three function in north China and in Northeast, Southeast, and South Asia, as well as Europe and Africa. (See Figure 4-6, and Table 4-20)

**Figure 4-6. The Locations of Four China Pilot Free Economic Zones**



**Table 4-20. General Information of the Four Pilot Free Trade Zones in China**

	Parks	Total Area km <sup>2</sup>	Industry and Function
Shanghai 120.72 km <sup>2</sup>	Lujiazui Finance and Trade Zone	34.26	Function: Finance and Trade Zone Industry: Financial institutions system based on Chinese and foreign banks, insurance companies, trust investment companies, securities companies, and fund companies
	Jinqiao Export Processing Zone	20.48	Function: Economic and Technological Development Zone; Customs Supervision Development Zone Industry: high-tech zone based on electronic information, automobile and its components, modern appliances, and biomedicine
	Zhangjiang Hi-tech Zone	37.2	Function: High-tech products manufacturing as its main function, upgrading through manufacturing, in order to form an industrial pattern of both R&D and production Industry: biochemical and electronic information industry
	Four Bonded Areas	28.78	Waigaoqiao area serves for international trade; Yangshan area provides international shipping service; Pudong airport area provides international air and modern business services.
Tianjin 119.90 km <sup>2</sup>	Dongjiang Port Park	30.00	Shipping logistics, international trade, finance lease, and other modern services
	Tianjin Airport Industrial Park	43.10	Aerospace, equipment manufacturing, new generation of information technology and other high-end manufacturing industry; R&D, aviation logistics, and other producer services
	Central Business District	46.80	Financial innovation-oriented modern service industry

**Table 4-20. Continued**

	Parks	Total Area km <sup>2</sup>	Industry and Function
Guangdong 116.20 km <sup>2</sup>	Guangzhou Nansha New Area	60.00	Focus on the development of shipping and logistics, specialty finance, international trade, and high-end manufacturing industries; achieve new heights of producer service-oriented modern industry; and establish an integrated service hub at the world's advanced level
	Shenzhen Qianhai Shekou Area	28.20	Focus on the development of strategic and emerging financial services, modern logistics, information services, technology services, and other new strategic service industries; to be a pilot demonstration for the opening up of China's financial industry, an important base for world trade services, and an international hub port
	Zhuhai Hengqin New Area	28.00	Focus on the development of tourism, business and financial services, culture, science, education and high-tech industries; to be a cultural and educational pilot zone and a base for international business services and leisure tourism; to be a new carrier for Macao's diverse economic development
Fujian 118.04 km <sup>2</sup>	Xiamen Park	43.78	To be a demonstration zone for cross-strait cooperation in new industries and modern service industry, an international shipping center in southeast China, the cross-strait regional financial services center, and the cross-strait trade center
	Fuzhou Park	31.26	An advanced manufacturing base; a vital platform for communication and cooperation among the countries and regions alongside the 21st-century Silk Road; a demonstration zone for cross-strait services trade and financial innovation cooperation
	Pingtang Park	43.00	High-end services, tourism, modern logistics, high-tech industry, marine industry

### **3. Successes and Challenges of Shanghai FEZs**

After reviewing and analyzing the development process of various Shanghai FEZs, we find that these zones have played a critical role for reform and the opening up and economic development of Shanghai and China as a whole. Their success is affected by many factors, mainly including development strategy and goal, site selection, industrial and space structure, management and development know-how, investment and preferential policies, and so on.

#### **3.1 Factors Leading to Success of Shanghai FEZs**

##### **1) National and Regional Strategies and Goal**

The free economic zones are mainly used as a way of implementing national and regional development strategy and policy, serving as a pilot of China's reform and opening-up policies, and building growth poles of economic development and urbanization.

The three stages of Shanghai FEZs' development synchronize with the national and regional strategic development goals and the progress of China and Shanghai's reform and opening-up policies. Such integration with the national and regional development strategy ensures that these zones get the full support from the national and local governments. For example, the Shanghai Economic and Technological Development Zone is to realize the strategic goal of revitalizing and opening coastal cities in China; the development of Pudong New Area and establishment of comprehensive FEZs is to perfect the socialist market experience and build Shanghai into a world economic, financial, and trade center and promote the development of Yangtze River Delta and the whole river basin; and the Shanghai Pilot Free Trade Zone is to promote China's high-end service industries and explore ways of

achieving industrial upgrading and structural transformation for China.

## 2) Strategic and Appropriate Location

Appropriate location selection is conducive to the success of Shanghai Free Economic Zones. All the zones are included in Shanghai's urban development plan, and have easy access to major infrastructures such as airports, harbor port, waterways and highway networks, and skilled labor force. For example, the Pudong New Area lies in the east of Shanghai and at the intersection of the middle point of Chinese coast and the estuary of Yangtze River, so it boasts convenient transportation (both highways and waterways) and proximity to major markets in China, especially the Yangtze River Delta region as well as the regional market in East Asia. Shanghai also has a vast pool of human talents. All these favorable conditions make Shanghai an ideal location for free economic zones.

On the micro level, a single FEZ in Shanghai should choose a favorable location to take advantage of original or new infrastructures, public facilities, and human talents. In the case of Shanghai FEZs, there are three kinds of locational models: urban-oriented, port-oriented, and separated FEZs, which are in line with the direction of Shanghai's opening up, industrial distribution, and urbanization. Urban-based model means that FEZs are located near urban centers to use their infrastructure, public facilities, and human talent. Port-based model refers to using a convenient communication network for domestic and overseas logistics. For avoiding any reform risks and using cheap land, FEZs could also be located at a separate place, which keeps a suitable distance from ports and urban centers, but is connected to them via transportation network. In this way, the success and development of the Shanghai FEZs were guaranteed.

### 3) Reform-Oriented Approach

All the zones in Shanghai have been used to test new reforms and new development models. The ETDZs and Pudong New Area (special economic zone) were used to conduct policy reforms in the areas of land, taxation, finance, labor, immigration, and customs. These reforms help the Chinese government to gain precious experience in developing a market-oriented economy, which was later rolled out throughout the country. The most recent Shanghai Pilot Free Trade Zone was used to further improve the business environment through more simplified administrative procedures and to liberalize the service sectors, such as trade and finance. The negative list was the first trial in China, which represented a great leap forward, and itself has been evolving from a long list to a shorter and shorter list, corresponding to the reform and opening-up process.

The experiences of Shanghai FEZs, like Chinese FEZs in general, are not only used as an engine for economic growth, but also as a platform for economic reform and the opening-up policy. In short, FEZs in Shanghai and in China are forces to motivate economic reform, industrialization, and urbanization.

### 4) Constant Upgrading of Strategic Sectors and Spatial Pattern

Based on their different strengths, locations, and stages, the different zones have targeted different priority sectors and spatial scale and structure. According to the main industries, Shanghai FEZs can be divided into processing and manufacturing-oriented, science-oriented, trade-oriented, service-oriented, and mixed zones. Moreover, Shanghai FEZs put their brand value into full play and boost their development potential and transformation.

With the deepening of reforms and opening up as well as the transformation of the economic growth model, each free trade zone also is transforming itself both functionally (e.g., from an economic and technological

development zone to a new and high-tech industrial zone) and spatially (from a single zone into multiple zones).

There are some examples of functional transformations, such as Jinshan changing from an EPZ into an ETDZ, Caohejing from an ETDZ into a new and high-tech industrial zone, and Waigaoqiao from a bonded zone into a pilot free trade zone. Meanwhile, these zones also derived subsidiary parks focusing on specific industries. There are also examples of spatial transformations, such as Caohejing changing from a single zone to one zone with eight subzones, Zhangjiang Innovation Demonstration Zone's single zone becoming one zone with 12 subzones, and Shanghai Pilot Free Trade Zone's one zone becoming one zone with six subzones.

## **5) Enterprise- and Government-oriented Management and Broad Partnership**

The management and development model of Shanghai FEZs has ensured their efficient operation and profits. The earliest economic and technological development zone in Shanghai employed an enterprise-oriented management model, thus guaranteeing commercial flexibility from the start. For large zones, a mixed management model was applied, combining the strength of government with the strength of enterprises. In addition, each zone has established its own development corporation to take charge of the development and operation of the zone.

Shanghai FEZs adopted a single “scrolling development mode.” That means that when a piece of land development is completed, it will be rented or sold to investors, and the FEZ would use the money to develop a new one until all the land has been developed. Gradually, as the types of FEZs increased, and with their scale enlarging, the development mode has varied and there appears “zones within a zone” and “enclave” mode, and other configurations. In order to efficiently encourage investment, some new FEZs will let a company develop part of the zone, the model of “zones with-

in a zone,” and then this company is responsible for infrastructure construction and attracting investment.

At the later stage of the development, in order to mobilize various resources, many new zones were developed through broad partnership with other zone(s) or province(s). For example, the Yanshan development zone was developed jointly by Caohejing ETDZ and Jiangsu Province; the Haining zone was developed by Caohejing ETDZ and Zhejiang Province; and the Yangshang Free Trade Port Zone (Shanghai), a part of Shanghai Pilot Free Trade Port, was developed by Shanghai Bonded Zone and Zhejiang Province.

## **6) Preferential Investment and Tax Policy**

At the beginning, the preferential investment and tax policies of Shanghai FEZs mainly consisted of opening the manufacturing industry to foreign investment and halving the customs duty to import equipment and semi-finished products. In addition, income tax, business tax, and added-value tax were exempted for the first two or three years and were reduced for the following three to five years. With the construction of bonded zones, especially the establishment of pilot free trade zones, the policies for foreign investment changed. First, the tariff on trade and international trade would be exempted and the income tax, business tax, and added-value tax would be reduced. Meanwhile, a good business environment built through the opening up of service industries to FDI and the national treatment of foreign investors as well as adjustments in the negative list have also contributed to the success of Shanghai’s free economic zones.

## **3.2 Challenges Faced by Shanghai FEZs in Its Development**

### **1) New International Trade Pattern**

The signed TPP led by the United States and the TIPP being negotiated both involve opening up the service industry and imposing strict intellectual property protection and labor standards, and other conditions. These new investment and free trade agreements exclude China and will force China to compete with other developing countries in manufacturing exports. Meanwhile, China faces great pressure to open up its service industry to developed countries. On the one hand, further opening up of the service industry is an irresistible trend especially for China's economic transition; on the other hand, China lacks experience in opening up the service industry, especially the financial industry. It is a challenge for SFTZs to provide useful lessons for the rest on the opening up of the service industry and RMB internationalization in a relatively short time.

### **2) Deepening the Service Sector Reform**

Shanghai has to further open up the service sector to foreign investors through the Shanghai Pilot Free Trade Zone, obtain the management know-how of the negative list and free trade, test the financial sector liberalization, and realize the goal of making Shanghai an international economic, financial, trade, and shipping center as well as indigenous innovation center. These are very challenging tasks for China, and as the forerunner for economic and institutional reforms, the Shanghai free economic zones, especially the Shanghai Pilot Free Trade Zone, will have to carefully manage the risks and find new ways to succeed in many uncharted waters.

## **4. The Major Lessons Learned**

Corresponding to the rapidly changing global and external situations, the Shanghai free economic zones have gone through different development stages, and tested reforms in many areas, using different management models and approaches in a pragmatic and flexible way. The experiences accumulated through this process will be widely relevant for other developing economies as well.

### **1) Building a Positive Business Environment**

Shanghai FEZs have offered solid infrastructures such as roads, water, power, ports, and airports, with international standards and easy access to the domestic and global markets. In addition, the zones offer efficient public services and both fiscal and non-fiscal incentives. In many countries, the inconvenience of transportation and communication systems and the insufficiency of energy and supporting facilities decrease the production efficiency and offset the advantage of low costs. Therefore, FEZs can be established only at places whose locations are ideal. In this way, the concentrated developed and constructed infrastructure shall meet the basic production requirements of domestic and foreign investors.

### **2) Pursuing a Reform-oriented Approach**

One of the reasons that the Shanghai FEZs are successful is that they are all reform-oriented and were used to test new policies and new approaches in such areas as management, trade, finance and investment policies. The enterprise-based management models in Minhang and other zones; the opening up of the service sectors, especially the financial sector; and the negative list in Shanghai Pilot FTZ were all trials in China. Only in this way could FEZs obtain strong support from the government and others.

### **3) Industrial Upgrading**

FEZs or FTZs, a means to reach national and local development goals, play different roles in the different stages of industrialization and urbanization. In general, countries start with low-cost manufacturing and process trade, then gradually move up to higher-end manufacturing and service industry. Therefore, it might be practical for countries in transition to start with manufacturing FEZs with controllable risks, and then gradually expand into trade- and service-oriented FTZs or high-tech parks.

### **4) Convenient Location**

FEZs should be located near ports or other major infrastructures convenient for export. In the case of Shanghai, it has easy access to major infrastructures such as airports, harbor port, waterways, and highway networks and is close to the major market in China's Yangtze River Delta. It also strives to build better infrastructures to meet the increasing business needs. For example, the original locations of Shanghai FEZs lacked sufficient space and had environmental pollution, which forced them to move to new locations with a port nearby.

### **5) Innovation and Structural Transformation**

Normally a FEZ or FTZ has its own life cycle. Generally speaking, as production cost increases, EPZs will go into a declining phase after about 20 years, depending on a country's economic and demographic situation. For sustained development, a FEZ or FTZ needs to be innovative and achieve structural transformation. Besides industrial upgrading, zones can change their functions and become more diverse. They can also extend spatially by enlarging the existing zones or establishing subzones. In the case of Shanghai, some EPZs were turned into ETDZs, and some FEZs established subzones or became part of the FTZ. Private sector-driven zone development can also be encouraged to follow the market trend.

## 6) Mixed Management and Multiple Development Mode

As for China, FEZs, a tool for implementing national and local development strategies, are usually established by governments. Therefore, they often operate with a management mode dominated by governments or jointly by government and enterprises. In this way, they are endowed with the authority of governments and the flexibility of enterprises. As a plus for countries transitioning to achieve industrialization, FEZs with strategic significance are suitable for mixed management mode.

The FEZs in transition countries should adopt a rolling development mode due to the lack of funds and experience at the initial stage. Large-scale FEZs or FEZs with a great number of subzones can adopt “zones within zone,” which means transferring a whole piece of land in the zones to a development company that will be responsible for infrastructure construction and attracting investment. At the middle and later stage of development, after the land is fully developed, FEZs can work with landowners and adopt an enclave development mode with the accumulated funds and experience.

## Chapter 5



# Invitation Strategy for Cutting Edge Industries through MNCs and Global Talents: The Case of Singapore

Kim Song TAN (Singapore Management University)

1. Introduction
2. Business Hub for MNCs: 1960s to Late 1990s
3. Business Hub for Global Creative Talents: From Early 2000s to Date
4. The Singapore Experience: Success Factors and Lessons
5. Conclusion

# 1. Introduction

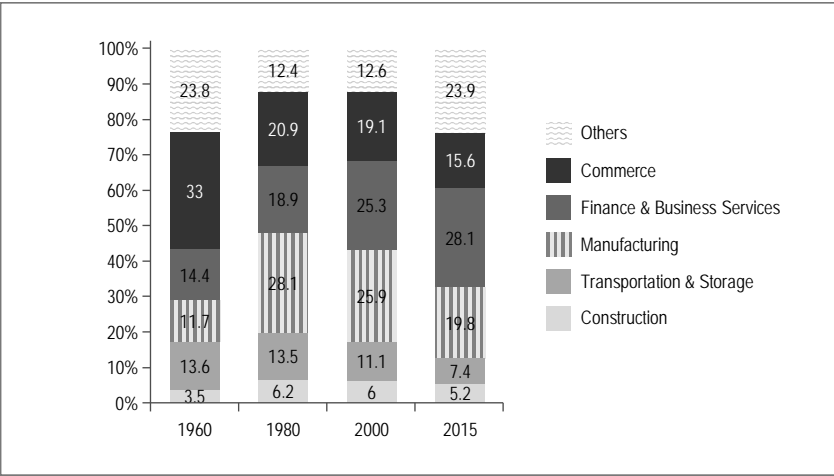
Singapore presents an interesting case of how a country achieves dynamic economic development and innovation through the “invitation” strategy of a business hub. Despite being a small city-state with limited domestic market size and no meaningful hinterland or natural resources to speak of, Singapore has managed to transform its economy dramatically over the past 50 years by leveraging the strengths of other economies. Specifically, it has been able to attract (or “invite”) various types of productive resources, including foreign capital, foreign technology and foreign workers (both skilled and unskilled) to make up for what it lacks. This has helped Singapore not only achieve sustained growth and development but also enhance its innovative capacity.

Figure 5-1. Singapore’s Strategic Location



At the time of independence in 1965, Singapore had a land area of only 581.5 square kilometers and a population of barely two million people. It had hardly any endowment of natural resources - not even an adequate supply of drinking or industrial water.<sup>1)</sup> The main comparative advantage it enjoyed at that time was its strategic geographical location, which made it a natural commercial and trading hub for the region (see Chart 1). The trading hub status in turn helped support a number of associated industries such as logistics, transportation, and financial services. The manufacturing activities at that time were mostly of the labor-intensive, light industries type. As shows in Chart 2, commerce, transportation, and storage accounted for almost 47 percent of GDP in 1960 with trade services alone taking up 23 percent of GDP. Manufacturing accounted for only 11.7 percent of GDP, and financial services for 14.4 percent.

**Figure 5-2. Changing Share of Singapore Economy (% of GDP)**



Source: Department of Statistics, Singapore (SingStat).

1) Figures taken from [http://www.dbs.nus.edu.sg/staff/details/hugh\\_tan/old/Ch4%20Waste-%20and%20Reclaimed%20Land%20p.%2078.pdf](http://www.dbs.nus.edu.sg/staff/details/hugh_tan/old/Ch4%20Waste-%20and%20Reclaimed%20Land%20p.%2078.pdf) and <http://www.populstat.info/Asia/singapoc.htm>.

Today, the economy is far more diversified and sophisticated. In 2015 manufacturing contributed close to 20 percent of GDP, while finance and business provided more than 28 percent.<sup>2)</sup> Over the past two decades, the manufacturing sector has consistently contributed 20 to 25 percent of GDP, an official target that remains relevant today as the government seeks to maintain a certain degree of diversification in the economy.<sup>3)</sup> More importantly, there is much greater depth in the economy. Manufacturing activities have shifted from the labor-intensive to the technology- and the innovation-intensive segments, while a large part of the services sector activities now comes from knowledge-based industries, many of them exportable services.

Singapore has also made significant strides in building up its technological and research capability. The gross expenditure on research and development (GERD) as a percentage of GDP rose from 0.85% in 1990 to 2.25% in 2004. By 2015, it had gone up to 3.5% which put Singapore in the same rank as many developed economies.<sup>4)</sup> In 2015, Singapore was placed seventh in the Global Innovation Index, which surveys 141 economies around the world and uses 79 indicators across a range of themes.<sup>5)</sup> At US\$56,286, Singapore had one of the highest per capita incomes in the world in 2014.<sup>6)</sup> In the words of the country's founding prime minister Mr Lee Kuan Yew, Singapore has moved from a "third world" country to a "first world" coun-

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2) Figures are taken from SingStat at <http://www.singstat.gov.sg/statistics/visualising-data/charts/share-of-gdp-by-industry>.

3) This contrasts with the situation in Hong Kong, where more than 95 percent of the GDP comes from the services sector while manufacturing has virtually been hollowed out.

4) See "National Survey of R&D in Singapore 2013," A\*STAR, December 2014; and "Step 2015: Science, Technology and Enterprise Pan 2015," A\*STAR, 2015.

5) See Global Innovation Index 2015 by World Intellectual Property Organization, at <https://www.globalinnovationindex.org/userfiles/file/reportpdf/GII-2015-v5.pdf> (page 32).

6) See World Bank, "World Development Indicators," GDP per capita (current US\$). Retrieved from <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

try in less than 50 years.<sup>7)</sup>

The successful transformation of the economy reflects, to a large extent, the effectiveness of the development strategy that the Singapore government has adopted. Over the past half century, it has positioned the city-state as an efficient and highly livable business hub in the region, thereby allowing it to attract the strategic resources that it needed, such as global capital and global talents. The developmental objectives and the specific strategic resources it was looking for might have shifted over time, but the basic approach of providing an attractive business hub environment to attract these resources remains unchanged.

Broadly speaking, the Singapore economy can be said to have gone through two phases of growth and development. As Tan and Phang (2005) noted, phase I (1960s to late 1990s) could be seen as an “efficiency-driven” growth phase. During this period, the city-state presented itself as an efficient business hub for multinational corporations (MNCs), and foreign direct investment played a critical role in the growth and development of the economy. Helping the MNCs achieve production efficiency was the key focus of economic policy, and a wide variety of policy instruments including massive investment in “efficiency infrastructure” was employed to this end.

Phase II (early 2000s to date) may be termed as an “innovation-driven” growth phase. The country embarked on a journey to transform itself into a “global city”, focusing on attracting creative talents to help realize its new vision of having innovation and increase in productivity as the main engine of economic growth. The targeted resources shifted from MNCs to global creative talents and with that, the main policy instruments changed as well. However, the essence of the invitation strategy, that of sourcing for needed strategic resources from abroad (creative talents in this case) by offering Singapore as an attractive business hub remained intact.

The motivation for setting up a business hub is not fundamentally differ-

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7) See Lee Kuan Yew 2000.

ent from that of a special economic zone (SEZ). The SEZs are designed to provide a conducive operational environment to attract businesses (both local and MNCs) that the government (local or national or both) is trying to promote - businesses that are seen as important to industrialization, export growth, employment creation, technology transfer, or other policy objectives. The underlying principle is that locating all the firms in the same area helps to increase efficiency through economies of scale and agglomeration effects. In transitional economies, keeping the SEZs as enclaves could also help shield the rest of the economy from the impact of economic liberalization within the zones.

As Zeng (2016) noted, unlike SEZs, which are usually set up as enclaves, a business hub is a much looser concept and typically involves a wider area including a whole city. Within a large business hub, there could even be mini SEZ-like areas designated for the development of specific industrial clusters. To be effective, a business hub has to be supported by an adequate provision of hard infrastructure and soft infrastructure. Importantly, as Zeng (2016) pointed out, a business hub takes time to develop. Only after a great deal of trust and a high level of confidence have been built, will the business hub be widely accepted by the international business community. This also means that it would be difficult to dislodge and replace a business hub, once it is successfully established - unless it is ravaged by some catastrophic events. In fact, the position of a successful business hub tends to be strengthened over time through agglomeration effects. Hence, regional and international business hubs like London, New York, Singapore, and Hong Kong remain unrivaled today.<sup>8)</sup>

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8) There were such examples in the past. For example, Lebanon's position as the business hub in the Middle East was destroyed by the civil war in the 1970's and its position is now arguably replaced by Dubai. Hong Kong's status as the business hub in Asia was not affected by its return to China in 1997 only because the Chinese government had agreed to a "one country, two systems" policy. Whether Brexit (UK's exit from the European Union) in 2016 would prove to be such a monumental event that could undermine London's global busi-

What makes Singapore different from some other business hubs in the region is that it effectively treats the whole world as its hinterland and positions the whole country as a business hub for the global economy. To overcome its lack of economic space and resources, Singapore decided early in its development to look to the rest of the world not only as the market for the goods and services it produces but also as a source of supply of resources it needs. The small size of the country makes it easy to apply the business hub concept to the whole economy without creating any enclaves. In fact, the success story of the Singapore economy is very much a story of how it effectively uses the invitation strategy and leverages on the strengths of other economies, to enhance its own productive and innovative capacity. When the economy moved from its first growth phase to the second, for example, the government simply fine-tuned certain policy instruments to cater to the needs of creative talents (instead of MNCs) while preserving the broad thrust of the invitation strategy.

Another difference between Singapore and other more conventional business hubs is the pragmatic way with which it manages the economy. A cornerstone of any successful business hub lies in the free market, regulation-light environment it provides, with limited interference from the state. Yet, Singapore is long known for the strong interventionist stance of the government. The intervention takes the form of the usual redistributive policy and industrial policy, plus heavy participation of many “government-linked companies” (or GLCs, companies that are wholly or majority owned by the Singapore government, many of them managed by Temasek Holding, a sovereign wealth fund) that compete directly and aggressively with the private sector firms. As Tan and Bhaskaran (2015) noted, “compared with the other dynamic Asian economies, government intervention in the economy in Singapore is both more intrusive and more extensive.”<sup>9)</sup> Indeed, the

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ness hub status remains to be seen.

9) See Tan and Bhaskaran 2015, 53.

Singapore government takes pride in its ability to make policy changes without being constrained by any ideology. This pragmatic approach has given Singapore flexibility to continually redefine and strengthen its position as a business hub, as it responds to the changing competitive landscapes in the global economy.

This chapter gives an account of how the Singapore economy achieves dynamic growth and development and innovation through the invitation strategy and the adaptation of the business hub concept. In Section 2, we discuss how Singapore as a business hub succeeded in attracting MNCs to help restructure and upgrade the economy and to move up the technological ladder, in the first three decades of its development. In Section 3, we extend the discussion to the period when policy focus shifted to the attraction of creative talents instead of MNCs, as the government tried to improve on the country's indigenous innovative capacity. Section 4 looks at the critical factors that help account for Singapore's success in implementing the invitation strategy and discusses lessons that can be drawn from Singapore's experience. It also addresses some of the downsides that arise from the pursuit of the invitation strategy. Section 5 concludes with some thoughts on the relevance of the invitation strategy for sustained economic growth and development in the long run.

## **2. Business Hub for MNCs: 1960s to Late 1990s**

For close to 150 years, from 1819 to 1965, Singapore thrived as a free port under British colonial rule. The strategic geographical location that it enjoyed gave the city-state an edge over other cities as the trading hub of the region. Entrepot activities together with the transport, logistics, and financial services made up the main pillars of the Singapore economy. To facilitate trading activities, the British colonial government put few trade barriers in place.

There were also few restrictions on the movement of capital and labor.

When Singapore gained independence from British rule, first as part of the Federation of Malaysia from 1963 to 1965, and then as an independent state since August 1965, policy planners realized that being a regional trading hub alone would not be sufficient to provide the depth or the resilience that the economy needed for sustained growth in the long run. Like most other newly independent countries at that time, Singapore decided to go for large-scale industrialization. But unlike many other countries that did so with the help of an import substitution policy, Singapore chose to continue with its free trade tradition, focusing instead on export orientation. In the absence of a large domestic market, the import substitution policy would not have been effective.<sup>10)</sup>

Given the limited resources Singapore had at that time, foreign direct investment through MNCs was seen as a quick and effective way to help the country industrialize.<sup>11)</sup> MNCs brought capital and technology, but importantly they also brought an existing distribution network in the global market. To attract the MNCs, the government tried to turn Singapore into one of the most, if not the most, efficient business environments in the region. By making Singapore a first world city in a third world region, it hoped to provide an oasis for international investors in a region where business operations were often hamstrung by myriad regulatory and administrative hurdles. This quest for efficiency has been a hallmark of the Singapore economy, one that has continued to this day.

A multipronged approach was adopted with a variety of policy instruments being employed to increase Singapore's appeal to the MNCs. The

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10) Singapore did try import substitution policy for a short time (1963-65) when it was part of the Federation of Malaysia comprising Peninsula Malaya, Singapore, Sarawak, and Sabah. The attempt failed when Singapore had to exit the federation abruptly in August 1965.

11) See Goh Keng Swee 2014; Wong and Ng eds. 2001. Indeed, among the four dynamic East Asian economies (the so-called Four Asian Tigers of Hong Kong, Singapore, South Korea, and Taiwan), Singapore is most dependent on MNCs for economic growth. See Lim 2013.

government invested strategically in physical and social infrastructure to help reduce the operating costs of the business environment; it also made sweeping changes to rules and regulation as well as social policy to facilitate the MNCs' operations. In addition, a special government agency, the Economic Development Board (EDB), was set up to market Singapore to MNCs as a choice investment location and then to provide one-stop service for the MNCs, to help them set up operations in as seamless a way as possible.

### **Strategic Investment in “Efficiency Infrastructure”**

Like most other business hubs or SEZs, Singapore put in place a wide range of conventional fiscal and financial benefits as incentives for the MNCs. The Economic Expansion Incentives Act (1967), for instance, granted “pioneer” status to foreign corporations, with tax benefits for up to five years. In most cases, these tax breaks were continually extended in the late 1970s. Understanding that Singapore needed much more than the conventional tax and financial benefits to differentiate itself from other countries wooing the same MNCs, the government invested strategically but heavily in physical and social infrastructure that had a huge impact on the efficiency and operating costs of the MNCs. It undertook heavy investment in such facilities as port, airport, logistics, telecommunications, banking, industrial estates, and shipbuilding and repairs to enhance the regional and global connectivity of the city-state - a crucial consideration in the MNCs' choice of investment locations. Many of these investments were carried out through public sector agencies such as the Port of Singapore Authority, the Public Utilities Board, and the Jurong Town Corporation.

The government also set up numerous government-linked companies to help accelerate the investment in “efficiency infrastructure.” The GLCs are state-owned enterprises but are expected to be managed according to the commercial principles in the private sector, with profit generation being the

key driving force. GLCs such as Singapore Telecom (SingTel), Singapore Airlines and Neptune Ocean Lines, for example, started out to promote Singapore's connectivity and trade links, while the Development Bank of Singapore (now DBS Bank) was established initially as a financing institution for development. Even the public sector agencies that were in the business of providing public goods or merit goods were encouraged to generate surpluses or at least not to be incurring losses. Many of the GLCs and government agencies were later listed in the Singapore Stock Exchange. Some such as Singtel have remained among the stock exchange's largest listed companies.

In addition, the government invested heavily in social infrastructure to help MNCs overcome some of the operational challenges, with investment in human resource development being among the most important. Various vocational training programs were offered through a number of newly set up polytechnics and vocational institutes, to help equip the workforce with the skills that the MNCs needed. These technical institutes have continued to evolve over time, to cater to the changing needs of the MNCs and of the economy. To ensure a steady supply of skilled workers to serve the needs of the MNCs, the government also leveraged on the training capability of the MNCs and assistance from their home governments, by setting up a large number of joint training institutes with them.<sup>12)</sup>

### **Changes in Business Rules and Social Policies**

In addition to investment in infrastructure, the Singapore government carried out sweeping changes in social policy to help ease the operations of the MNCs. The examples below help illustrate its commitment and determi-

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12) These include, for instance, Japan-Singapore Technical Institute, Japan-Singapore Training Centre, Japan-Singapore Institute of Software Technology, French-Singapore Institute, German-Singapore Institute, Philip Government Training Center, Tata-Government Training Center, and Rollei-Government Training Center.

nation to make Singapore a friendly and attractive business hub for MNCs in the 1960s and early 1970s.

### *Labor Relations*

In the 1960s, the militancy of the labor unions and industrial strikes were a key deterrent to MNCs in their investment decisions. The Singapore government moved swiftly to enact the Employment Act (1968) and the Industrial Relations Amendment Bill (1968) to allay the MNCs' concerns. These legislations severely limit the powers of the Industrial Arbitration Court and strengthen management's rights over the hiring, firing, promotion, and transfer of employees. As Tan and Bhaskaran (2015) noted, the new laws cemented government control over the workforce, which became more compliant as a result. At the same time, the People's Action Party (PAP) government took drastic measures to break the back of the independent labor movement and set up a new trade union, the National Trades Union Congress (NTUC), as the only official labor union federation in Singapore. Headed by a cabinet minister, NTUC maintains a close and symbiotic relationship with the government to help ensure industrial peace in the country.

The impact was felt very quickly. Over the period of 1960 to 1967, a total of 1,284,029 man-days were lost as a result of work stoppages. But from 1978 onward, as the symbiotic relationship between the government and the NTUC has continued, there has been virtually no sign of industrial unrest in Singapore.<sup>13)</sup> Over the years, with the support of the NTUC, the government has been able to carry out many pro-growth and pro-MNC policies. In the 1985 recession, for example, the labor unions agreed to accept a large wage cut to help businesses restore competitiveness.

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13) See Tan and Bhaskaran 2015.

### *Land Use Policy*

Careful planning on the use of industrial land is another critical component of the social policy carried out to support the invitation strategy. In land-scarce Singapore, land is treated sensitively by the government as a strategic asset. The allocation of land for industrial and commercial use is carefully planned through road maps such as the Concept Plan. First drawn up in 1971 and reviewed every 10 years, the Concept Plan guides the strategic use of land for residential, commercial, and transport purposes. It also provides for industrial clustering to reap increasing returns to scale that could help incentivize MNCs to operate in Singapore.<sup>14)</sup>

Several controversial legislations such as the Land Acquisition Act (1967) were used to support what the government considered efficient use of land including that of building industrial estates. The Act allowed the government to acquire land from individuals at a rate far below the prevailing market prices, once the land had been gazetted for developmental purposes.<sup>15)</sup> To help incentivize the MNCs in the 1960s and 1970s, EDB, working with the Jurong Town Corporation, adopted the “sharing prosperity, sharing misery” principle from Japan in leasing industrial land to MNCs and charging them for the usage. The principle enabled the MNCs to pay relatively little during the first five years of the 30-year land lease and to increase payment in later years when the industrial estates and surrounding areas were fully developed and their value enhanced. The net result is that MNCs were able to channel more of their resources to other operational uses in the initial years.<sup>16)</sup>

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14) See <https://www.ura.gov.sg/uol/concept-plan.aspx?p1=View-Concept-Plan&p2=Concept-Plan1971>.

15) For many years, the compensation was based on the 1973 market price of land without adjustment to reflect the changing market value. The law was subsequently amended to align the compensation with prevailing market rates.

16) See Ghesquiere 2007.

### *Fighting Corruption*

Recognizing the corroding effects corruption had on MNCs operations in Singapore, the government tried to root out the problem early. The Corrupt Practices Investigation Bureau, a powerful anti-graft agency, was placed directly under the purview of the prime minister's office in the early 1960's to give it even more teeth. Strict rules governing the behaviors of the civil servants were laid down. In a few high-profile cases, cabinet ministers were charged and jailed. These events had a strong deterrent effect on the civil service. Indeed, for years, Singapore has been consistently ranked among the least corrupt countries in the world. In 2014, Singapore was ranked seventh out of 175 countries in Transparency International's Corruption Perception Index. The government also scores well (often in the 99th percentile) in the Control of Corruption Index, which reflects perceptions on whether public power is being used for private gains.<sup>17)</sup>

### *Language Policy*

Another important social policy that the Singapore government introduced in the 1960s was to make English the main official language and medium of instruction in schools. The move helped improve the global competitiveness of the workforce and eased some of the operational pressures for the MNCs. Yet, it was not a move without controversies. About 75 percent of the population in Singapore at that time was ethnic Chinese who did not take well to the dilution in the use of Chinese language in schools, including the closure of a prominent Chinese language university, Nanyang University.

### **One-Stop Service for MNCs**

The designation of one single agency to attract and to provide one-stop service to the MNCs was an important step that the Singapore government

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17) See figures by Transparency International, <https://www.transparency.org/country/#SGP>.

took in the early 1960's. Set up in 1961, the Economic Development Board was tasked to persuade MNCs to invest in the city-state and then to help them clear various regulatory hurdles, provide them with access to resources they needed, and in some cases, grant subsidies to them.<sup>18)</sup>

As the chief marketing agency for Singapore, EDB maintains offices in major cities in the world that it saw as likely sources of investments targeted by Singapore. The New York and Hong Kong offices were among the first ones set up in the early 1960s. Compared with other public sector agencies, EDB officers are often given more latitude in their marketing campaigns. They were also able to enlist the help of political officeholders to help in the global marketing efforts.

To provide effective and comprehensive one-stop service, EDB often enlisted the help of other government agencies. To get the MNCs to invest in the Jurong Industrial Estate in the 1960's and 1970's and the Jurong Island Petrochemical Hub in the 1990's, for example, it worked closely with the Jurong Town Corporation which took charge of estate development and management. EDB has remained the lead agency dealing with the MNCs and the coordinating body among the government agencies even as the economy evolved over time.

*Examples of how the invitation strategy worked in the first growth phase ...*

The construction of the Jurong Industrial Estate and the Jurong Island Petrochemical Hub provide two examples of how Singapore used the multi-pronged approach to attract MNCs to help achieve growth and development in the first growth phase. The examples also illustrate how the government adjusted its policy instruments as the target shifted from labor-intensive to

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18) See Chan 2002. An oft-cited example of the one-stop service was the investment of Texas Instruments in the 1960s. Only 50 days elapsed between making the decision to invest and commencing the production line in Singapore. See Wong and Singh 2011.

capital- and technology-intensive industries over time (See Appendix 5-1 and Appendix 5-2).

### **3. Business Hub for Global Creative Talents: From Early 2000s to Date**

The MNC-driven growth strategy succeeded in helping to transform the Singapore economy from a trading hub in the 1960s into a major manufacturing hub in the region by the 1980s. It also helped resolve the unemployment problem that plagued the economy in the 1960s. By early 1970s, unemployment was no longer an issue. Indeed, except for a few short periods, the labor market in the Singapore economy remained tight for most parts of the next four decades.<sup>19)</sup> The benign job market conditions allowed the government to focus on restructuring and upgrading the economy, to build up a base for more sustainable growth in the long run. Indeed, with sustained and committed efforts on education and training, and technology transfer from MNCs, the technical capability of the workforce rose steadily.

While the overall GDP growth rate during this period was impressive, the sources of growth were not as satisfactory. Various economists have suggested that the Singapore economy appeared to have grown “through perspiration rather than inspiration”, and that the bulk of the GDP growth was accounted for by capital and labor inputs, not productivity increases.<sup>20)</sup> There have been debates over the actual contribution of productivity growth to the GDP growth in Singapore, with many pointing to a disappointing pic-

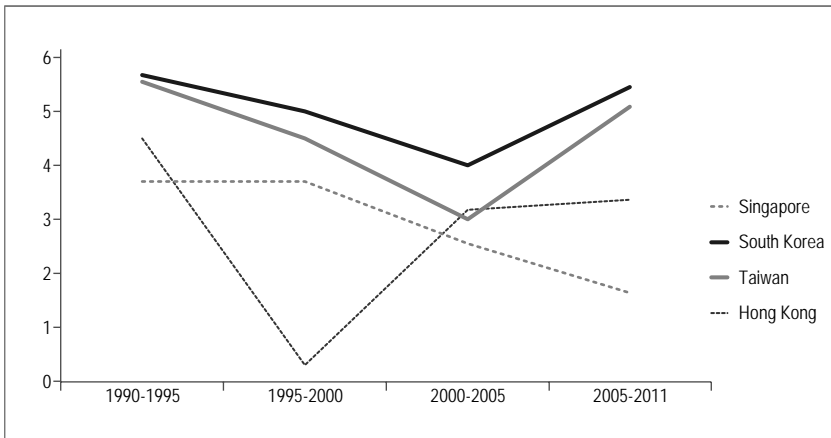
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19) The average unemployment rate from 1992 to 2015 was about 2.4 percent; see statistics from Ministry of Manpower at <http://stats.mom.gov.sg/Pages/UnemploymentTimeSeries.aspx>.

20) See for example, Young 1992; Krugman 1994; and Lim 2013.

ture in the city-state when compared with the other dynamic East Asian economies.<sup>21)</sup> (See Chart 3)

**Figure 5-3. Labor Productivity Growth – Asian Dynamic Economies**



Source: Asian Productivity Organization, Productivity Database 2013; Tan and Bhaskaran 2015.

In the early 2000s, the government made a fundamental shift in its growth strategy. Recognizing the continual erosion in the efficiency edge it had previously commanded over other countries in the region and the poor performance of productivity rise as a contributor to GDP growth, it decided to shift the policy emphasis to innovation - making it the main driver of growth - and to target industries characterized by a high rate of innovation and productivity increase. In 2003, the Economic Review Committee (ERC) - a government committee tasked to map out the direction for the economy in the medium term - identified the following innovation-driven industries to be promoted: bioscience, global banking and finance, wealth management, lifestyle industries, arts and culture, media and design, education, and health care. The focus was reaffirmed in the subsequent medium-term economic blueprint, the report of the Economic Strategies Committee (ESC) in 2011.

21) See IMF 2000.

The emphasis on innovation-driven growth remains in place today although what are considered crucial industries would likely change over time. The new Committee on the Future Economy (CFE), set up in December 2015, has been charged with identifying industries that would not only add value to but also create value for the economy. The CFE is expected to release its report at end of 2016 although the new targeted industries would likely include advanced manufacturing, applied health sciences, smart and sustainable urban solutions, logistics, aerospace, and Asian and global financial services - industry clusters that Finance Minister Tharman Shammugaratnam highlighted in his 2015 budget presentation.<sup>22)</sup>

A critical difference between the first and the second growth phase is that, in the second growth phase, efficiency of the business environment, while necessary, was no longer considered a sufficient condition for the success of the invitation strategy. What was deemed crucial was the presence of a critical mass of creative workers. The implicit assumption seems to be that, in innovation-driven industries, firms and investment would flow to where the creative workers are, rather than the other way around - workers flowing to where the firms are. Thus, instead of equipping the workforce with the skills to serve the needs of existing MNCs, it was felt that the city-state should build up a creative workforce that could act as a magnet for the MNCs and other companies engaging in innovation work. If there was no adequate supply of creative talents in Singapore, the city-state should look outward to the rest of the world. In effect, the invitation strategy was preserved, except that the targeted resource to be wooed had shifted from MNCs to creative talents.<sup>23)</sup>

As the targeted resource changed, so did the policy instruments used, prompted by an underlying belief that creative talents are driven by motiva-

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22) See Budget Statement, Ministry of Finance, Singapore, 2015. See [http://www.singaporebudget.gov.sg/budget\\_2015/BudgetSpeech.aspx](http://www.singaporebudget.gov.sg/budget_2015/BudgetSpeech.aspx).

23) See Tan and Phang 2005.

tions that are different from those of the professionals and managers working for MNCs. The quality of the living and the working environment matters, as do the lifestyles. To attract these talents, it was thought that Singapore needed to provide not only a conducive environment for innovation work, but also lifestyles that were available in other global cosmopolitan cities such as London, New York, or Boston.<sup>24)</sup> Indeed, a consistent theme in both the ERC (2003) and the ESC (2010) reports was the emphasis on making Singapore “a leading global city, a hub of talent, enterprise and innovation” and “the most open and cosmopolitan city in Asia, and one of the best places to live and work in.”<sup>25)</sup>

Just as it did in the 1960s and 1970s, the government employed a multi-pronged approach to effect the necessary changes. New fiscal incentives were unveiled, while new physical and social investments were made and new rules and social norms adopted to effect the changes. The EDB, together with other government agencies, were tasked to market Singapore to global creative talents and to facilitate their moves to Singapore.

### **Strategic Investment in “Innovation Infrastructure”**

A wide range of fiscal and financial incentives were offered to individuals and firms that were considered parts of the innovation-driven industries. The generous incentives offered to the bioscience and the wealth management industries are two such examples (See Appendix 5-3 and Appendix 5-4). In addition to continued investment in “efficiency infrastructure,” the government also started investing heavily in “innovation infrastructure” - physical and social infrastructures that make Singapore a more conducive environment for innovation activities. The intellectual property rights laws were significantly strengthened with the setting up of supporting facilities

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24) The Singapore government’s thinking appears to be consistent with what Richard Florida advocated in his thesis on the creative class. See Florida 2002.

25) See Report of the ERC 2003, Chapter 4: 51-60, and Report of the ESC, 2011: 7-10.

such as the IP Academy Singapore.

The government also substantially stepped up the spending on research and development (R&D) to scale up such activities. Between 2003 and 2013, the gross expenditure on research and development (GERD) rose by a compound annual growth rate of 8.2 percent, from \$3.4 billion to \$7.6 billion. Meanwhile, the R&D Manpower (including researchers, postgraduate students, technicians and support staff) grew from 28,825 persons to 47,275 persons, whereas the number of researchers (excluding postgraduate students) increased from 19,448 to 34,373 during the same decade.<sup>26)</sup>

Rules and regulations related to starting up and doing business in Singapore were relaxed. For example, the Land Intensification Allowance implemented in 2010 gives recipients tax allowances to facilitate the intensification of industrial land use toward more efficient and higher value-adding activities. The Headquarters Programme provides incentives that encourage companies to set up regional bases in Singapore.<sup>27)</sup> These measures have helped make Singapore one of the easiest places to do business in the world. (See Table 5-1)

**Table 5-1. WEF Competitiveness and World Bank Ease of Doing Business Rankings ( Top 10 Economies, 2015-16)**

Country	WEF “Overall Competitiveness”	WEF “Infrastructure Competitiveness”	World Bank “Ease of Doing Business”
<b>Singapore</b>	<b>2</b>	<b>2</b>	<b>1</b>
Switzerland	1	6	20
United States	3	11	7
Germany	4	7	14
Netherlands	5	3	27

26) See “National Survey of R&D in Singapore 2013,” A\*STAR, December 2014.

27) See <https://www.edb.gov.sg/content/edb/en/why-singapore/ready-to-invest/incentives-for-businesses.html>.

**Table 5-1. Continued**

Country	WEF "Overall Competitiveness"	WEF "Infrastructure Competitiveness"	World Bank "Ease of Doing Business"
Japan	6	5	19
Hong Kong SAR	7	1	3
Finland	8	25	9
Sweden	9	20	11
United Kingdom	10	9	8

Source: World Economic Forum Global Competitiveness Index 2015-16; World Bank "Ease of Doing Business," 2015.

The education and training system was twisted to place more emphasis on creativity and innovation. A new university, the Singapore Management University (in collaboration with the Wharton School in the United States) was set up in early 2000s to offer a more innovative pedagogical approach than those at the other two established universities. A fourth university, the Singapore University of Technology and Design (SUTD, in collaboration with the Massachusetts Institute of Technology and Zhejiang University) was founded in 2009 to provide more creativity- and innovation-based programs. Greater emphasis was also placed on the education of the arts, away from the traditional focus on science and engineering. A new high school, School of the Arts, was set up, with considerable state subsidies, to produce artists and graduates who could contribute to the arts and the media businesses. Foreign universities such as the Tisch School of the Arts were invited to set up campuses to provide tertiary education programs that were not available in Singapore.

The economic impetus of these shifts may be seen in the following statement from the former Prime Minister, Mr Goh Chok Tong. In an interview with the Asia News Network in May 2002, he noted, "For many years, we

concentrated on the economic side. But if you want the economic side to flourish, you need more entrepreneurs, you need more creativity. So, you must also look at the arts. The two must go together'.<sup>28)</sup>

### **Changes in Business Rules and Social Policies**

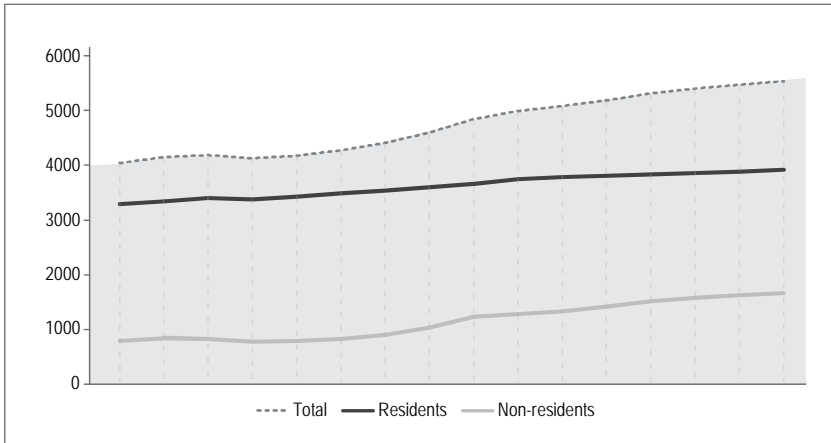
One of the biggest policy changes to support the new growth strategy - a change whose repercussion is still being felt in the economy today - was the massive relaxation of rules on immigration and foreign workers, to help bring in a large number of creative talents, entrepreneurs, and high-income professionals who would fit in with the innovation-driven growth vision. A new class of employment pass, the S-Pass, was introduced to bring in foreigners who were deemed to have entrepreneurial potential. New incentives were also rolled out to attract high-net-worth individuals, who were seen as important for wealth-creating activities in the economy. The result was immediate. Between 2005 and 2013, the size of the non-resident workforce rose 101.6 percent while the population rose more than 20 percent to over five million - a staggering change in a small city-state of about 719 square kilometers.<sup>29)</sup> (See Chart 4)

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28) See Chapter 1, Report of the ERCt, 2003. [https://www.mti.gov.sg/ResearchRoom/Documents/.../ERC\\_SVS\\_CRE\\_Chapter1.pdf](https://www.mti.gov.sg/ResearchRoom/Documents/.../ERC_SVS_CRE_Chapter1.pdf).

29) Source: SingStat.

Figure 5-4. Singapore Population Size (thousands)



Source: SingStat.

From the early 2000s onward, foreigners were increasingly appointed to senior positions in the government and the GLCs, including positions that were previously considered “sensitive” such as the deputy managing director of the central bank; CEO of the Singapore Stock Exchange; CEO of DBS, one of the largest banks in Singapore and CEO of Neptune Orient Lines, the national shipping line.

Attempts were also made to bring back talented Singaporeans who were working and living abroad. Initiatives such as “Singapore Connect” and “Majulah Singapura” were launched to connect overseas Singaporeans with entities in Singapore. An annual “Singapore Day” event was started in major cities to bring Singaporeans living in these cities together and to help showcase Singapore as a choice location for work and residence.

There were also attempts to promote entrepreneurship among Singaporeans. The government set up various investment funds to encourage venture capital and private equity investments such as a US\$1 billion Technopreneurship Investment Fund in the late 1990s. A junior minister was tasked to lead a number of campaigns in the early 2000’s to encourage

more Singaporeans to become entrepreneurs although many of these campaigns appear to have fallen flat.<sup>30)</sup>

In an effort to change the “nanny state” image of Singapore, the government also tried to allow for a freer and more diverse lifestyle and to make the city-state a more exciting place.<sup>31)</sup> Large amount of public funds were expended to “make over” the city, to offer lifestyles similar to those in other global cities. These include an extensive facelift for the urban landscape and construction of various iconic projects including the Esplanade (a state-of-the-art performing center), Gardens by the Bay (a large seaside tropical garden), two Integrated Resorts (casinos), and other cultural landmarks. The city also started aggressively to bid for the rights to host global entertainment events such as F1 (night car racing), sports events (major tennis and golf tournaments), and world-class arts and entertainment performances.

### **One-Stop Service**

Working with different government agencies, the EDB continued to play the role of marketing agent and one-stop service provider, to attract creative talents (and firms) working in innovation-driven industries. For example, in the Global Schoolhouse and the World Class University programs - initiatives aimed at transforming Singapore into an educational hub - EDB teamed up with Singapore Tourism Board, Spring Singapore (the agency in charge of developing enterprises especially the small and medium-sized enterprises, or SMEs, within Singapore), IE Singapore (the agency tasked with helping Singapore companies to expand overseas), and the Ministry of

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30) See, for example, various initiatives of business networks launched in early 2000s by the then minister of state for trade and industry.

31) There were attempts, for example, to allow for a more relaxed approach toward the LGBT community even in the civil service. A Speaker’s Corner was set up for Singaporeans to air their views on political and social issues, in the same fashion as the Hyde Park in London; there were debates about allowances for bar-top dancing and so forth.

Education. (See Appendix 5-5: Global Schoolhouse Program)

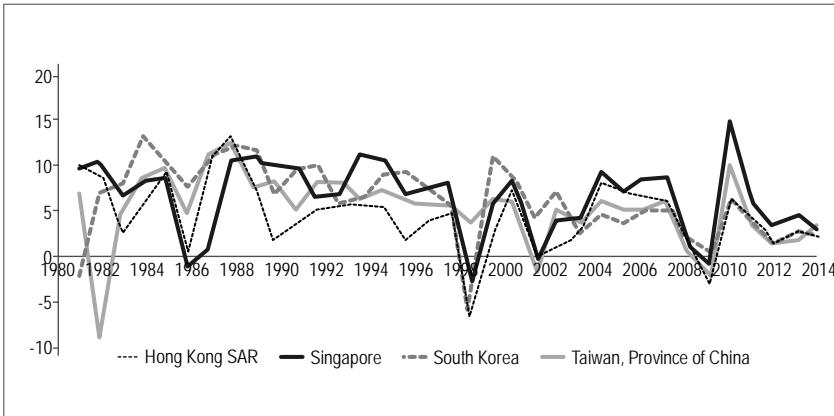
*Examples of invitation strategy in the second growth phase...*

The bioscience and the wealth management industries are two examples of the innovation-driven industries that the government tried to promote in the second growth phase. The rapid growth of these two industries was in large part a result of the multipronged approach that the government employed. Both cases show that while the broad thrust of the invitation strategy had been retained in the second growth phase, the policy instruments used were different, targeted at individual workers rather than firms. (See Appendix 5-3 and Appendix 5-4)

## **4. The Singapore Experience: Success Factors and Lessons**

By positioning the city-state as an attractive business hub and relying on the inflows of external resources such as MNCs and global creative talents to drive the growth and development of the economy, the invitation strategy seems to have worked well for Singapore over the past 50 years. In the first growth phase, the presence of MNCs helped transform the economy, upgrade the production structure, and raise the income level of the workforce. This allowed the economy to grow at a much faster pace than the other three Asian Tigers (Hong Kong, South Korea, and Taiwan). The creative talent driven growth strategy over the past 15 years appears to have been successful too, at least at the macro level. The economy grew on average by 5.4 percent a year from 2000 to 2014, an impressive record for a mature economy. (See Chart 5)

**Figure 5-5. GDP Growth in Asian Tiger Economies 1980-2014 (% yoy)**



Source: IMF World Economic Outlook Database, April 2016.

The policy has also significantly changed the country's industry landscape, generally in line with the government's vision. The contribution of the services sector rose to 67 percent of GDP in 2014 compared with 61 percent in 2000, a significant part of it being in exportable services. New industries that the government set out to promote such as pharmaceuticals (and life sciences in particular), education, health care, engineering services, logistics industries have significantly increased their presence in the economy. Together some of these "developing" industries now account for close to 20% of GDP. (See Table 5-2) The new growth strategy has also changed the face of the Singapore society. The city in 2016 is much more cosmopolitan, and offers a much more diverse lifestyle than in 2000.<sup>32)</sup>

32) While detail statistics on the population profile are not available, anecdotal evidence points to a much more diverse society, racially and culturally, today than 15 years ago. For example, according to the Philippines census data, the number of Filipinos working in Singapore over the decade 2003-13 tripled to about 167,000.

**Table 5-2. Changing GDP Contributions of New Industries**

Industry Sector	GDP Contribution (%)				
	2009	2010	2011	2012	2013
Biomedical and Healthcare Services	3.9	3.3	4.1	4.7	3
Chemical	0.9	0.9	0.8	0.8	1.2
Clean Technology	0.4	0.3	0.3	0.3	0.4
Education	0.7	0.6	0.6	0.7	0.8
Electronics	1.4	1.8	1.5	1.5	1.4
Engineering Services	1.8	1.8	1.7	1.7	1.7
Food and Beverage	0.8	0.7	0.8	0.8	0.8
Food Manufacturing	0.7	0.6	0.6	0.6	0.7
Logistics	5.1	5	4.8	5	5.2
Marine and Offshore Engineering	2	1.8	1.6	1.6	1.7
Precision Engineering	2.1	2.2	2.5	2.2	2.2

Note: Chemical industry cluster as defined by SPRING excludes Petroleum & Petrochemicals Education industry cluster as defined by SPRING, excludes Non-Profit Organisations, includes child care services for pre-school children Electronics cluster as defined by SPRING excludes Data Storage and Semiconductor Manufacturing.

### Success Factors for Singapore

Singapore's experience has validated a number of conventional wisdoms about the preconditions needed for a successful business hub. As Zeng (2016a) noted, such preconditions include, among others, a strategic geographical location that offers global connectivity; an adequate provision of infrastructure that helps facilitate business operations within the hub; supportive government policies and regulations for businesses and individuals including the provision of one-stop services for new and existing businesses; a business-friendly culture embracing international best practices; and an adequate supply of the required manpower. Singapore was able to meet these preconditions effectively early in its development.

What makes Singapore different from other successful business hubs in

the world such as London and Hong Kong is the heavy involvement of the government in fulfilling these preconditions. The Singapore government is intimately involved in designing and managing the business hub. Not only does it set the broad direction for the growth and development of the business hub and build the necessary infrastructures to support such development; it also intervenes directly through industrial policy to shape the production structure within the business hub. As we discuss below, the government's hands were visible in almost every aspect of the endeavours to build up and maintain Singapore as a regional business hub.

### *Global Connectivity*

The importance of a strategic geographical location and global connectivity cannot be overemphasized. Singapore is situated at the heart of Southeast Asia and the crossroads between Indian Ocean and the Pacific Ocean, right at the tip of the Strait of Malacca, one of the world's busiest transport and trading routes. What is more important, however, is Singapore's ability to build on the natural geographical advantage to maintain and enhance its global connectivity. This is accomplished through continuous investment over the years, largely by the government, in strategic infrastructure such as telecommunications; the transport system including sea, air, and land transport; the logistics and distribution network; and the financial service facilities. For many years, Singapore has continued to rank highly in efficient infrastructure provision globally. (See Table 5-1 above)

Singapore also benefited from the long tradition of free trade and free movement of capital and labor it had under British colonial rule. The culture of openness helped ease the implementation of many policies aimed at attracting foreign investment and foreign workers. This advantage was reinforced over the years by a careful and pragmatic approach toward foreign relations policy. As Tan and Bhaskaran (2015) noted, to ensure continued access to its "global hinterland," Singapore has to maintain a close and yet neu-

tral tie with as many countries as possible. Often this calls for delicate balancing in dealing with its major economic partners. Singapore's handling of China and the United States, two rival powers contending for influence in Asia, is a good example. The city-state's ability to reach free trade agreements with so many countries is in part a testament of its success in managing international diplomacy.<sup>33)</sup>

#### *Provision of Strategic Infrastructure*

To maintain Singapore's business hub status, the government has continued to invest heavily in both soft and hard infrastructures that matter to the resources it tries to attract and retain. More importantly, it is willing and able to adjust its investment instruments as its policy objectives and the type of strategic resources it needs change. In the second growth phase, for example, in addition to continuing the investment in efficiency infrastructure, it substantially stepped up investment in numerous innovation infrastructures. It also shifted the policy focus to cater more to the needs of individual creative workers than those of MNCs per se. This shift took place across the whole spectrum of government policy including changes in business rules and regulations, in education and employment policies and in incentive structures for new targeted industries.

#### *Supply of Relevant Human Resources*

A pro-active and forward-looking manpower and education policy, together with a very liberal policy on foreign worker inflows, contribute significantly to the success of the invitation strategy. Education consistently makes up the second largest spending in the annual budget, after defense,

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33) As of the end of 2015, Singapore has signed 20 free trade agreements with 31 countries, with seven more still being negotiated, making it one of the most active countries in the pursuit of free trade. Singapore also plays an important role in promoting region wide free trade agreements such as the ASEAN Free Trade Agreement), the Trans-Pacific Partnership and the Regional Comprehensive Economic Partnership

amounting to \$12.8billion (or 18.71% of the budget) in 2016. The education system (mainly public education) by and large has been able to respond to the changing demands for skills. Meanwhile, the liberal policy on foreign worker inflows helps plug many of the remaining skills gaps in the economy.

In the first growth phase, for example, the education system, with its strong emphasis on science, engineering, technical and vocational training, was geared towards supplying the MNCs with the skilled labor they needed. As the economy moved into the innovation-driven growth phase, the government began to redesign the education programs at the tertiary level, and increasingly at the primary and secondary level as well, to develop a mindset of creativity, adaptability and agility. The massive liberalization of the rules on immigration and foreign workers in the mid-2000's brought in the required manpower that the education system was not able to produce in time.

Pro-active manpower planning remains an essential component of the invitation strategy. In 2015, for instance, the government set up a number of sectoral tripartite committees (STC), one for each key sector in the economy, to help map out the sectoral manpower plans (SMP) for these sectors. In addition to projecting the sectors' future growth paths, the SMPs are to identify the manpower and skills needs of the sectors, as well as policy measures needed to provide an adequate supply of skilled workers in each sector.<sup>34)</sup> To help ensure the relevance of the plans, key stakeholders in each sector have been invited to participate in the planning exercises: each STC is chaired by a government agency assigned to champion the sector and supported by employers and workers' unions.

### *Livability of the Business Hub*

A critical success factor for Singapore as a business hub is its ability to maintain the city-state's position not only as a choice location for work but

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34) See <http://business.asiaone.com/news/first-industries-get-sectoral-manpower-plans-identified>.

also as a desirable place of residence. This was an essential part of the invitation strategy from the beginning, and it took on even greater importance in the second growth phase when policy measures were targeted increasingly at individual workers. The underlying premise here appears to be that the livability of a city has a significant bearing on a company's decision to stay in or to move out of the city. Thus even in the 1960s and 1970s, the government made conscious efforts to present Singapore as an "oasis" to work and live in. For many years, the prime minister led the greening of the city campaign with an annual tree planting day and took personal interests in the work of the National Parks Board, which took charge of the construction and maintenance of parks and gardens. Efforts were also made to provide other social and recreational amenities seen as important to the expatriate community, including allocating a significant amount of land to build golf courses in a severely land-scarce city.

Livability became a paramount concern for policy makers as Singapore shifted into the second growth phase and positioned itself to be a global city. In addition to the emphasis on the livability of the physical environment, the government tried to change the social and cultural milieu to increase Singapore's appeal to the global creative talents. It also tried to appeal to the sense of belonging and ownership among the foreign talents working in Singapore. Regular attempts were made to persuade them to take up permanent residence or citizenship in the country while senior managers of MNCs were often included in national committees set up to chart new directions for the economy or the society.

#### *Close Coordination among Government Agencies to Provide One-Stop Service*

Close coordination among different government agencies is another factor that contributes to Singapore's success in attracting and providing one-stop service to the MNCs and global creative talents. While EDB has been the lead agency in this regard, it is not the only one. Depending on the

industry being promoted, other agencies would be roped in to help. For example, JTC played a major role in the development of the Jurong Industrial Estate and the Jurong Island Petrochemical Hub. In the One North project, EDB worked closely with both JTC and A\*STAR. In the Global Schoolhouse program, a number of other agencies including Singapore Tourism Board, IE Singapore, Spring Singapore and the Ministry of Education were involved.

In the late 1980's and 1990's, close inter-agency coordination also helped bring MNCs to industrial estates that Singapore had built offshore with other host countries including the Growth Triangle (comprising Singapore, Indonesia and Malaysia) and the Suzhou Industrial Park in China. These efforts were aimed at building an external wing for the Singapore economy and cementing Singapore's position as a regional headquarters and business hub for MNCs that invest in the Asia-Pacific region.

*“Winner Picking” to Shape the Industry Landscape in the Business Hub*

Recognizing that the value of a business hub depends to large extent on the value added of the industries that it serves, the Singapore government has been actively engaging in “picking winners,” identifying and promoting what it considers to be promising growth industries. Indeed, a major task of the various national economic strategy committees mentioned above (such as the ERC, the ESC and the CFE) is to help review and redefine Singapore's comparative advantage and to recommend new growth industries for the city-state. Once identified, these industries usually receive strong support from the government, which acts not only as a facilitator (providing specific conditions to help the industries succeed) but often as a funder or direct investor as well, through investments carried out by the statutory boards or the GLCs.

To ensure the relevance of the chosen industries and other policy initiatives, the Singapore government has over the years established various

mechanisms, at industry level, to facilitate regular consultations between the government and the private sector. The national economic strategy committees, for example, typically include representatives from the government, the private sector, labor unions, and other stakeholders in the economy. In addition, the government often includes representatives from the MNCs as well as individual foreigners in these committees, so that their voices and concerns are represented.

### **Lessons from Singapore's Experience**

The main lesson from Singapore's experience is not that it has helped validate a number of conventional wisdoms about the preconditions needed in a successful business. It is that the government can be the key driving force in satisfying these preconditions. As Zeng (2016b) pointed out, a successful business hub is not built overnight. It needs to demonstrate its credibility and win the confidence of the businesses over time. This requires a sustained period of policy rationality and consistency on the part of the government. Singapore's experience shows that this can be done.

Many commentators have likened the government's management of the economy to that of running a corporate enterprise, with the bottom line (the GDP growth rate in this case) and the strategy (attraction of MNCs and creative talents) clearly defined.<sup>35</sup> Indeed, this corporate-like approach to managing the economy and the business hub has been a major reason accounting for the government's effectiveness in implementing the invitation strategy. The MNCs and the global creative talents are treated by the government almost like "business clients" to be won over. Other developmental objectives are often subordinated to the pursuit of MNCs and global talents.

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35) Reflecting such a corporate orientation in managing the economy, the prime minister and the cabinet ministers appear to liken themselves to the chief executive and senior executives in a corporate entity, with their remunerations (including a large component of yearly bonus) determined partly by the achievement of the bottom-line (the GDP growth rate) and pegged to the top earners in the private sector. See Tan and Bhaskaran 2015.

Furthermore, as discussed in Sections 2 and 3 above, other economic and noneconomic policies often have to be adjusted to accommodate the pursuit of MNCs and global talents. Discussion of distributive equity issues such as the relative shares of GDP between employers and employees, between MNCs and local firms, and so on, is generally encouraged as it could distract the government from the pursuit of GDP growth. Likewise, advocacy of issues such as labor rights, a minimum wage law, or job protection for Singaporeans over foreigners is often frowned upon as it is seen to have the potential of deterring the inflows of MNCs and foreign talents and slow GDP growth.

If the government takes a relentless approach in pursuing the bottom line, there is nevertheless a large element of pragmatism and flexibility in its management of the business hub and the economy. In fact, the Singapore government takes pride in its ability to respond to external changes without being bounded by any ideology. A good example is the government's decision in the early 2000s to allow casinos to be set up, after many years of strong objection. The two casinos, to be built as part of the "integrated resorts" that offer a wide range of MICE facilities (for meetings, incentives, conferences, and exhibitions) were seen not only as an important source of GDP growth, but more importantly, as a critical element of the effort to re-brand Singapore as a global city. In the government's calculation, the potential economic contribution of the casinos outweighed their potential adverse social impact. Meanwhile, to help mitigate the adverse social impact, a number of practical measures were implemented: an agency was set up to provide counseling to gambling addicts, and, as a form of deterrence, a fee of S\$100 was imposed on any Singaporean who visits the casinos. This pragmatic openness to new ideas and new policy instruments has helped the city-state maintain its business hub status over the years.

Can the Singapore experience be replicated in other cities? The answer is at most a qualified yes. Singapore's chosen approach is a reflection of its

unique economic circumstances which may not be shared by other business hubs. The heavy and active government intervention in designing and managing the business hub stems in part from the fact that there is no distinction between Singapore the business hub and Singapore the economy. The whole economy is managed as a business hub, unlike other business hubs that might exist either as an enclave or as a city with a large hinterland. Failure of the business hub means failure of the whole economy. Viewed from that perspective, it is not surprising that the Singapore government felt the need to have a strong influence over the direction and pace of development of the business hub as the outcome affects the entire population.

Singapore also differs from other business hubs in that it appears to run the business hub mainly to attract foreign resources (MNCs and global talents). This is the essence of the invitation strategy. For many years, the government has paid relatively less attention to the needs of local companies, especially the SMEs. Among the Four Asian Tigers, Singapore has been the most dependent on MNCs and foreign workers to drive its economic growth. This focus on foreign resources allows the government to design policy without being distracted by the conflicting interests between the local and the foreign businesses or workers. That is a luxury that business hubs elsewhere may not enjoy.

Ultimately what allows the Singapore government to pursue the invitation strategy with such single-mindedness is the strong political mandate it enjoys and the implicit social contract it seems to be able to maintain with the people over the years. In return for strong economic growth and rising living standards, Singaporeans appear to be willing to accept the near complete dominance of the ruling People's Action Party in parliament, giving it a free hand in managing the economy. Since the early 1970s, the PAP has consistently won over 60 percent of the popular votes in every election. Under the Westminster first-past-the-post election system, the opposition has been able to secure only a handful of seats in the parliament despite the nearly 40

percent of popular support it receives at the polls. In the current parliament, the opposition occupies only six of the 89 seats. The near monopoly of the ruling party allows it to adopt policy measures that it deems to be in the long-term interest of the economy, even if they are unpopular in the short run. It also allows the government to put the attraction of MNCs and foreign workers above other developmental objectives even if this results in unhappiness among some segments of Singaporeans.

To be sure, the government does take a calibrated approach in managing such social contracts--another manifestation of its pragmatism. At times when the level of unhappiness appears to be high, the government has shown itself willing to step back somewhat from the relentless pursuit of GDP growth, to accommodate the dissenting voices. This could be seen, for example, in its response to the setback it suffered in the 2011 general election. The decline in the popular support it received then was widely attributed to the massive influx of new immigrants and foreign workers - a key component of the innovation-driven growth strategy - which was in turn seen to be the main cause of a number of social and economic problems such as wage and income stagnation, congestion and increased social tensions. Immediately after the election, the government began to moderate the pace of foreign worker inflows. Indeed, while the total number of the non-resident workers continued to grow, the growth rate dropped from an average of 11.1% per annum in 2006-2010 to 1.7% per annum in 2010-2015.<sup>36)</sup>

### **Challenges for Singapore**

Though successful in many ways, the Singapore approach is not without problems. If a large part of Singapore's success as a business hub could be attributed to the government's policy, so could many of the problems that it

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36) See statistics from the Ministry of Manpower in <http://stats.mom.gov.sg/Pages/Labour-Force-In-Singapore-2015.aspx>.

faced over the years. As the city-state moves to the next stage of its development, the limits of the invitation strategy and the challenges confronting Singapore are becoming more obvious. In fact, the root causes of many of these challenges can be traced to the invitation strategy that Singapore has pursued over the past 50 years.

As noted earlier, “picking winners” is an integral part of the invitation strategy: the government decides which industries to promote and therefore what types of MNCs and global talents to invite. The success of these industries in turn could determine the success of Singapore as a business hub. But, as in any winner-picking strategy, there would be both successes and disappointments. The promotion of the petrochemical industry and the wealth management industry, for example, has been viewed as success stories. But the same may not be said of other initiatives such as the Global Schoolhouse program. A number of earlier attempts by the government to build up an external wing for the economy by investing in similar business hubs “offshore” did not turn out well either. Views about the success of the Singapore-Suzhou Industrial Park, a large-scale industrial cum residential estate in China, for instance, remain mixed at best.<sup>37)</sup>

Two challenges that Singapore faces today, the absence of an adequate indigenous production capacity and the weak innovative capacity, are proving to be particularly daunting. Both challenges could be attributed directly to the pursuit of the invitation strategy.

#### *Weak Indigenous Production Capacity*

Years of heavy reliance on the MNCs has contributed to a lack of adequate indigenous production capacity in Singapore. Singapore’s indigenous GDP (percentage of GDP accruing to resident citizens and PRs, and local companies) has been falling consistently over the past three decades, from over 70% in late 1980’s to less than 60% by 2010.<sup>38)</sup> In particular, SMEs

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37) See Zeng 2016a.

have not been able to play as vital a role in the innovation and growth of the economy as those in other dynamic East Asian economies or industrialized economies such as Germany, Japan, Switzerland, and Scandinavia. Policy support and government incentives are seen to have favored heavily the MNCs (and the GLCs to some extent) in the past.

As various commentators have pointed out, Singapore has for decades suffered from a two-track economic structure: a competitive export-oriented sector dominated by MNCs and a less competitive domestically oriented sector comprising mainly SMEs.<sup>39)</sup> As Tan and Bhaskaran (2015) noted, Singapore's export-oriented manufacturing ecosystem consists largely of foreign-owned MNCs with local SMEs making up only the supporting industry. Few Singaporean SMEs, whether in manufacturing or services, have been able to grow to become globally competitive giants. The failure to tap into the opportunities provided by the region, including the 10-member Association of Southeast Asian Nations (ASEAN) grouping that collectively presents a bigger market than India, is particularly glaring.

While such a lack of indigenous production capacity is not necessarily inconsistent with the pursuit of the invitation strategy - the business hub status is not affected by the ownership structure of the companies based in Singapore - it nevertheless points to a worrying trend in the long run. Given the mobility of many MNCs and foreign talents, it is not clear how sustainable Singapore's position as a regional business hub can be without a sufficiently large core of local production capacity.

To be sure, the government in recent years has begun to address these issues. A number of new schemes, including financing schemes, have been rolled out to help increase the competitiveness and the regional reach of the

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38) See Manu Bhaskaran, "Singapore: Economic Outlook – Challenges to the Economic Model," presentation at the Lee Kuan Yew School of Public Policy, Mar 31, 2015 in <http://lkyspp.nus.edu.sg/wp-content/uploads/2015/06/Productivity-challenges-in-Singapore-Part-4.pdf>.

39) See Hawyee Auyong 2015.

SMEs.<sup>40)</sup> Significantly, the EDB appears to be signalling a change in its strategy as well. Instead of focusing primarily on attracting MNCs and creative talents to Singapore, it has indicated a shift towards helping Singapore-based companies to grow by tapping into the regional markets, with the goal of transforming some of them into billion-dollar businesses.<sup>41)</sup>

### *Weak Indigenous Innovative Capacity*

Despite the massive efforts to rebalance the composition of growth and to make innovation and productivity increase the major source of GDP growth in Singapore - it being the primary policy objective of the innovation-driven growth phase over the past 15 years - the results have not been encouraging. Productivity growth in the city-state in recent years has performed poorly when compared with other dynamic East Asian economies. (See Chart 2 above) In some years, the contribution to GDP growth was actually negative.<sup>42)</sup> The poor performance in productivity growth suffers from the two-tier economic structure noted earlier - productivity growth of the domestically oriented local companies (which employ more than 60% of the workforce) generally lags that of the export-oriented MNCs. This could in turn be explained in part by the insufficient attention paid to the state of indigenous innovation over the decades.<sup>43)</sup>

Singapore did not have a comprehensive national policy to promote indigenous innovation until the late 1990s. As Wong and Singh (2011) noted, from 1960s until the late 1980s, the government policy mainly focused on technology transfer from MNCs to local supporting industries and technology deepening of the latter. The first National Technology Plan was formulated as recently as 1990 with the establishment of the National Science and Technology Board (later renamed A\*STAR, for Agency for Science,

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40) See Tan and Gan 2012.

41) See "EDB's new job: Create billion-dollar businesses," *Straits Times*, May 28, 2016.

42) See discussion in Tan and Bhaskaran 2015.

43) See Auyong Hawyee 2015.

Technology, and Research). The plan, however, targeted mostly applied R&D to support MNCs in critical industrial clusters and made little effort to build up an indigenous R&D system and basic research.

More serious efforts to promote indigenous innovation and R&D in targeted industries started only in the early 2000s as the economy shifted into the second growth phase. Policy makers began to look into the possibilities of developing innovative capabilities of SMEs, promoting basic R&D capabilities, technology commercialization, and high-tech entrepreneurship. The government also made substantial investments in R&D in a few selected industries such as life sciences, environmental and water technology, and interactive and digital media technology. In 2006, the National Research Foundation was set up to coordinate major R&D activities in the country including funding, enhancing linkages between R&D and commercialization, and the like. Furthermore, as part of its efforts to promote entrepreneurship, the government started to relax rules and regulations governing the business environment including rules on start-up businesses, bankruptcy, and stock market listing requirements. It also tried to promote the growth of venture capital and private equity funds and to strengthen the intellectual property rights with new legislations and the establishment of the IP Academy.

The government has persisted in its efforts to boost innovation and productivity growth in recent years. There is also increased emphasis on the participation of local firms and local talents. Over the past two years, for instance, a number of new major projects have been launched to raise the productivity at work places and to enhance the quality of life through greater use of ICT technology (The Smart Nation Initiative and the Industry Transformation Programme), to support R&D and innovation in some priority industry clusters like advanced manufacturing and engineering, health and biomedical sciences, urban solutions and sustainability, and services and digital economy (The Research Innovation Enterprise 2020 Plan), and to raise the productivity in selected sectors like health care, construction, manu-

facturing, and logistics sectors.<sup>44)</sup>

The efforts over the past 15 year have helped raise Singapore's profile in innovation. As Auyong (2015) noted, Singapore's GERD adjusted for the size of the GDP is now consistent with that of the developed economies. In 2015, Singapore ranked 7th overall in the Global Innovation Index. What is disconcerting, however, is the seeming inability of the city-state to convert the large inputs into actual innovation. In the Global Innovation Index 2014, Singapore was placed 110th out of 143 economies in "Innovation Efficiency",<sup>45)</sup> while a separate Asia-centric study ranked Singapore 8th out of 22 Asian economies in "Creative Productivity." Specifically Singapore's use of creative inputs has been found to be inefficient relative to countries like Japan, Hong Kong, China and New Zealand.<sup>46)</sup> The less than satisfactory performance in innovation and productivity growth points to the need to re-examine the relevance of the policy instruments used not only for the enhancement of indigenous innovative capacity, but also for the pursuit of the innovation-driven growth strategy. More fundamentally, it calls for a critical review of the appropriate role for the government in promoting innovation vis-à-vis efficiency.

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44) See the Singapore 2016 Budget Speech, [http://www.singaporebudget.gov.sg/data/budget\\_2016/download/FY2016\\_Budget\\_Statement.pdf](http://www.singaporebudget.gov.sg/data/budget_2016/download/FY2016_Budget_Statement.pdf); and reports in <http://www.channelnewsasia.com/news/business/singapore/govt-commits-s-19b-to-new/2409426.html>.

45) See World Innovation Index 2014, WIPO, pg xxiv.

46) See Creative Productivity Index: Analysing creativity and innovation in Asia, EIU, August 2014, pg 5 cited in Auyong, 2015.

## 5. Conclusion

Singapore's experience over the past 50 years has shown that a small city-state without any meaningful hinterland or natural resources could succeed in achieving sustained and robust economic growth while continually transforming and upgrading its industry structure. By positioning the city-state as an efficient business hub, first for MNCs and later for creative talents, Singapore has been able to leverage the resources of other countries to ride on the waves of various growth industries over time. It has provided a unique case study of the invitation strategy for economic growth and development.

While Singapore's experience has validated a number of conventional wisdoms about what makes a successful business hub and the preconditions required for such success, it has above all highlighted the important role that government could play in bringing about such success. The Singapore government has been at the forefront of providing the preconditions that the city-state needs to succeed as a business hub: global connectivity, availability of hard and soft infrastructures, an adequate supply of relevant manpower, business-friendly regulations, and openness to international best practices, among others. Its effectiveness in delivering such preconditions stems largely from a pragmatic yet bottom-line-driven approach in policy making and governance. While relentless in its pursuit of the invitation strategy, it is nevertheless willing to adjust its policy instruments as external circumstances change. The consistency with which it has adopted the approach has allowed Singapore to win the confidence of international investors and businesses and help secure its position as a major business hub in the world.

Singapore's success is also very much an outcome of its unique political system. The near parliamentary monopoly that the ruling party has been able to maintain over the past half century allowed it to run the whole economy much like a corporate entity, focusing on GDP growth rate for the whole

economy, without having to be much distracted by equity and other domestic political concerns. The strong political mandate it commands helps explain its ability to cater to the needs of the MNCs and foreign creative talents without strong resistance from domestic enterprises or domestic workers. It is not clear, however, if governments in other cities or business hubs would have the same luxury of pursuing the invitation strategy in the same single-minded manner.

At the same time, Singapore's experience has exposed the possible downsides of the invitation strategy. The overwhelming focus on serving the interests of the MNCs and foreign talents has contributed to an inadequate indigenous production capacity and indigenous innovative capacity. Without a sufficiently strong core of indigenous production and innovative capacity, the sustainability of the city-state's business hub status could be in doubt, given the increasing footlooseness of the MNCs and foreign talents. These challenges point to the limit of the invitation strategy. More fundamentally, it calls for a rethink about the appropriate role that the government should play in promoting innovation vis-à-vis efficiency.

In some sense, whether Singapore is able to overcome these two challenges will determine the success of the invitation strategy ultimately. When it first adopted the invitation strategy in the 1960's, Singapore was hoping to move away from being a mere "middleman" economy through its position as a trading hub in the region, and to avoid the vulnerability that afflicts a middleman economy. Through the MNCs and later the global talents that it brought in, Singapore has managed to build up a production base with a wide range of manufacturing and services industries over the years. However, the economy's strong reliance on MNCs and foreign talents, and the lack of an adequate local production capacity and local innovative capacity, suggests that Singapore might not have completely escaped such vulnerability. The ownership of the production capacity within the business hub might not be so critical an issue if the business hub is only part of a larg-

er economy with a meaningful hinterland. But for a small city-state like Singapore where there is no clear distinction between the business hub and the economy, efforts should be made at an early stage of development to provide sufficient room for the domestic enterprises and the domestic work force to grow. An invitation strategy aimed only at attracting foreign resources may not prove to be sustainable in the long run.

# Appendix

## Appendix 5-1. Jurong Industrial Estate

The Jurong Industrial Estate (JIE) is Singapore's first industrial zone. Built on 69 square kilometers of mangrove swamp land, the construction marked the start of Singapore's industrialization program recommended by Albert Winsemius, a Dutch economist who first led the United Nations Expanded Programme for Technical Assistance (EPTA) team to Singapore in 1960 and became the chief economic adviser to Singapore in 1961. The foundation stone for the first factory in JIE, the National Iron & Steel Mills (known as NatSteel today), was laid in September 1962. The company started operations in 1963. By 1968, more than 300 factories were operating in JIE, employing 21,000 workers. JIE played a large role in bringing down the unemployment rate in Singapore from 14 percent in 1966 to about 4.5 percent by 1975. It also helped account for the sharp rise in the manufacturing sector from 12.2 percent of GDP in 1960 to 20.8 percent in 1973.

The JIE project was initially driven by the EDB, which was set up in 1960 to help provide one-stop service to the MNCs investing in the estate. However, it soon became obvious that the task of managing industrial estates would become more challenging and complex.<sup>47</sup> In 1968, a new statutory board, the Jurong Town Corporation (JTC), was set up to manage JIE while freeing EDB to concentrate on marketing the estate to MNCs. Beyond management and development of the industrial estate, JTC was entrusted with the task of providing facilities to improve the well-being of the people working and living in the estate.<sup>48</sup> New amenities such as Jurong Bird Park,

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47) "Goh tells of Govt plans to speed up economic growth," *Straits Times*, April 17, 1968, p. 8. Retrieved from NewspaperSG.

48) Singapore. Parliament. Parliamentary Debates: Official Report. (May 21, 1968). Second Reading of the Jurong Town Corporation Bill (Vol. 27). Singapore: [s.n], cols 357–359. (Call no.: RCLOS 328.5957 SIN); "Better amenities for Jurong residents," *Straits Times*,

Chinese Garden, Japanese Garden, Jurong Park, a town center with shopping and commercial facilities, a drive-in cinema, and new executive flats for residents were constructed in the ensuing years.<sup>49)</sup> The residential estate, known as Jurong Town, evolved over time into a self-contained town for its estimated 32,000 residents.

The changing composition of the industries within JIE reflected the evolution of Singapore's industrial structure. JIE started with labor-intensive, export-oriented industries such as textiles, toys, wood products, furniture, and hair wigs, and it moved steadily to higher value-added industries such as electronics, shipyard, petrochemical, precision engineering, and aerospace.<sup>50)</sup> To accommodate the needs of the new industries, the government continued to upgrade the infrastructures and make changes to business rules. Substantial land reclamation was carried out. There were also considerable re-zoning, changes in land use rules, and redevelopment of old sites within JIE.

Over time, JIE was not only expanded, but it also was also re-designated into various specialized industrial parks, to achieve agglomeration effects for different industrial clusters. These include the Science Park that focused on research and development in the 1980s, the International Business Park located in Jurong East as Singapore's pioneer business park in 1992 and the Jurong Island Petrochemical Hub. Reflecting the dynamic development of JIE, the government announced in 2016 that the western part of the estate will be converted into the Jurong Innovation District.<sup>51)</sup> Billed as the "Industrial Estate of the Future," the district will comprise Nanyang

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May 22, 1968, p. 5. Retrieved from NewspaperSG.

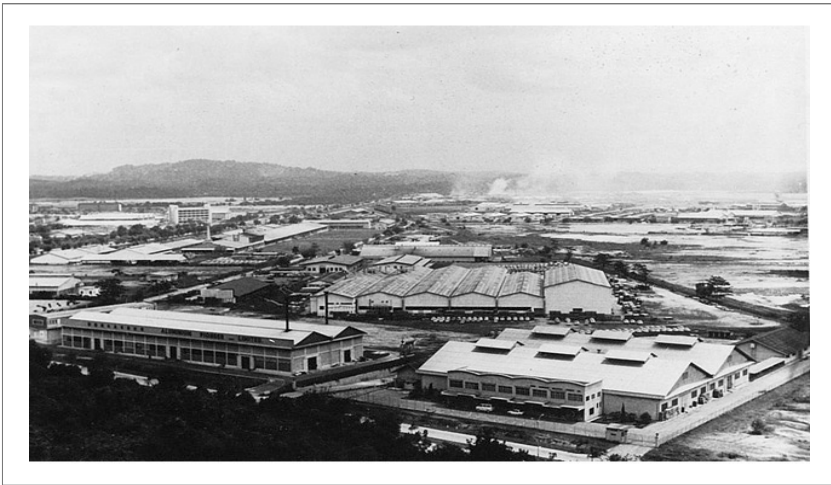
49) Jurong Town Corporation 1969, Annual Report. Singapore: Author, p. 9. (Call no.: 352.0072JTCAR); "Garden town to have 100,000 people: Woon," *Straits Times*, December 14, 1968, p. 9. Retrieved from NewspaperSG.

50) See <https://www.edb.gov.sg/content/edb/en/about-edb/company-information/our-history.html>.

51) See Budget 2016, announced by Finance Minister Heng Swee Keat in the Singapore 2016 Budget Speech, [http://www.singaporebudget.gov.sg/data/budget\\_2016/download/FY2016\\_Budget\\_Statement.pdf](http://www.singaporebudget.gov.sg/data/budget_2016/download/FY2016_Budget_Statement.pdf).

Technological University, Clean Tech Park, and other areas. It will be another work-live-play zone for innovation industries (like the One North Estate in Appendix 5-3) that can accommodate more than 100,000 people. The first phase is expected to be completed by 2020.

**Figure A5-1. Jurong Industrial Estate in the 1970s**



Source: roots.sg.

## Appendix 5-2: Jurong Island Petrochemical Hub

The construction and development of the Jurong Island Petrochemical Hub provides a good example of how a determined, multipronged approach has helped Singapore succeed in maintaining its position as a regional business hub for MNCs in targeted industries. In the late 1970s, with three major oil refinery companies (Esso, Mobil, and SPC) operating on three adjacent south western islands, Singapore was already a major refining center in the world.<sup>52)</sup> However, the government recognized that, to maintain its global

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52) “The making of Jurong Island: The right chemistry,” Jurong Town Corporation, Singapore, 2000, p. 17. (Call no.: RSING 711.5524095957 MAK); “Realising Jurong Island’s potential,” *Business Times*, December 1, 2009, p. 31. Retrieved from NewspaperSG.

competitive position, it would need to aggressively expand and integrate the petroleum and petrochemical industries, to form a hub for the petrochemical and specialty chemical industries. A key challenge it faced then was the scarcity of industrial land in that area. To overcome the challenge, the government decided to carry out an ambitious and massive land reclamation project to join seven islands into a single Jurong Island. JTC was appointed as the agent to manage the project. Reclamation work began in 1995 and was completed in 2009. It increased the total land area from 991 hectares to 3,000 hectares, at a cost of \$7 billion.<sup>53)</sup>

Today, Jurong Island serves as the operational base for more than 100 companies (up from five in 1995) including global companies like DuPont, ExxonMobil, and Chevron. The output of the oil refining industry reached 1.5 million barrels per day in 2014, compared with 1.17 million barrels a day in 1995. Output of refined petroleum products, too, has seen a tremendous uptick after 2000 when Jurong Island was officially opened, reaching a peak of S\$59.6 billion in 2008 (up from about S\$20.0 billion in 2000).

By locating all the related companies together within close and interconnected vicinity, Jurong Island helps facilitate the agglomeration effect: companies are able to share facilities, common corridors, and centralized logistics, thereby reducing capital investment and minimizing operational costs. The output of some firms can serve as inputs for others on the island, reducing feedstock costs. The network for feedstock, logistics, and utilities also means that new businesses could be set up quickly and operated efficiently. Indeed, investment on the island rose rapidly. By 2015, total investments on Jurong Island had exceeded S\$47 billion (including more than S\$4 billion by ExxonMobil alone).<sup>54)</sup>

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53) "Jurong Island, 20 years ahead of schedule," *Today*, September 26, 2009, p. 24. Retrieved from NewspaperSG.

54) See NLB source as follows – [http://eresources.nlb.gov.sg/infopedia/articles/SIP\\_505\\_2004-12-17.html](http://eresources.nlb.gov.sg/infopedia/articles/SIP_505_2004-12-17.html).

Phase Two of Jurong Island's expansion and development was announced in 2010 after the initial phase was completed way ahead of schedule in 2009. Improvements are under way in the areas of energy, logistics and transportation, feedstock, environment, and water supply. To stay ahead of competitors, the government is planning to raise the capacity for liquefied natural gas terminals; increase infrastructure investment to help existing companies keep a competitive edge (for example, S\$100 million to help ExxonMobil build a second plant) and set up downstream production in specialty chemicals. It is also trying to diversify the production structure on the island by including efforts to tap wasted "cold" energy from the LNG terminals to power a new sea water desalination plant. In 2012, US management consultancy McKinsey & Company set up a green campus on the island to offer training in sustainable development and energy efficiency.

The success of Jurong Island reflects in part the tight coordination among the government agencies involved in the project. In 1992, EDB encountered great difficulty when it first started actively marketing the island to major MNCs in the petrochemical and oil industries because reclamation works had not yet begun and the companies could not see the benefits of integration and amalgamation.<sup>55)</sup> JTC then worked with EDB to help the companies visualize and establish their plants on the island. Various incentives and assistance were provided. JTC took an equity stake in some companies to share the business risks with them. It also shared with them certain manpower training costs and helped them identify suitable third-party service providers.<sup>56)</sup>

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55) "The making of Jurong Island: The right chemistry."

56) For example, a GLC, SembCorp Utilities and Terminals, was brought in to provide chemical companies with utilities and other related services.

**Figure A5-2. Jurong Island Petrochemical Hub**



Source: [untouristsingapore.wordpress.com](http://untouristsingapore.wordpress.com).

### **Appendix 5-3: One North Estate**

A cluster development for R&D and innovation managed by JTC and A\*STAR, One North is often billed as the type of industrial estate that will bring the Singapore economy into the future. It houses a number of industry clusters seen to be innovation-driven: bioscience, ICT, and media production among them. By putting researchers, entrepreneurs, business operators, and even venture capital fund managers within the same “enclave,” One North Estate was designed to provide sufficient space for agglomeration effects as well as strong linkages between local companies and MNCs.

A few notable hubs currently exist within the Estate: Biopolis, which is a biomedical R&D hub; Fusionopolis, an R&D hub for infocomm technology, media, physical sciences and engineering industries; Mediapolis, a self-contained digital media cluster; and Block 71 and 79 of Ayer Rajah Industrial Estate, which house a number of digital start-ups and venture capital funds.

Various tax and non-tax incentives have been provided to companies to set up operations within One North. These include lower rental costs,

grants, and investment allowances. The government has substantially stepped up spending on R&D especially in biomedical science. It has also (either directly or through GLCs) taken up equity stakes in various enterprises to help spur their growth. One North's close proximity to prominent educational and research institutions in Singapore adds to its attractiveness. These institutions include the Singapore Science Park, the National University of Singapore (NUS), the National University Hospital, and the Singapore Polytechnic, as well as the Asia-Pacific campus of INSEAD. The large concentration of intellectual, research, and scientific talents, together with the various possibilities of shared facilities, has played a critical role in promoting collaboration between researchers in private and public sectors.

Another key attractiveness of One North is the wide range of recreational amenities that the government has built up within or near the Estate to make it a highly livable area. One North is considered not just a place for work but one for play as well, and it is evolving into a mini-city. As noted in Section 3, this is seen as an important consideration for global creative talents in their relocation decisions.

Since it started in 2001, One North has made much progress. Today more than 250 leading companies and global institutions conduct R&D there and more than 600 start-ups are in the Estate. These include Abbott, GSK (GlaxoSmithKline), Lilly, Novartis, Schering-Plough, and Takeda within Biopolis; Vesta, Seiko Instruments, Solaris, and Starupbootcamp Fintech within Fusionopolis; and Discovery and AMX Audiophiles in Mediapolis. More than 24,000 people, including over 2,000 scientists from around the world, now work in One North.<sup>57</sup> Within the biomedical science cluster, the manufacturing output has risen from S\$6 billion in 2000 to S\$29.4 billion in 2012. By 2014, the number of people employed in the cluster had increased to more than 16,800 (from 6,000 in 2000).

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<sup>57</sup> See One-North comes to life for business and retail. The Straitstimes (<http://www.straitstimes.com/lifestyle/one-north-comes-to-life-for-business-and-retail>).

Figure A5-3. One North Estate



Source: [untouristsingapore.wordpress.com](http://untouristsingapore.wordpress.com).

#### Appendix 5-4: Wealth Management Industry

In its report released in 2003, the Economic Review Committee (ERC) identified wealth management as one of the four areas in the financial services sector where Singapore could develop strong competitiveness in the region, considering the fast changing landscape in the sector, the decline in the traditional financial services and the increasingly more intense competition from other regional financial centres such as Hong Kong, Shanghai and Sydney.<sup>58)</sup>

A slew of policy changes and new incentives were put in place soon after that to help develop and grow the industry in Singapore. Changes were made in the legal and regulatory framework to render it more business- and tax-friendly for wealth managers, private banks, and high net worth individuals. Various exemptions were granted to simplify the license applica-

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58) See [https://www.mti.gov.sg/ResearchRoom/Documents/app.mti.gov.sg/data/pages/507/doc/12%20ERC\\_Services\\_Financial.pdf](https://www.mti.gov.sg/ResearchRoom/Documents/app.mti.gov.sg/data/pages/507/doc/12%20ERC_Services_Financial.pdf).

tion process for financial institutions engaging in fund management. To accelerate the increase in the supply of relevant professionals, the government, in addition to allowing for a greater inflow of foreign fund managers, expanded fund management training programs at the higher learning institutions including setting up the Wealth Management Institute which was supported by equity participation of the two sovereign wealth funds, the Government of Singapore Investment Corporation and Temasek Holdings.

Over the years, the Monetary Authority of Singapore (MAS), as the key promoting agency of the wealth management industry, has continued to improve the market infrastructure to maintain Singapore's strength in the industry. In 2014, for example, it signed on to two fund pass-porting schemes (ASEAN CIS and Asia Regional Funds Passport) to increase Singapore-based fund managers' access to the region. It has also been building on Singapore's position as the second largest offshore Renminbi centre in the world, to enhance the business opportunities for fund managers in the China. Working with the higher learning institutions and specialist training institutions like the Institute of Banking and Finance, it tries to ensure a sufficient flow of qualified manpower to support the growth of the industry. In 2015, it also unveiled major initiatives to keep pace with and to manage the impact of the latest developments in financial sector technology (FinTech).<sup>59)</sup>

The wealth management industry in Singapore has grown rapidly over the past 15 years. By 2014, the assets under management (AUM) in Singapore had reached S\$2.36 trillion, an almost 10-fold rise from S\$276.2 billion in 2000 (and twice the AUM of S\$1.2 trillion in 2009). Its share of the value-added of the whole finance and insurance sector rose from 8.5% in 2010 to 11.4% in 2015. In 2015, it continued to post the fastest growth rate among the sub-segments within the Finance and Insurance sector. (See Table 5-3) Importantly, a number of reputable private banks and fund managers have

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<sup>59)</sup> See MAS 2015.

substantially enlarged their operations in Singapore or even shifted their global headquarters to Singapore, including those from Switzerland, reflecting the increased importance of the city-state as a global wealth management hub.<sup>60)</sup> Comparative studies on major wealth management hubs in the world have also pointed to the stronger growth potential of Singapore relative to Switzerland and Hong Kong in the coming years.<sup>61)</sup>

**Table A5-1. Share of Value Added in Finance & Insurance Sector (2015)**

	Share of Sector's Value Added (Nominal)	Real Growth Rate 2015 (% yoy)
Finance & Insurance	100.0%	5.3%
Banking	47.5%	2.4%
Security Dealing	2.5%	6.3%
<b>Fund Management</b>	<b>11.4%</b>	<b>12.9%</b>
Insurance	15.2%	8.4%
Others	23.3%	6.9%

Source: Ministry of Trade and Industry, Singapore.

## Appendix 5-5: Global Schoolhouse Program

The Global Schoolhouse program seeks to increase Singapore's export of educational services by transforming the city-state into a regional education hub. The industry is seen as an essential part of the efforts to build up a critical mass of high-skill, creative workers that was crucial to the success of the innovation-driven growth strategy. Not only is education considered an innovation-driven industry on its own, it is also viewed as an enabler of the other key targeted industries. As the then Education Minister Teo Chee

60) Julius Baer Private Bank from Switzerland being on such example.

61) See for example, Credit Suisse, Report on "Switzerland as a Financial Center," September 2012.

Hean noted in 2000, Singapore aspired to be the “Boston of the East,” so as to “create an oasis of talent in Singapore: a knowledge hub, an ideas exchange, a confluence of people and idea streams and an incubator for inspiration.”<sup>62)</sup> Four areas of focus were chosen based on their perceived high-growth potential: tertiary education, corporate training and executive education, private commercial and specialty schools, and preparatory and boarding schools.

A multipronged approach was used to promote the industry, both on the supply side and the demand side. On the supply side, through the World Class Universities initiative, the government tried to increase the number of university (both local and foreign), and other private tertiary education providers. Specifically, a target of having 10 world-class universities of excellence in Singapore was set. Generous incentives were given to foreign universities to set up campuses in Singapore, including subsidies for land cost and research grants as well as tax and other financial incentives. Efficient processing schemes were provided for visa and employment pass applications to bring in the staff needed to support the universities.

On the demand side, the EDB, working with Singapore Tourism Board, Spring Singapore, IE Singapore and the Ministry of Education, was tasked to increasing the number of foreign students (at all levels of education) to 150,000 by 2015 (from 50,000 in 2002). To support these efforts, various incentives were unveiled including tuition grant schemes for foreign students, streamlined student visa requirements and processing, increased supply of student housing, expanded facilities for student financing, and enhanced em-

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62) Teo noted that “Boston is not just Harvard or MIT. The Greater Boston area boasts over 200 universities, colleges, research institutes and thousands of companies. It is a focal point of creative energy, a hive of intellectual, commercial and social activities. We want to create an oasis of talent in Singapore: a knowledge hub, an ideas exchange, a confluence of people and idea streams, an incubator for inspiration.” See “Education Towards the 21st Century: Singapore’s Universities of Tomorrow,” the Alumni International Singapore (AIS) Lecture, 7 Jan 2000, in <https://www.moe.gov.sg/media/speeches/2000/sp10012000.htm>.

ployment opportunities for foreign students and graduates. The Private Education Act (2009) sought to provide quality assurance for educational services provided in Singapore, to allay foreign student concerns about the educational investment they undertake (this came about after a series of complaints about unsatisfactory and fraudulent practices by a number of private educational services providers in Singapore).

The outcome for the Global Schoolhouse program has been mixed so far however. The number of educational establishment rose steadily 4,411 in 2009 to 6,182 by 2013. The value added of the industry increased from S1.7 billion to S2.5 billion. However, as a percentage of GDP, the contribution has gone up only from 0.7% to 0.8% during this period. (See Table 5-4) The number of foreign students in Singapore reached about 90,000 in 2011 (from 50,000 in 2002) but fell to 75,000 in 2014. This was still far from the target of 150,000 (by 2015).<sup>63)</sup>

The outcome on the actual presence of reputable foreign universities is also mixed. There are a few successful partnerships such as Yale-NUS, Wharton-SMU, Duke-NUS (medical school), SUTD (with MIT and Zhejiang University). But a number of universities that came into Singapore under the World Class University program had to exit within a short period of time. These include University of New South Wales from Australia, the Tisch School of the Arts at New York University, and the University of Las Vegas. Reasons for such failures vary but disagreement on the funding models between the universities and the Singapore government has been cited as one of the key reasons.<sup>64)</sup>

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63) See statistics provided by Spring Singapore in <http://www.spring.gov.sg/Developing-Industries/EDU/Pages/education-statistics.aspx>.

64) See for example, Pak Tee Ng and Charlene Tan, 2010, "The Singapore Global Schoolhouse, An analysis of the development of the tertiary education landscape in Singapore," *International Journal of Educational Management*, Vol 24, No 3, 2010.

**Table A5-2. Education Services Industry in Singapore**

Indicators	2009	2010	2011	2012	2013
No. of Establishments	4,411	4,557	5,109	5,953	6,182
Operating Receipts (\$b)	3	3.3	3.7	4.3	4.7
Value-added (\$b)	1.7	1.9	2.1	2.5	2.7
GDP Contribution (%)	0.7	0.6	0.6	0.7	0.8

Notes: Industry cluster as defined by SPRING, excludes Non-Profit Organisations, includes child care services for pre-school children.

Source: Department of Statistics & SPRING Singapore.

## Chapter 6



# Hong Kong's Business and Financial Hub Development: Factors, Challenges and Policy Implications\*

Yan DONG, Chunding LI and Hang JIN

1. Introduction
2. Profile of Hong Kong Business and Financial Hub
3. Hong Kong Financial Sector's Development History
4. Key Factors for Success
5. Challenges regarding Continued Success
6. Key Lessons Learned
7. Policy Implications

\* This paper is a cooperate work by Chunding LI ,Yan DONG, and Hang JIN from Institute of World Economics and Politics (IWEP), Chinese Academy of Social Sciences (CASS). Parts 1-3 are done by Hang JIN, parts 4-5 and the abstract are done by Chunding LI, and parts 6-7 are done by Yan DONG. The paper are compiled and organized by Chunding LI in the end. All errors belong to authors. We appreciate Hyung-Gon Jeong and Pek Jonghum from the Korea Institute for International Economic Policy for their constructive comments and suggestions.

# 1. Introduction

As an international financial center, Hong Kong has been ranked highly in statistics conducted by various organization. In a rank conducted by IMF and World Bank, Hong Kong was ranked third in 2015 while in Xinhua-Dow Jones IFC Development Index, Hong Kong was also ranked third at the same time. In most of statistics conducted by international institution, Hong Kong was always ranked fifth to third. It is fair to say that Hong Kong was one of the most important business and financial centers in the world. Therefore, it is necessary to comprehensively survey Hong Kong's rising as a business and financial center, as well as analyze the main factors for Hong Kong's success.

We analyze Hong Kong's financial center development history from 1950s to now and try to give a general idea of how country developed to be a global financial hub. We propose Hong Kong's success belonging to three aspects of factors, which are policy factors, internal factors and external factors. Policy factors are laws, rules, and measures taken by the government. Policy factors include innovation and technology policies, industry promotion policies, free trade and free capital flow environment, liberal and non-interventionist policy towards business, well established regulatory and legal system, and low and transparent taxation system. Internal factors relate to domestic environment and conditions of Hong Kong. Internal factors include sophisticated and extensive business and finance infrastructure, sustainable economic growth, political and social stability, educated workforce and rich pool of professional talent, good physical infrastructure, and free press and transparent information. External factors relate to surrounding environment and conditions which are exogenously given. We think that external factors include central and convenient geographical location, close economic relations with mainland China, and surrounded with fast growing countries.

Hong Kong is not only an international financial center, it is also an important business center. As a logistics core of east Asia, Hong Kong runs more than 400 air lines, operated by about 80 international container shipping companies, heading for more than 500 destinations every week<sup>1</sup>). Hong Kong is one of the busiest container port in the world for its mature management experience, good-operation airport and efficient clearance procedure which should be studied by other countries as well.

Hong Kong still faces challenges regarding continued success. These challenges include regional competition from other business and financial hubs, changing trade modes and the prevalent of intra-firm trade, and real industry hollowing and comparatively slow economic growth.

From the experience of Hong Kong's success, we can find some experience and lessons for building a business and financial hub. They are innovation and industry promotion policies, free market environment, a sound legal system and effective regulation policies, fair competition, and owing skilled labor and talented professionals.

Hong Kong should take measures to further strength her business and financial center position. We propose five points. The first one is to further optimize free market economic environment, the second is to promote manufacturing sector development, the third is to construct a politically stable society, the fourth is to strength economic relations with mainland China, and the last is to provide better physical infrastructure.

The contributions of this paper exist in two points. The first is we focus our research on how Hong Kong developed into a business and financial center, these factors have policy implications. The second is our paper aims to give policy implications and choices for other cities who want to construct financial and business center, which cannot be found in present literatures.

This remaining part are organized as follows: section 2 outline a profile of Hong Kong and propose the basic concept of international center/hub; sec-

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1) <http://www.soft808.com/News/2016-2-18/8KBABCI52796KK34639.html>.

tion 3 studies in detail of the history about the development of Hong Kong financial sectors; section 4 analyzes the key factors that lead to Hong Kong's success; section 5 emphasize the challenges which may affect its continued success that Hong Kong faced; section.6 discusses the experience of Hong Kong's success, namely what lessons for the other countries can learn from Hong Kong's rising, especially for the Asian countries; section 7 gives the policy implication, i.e. what the governments of Hong Kong should do to overcome the challenges they faced.

## **2. Profile of Hong Kong Business and Financial Hub**

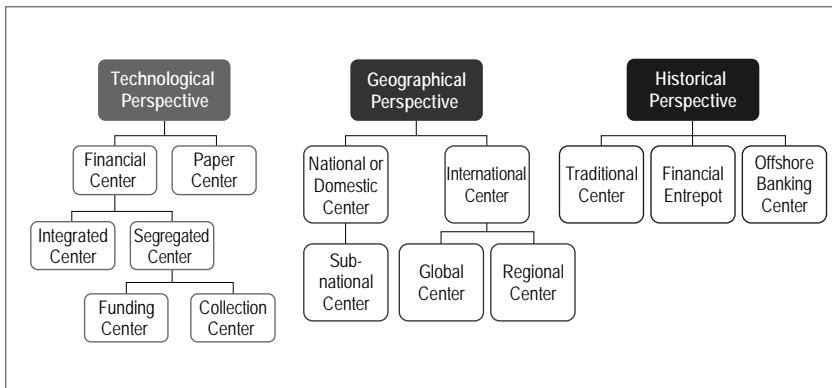
Technically, there is not a universally accepted definition of the term “international financial center” or “business hub”. Intuitively, an “international financial hub” should be a place that affects the development of financial activities globally, that is to say that many companies from all over the world are willing to listed in its stock market; that its legal framework should be mature which can guarantee the financial activities in its market be in orderly; that it has effective means to face the financial crisis, and so on. From this sight, it is more proper to say that Hong Kong is a regional financial center despite it runs business for the whole world.

However, Hong Kong's postwar transformation from a transit trade harbor into an industrial is worthy to study, especially considering its rising was in a rather short period. It is interesting to learn why a former tiny area colony can get this amazing achievement. Under a circumstances of global economic structure changing enormously, Hong Kong's success experience may lead a way for many other countries, especially for the Asian countries.

Hong Kong is one of the world's leading business and financial center. It

is not only a financial center but also a paper center from the technological perspective, is both a national center and international center from the geographical perspective, and is a traditional center, financial entrepot and offshore banking center from the historical perspective (see Figure 6-1).

**Figure 6-1. Typologies of Business and Financial Center**



Source: Jao (2011), p. 4.

From the perspective of financial development, Hong Kong performed perfectly and it deserves its reputation. Table 6-1 shows the number of banks in Hong Kong. From the table, we can see that for over 10 years, the number of banks in Hong Kong stabilized at nearly 200, which indicates the development level of the bank sector. As to the total assets of the banks, from 2013 to 2015, it presented a stable trend of growth. In 2015, the total assets of banks in Hong Kong was 19180.6 billion HKD and it was about 8 times to its GDP<sup>2)</sup>. The trend of bank assets in Hong Kong is shown in Figure 6-2. The ability of absorb deposits was also remarkable. In 2015, the amount of deposits of Hong Kong banks was 10749.8 billion HKD and was about 4 times of its GDP.

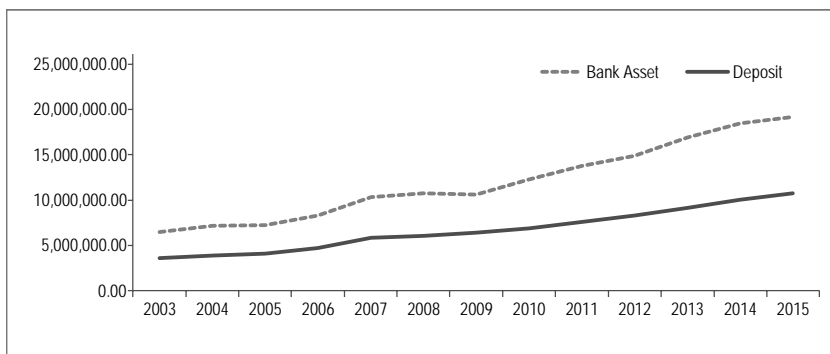
2) [http://news.cnstock.com/news/sns\\_gg/201407/3107577.html](http://news.cnstock.com/news/sns_gg/201407/3107577.html).

**Table 6-1. Number of Banks in Hong Kong (2003-2015)**

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number	215	208	199	202	200	200	199	193	198	200	201	203	199

Source: Wind.

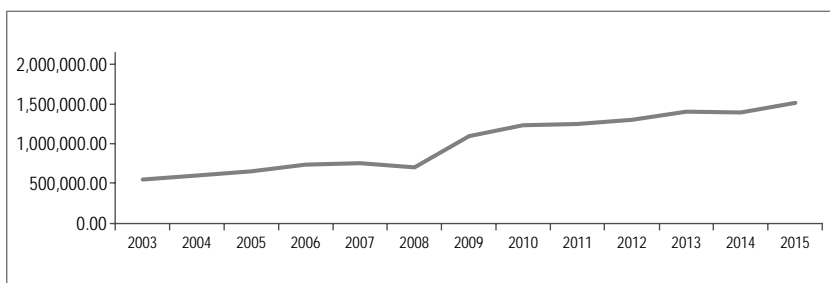
**Figure 6-2. Amount of Asset and Deposits of Banks in Hong Kong**



Source: Wind.

Hong Kong owns the world-famous stock market and foreign exchange market, but its debt market, although holding a relative small size, is not neglectable. In 2015, the capitalization of Hong Kong debt market was 1524.6 billion HKD. But Figure 6-3 tells us that the debt market was in a process of smooth and steady growth. Since 2003 to 2015, the development of debt market can be divided into two phases. The first phase was 2003 to 2008 during which the growth rate was rather slow, even a downturn in 2008 when the global crisis broke out. The capitalization in this phase grows from 600 billion HKD to 800 billion HKD, about a 25% growth in about 6 years. But in the second phase, that is from 2008 to 2015, the growth rate increasing was rapid and the capitalization grew from 800 billion HKD to about 1600 billion HKD, almost 2 times that of 7 years ago. All these facts indicated Hong Kong’s huge attraction to investors.

**Figure 6-3. Capitalization of Hong Kong Debt Market (2003-2015)**



Source: Wind.

Hong Kong is not only a financial center, it is also one of the busiest and most efficient container service port in the world. Hong Kong is an island and the ports spread all over its area (Figure 6-4). According to Hong Kong Maritime and Port Board, Hong Kong handled 20.1 million TEUs (twenty-foot equivalent unit, standard container) in 2015. The Hong Kong port now provided about 340 container liner services per week connecting to about 450 destinations all over the world.<sup>3)</sup> Figure 6-5 shows the situation of Hong Kong commodities and services trade. As shown in Figure 6-5, from 1957 to 2015, the amount of commodities and services trade of Hong Kong presented a long-term increase trend and the growth rate was more and more rapid since 1990s. From figure 6-5 we can also conclude that Hong Kong's transfer trade was almost equal to the commodities and services trade which indicated the importance of Hong Kong as a transit port.

3) Hong Kong Maritime and Port Board, <http://www.hkmpb.gov.hk/en/port/port.html>.

Figure 6-4. The Port of Hong Kong

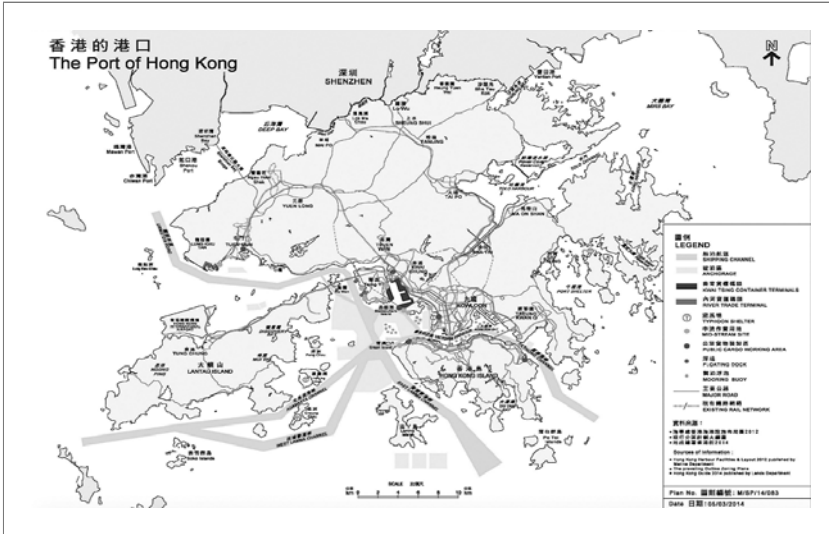
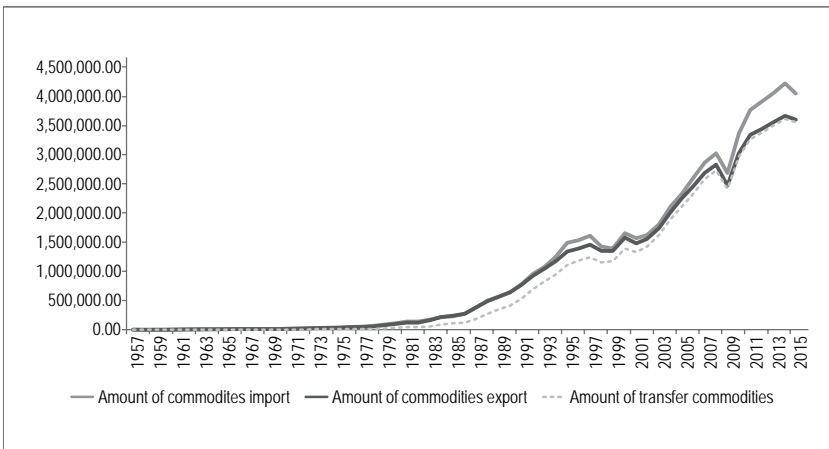


Figure 6-5. Commodities and Services Trade of Hong Kong



Source: Wind.

Hong Kong has become an international hub for business, trade and finance importers willing to access the Chinese market. As such, the largest sector of the economy is services, which accounts for around 93 percent of GDP. Within services, the most important are wholesale and retail trade (25 percent of GDP); public administration and social services (17 percent); finance and insurance (16 percent); real estate and business services (11 percent); ownership of premises (10 percent) and transportation and postal services (6 percent). Information and communications and food and accommodation account for 8 percent. Construction represents 3.5 percent of GDP and electricity, water and gas supply, waste management and manufacturing 3.4 percent<sup>4</sup>).

Compared with other financial and business hub in Asia area, Singapore is one of major competitors to Hong Kong, but Hong Kong has her own characteristics. Hong Kong has a longer history as a center for business but Singapore has fast caught up undermining Hong Kong's dominance in the region. Singapore has been quick and nimble to adopt business friendly policies that continue to attract bulk of the foreign investors to establish their Asian presence on its shores. Some investors choose Singapore are driven by lifestyle reasons or by the strength of infrastructure and the quality of service providers. Some choose Hong Kong mainly to get the Chinese and North Asian markets. Smaller business often choose Singapore as it offers more attractive tax benefits and lower cost environment when compared to its rival.

As the existence of Singapore, Hong Kong is no longer as attractive as it used to be. Hong Kong scores low on quality of life and high on cost of living, qualified labor at affordable costs is no longer as easily available, English usage is declining and the business community has concerns over the region's political stability in the future.

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4) See Trade Economics database: <http://www.tradingeconomics.com/hong-kong>.

### **3. Hong Kong Financial Sector's Development History**

This section examines in detail of Hong Kong financial sector's development, from the time when its openness of trade until now. The purpose is to provide an outline of Hong Kong's finance. It emphasizes the major events that affected its development and studies the factors that cause Hong Kong's transformation.

The origin of Hong Kong's financial business, which characterized by the rising of banking sector, may trace back to the time when it was opened for trade in 19<sup>th</sup> century. At that time, foreign banks actively set offices in Hong Kong and their businesses were transferred to Hong Kong through this process. It was these offices which provided the necessary funds for countries who traded with China. At the early stage, the development of finance was mostly reflected by the increasing number of commercial banks, and the main business of these banks was nothing but to take deposits. The modern financial institution and activities were merely seen. Although its unitary pattern of the financial development, Hong Kong's openness and its geographical advantages constantly attracted banks all over the world to launch their businesses. The local banking sectors also benefited from this and started cutting a figure on this small island.

In 1950s the mode of Hong Kong's financial business started to change and it gradually formed the embryo of modern finance. Reasons caused this consequence can be concluded to be external and internal. First, the external reason was the foundation of People's Republic of China (PRC). After its foundation, the central government of PRC implemented strict monetary regulation and only a few designated banks were allowed to perform finance activities with Hong Kong which led to a sharp fall of Hong Kong's trade amount. Also, considering the unstable situation of new China, investors

abroad worried about the investment environment in China. Thus the funds flowed into China through Hong Kong was actually at the status of stagnation. Second, the internal reason was the transformation of Hong Kong's economic structure. Since 1950s Hong Kong started to achieve industrialization. Population of Hong Kong boomed and then the government approved several policies to stimulate the development of real estate, which transferred the former banking mode of trade financing to providing capital to manufacture and real estate. The mode transformation in 1950s was very important since it laid foundation for the diversification of Hong Kong financial market and in turn promoted Hong Kong into an international financial center.

During the post war recovery, innovation policy plays an important role. Hong Kong government established some important institutional frameworks and organizations in Hong Kong around the late 1960s, early 1970s and beyond. These institutions both supported innovative activity in Hong Kong and intervened in it to varying degrees. Primary among them was the Hong Kong Productivity Council, initially conceived by the Working Committee on Productivity in 1963, which was created in 1967. Another move in this direction was the Advisory Committee in Diversification, authorized in 1977, which recommended a more active role for the government and greater support for the provision of technological infrastructure (Ferguson, 2001).

One of main characters of a financial center is that it always has a good-performance stock market. The modern stock market of Hong Kong appeared in late 1960s and was starting to cut a figure since the early 1970s<sup>5)</sup>.

The prosperity of Hong Kong stock market was driven by several factors. First of all, Hong Kong economy was booming which brought strongly demand from the market side. The manufacture and merchant companies were urged to absorb funds for their further development. As a result, more and

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5) The Hang Seng Index was public published on November 24, 1969.

more companies chose to list public while investors were also willing to invest when facing the optimistic economic outlook. Furthermore, the international political environment gradually stabilized, especially the relationship between China and US has been harmonized, which pushed the folk's investment interest to a rather high level. In addition, in 1970s western countries were going through the phase of so-called "stagflation" and they were also under a severe situation of monetary crisis, plus the unstable political environment in Middle East, which channeled the "hot money" to the Hong Kong stock market. More and more foreign financial institution went to Hong Kong to acquire the local companies and merchant banks and then invested to the stock market which gradually made Hong Kong into a big financial furnace. The degree of internationalization of Hong Kong were higher day by day. At last but not least, at the end of 1970s the ten chaotic years in China was over and China began to reform and open which brought back the lost confidences to China and thus the trade through Hong Kong was again flourishing. All these factors jointly push Hong Kong stock market into a fast step development.

In 1986, the Hong Kong Stock Exchange was approved by the Federation International des Bourse de Valeurs (FIBV) and becoming one of its members, which marked a high degree of internationalization. Since 1980s, Hong Kong stock market's status in the international securities market were dramatically improved. In 1976, the market capitalization of Hong Kong stock market accounted for 0.9% of the world market and was ranked 11 in the world. Five years later, in 1981, Hong Kong has been ranked 7 in the world and 2 in Asia (All capitalization are calculated by current prices).

The Hong Kong Stock Exchange is now the sixth largest stock exchanges in terms of capitalization in the world and the third largest stock exchange in Asia behind the Tokyo Stock Exchange and Shanghai Stock Exchange, which ranked 1 and 2 respectively. There are totally 1,810 companies listed in the exchange, 920 of which are from mainland, 788 from Hong Kong and

102 from abroad (August 2015).<sup>6)</sup> Besides a prosperous stock market, Hong Kong also owns a foremost foreign exchange market.

As Britain's colony, Hong Kong's currency was pegged to pound sterling at the early stage of post-war period and Hong Kong government put strict control on foreign exchange in order to keeping funds in the zone of pound sterling. During the strictest period, every single deal of the trade was needed to authorize. It was not until the year of 1972 when the situation has changed. Britain government was forced to announce the free floating of pound sterling because of its sustained depreciation pressure, then the Hong Kong government announced that the Hong Kong currency was pegged to US dollar instead of its former monetary system of pegging to pound sterling which Hong Kong had implemented for decades. But in the wake of the collapse of Bretton Woods System, Hong Kong government soon announced to stop pegging HK dollar to US dollar thus the free floating period of HK dollar was coming and its exchange rate was determined by demand and supply in the market.

The removal of controls over the foreign exchange and the formation of floating rate regime promoted the further development of Hong Kong foreign exchange market. In 1978, the Hong Kong government announced to relax the limitation of licenses for foreign bank which led to 21 large foreign banks have been granted full licenses to operate in Hong Kong. Most of these banks lacked HK dollar basis and were urgent to hold assets nominated by HK dollar. These banks had to use various means including selling foreign exchange in the market, borrowing funds through inter-bank market etc. to get the assets they needed, which profoundly improved Hong Kong foreign exchange market into a modern and mature one. In 1989, according to the investigation conducted by Bank for international Settlements (BIS), which Hong Kong participated for the first time, the average daily turnover in the foreign exchange market of Hong Kong has already broken 40 billion

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6) See: [http://www.hkex.com.hk/eng/listing/listhk/our\\_markets.htm](http://www.hkex.com.hk/eng/listing/listhk/our_markets.htm).

US dollars, ranked sixth in the world behind Britain, US, Japan, Switzerland and Singapore. Nowadays, Hong Kong foreign exchange market has been one of the most important foreign exchange markets in the world. In 2013, the average daily turnover of foreign exchange transactions was 274.6 billion dollars and was ranked fifth in the global exchange market.<sup>7)</sup>

As we have said in previous session, in 1970s, the relax of limitation of granting foreign banks operated in Hong Kong promoted Hong Kong into one international business hub. The further development in 1980s has strengthened its basis and made it become one of the major financial hubs in the world.

In the late 1980s, after a couple of crisis occurred in Hong Kong finance industry, namely the continuous of bankrupt of big amount of finance companies and banks in 1986 and Hong Kong Futures Exchange (HKFE) went bankrupt in 1987, the Hong Kong government realized it was urgent to reform in the Hong Kong finance industries. Then the Bank Ordinance was amended and the Basel Accord was introduced into Hong Kong. The securities market was undergone reform also. These reforms were achieved the anticipated results and in 1980s Hong Kong has become the fourth financial center in terms of the number of foreign banks in the world.

As an international financial center, Hong Kong has performed various kinds of functions:

(1) As a center of capital export. According to HKMA, the amount of foreign assets that banking sectors held has been over 100 billion dollars, most of which was bank loans. The main sources were banks of Britain, Japan and USA. It has maintained a rather rapid growth rate in the next 30 years. Up to the end of 2014, the amount of foreign assets was about 3,000 billion US dollars.<sup>8)</sup>

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7) HKMA, <http://www.hkma.gov.hk/eng/key-information/press-releases/2013/20130905-3.shtml>.

8) HKMA, <http://www.hkma.gov.hk/eng/market-data-and-statistics/monetary-statistics/ef>

(2) As a center of foreign exchange and stock. As said in the previous section, Hong Kong foreign exchange market has developed with a fast pace since 1970s, mainly reflected by the fast growth of average daily turnover of foreign exchange. In 1980s, Hong Kong has already become one foreign exchange center. After 30-year's development and perfection, it was now the main foreign exchange center in the world, especially in Asia along with Singapore and Japan.

Also, Hong Kong now has the biggest stock market in Asia. There are over 1800 companies, which are from all over the world, listed in Hong Kong Stock Exchange. The Hong Kong stock market has special implication for China. Among the companies listed in Hong Kong, more than a half of them are from mainland China. For Chinese companies, among the world's mainly stock market, Hong Kong always was their first chance, especially under a circumstances that its capital account is "closed". Hong Kong is a bridge for China that connects it with the world.

(3) As an international center of gold transaction. Hong Kong is also a gold transaction market in the world. In 1974, the Hong Kong government removed the limitation to export and import of gold, since then Hong Kong gold market entered a phase of fast growth. The main reason that Hong Kong Gold Market developed so fast was its geographical advantage. Hong Kong is in middle of America and Europe, it can perfectly supplement the gap between London market and New York or Chicago caused by the time zone. Given this advantage, gold trader in London and Switzerland actively to set up affiliates in Hong Kong, which made Hong Kong to a main gold transaction center in the world. Another reason is that Hong Kong gold market is not regulated by the government, plus there is no control over foreign exchange, all these together make Hong Kong very attractive for the global gold dealer. Hong Kong is now the fourth gold transaction market in the world, behind New York, London and Zurich.

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bn/2015.shtml.

Hong Kong financial market has been taken shape in 1980s, after that Hong Kong has entered a phase of perfecting its financial system. Until the late 1990s, all business of financial sectors of Hong Kong was basically mature. Meanwhile, a latent danger lied in Hong Kong economy, namely the unitary mode of her develop mode. When the development mode was flourishing, it would not take much trouble. But when the economy underwent a pressure of slump, it would bring a huge blow to the economy.

Hong Kong's finance business was affected profoundly by the Asian financial crisis in 1997, which led Hong Kong into a status of weakening. Under this circumstances, the authority decided to further relax the financial limitation. Reform was performed in banking sectors. In 1999, HKMA announced that the upper limit of interest rate of transaction account and deposits would be taken off since 2001, which made the competition between bankers was more intensive. It further improved the maturity of the derivative market. Meanwhile, the modern tools, such as electronic business and internet tool, were developed rapidly.

Since the late 1990s, the world financial pattern has been deeply changed, thanks to the development of information technology. The world economy entered a phase of integration. Hong Kong financial market have been deeper internationalized or globalized. In 2000, seven companies listed in NASDAQ were listed in Hong Kong exchange.<sup>9)</sup> Hong Kong became the first listed market for the companies which were listed in NASDAQ. Also, by cooperating with security exchange in foreign countries, Hong Kong's "blue chips" can be traded for 24 hours in 9 countries' stock exchange.

Beyond the development of financial sectors, the Hong Kong government participate even more actively and rapidly in the transformation of Hong Kong's innovation system so that it could identify a new role for itself as well as a new engine for its continued economic growth. This search culminated

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9) The 7 companies were Intel Corporation, Dell Inc., Cisco Systems Inc., Microsoft, Amgen, Applied Materials and Starbuck.

in the appointment of a Commission on Innovation and Technology (CIT) in March 1998. The members of the Commission comprised mostly American-trained academics and professionals. In its report, the CIT noted in its vision statement that “innovation and technology are vital to the future prosperity of Hong Kong” (HKSAR 1998).

For the past a few years, Hong Kong has extended its financial business to other areas, the most successful one is the offshore RMB<sup>10)</sup> business.

Recent years, China has quicken its pace of capital account liberalization. One important measures to achieve this goal is RMB internationalization. For a few years, China has launched a serial of new policies in this process. Under this circumstances, Hong Kong has been benefit a lot from it. Hong Kong now has the biggest RMB pool out of China. The balance of RMB deposits in Hong Kong has reached 900 billion in 2013 and is still growing rapidly. Various policies has implemented in Hong Kong and nowadays it is the most important offshore RMB center in the world.

## 4. Key Factors for Success

What are main factors or elements for Hong Kong’s successfully being a global business and financial center? This part will analyze these key reasons. We divide all key factors into three aspects, which are policy factors, internal factors and external factors. Policy factors are laws, rules, and measures taken by the government, which we think it as the most important factors. Internal factors relate to domestic environment and conditions of Hong Kong. External factors relate to surrounding environment and conditions which are exogenously given. We summarize factors for Hong Kong’s success for constructing a business and financial hub in Table 6-2.

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10) Initiation of the Chinese currency “renminbi.”

**Table 6-2. Factors of Hong Kong's Being a Business and Financial Hub**

Type	Key Factors
Policy Factors	<ol style="list-style-type: none"><li>(1) Innovation and Technology Development Policies</li><li>(2) Industry Promotion Policies</li><li>(3) Free Trade and Free Capital Flow</li><li>(4) Liberal and Non-Interventionist Policy toward Business</li><li>(5) Well Established Regulatory and Legal System</li><li>(6) Low, Simple and Transparent Taxation System</li></ol>
Internal Factors	<ol style="list-style-type: none"><li>(1) Sophisticated and Extensive Business and Finance Infrastructure</li><li>(2) Sustainable Economic Growth</li><li>(3) Political and Social Stability</li><li>(4) Educated Workforce and Rich Pool of Professional Talent</li><li>(5) Good Physical Infrastructure</li><li>(6) Free Press and Transparent Information</li></ol>
External Factors	<ol style="list-style-type: none"><li>(1) Central and Convenient Geographical Location</li><li>(2) Close Economic Relations with Mainland China</li><li>(3) Surrounded with Fast Growing Countries</li></ol>

Source: by authors.

## 4.1 Policy Factors

Policy factors are mainly government measures, rules and law environment. There are six specific points for this part, which are innovation and technology policies, industry promotion and trade policies, free trade and free capital flow, liberal and non-interventionist policy toward business, well established regulatory and legal system, and low, simple and transparent taxation system.

## (1) Innovation and Technology Policies

Hong Kong is an innovation-led economy, the government carry out series of innovation and technology promotion policies to enhance competitiveness of Industries. The government set up the Innovation and Technology Commission (ITC) on July 1, 2000. The ITC uses five main strategies to promote innovation and technology development, which are providing world-class technology infrastructure for enterprises, research institutions and universities, offering financial support to stakeholders in the industry, academia and research sector to develop and commercialize their R&D results, nurturing talent, strengthening science and technology collaboration with the mainland and other economies, and fostering a vibrant culture of innovation. The achievement of ITC is fruitful. Up to 2016, there are more than 5000 programs including innovation and technology support and university-industry collaboration programs approved by ITC with the approved funds more than 11 billion dollars.

The Hong Kong government announced that the Steering Committee on Innovation and Technology will be reorganized into the Advisory Committee on Innovation and Technology, to tender advice on the development of innovation and technology in 2015. The ITC manages the Innovation and Technology Fund to support projects that contribute to innovation and technology upgrading in industry. Research and Development Cash Rebate Scheme was established in 2010 to reinforce the research culture among enterprises and encourage them to establish stronger partnerships with local research institutions. The ITC also helps to develop world-class support infrastructure to facilitate technological upgrading and development of the industry, like the Hong Kong Science and Technology Parks Corporation (HKSTPC) and Hong Kong Science Park (ITC 2015).

The ITC also works on fostering an innovation and technology culture, supports innovation and technology related competition such as the Hong Kong Student Science Project Competition and School Science Exhibition.

These innovation policies keep Hong Kong a competitive place.

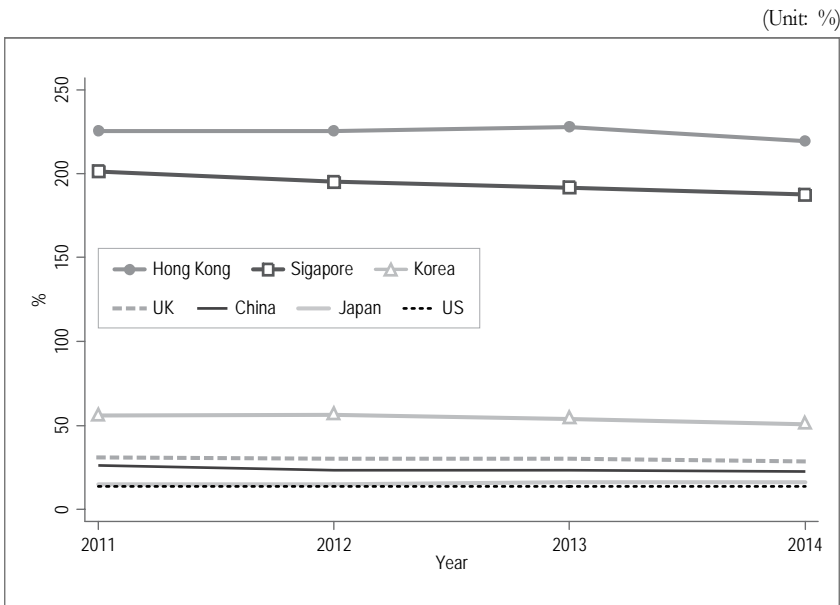
## **(2) Industry Promotion Policies**

The Hong Kong Special Administrative Region Government (SARG) tries to provide a friendly environment and maximum support for the development of industry and commerce in Hong Kong. The government encourages the industry sector to harness the forces of innovation and technology for improving productivity and adding value to products, provides world-class support infrastructure for industrial development, and helps address issues of concern to industry. The government supports small and medium enterprises (SMEs). Through different agencies, the government provides a comprehensive range of services to meet the needs of SMEs. Non-government subvented bodies, such as the Hong Kong Trade Development Council, Hong Kong Productivity Council and the Vocational Training Council are also key SME service providers. The government also promote the inward investment. External direct investment will bring in new technology and management culture, creates employment, and enriches Hong Kong as a cosmopolitan city.

## **(3) Free Trade and Free Capital Flow**

Hong Kong is built on a policy of free market, low taxation and government non-intervention, she is best known for its capital economy and its popularity as an offshore center for business and individuals. Hong Kong's total trade exceeds its GDP as a transit trade center (see Figure 6-6). Hong Kong has been ranked as the world's freest economy in both the index of Economic Freedom and Economic Freedom of World Report for many years (see Table 6-3). Free trade and free capital flow environment largely promoted Hong Kong to be a transit trade center and capital center, which are two most important factors for Hong Kong's success.

**Figure 6-6. Exports of Goods and Services as a Share of GDP**



Source: World Bank Database.

#### (4) Liberal and Non-Interventionist Policy toward Business

Hong Kong special administrative region government follow the liberal and non-interventionist policy toward business and economy. Liberal and non-intervention policy protects firm's interest and rights, and so attracts more and more firms to settle down in Hong Kong. Global Financial Centers Index of 2015 shows that Hong Kong is the third best global financial center in the world, just lower than London and New York. *The World Competitiveness Yearbook* of 2015 says that Hong Kong is the second competitive economic entity in the world. World Bank Doing Business index of 2015 shows that Hong Kong ranked in the fifth place. Both Economic freedom Index and Economic Freedom of the World in 2015 prove that Hong Kong is the freest economic entity in the world (see Table 6-3).

**Table 6-3. Global Rankings of Hong Kong in 2015**

Rank	Global Financial Centers Index 2015	World Competitiveness Yearbook 2015	World Bank Doing Business 2015	Economic Freedom Index 2015	Economic Freedom of the World 2015
1	London	United States	Singapore	<b>Hong Kong</b>	<b>Hong Kong</b>
2	New York	<b>Hong Kong</b>	New Zealand	Singapore	Singapore
3	<b>Hong Kong</b>	Singapore	Denmark	New Zealand	New Zealand
4	Singapore	Switzerland	Korea	Australia	Switzerland
5	Tokyo	Canada	<b>Hong Kong</b>	Switzerland	United Arab Emirates
6	Seoul	Luxembourg	United Kingdom	Canada	Mauritius
7	Zurich	Norway	United States	Chile	Jordan
8	Toronto	Denmark	Sweden	Estonia	Ireland
9	San Francisco	Sweden	Norway	Ireland	Canada
10	Washington DC	Germany	Finland	Mauritius	United Kingdom

Source: Global Financial Center Index 2015, World Competitiveness Yearbook 2015, World Bank Doing Business 2015 Report, Economic Freedom Index 2015, and Economic Freedom of the World 2015 Report.

### (5) Well Established Regulatory and Legal System

Hong Kong has an effective and efficient regulatory and legal system and is of an international standard. Hong Kong's legal framework is well-developed and comprehensive, its trusted legal system is based upon English Common Law and supplemented by locally enacted ordinances. The judicial system which is firmly based on the impartial rule of law operates on the principle of the independence of the judiciary from the executive and legislative branches of government. The World Bank Strength of Legal Rights Index shows that Hong Kong's legal rights strength is high (see Table 6-4).

The respected rule of law and freedom of press are indispensable elements to the recognition of Hong Kong as a world-class business and financial center (FCLK 2009).

**Table 6-4. Strength of Legal Rights Index**

Strength of Legal Rights Index (0=Weak to 12=Strong)						
Country/Year	2010	2011	2012	2013	2014	2015
Hong Kong	7	7	7	7	7	8
Singapore	8	8	8	8	8	8
Korea	5	5	5	5	5	5
Japan	4	4	4	4	4	4
China	4	4	4	4	4	4
United States	11	11	11	11	11	11
United Kingdom	7	7	7	7	7	7

Source: The World Bank data.

## (6) Low, Simple and Transparent Taxation System

Hong Kong has a low, simple and transparent taxation system. Company profit tax is 16.5% and personal income tax is capped at 15%. There is no sales tax, no withholding tax on dividends and interest, no capital gains tax, no value-added tax and no estate duty. Hong Kong has a growing network of comprehensive double taxation agreements (CDTAs) with major jurisdictions.

The uncomplicated, transparent and low tax regime encourages entrepreneurial activity and contributes to a favorable business environment which attracts business and investment. It is especially attractive for those who wish to have efficient tax planning, for those companies which operate in a jurisdiction where profits tax imposed is higher than that of Hong Kong. Funds of investment companies set up in Hong Kong can be invested or deposited throughout the world and whilst generally returns or interest payable

in respect of these funds will be subject to taxation of the applicable jurisdiction, funds placed in Hong Kong in bonds or as bank deposits is tax-free without any withholding tax. Therefore, Hong Kong incorporated company is a useful tax planning tool. Hong Kong also offers relief from double taxation. There are international tax treaties which provide protection to taxpayers against double taxation, thereby encouraging the free flow of international trade, international investment and international transfer of technology (FCLK 2009).

## **4.2 Internal Factors**

Internal factors are mainly domestic advantageous and good conditions. They include six aspects, which are sophisticated and extensive business and finance infrastructure, sustainable economic growth, political and social stability, educated workforce and rich pool of professional talent, good physical infrastructure, and free press and transparent information.

### **(1) Sophisticated and Extensive Business and Finance Infrastructure**

Hong Kong is a developed special administrative region of China, with a more than 40 thousands US dollars GDP per capital in 2014. Hong Kong has advanced and convenient transportation, developed technological support for business, and good business services. Hong Kong owns sound financial system. As at the end of 2014, the Hong Kong stock market was the world's sixth largest and Asia's second largest in terms of market capitalization. Hong Kong is one of the most active markets for raising initial public offering (IPO) funds. Hong Kong is one of the most open insurance markets in the world. At the end of 2014, there were more than 150 authorized insurers in Hong Kong, more than 80 of which were incorporated

in Hong Kong, while the remaining were from the mainland or overseas jurisdictions. Fourteen of the world's top 20 insurers conducted business in the city. Hong Kong is Asia's leading asset management center. At the end of 2014, there were more than 110 approved fund management groups managing 2000 unit trusts and mutual funds authorized by the Securities and Futures Commission (CEDB 2014). These excellent and mature business and finance infrastructure forms a basic condition for Hong Kong's being a business and financial center.

## (2) Sustainable Economic Growth

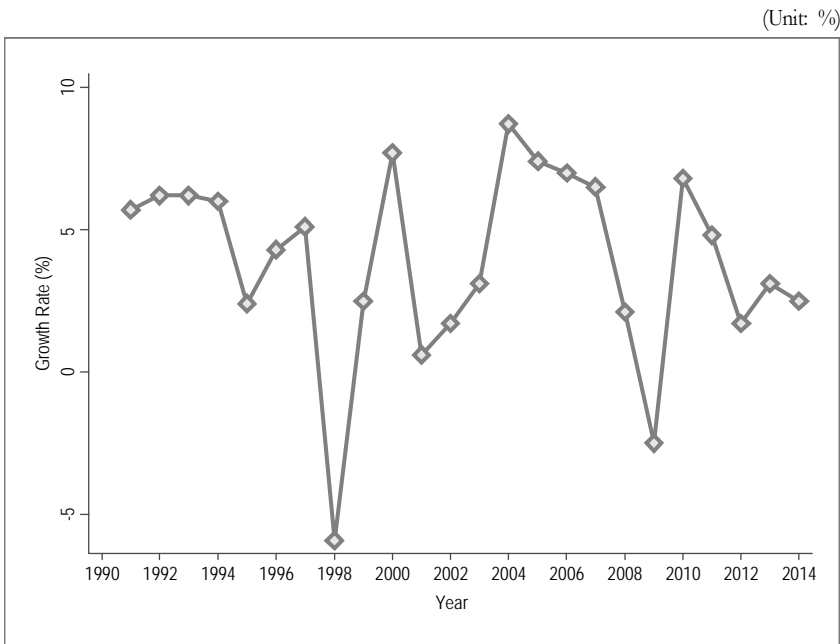
Hong Kong has a strong economic foundation. Hong Kong's economic growth rates in the past decades are higher than most developed countries (see Figure 6-7). GDP per capita of Hong Kong in 2014 is 40169.6 US dollars, more than Japan and Korea, stays in the developed country level (see Table 6-5).

**Table 6-5. GDP per Capital of Countries**

Country/Year	(Unit: US\$)			
	2011	2012	2013	2014
Hong Kong	35142.5	36707.7	38364.2	40169.6
Singapore	53122.2	54578.2	55979.8	56286.8
Korea	24155.8	24454.0	25997.9	27970.5
Japan	46203.7	46679.3	38633.7	36194.4
China	5574.2	6264.6	6991.9	7593.9
United States	49781.4	51456.7	52980.0	54629.5
United Kingdom	40974.7	41050.8	4176.8	45603.3

Source: The World Bank Database.

**Figure 6-7. GDP Growth Rate of Hong Kong 1991-2014**



Source: World Bank Database.

Hong Kong is also a large trading entity with the total value of imports and exports exceeding its GDP. Having established extensive trade and investment ties, Hong Kong is the most attractive gateway for investments and resources to flow into the world's fastest growing economy, mainland China. In general, Hong Kong's sustainable and economic foundation is the basis for sustaining its business and financial hub position.

### **(3) Political and Social Stability**

Hong Kong was ceded to British control in the 19<sup>th</sup> century, and reverted to Chinese sovereignty as a Special Administrative Region of the People's Republic of China on July 1, 1997. The constitution of Hong Kong is known as the "Basic Law". It provides that Hong Kong shall operate under the "one

country, two system” mechanism. Except for foreign and defense matters, Hong Kong shall enjoy a high degree autonomy for at least 50 years in all matters (FCLK, 2009). This political and social stability has attracted a wide variety of international and overseas firms to do business in Hong Kong and which made the city one of the most important business and financial hub in the world.

#### **(4) Educated Workforce and Rich Pool of Professional Talent**

Hong Kong has a highly skilled workforce with world-class expertise in the financial sectors that is readily available to meet the needs of any business. Hong Kong has several world famous universities and research institutions, like Hong Kong University, Hong Kong University of Science and Technology, Chinese University of Hong Kong and City University of Hong Kong. Tertiary school enrollment rate of Hong Kong in 2013 is 67%, more than Japan with 61% and United Kingdom with 60%<sup>11</sup>). Meanwhile, Hong Kong people are flexible, accommodating and adaptive to changes to suit the needs of enterprises. Additionally, Hong Kong is a talent gathering place and is rich of educated workforce and professional talent.

#### **(5) Good Physical Infrastructure**

Hong Kong’s economic development level belongs to developed economic entities, its living standard and physical infrastructure are high and perfect. These good physical infrastructure helps to keep entrepreneurs in Hong Kong and promote high-class business and financial activities.

#### **(6) Free Press and Transparent Information**

Free press and transparent information is one of important factors for business and finance sector development. One reason is that it helps to con-

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11) Data sourced from the World Bank database.

struct a freedom society and environment and so attract firms to agglomerate. Another reason is business and finance development need complete information. Transparent information is one of advantages that Hong Kong offers businesses. From getting a driving license to checking your Facebook account, reading the daily news or researching potential business partners, Hong Kong is committed to transparent, timely and reliable information.

### **4.3 External Factors**

External factors are mainly advantageous natural, geographical and surrounding environments. We summarize three points in this part which are central and convenient geographical location, powerful support from mainland China, and surrounded with fast growing countries.

#### **(1) Central and Convenient Geographical Location**

Hong Kong's location, time-zone and territorial openness to the movement of people made it a clearing house for information, business and financial service center. With a landmass of over 1000 square kilometers, Hong Kong is situated at the south-eastern tip of China, locates in the fastest growing region in the world, and is the gateway to mainland China. Hong Kong is in the right time zone (UTC+8) to complement London and New York to form a continuously stock market. Hong Kong's territorial openness is easy to gather goods, capital and information, and is convenient for transportation.

#### **(2) Strong economic ties with Mainland China**

Mainland China's support on trade, investment and finance to Hong Kong is one of important factors for Hong Kong's success. The transit trade of Hong Kong has benefited from the frequent interactions between Hong Kong and mainland China. As an important transit harbor of mainland China,

Hong Kong's economy depends highly on commercial trade with the significant character of transit trade. Closer Economic Partnership Arrangement (CEPA) encourages mutual economic relations between Hong Kong and mainland China. Under the framework of CEPA, banks in the mainland could move their international capital and foreign exchange trading centers to Hong Kong for the purpose of using the financial resources of Hong Kong. Hong Kong as a special administrative region (SAR) of China, has benefited a lot from mainland China's high economic growth and vast market.

China is the world's largest exporter and second largest country, which has promoted the development of renminbi (RMB) internationalization in recent years. As the RMB is increasingly used outside mainland China, Hong Kong becomes China's testing ground for financial reform, and the place in which international use of the RMB as a settlement, investment and funding currency is tested. In 2004, Hong Kong became the first market to conduct off-shore RMB business and has expanded its scope of business since then. In 2007, Hong Kong became the first place outside mainland China to develop a RMB bond market. Hong Kong now is the largest RMB trade settlement center and largest RMB funding center. Mainland China's development will benefit Hong Kong's business and financial center construction.

### **(3) Surrounding Neighbors Are Mostly Fast Growing Countries**

Hong Kong's geographical neighbors are all fast growing East Asia countries, mainland China, Taiwan China, India and Singapore all have high economic growth rates. Hong Kong's physical, human and economic links with these countries made it a natural center for trade in both goods and services and capital flow.

Meanwhile, Hong Kong has good relations with other main business and financial center in developed countries. British rule set the policy and legal framework still supports vibrant business networks with London, New York and other leading global cities (Pauly 2011).

## **5. Challenges regarding Continued Success**

Although Hong Kong is already a well-recognized global business and financial center, and owns insurmountable advantageous. But Hong Kong still faces challenges regarding continued success. These challenges include regional competition from other business and financial hubs, changing trade modes and the prevalent of intra-firm trade, and real industry hollowing and comparatively slow economic growth.

### **5.1 Regional Challenge from Other Business and Financial Hubs**

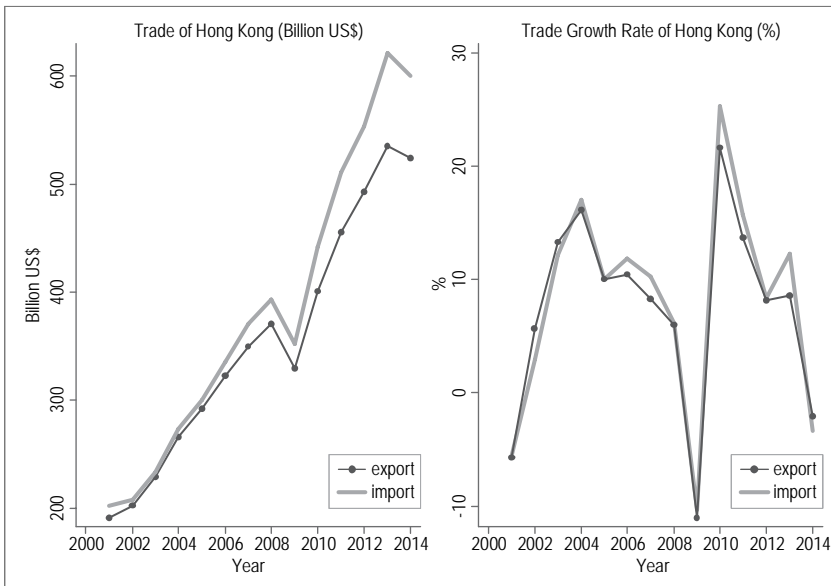
Hong Kong plays a leading role across a range of regional business and financial markets, but she is facing regional challenges either. Abroad challenges come from Singapore, Tokyo and Seoul, domestic challenges are mainly from the fast growing cities like Shanghai, Beijing and Shenzhen.

Hong Kong's main rival is Singapore, where government quite clearly believes in and remains capable of implanting a coherent and effective industrial policy. Government in Hong Kong often served as behind-the-sectors business facilitator and crisis manager. In Singapore, a centralized government promoted new industries and encouraged the development of locally based "off-shore" banking and bond market (Pauly 2011). If Singapore is a continuing competitive challenge for Hong Kong, rapidly expanding business and financial centers in mainland China can be viewed as complements. Business and finance in Shanghai, Beijing and Shenzhen is on the rise, they undoubtedly will challenge Hong Kong, but they mainly serve China's domestic market. Hong Kong's role is viewed by Chinese government as gateway to the global economy, Mainland China's domestic cities cannot form significant challenges to Hong Kong.

## 5.2 Trade Modes Changing and Prevalent of Intra-firm Trade

As the development of multinational corporations and deepening global production network, trade between nations mediated by merchant companies was largely transformed by the practice of intra-firm transfers within multinational firm networks. Hong Kong's function as an important transit trade center may hurt gradually. Meanwhile, mainland China's further reform and opening will promote direct trade and hurt transit trade from Hong Kong. Hong Kong's trade growth rate after global financial crisis in 2008 decreased sharply (see Figure 6-8). Declining trade is one of important challenges to Hong Kong.

**Figure 6-8. Trade of Hong Kong 2001-2014**



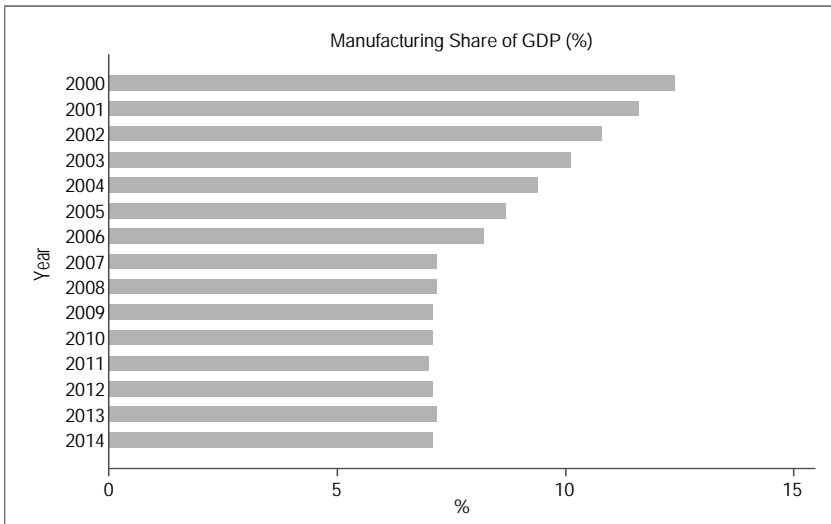
Source: WTO Statistics Database.

### 5.3 Industrial Hollowing and Comparatively Slow Economic Growth

The structure of the Hong Kong economy has shifted dramatically in the past server decades to become extremely service-oriented. The massive relocation manufacturing industry to mainland China in the 1980s and early 1990s was largely responsible for this industrial hollowing-out. The manufacturing industry in Hong Kong was dominated by the production of light consumer goods with low technology content. Also, the small size of most firms in the industry kept them from conducting R&D or upgrading to high technology activities. With local land and labor costs surging, manufacturing firm in Hong Kong tool steps to restructure and relocate labor-intensive production processes across the border to mainland China. The low share of manufacturing sectors in GDP is a challenge to sustainable economic growth.

Figure 6-9. Manufacturing Sector Share of GDP

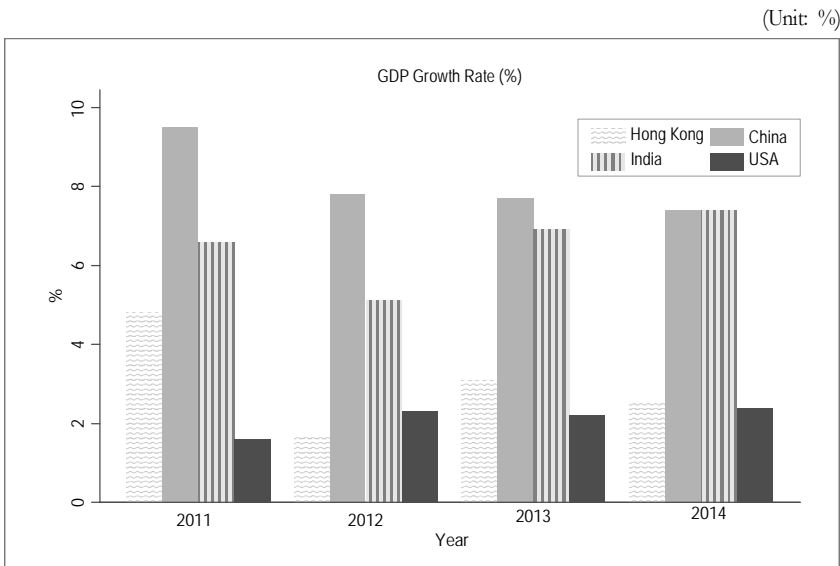
(Unit: %)



Source: The World Bank Database.

Meanwhile, although GDP growth rate of Hong Kong is higher than most developed countries, but is comparatively lower than fast growing economies like mainland China and India (see Figure 6-10). Hong Kong's economic growth rate is in low growth rate ranks, which is disadvantageous for its business and financial center position.

**Figure 6-10. GDP Growth Rates of Some Countries**



Source: The World Bank Database.

## 5.4 Economic Independence

As we have said, Hong Kong economy is a small one from the perspective of size. Its development is easily affected by other economy especially the Mainland China. According to a report of International Monetary Fund (IMF) in 2014, the claims of Hong Kong on the Mainland had reached 1.6 times of Hong Kong's GDP<sup>12</sup>). So if the Mainland economy experienced a hard landing, the debt repayment ability of the borrowers would be highly

affected. This would seriously upset the order of Hong Kong's financial sector. Besides the Mainland economy, the shock on other countries in the world will also highly impede the development of Hong Kong economy.

## **6. Key Lessons Learned**

From the experience of Hong Kong's success, we can find some experience and lessons for building a business and financial hub. We summarize five key lessons. The first one is innovation and industry promotion policies, the second is free market environment, the third is a sound legal system and effective regulation policies, the fourth is fair competition, and the last is owning skilled labor and talented professionals.

### **6.1 Innovation and Industry Promotion Policies are Important**

Hong Kong is an innovation-led dynamic growth business and financial center, one of most important lessons for Hong Kong is her innovation and industry promotion policies. These policies are drivers for economic growth and the key to enhance competitiveness of industries. Hong Kong government has set up the Innovation and Technology Commission to promote innovation. Hong Kong's industry policies include competition promotion policies, industry and business support and inward investment support policies.

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12) International Monetary Fund (2014), People's Republic of China- Hong Kong Special Administrative Region: Financial system stability assessment.

## **6.2 Free Market Environment Invigorates the Economy**

As for the development process of Hong Kong to be a business and financial hub, free market plays a key role, including free trade system, free management of private sectors, free flow of capitals and free movement of people. The transparent and free market policies have created fair business environment and absorbed large amount of global capital to support economic growth.

Low burden of tax helps to invigorate the private sectors. Hong Kong's tax system follows the territorial principle, that is, for local people, only income obtained in Hong Kong is taxed, people do not need to pay for their foreign income in Hong Kong. Hong Kong has been continued to reduce the types of taxes since 1990s, and currently there are only three kinds of direct taxes and eight kinds of indirect taxes. Also, the tax rate of Hong Kong is relatively low compared to other Asia-Pacific economies, with a standard rate of 15% of corporate income tax. The tax deduction and return ratio in Hong Kong is high, which reduce the actual tax burden. Hong Kong's low tax rate and simple tax system are very attractive to investors from mainland and other sources.

## **6.3 Sound Legal System and Effective Regulation Policies Should Be Adopted.**

The legal system of Hong Kong is similar to other developed countries. The investors from Europe and USA are more familiar with such kind of business and legal environment and they are easy to accept it. This helps Hong Kong to absorb FDIs and evolves into the center of multinational headquarters.

Regulation policies are indispensable part to keep the effective market

system. Financial supervision in Hong Kong is in the similar level as in other developed countries. This helps coordinate the development of banking industry, fund management industry and bond and stock market. “Principle based supervision” is the core rule in Hong Kong’s financial supervision system.

Hong Kong uses English as the official languages and this makes it more effective when dealing with the legal mediation or arbitration issues.

## **6.4 Fair Competition are Embodied in Economic Policies**

Hong Kong insists on the principle of fair competition in making economic policies and rules, which create an equal status to both domestic companies and foreign companies. The FDI policies are highly transparent, consistent and open. Hong Kong allows foreign investors to have 100% ownership of the companies, and there is no control of capital profit transfer. There is little restriction to any specific industries, the public sector is not monopolies by SOEs, private and public cooperation is encouraged.

## **6.5 Skilled labor and Talented Professionals are Crucial to Industry Development**

Skilled labor and talented professionals play an important in the Hong Kong’s evolving into a business and financial center. Nearly 200 thousand people work in Hong Kong’s financial industry, most of which are talented professionals. The high level of international expertise help to improve the competitiveness of Hong Kong’s service industry.

Loose and open immigration policy encourages the high-educated people to work in Hong Kong. The fiscal expenditures on education, medical treatment, and personal compensation provide the benefit to local people.

## **6.6 Improving the Autonomy of the Economy**

Hong Kong's economy is highly related to other countries and areas in the world and the scale of real economy is quite small, the degree of affecting by other economies is thus very high. With the world internationalization going high, the risk of breaking out global crisis is increasing. Although the good performance of Hong Kong's financial center, the weakness of Hong Kong economy will be possible infinitely amplifying. Thus, to find a sustainable point of growth is very urgent for Hong Kong.

## **7. Policy Implications**

This part discusses what should Hong Kong do to further strength its business and financial center position. We propose six aspects of points. The first one is to foster an innovation-led growth mechanism, the second is to further optimize free market economic environment, the third is to promote manufacturing sector development, the fourth is to construct a politically stable society, the fifth is to strength economic relations with mainland China, and the last is to provide better physical infrastructure.

### **7.1 Foster an Innovation-led Growth Mechanism**

Innovation-led growth made Hong Kong to be a successful business and financial hub in Asia, Hong Kong still need to further improve its innovation and technology level. Over the last decade, Hong Kong has made attempts to improve its innovation and knowledge economy, but the outcomes have been modest. Hong Kong should further improve its innovation-led growth mechanism.

## **7.2 Further Optimize Free Market Economic Environment**

As a small open economy, Hong Kong benefits from the free trade with other countries, while free capital flow and other open policies make Hong Kong more vulnerable to the external shocks. How to optimize economic environment and reduce risks is an important challenge.

Also the complete free market economy induces market failure, the issue of high degree of market monopoly in some areas results in the high cost of land and real estate, which deprived the consumer surplus and producer surplus. The livelihood of common people is not increasing with the same rate as economic growth.

Historical experience shows that the standard of living of people is the stone of social stability and prosperity. The Hong Kong government needs to rethink the policy of idealism liberalism, and actions needs to be taken to improve the housing, education pension standard.

## **7.3 Promote Manufacturing Sector Development**

Hong Kong's economy is highly dependent on service industry, service industry accounts for more than 90 percent of its GDP. In the service industry, the financial industry on the high level leads the economy growth, while the small retail business on the low level absorbs employment. The economic structure that relying too much on a single industry influences Hong Kong's economic growth potential. Hong Kong needs to promote its manufacturing sector development.

With the increasing of openness of mainland China, Hong Kong's traditional advantage of a transit trade hub and capital transfer hub is gradually weakened. The traditional industry may lose the competition advantage. Hong Kong's government should become more active in direct the industry

development and upgrading.

## **7.4 Construct a Politically Stable Society**

The proportion of low-income groups are increasing, and the social differentiation are intensified which makes the unstable of social situation. Hong Kong is now in a period of post political reform, it is in the downside of economic cycle with a GDP growth rate less than 2%, and also fighting and conflict arises occasionally, which makes it the common social norm of Hong Kong. Public governance system innovation and the construction of civil society are important steps to construct a stable society.

## **7.5 Strengthen Economic Relations with Mainland China**

Mainland China is Hong Kong's trade and capital origin, and is Hong Kong's direct investment destination. Mainland China's huge market and demand is a basis for Hong Kong's development of business and financial center. Therefore, Hong Kong should further enhance her economic relations with mainland China. CEPA is an important agreement, and should be fully used to raise economic cooperation between Hong Kong and mainland China. Along with the fast economic growth in the past thirty years, there is a goal for RMB towards internationalization. To set up an offshore center in Hong Kong is under developing, Hong Kong should take advantage of this good chance and promote Hong Kong to be an offshore RMB financial center.

## **7.6 Provide Better Physical Infrastructure**

Having a welcoming physical infrastructure and environment for sophisticated financiers, top corporate decision makers such as regional headquarters and officers, and producer service providers from around the world will promote them to base themselves in Hong Kong. The government should pay more attention to build a beautiful environment, good facilities and excellent infrastructure.

## **7.7 Harmonizing the Relation between Hong Kong, Shanghai and Beijing**

For a few years, China government was trying to liberalize its capital account. As the best connect point between China and the world, Hong Kong is benefit a lot during this period. On one hand, Hong Kong has geographical and historical advantages as said in previous sections. On the other hand, Hong Kong's economic structure is similar with the developed countries. As the main measures of capital account liberalization, the process of RMB internationalization is best to launch in Hong Kong.

However, China is not satisfied with merely one offshore center even in its territory. Shanghai and Beijing are also the important options of developing the internationalization.

In Shanghai, the “Shanghai Free Trade Zone” was founded in 2013 and the one of the functions of this FTZ is to implement the high standard policy related with the openness of capital account. To a certain degree, Shanghai is very likely to replace Hong Kong in the future to form a new international financial center.

Beijing is not only the political center of China, it is also an important financial center. In 2015, the value added of financial sectors of Beijing was

RMB 288.8 billion yuan, accounting 18% of its GDP. Beijing is home of most of the national headquarters of the policy and commercial banks. The headquarter advantage is of no doubt.

The relation between Hong Kong and Shanghai and Beijing is more like operators than competitors. On the one hand, the business is very similar regarding certain area such as RMB business. From this perspective, they are competed with each other. But on the other hand, Shanghai and Beijing can learn a lot from the experience of Hong Kong's success and the central government can also give Hong Kong certain privilege regarding its further development under the framework of "One Country, Two Systems".

## Chapter 7



# Building a Successful Logistics and Production Hub: The Case of Dubai with Special Reference to the Jebel Ali Free Zone

Sherif MUHTASEB (World Bank Group)

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- A background graphic featuring a globe with a network of nodes and lines overlaid on it, symbolizing global connectivity and logistics. The globe is rendered in a light, semi-transparent style, and the network lines are thin and grey. The overall background is a blurred cityscape with tall buildings.
1. Introduction
  2. Profile of Dubai and the JAFZ
  3. Background and History of Zones in Dubai
  4. Key Factors for Success
  5. Challenges for Continued Success
  6. Key Lessons
  7. Policy Implications

# 1. Introduction

According to an economic note published by the Dubai International Financial Centre in August 2010, the process of ever closer economic integration across the world, commonly referred to as “globalization,” is mainly propelled by two powerful engines: telecommunications and logistics. The technological advances in information and communication technology (ICT) have attracted most of the public’s attention because they have transformed the life of billions of individuals through smartphones, internet, and satellite TV. But the other engine of globalization, logistics, while less visible to the general public, has probably been even more significant. The drive to standardize, connect, and integrate procedures and the physical handling of thousands of transport operations across industries and continents means that today more countries, enterprises, and people are connected to the global market than ever before.

This revolution in the transport sector drove costs down, which created a boost in international trade, which in turn was an enabler of economies of scale, technology transfer, and process innovation. Further significant enablers of globalization were the creation of institutions such as the World Trade Organization in 1995 and the various regional agreements, such as NAFTA (the North American Free Trade Agreement), Mercosur, Gulf Cooperation Council (GCC), and the Association of Southeast Asian Nations Free Trade Area, not to mention the European Union Single Market. These agreements have solidified and extended the benefits of multilateral agreements, reducing the international price of tradable goods and shifting manufactures to lower wage countries.

While these developments have fostered greater global interactions and altered the world’s economic geography, they have also reconfigured the logistics sector by raising the bar in terms of organizational scale and investment needs. For example, containerization has led to a massive increase in capital

intensity of ports, airports, and intermodal facilities because mechanized transfer systems require wide space for maneuvering, warehousing, and docking. Before the advent of containers, the typical seaport berth was 50 meters wide and required one hectare of storage space. By the late 1990s, the typical size had increased to 300 meters and a terminal required 50 to 100 hectares of storage to accommodate economically meaningful operations.

Intermodal connectivity has become an increasingly important feature of global supply chains by enabling cargo to move across the globe as timely and cost effectively as possible, and where necessary using a combination of sea, land, or air transport modes - and often a combination of all three.

Dubai's enormous investments in state-of-the-art infrastructure has enabled the commercial capital of the United Arab Emirates (UAE) to position itself in a very short time as one of the pivotal trading hubs in the world. Taking advantage of its location midway between Asia and Europe, along the ancient Silk Road, its ports are among the most active and efficient in the world. Most notable of these is the Jebel Ali Port, which was built and launched in the late 1970s. With 23 container berths handling more than 15 million TEUs (twenty-foot equivalent unit, the size of a standard container) a year, Jebel Ali is the world's largest man-made harbor, and by far the biggest port in the Middle East and the ninth-largest container port in the world.

But it's not just Dubai's ports that have witnessed growth. Dubai International Airport is now the world's largest passenger hub, handling around 70 million passengers a year and serving 260 destinations. Cargo traffic at Dubai International, as well as at other UAE airports, has grown exponentially even during the 2008-09 global economic crisis, with approximately 2.5 million tonnes of cargo passing through Dubai International in 2015.

The new Al Maktoum International at Dubai World Central (DWC) is Dubai's airport for the future. Cargo operations were launched in 2010, and

DWC opened the doors to its seven million capacity passenger terminal in 2013. Upon completion, DWC will become the world's largest airport with an ultimate capacity of more than 160 million passengers and 12 million tonnes of cargo per annum.

Perhaps nowhere else in Dubai epitomizes the essence of global connectivity and supply chain management more than Dubai's flagship Jebel Ali Free Zone (JAFZ). Established in 1985 under the "Decree for the establishment of the Free Zone Authority in Jebel Ali Port 1985" and located adjacent to the Jebel Ali Port, the JAFZ set the tone for Dubai's economic diversification. Part of Economic Zones World (EZW), which also includes Dubai Auto Zone and National Industries Park (formerly Techno Park), JAFZ is considered the benchmark of economic zones regionally and globally and is widely regarded as one of the most successful free zones in the world and home to a plethora of global brands. Studies have estimated the JAFZ's contribution to Dubai's GDP is around 20 percent, and it continues to play an important role in the diversification of Dubai's economy and the expansion of its manufacturing base.

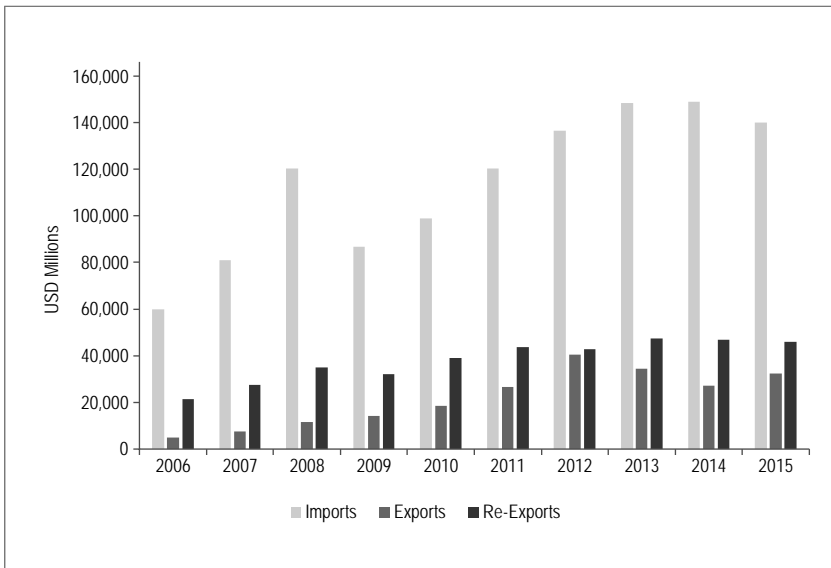
This chapter will focus on the Jebel Ali Free Zone within the context of Dubai's overall development story. It will assess the key factors that have made the JAFZ a success, its role in positioning Dubai as a global logistics hub, and its contribution to growing Dubai's production base, as well as the challenges and policy decisions faced along the way.

## **2. Profile of Dubai and the JAFZ**

Dubai is widely regarded as having some of the best logistics facilities in the world. Its location, both geographic and strategic, is a natural business gateway between East and West and has been an essential element of trade routes between Asia, Africa, Europe, and beyond for centuries.

With its proximity to the booming economies of Asia, Dubai is one of the world's focal points for global distribution, its low logistics costs and world-class infrastructure (ranked number one in the Middle East by the World Bank) leading to significant foreign investments. In 2014, Dubai's exports and reexports amounted to around US\$74 billion (see Figure 7-1), of which 44 percent was from the free zones. Of particular note is that if only reexports are considered, the value of free zone exports surpasses that of non-free zone reexports, an indication of the role that free zones have played in Dubai's development and that will be discussed later in this chapter.

**Figure 7-1. Direct Foreign Trade - Dubai**



Source: *Dubai Statistics Centre*

Central to Dubai's status as a global distribution hub are the ports of Jebel Ali and Port Rashid, most notably the Jebel Ali Port, which is one of the top 10 container ports in the world. In 2014, Dubai's ports handled 15.2 million TEUs, an increase of 12 percent over the previous year, while the *Journal of*

*Commerce Port Productivity* paper cites Jebel Ali Port as being the most productive in the world, recording 131 moves per ship per hour, up 10 percent from 119 moves in 2013.<sup>1)</sup> Dubai's investments in connectivity infrastructure doesn't stop at its ports; it sees its airports as equally important. Since Dubai International Airport opened in 1960, passenger numbers have grown, on average, by 15 percent a year. The airport serves around 70 million people a year, to more than 260 destinations across six continents on more than 140 scheduled airlines and now ranks as the world's busiest airport handling international passengers. The airport's US\$7.8 billion expansion is expected to enable passenger numbers to increase to 100 million by 2020.<sup>2)</sup>

Dubai's other airport, Al Maktoum International, opened for passengers in 2013 and will be capable of handling 160 million travelers when completed in 2022 - 40 million more than the current capacity at London's Heathrow Airport. Eventually the mega-hub will serve 240 million passengers a year and be the world's number one cargo hub handling 12 million tonnes of cargo.<sup>3)</sup>

Upon completion of the aviation investments, the Dubai authorities project that the aviation industry will account for 22 percent of Dubai's employment and more than a third of its GDP.

It is therefore quite evident that Dubai's strategy of massive investments in transportation infrastructure, along with investments in technology and skills, whether imported or homegrown, and the use of this investment to its maximum potential is paying off and will make Dubai one of the best-connected places on earth.

As Dubai diversifies its economy and continues to invest heavily in its

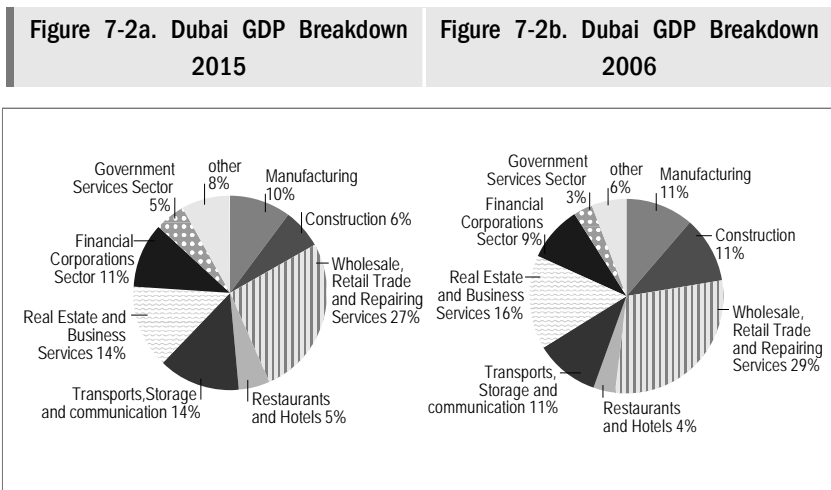
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1) <http://dpworld.ae/en/pressdetails/733>.

2) <http://www.dubaiairports.ae/connect-newsletter/news-details/2015/12/23/dxb-s-growth-story-continues>.

3) <http://www.dubaiairports.ae/corporate/about-us/dwc-dubai-world-central>.

non-oil sectors, manufacturing has become one of its potential growth areas. Low operational costs and import and export incentives drive the industry toward rapid growth. While the amount of manufacturing activity is slowly increasing, the manufacturing sector's contribution to Dubai's GDP has remained constant over the past 10 years (see Figures 7-2a and 7-2b).



Source: *Dubai Statistics Centre*.

The range of manufacturing and production facilities in Dubai, from auto parts and bottling plants to furniture and refrigerators, means that overseas manufacturers can take advantage of Dubai's low costs and strategic location to enter or expand into the Middle East. The vast investments previously cited in Dubai's logistics infrastructure enable companies to import raw materials from their chosen suppliers and export their products to anywhere in the world with ease, efficiency, and affordability.

Manufacturing accounts for 8 percent of Dubai's total workforce, with annual industrial production estimated at approximately US\$54 billion, while continued efforts to increase and diversify Dubai's industrial base are expected to increase its GDP contribution to 25 percent within 15 years. In

fact, according to the Oxford Business Group's analysis of Dubai,<sup>4)</sup> the increase of industrial production is one of the main drivers that is spurring Dubai's key logistics sector. This is in keeping with the fact that the government of Dubai strongly supports third-party logistics activities and seeks to develop new hubs that can promote the emirate's industrialization and economic diversification.

The Oxford Business Group's analysis highlights the role that free zones, as well as some non-free zone areas in Dubai are playing in encouraging Dubai's manufacturing drive to foster high-tech production activities.<sup>5)</sup> For example, the focus of the National Industries Park, which until May 2016 was called Techno Park, is to produce a high value-added, innovation-based economy within the Dubai Smart City strategy. R&D is a central focus of the activities of the National Industries Park, which is linked directly to industrial and commercial districts to enable rapid commercialization of new research and technology.

Dubai's free zones are widely recognized as one of the main catalysts of the growth of the logistics sector and emerging traditional and high-tech manufacturing base. As previously discussed, the intertwined nature of logistics and manufacturing and the role that free zones play in optimizing the symbiotic relationship of these two sectors cannot be underestimated. Figure 7-3 shows the value of trade from Dubai's free zones.

They are responsible for around 75 percent of all exports and more than 25 percent of Dubai's GDP. Investment in the physical infrastructure of the zones is underpinned by an investor-friendly regulatory framework. While Dubai imposes a 5 percent across-the-board import tariff on most categories of goods, firms in free zones are legally treated as though they operate out-

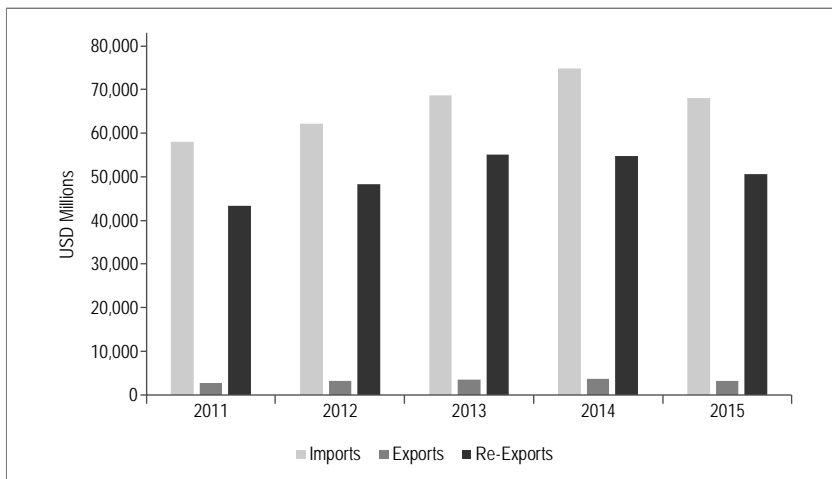
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4) *The Report: Dubai 2015*, Oxford Business Group, 2015, <http://www.oxfordbusinessgroup.com/country/uae-dubai>.

5) <http://www.oxfordbusinessgroup.com/overview/manufacturing-and-industrial-activity-account-growing-share-dubais-gdp>.

side of the UAE - capital gains and profits can be fully repatriated with no foreign exchange controls. There is no personal or corporate income tax. Goods may be landed, handled, manufactured or reconfigured, and re-exported without the intervention of the customs authorities, and free zones allow 100 percent foreign ownership of firms without the need for a local partner.

**Figure 7-3. Free Zone Trade - Dubai**



Source: *Dubai Statistics Centre*.

Each of Dubai's 22 free zones is geared toward catering to a specific market segment, ranging from industry to logistics, ICT, and media production and education. Four free zones are designated for industry or logistics or both and are the most relevant in the context of this chapter. These are the Jebel Ali Free Zone (JAFZ), Dubai Airport Free Zone (DAFZ), Dubai World Central (DWC), and Dubai Multi Commodities Centre (DMCC).

While each of these free zones has its own unique characteristics, and they might compete for the same investors in some cases, there is much common ground when it comes to the underlying value propositions:

- 1) Location: Dubai's intersection of East and West and access to a market of two billion consumers.
- 2) Infrastructures:
  - The zones are located on the doorsteps of major transport infrastructures, be it an airport or seaport or both.
  - Onsite facilities that cater to the needs of all types and sizes of investors are built to a high level of specifications.
- 3) Services: One-stop-shop administrative support, which enables investors to spend more time running their business and less time doing the necessary government paperwork.
- 4) Amenities: Support amenities such as banks, food courts, clinics, and the like are available onsite for the convenience of investors.
- 5) Ease of doing business: Great efforts are made to ensure that starting and operating a business are seamless and transparent. This ranges from license application to onsite customs clearance support.
- 6) Regulatory framework: A straightforward and transparent framework that governs many business factors such as incentives and company registration, among other things, is in place.

This chapter will focus on Dubai's first and flagship free zone, the Jebel Ali Free Zone, which is recognized as one of the most successful zones in the world and is widely used as a benchmark by other zones globally as an example of best practice.

However, before taking a deeper analysis of the JAFZ, it is worth noting the significant contribution and role of Dubai's non-free zone industrial areas. Dubai Industrial Park and Dubai Investments Park are examples of specifically designed industrial clusters that operate in the domestic, non-free zone, environment. While they offer similar infrastructures and fiscal incentives as the free zones, companies in these areas must have a local partner with a majority shareholding and are subject to the standard import duties.

While free zones are most suited for firms active in light industry and re-exporting activities, the non-free zones cater to firms that are more active in the domestic market and regional trade within the GCC common market scheme.

Dubai Investments Park is a self-contained, mixed-use industrial, commercial and residential complex spreading across 2,300 hectares. It is divided into three distinct zones - planned as a fully integrated master community development and is located within minutes of the new Al Maktoum International Airport. The industrial zone caters to investors in light, medium, and heavy industries, and it states that a key factor of its value proposition is its “connectivity to regional and international transport linkages resulting in speedy access to key markets and prompt delivery of raw materials.”<sup>6)</sup>

Similarly, Dubai Industrial Park is designed to cater to industrial tenants in the manufacturing and logistics sectors within the GCC market. Covering a vast area of 55 square kilometers, its main advantage is being located close to the Jebel Ali Port and Al Maktoum International airport, both of which will offer firms excellent and cost-effective connectivity to the markets of the GCC.

As can be seen, the common thread that cuts across the free zones and non-free zones highlighted in this section is their excellent regional and global transport links that allow manufactured and traded goods to be sourced and connected to their markets, using a combination of transport modes if necessary, at optimal efficiency - and highlighting Dubai’s position as the integrator of logistics and manufacturing.

### ***Jebel Ali Free Zone (Dubai): The UAE’s Flagship Free Zone***

The JAFZ positions itself as a crossroads to the world, serving business

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6) <http://www.dipark.com/WebPages/Page?pageName=Industrial>.

across a wide range of sectors and supported by high-quality warehousing, logistics, and distribution infrastructures. The following section profiles the JAFZ to understand, from organizational, economic, and spatial perspectives, how it is aligned with Dubai's overall strategy as an integrated logistics hub, to fully understand the factors driving its performance, and to draw key takeaways.

On the organizational front, the zone is developed and operated by a single autonomous government entity - Jebel Ali Free Zone Authority, which is part of the Economic Zones World group. While JAFZA is responsible for “the supervision of the Free Zone, and its responsibilities, as laid down in Decree No 1. of 1985 ‘Establishment of The Free Zone Authority In Jebel Ali Port,’” it is not responsible for matters such as copyrights, intellectual property rights, and similar matters, which are dealt with through external authorities.<sup>7)</sup> In order to locate in the JAFZ, the tenants must have their projects approved by the Operations Department, after which the required facilities (office, pre-built units, or land) are allocated and formally leased to the tenants. Subleasing may be approved subject to JAFZA's formal assessment of the proposal. A facility built on leased land can be mortgaged to a bank with prior approval from JAFZA.

JAFZA may provide infrastructure, but terms and requirements must be agreed at the time of signing. Once possession of land happens or a built unit is taken, operation must commence within a stipulated time frame. A dedicated sales and marketing department acts as the primary interface with investors and closely coordinates with the Operations Department, which manages the one-stop shop for investors. Access to the vast area is through eight gates at different entry points, some of which are dedicated to trucks and some are for passenger vehicles. While all gates are manned by security personnel, gates dedicated to commercial traffic are also supported by cus-

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7) Jebel Ali Free Zone, “Jebel Ali Free Zone Rules and Regulations,” 5th Ed. (Dubai: Jebel Ali Free Zone, 2014).

toms officials to ensure efficient movement of cargo, and, whenever necessary, expeditious inspections.

The zone is administered by the JAFZA Regulatory Body, which is responsible for the administrative oversight for all the activities in the zone. The regulatory body has a number of departments responsible for various aspects of the zone, including real estate and property-related matters; marketing and sales; civil engineering and planning; environment, health and safety; and customer services.

One of JAFZA's operational advantages is the delegated authority accorded to it by the government. While some critical functions, such as immigration, remain in the hands of the federal authorities, JAFZA has the autonomy to register and license companies, issue building permits, and enforce a variety of its own guidelines, such as construction, environmental health and safety, and other issues. Critically important to the smooth operations in the JAFZ is the one-stop-shop investor services center. While this is a physical location within the zone, it also incorporates 162 e-services that companies in the zone can avail without leaving their offices.

Organizationally the JAFZ aims to gear itself toward offering its investors maximum efficiency with respect to setting up and operating their business, supported by investments in state-of-the-art onsite and offsite infrastructures, hassle-free business processes, attractive incentives, and market access.

On the economic front, the JAFZ started as an initiative to position the emirate as a leading regional trade hub. Over the years, as the economic diversification agenda has taken priority, the zone has been able to absorb the regional demand for transport- and logistics-related services for a number of industrial sectors and has emerged as a hub for trades across the Middle East region. The zone benefits from proximity to one of the largest integrated (port and airport) transport and logistics hubs in the Middle East. As a free trade zone, it caters to the reexport as well as domestic markets and contrib-

utes a considerable share of Dubai's non-oil exports, estimated at around 50 percent - indicating its position as a strategic development of national significance.

Key sectors present in the zone include logistics and warehousing, medical supply/instrument, machine tools, construction materials and equipment, glassware, paper products, food processing, electronics, chemicals, stationery, textile/ fashion industries, and automotive. To trade in the local (UAE) market, companies must operate in the local market separately or through agents and have to pay the applicable import tariff for taking goods out of the free zone into the mainland.

As described earlier, the JAFZ operates as an autonomous zone with the authority to issue licenses to its investors, depending on their intended activities. There are three main categories of licenses:

- Trading license, which allows the holder to import, export, distribute and store items specified on the license. In addition, there is a general trading license, which allows the holder access to a wider range of activities and a broader range of items on the license.
- Service license, which allows the holder to carry out the services specified on the license within the free zone. Given the importance of the logistics sector, within the service license category there is a logistics license specifically intended for firms engaged in logistics services such as cargo (sea, land, and air), warehousing, storage, transshipment, and distribution.
- Industrial license, which allows the holder to import raw materials, carry out the manufacturing of specified products, and export the finished products to any country. In addition, there is also the national industrial license, issued for manufacturing companies with at least 51 percent GCC ownership, with the condition that the value added to the products in the free zone must amount to a minimum of 40 percent. This license allows the holder the same status as a local or GCC inside the UAE.

As indicated, the JAFZ's autonomy extends to the formation and registration of three types of companies inside the free zone.

- Free zone company (FZCo) registration allows for multiple shareholders, and shareholders can be an individual or a company. An FZCo is essentially a limited liability partnership within the free zone, meaning that the liabilities of the company are limited to the company's assets; personal assets of investors are protected and limited to the amount invested into the FZCo.
- Free zone establishment (FZE) registration allows for a single shareholder, and that shareholder can be an individual or a company. A FZE is essentially a limited liability partnership within the free zone, meaning that the liabilities of the company are limited to the company's assets; personal assets of investors are protected and limited to the amount invested into the FZE.
- A branch of a company is considered a legal entity of its parent company. A company established outside of the Jebel Ali Free Zone may establish a branch within the JAFZ.

To support investors' operations, the JAFZ offers a range of incentives:

100% foreign ownership allowed
100% profit repatriation
0% corporate tax
0% income tax and duties
No restriction in hiring of foreign nationals
Complete exemption from taxes, customs, and commercial levies

At the spatial level, the JAFZ's strategy has been to offer an all-encompassing integrated solution to its investors with a business environment offering a range of facilities that can be leased depending on investor requirements.

The JAFZ provides plots of various sizes for short- and long-term lease, intended for companies that want to construct their own facility. The main features of the land plots are:

- Ready road infrastructure.
- Ready electricity and water infrastructure.
- Ready telecommunication infrastructure.
- Plots allocated in sector-specific clusters to locate customers with similar need.

The JAFZ also offers plots of land for temporary short-term lease for immediate storage requirements, such as containers, vehicles, or bulk cargo.

In addition, the JAFZ provides the following facilities and conveniences:

- Pre-built warehouses offer ready-to-lease facilities for storage and light manufacturing and are fitted with office space. Thousands of pre-built warehouses are offered in the JAFZ and serve as an excellent platform to catalyze investments in logistics and light production activities since entry costs are kept to a minimum and the exit, if required, is quick and simple. These facilities are designed with easy logistics in mind and come with several access points, ramps for forklifts, loading dock for containers and trucks, and fire exit doors, as well as the necessary utility connections that satisfy logistics and light production requirements.
- Showroom facilities for companies to display and showcase their products. The showrooms come with dedicated warehouse and office space. Similar to the pre-built warehouses, the showrooms are designed in a manner to cater to investors' logistics operations.
- A customized development solution, otherwise known as build-to-suit. On a long-term lease basis, the JAFZ builds and delivers the facility as per customer specifications, budget and timeline on a predetermined long lease.
- Pre-built offices ranging in size and specification and can be tailored to the individual needs of tenants. In addition to the pre-built offices, the

JAFZ has a business park that offers ready-to-use offices that are fully furnished and equipped, with shared facilities, such as conference rooms, audiovisual equipment, and administrative support.

- Onsite accommodation for personnel employed by companies operating in the JAFZ, ensuring proximity of staff to their workplaces. Various food courts and retail outlets are also located in the free zone for the convenience of the JAFZ community.

Given the vast array of facilities offered, it is evident that the JAFZ's strategy is to offer facilities that cater to the needs of various investors. However, this is not done in isolation. The overarching strategy is to ensure that investors who are operating in the JAFZ are provided with optimal multimodal transport connectivity that helps to position the JAFZ in particular and Dubai in general as a trading, logistics, production, and business hub.

### *The multimodal transport network of the JAFZ*

- **Sea:** co-located with the Jebel Ali Port, which has the capacity to handle 15.2 million TEUs annually and is serviced by more than 170 shipping lines, the free zone facilitates global sea connectivity that makes any port in the world within reach and can serve a number of industries reliant on maritime logistics.
- **Air:** one of the JAFZ's logistical advantages is that it's located within 40 kilometers (km) of the world's eighth-busiest cargo airport, Dubai International Airport, with a capacity to handle 2.5 million tonnes. The air freight connectivity is enhanced due to the opening of the new Al Maktoum International Airport located within 5 km of the free zone which, as described, is poised to become one of the world's largest cargo airports with a cargo handling capacity of 12 million tonnes. Importantly, to ensure smooth sea to air cargo operations, the JAFZ

provides a single customs bonded corridor that connects the Jebel Ali Port and Al Maktoum International Airport. The JAFZ is located within four to six hours of flying distance from Europe and Asia, and within two to three hours of flying distance from the rest of the Middle East region, hence its strategy is to develop its air cargo linkages, building on its locational advantage.

- Land: the JAFZ is located on a highway network of more than 16,800 km, which means it offers its tenants road access to the rest of the UAE and therefore easy access to the domestic market.
- Rail: Union Railway is a new initiative that is being designed to connect the UAE to Saudi Arabia to the west and Oman to the east. Set to cover a network of 1,200 km, the new rail system is expected to carry 50 million tonnes of goods and 16 million passengers per annum.

After considering the organizational, economic, and spatial factors described in this section, it becomes clear that the JAFZ's strategy is to offer an easy business environment that benefits from proximity to one of the world's largest integrated transport and logistics hubs, thereby boosting the free zone's economic competitiveness, as well as that of Dubai in general.

### **3. Background and History of Zones in Dubai**

In the early 1970s Dubai's economy was built around the oil industry, albeit at a much lower scale than that of Abu Dhabi's. In anticipation of the eventual depletion of the oil resource base, Dubai started to invest in diversifying its economy as early as the turn of the 1980s. Dubai's decision to foster and fortify its logistics cluster was made early on, as part of its larger diversification strategy, knowing it had limited resources to rely on going forward.

The rulers of Dubai decided to capitalize on the city's strategic location and set out to position the cluster as a hub between East and West.<sup>8)</sup>

Since then Dubai has emerged as a global city and a business hub with a view of replicating the advanced city-state models of Southeast Asia. Today, with 70 percent of the world population within an eight-hour flight, Dubai is positioning itself as a gateway market to more than three billion people.

Dubai's non-oil-driven growth has been the prime force behind the rapid and deepening process of economic diversification. It obtains its main revenue from tourism (25 percent), real estate and construction (23 percent), financial services (11 percent), and trade and reexports (16 percent and 15 percent, respectively). In fact, revenue from oil and gas had declined to about 6 percent of GDP by 2010.<sup>9)</sup>

One of the key instruments for the diversification and development of Dubai has been the creation of free (economic) zones. The first one to be established in Dubai was Jebel Ali Free Zone in 1985 with the purpose of servicing foreign companies in terms of unrestricted imports of labor and exports of goods and services. The building of the JAFZ was strategic since it is located around the Jebel Ali Port, thus providing import-export firms with a key geographical advantage. Today the JAFZA is home to more than 7,500 companies, more than 150 of which are subsidiaries or branches of Fortune 500 companies. And even though the JAFZ was originally established as a distribution and logistics hub, it has steadily grown into a service and manufacturing base.

Building on the JAFZ's success, the government of Dubai established a number of other free zones in and around Dubai that are also strategically located to take advantage of the port and the further development of Dubai as

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8) Alanood Bin Kalli *et al.*, "The Dubai Logistics Cluster," *Microeconomics of Competitiveness* (2015).

9) Ibrahim A. Elbadawi and Rosalía Vázquez-Alvarez, "Dubai Free Zones and their Development Impact: Evidence from Firm Labor Productivity," *Dubai Economic Council Working Paper 09-12* (2012).

the financial and service center of the Middle East.

Like other countries with sizable free zone economies, the free zones in Dubai have been the subject of analysis from the perspective of their contribution to the overall economy. At the macroeconomic level the Dubai free zones were found to have contributed immensely to the Dubai economy through a host of channels, including by attracting foreign direct investment; generating foreign exchange to the emirate; and creating backward and forward linkages.<sup>10</sup> For example, it is estimated that the 19,000 companies in Dubai's free zones contribute about 33 percent of Dubai's GDP.<sup>11</sup>

As Dubai and the UAE's flagship zone, Jebel Ali Free Zone's success in attracting foreign investment and technological expertise, and the growth of reexports and transshipment as a major commercial activity, spurred the other emirates of the UAE to create such free zones to attract inward investment, generate employment, and foster significant economic development.

The UAE now has a total of nearly 40 free zones. Dubai is home to the highest concentration (22) (Table 7-1), followed by Abu Dhabi (five), Ras Al Khaimah (four), Fujairah (three), Sharjah (two), and Ajman and Umm Al Quwain (one each). In total, 80 percent of the UAE's non-oil exports originate from the free zones.

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10) *Ibid.*

11) <http://www.emirates247.com/business/economy-finance/free-zones-contribute-33-to-dubai-gdp-2012-03-05-1.446753>.

**Table 7-1. List of Free Zones in Dubai**

Name of Zone	Description
<b>Dubai Airport Free Zone</b>	Established in 1996 the DAFZ is home to over 1,600 companies from diverse sectors, including electronics, construction, aviation, logistics.
<b>Jebel Ali Free Zone</b>	Established in 1985 the JAFZA covers an area of 48 square kilometers and is home to over 6,400 companies, including more than 120 of the Fortune Global 500 enterprises.
<b>Dubai South</b>	Dubai South is an emerging 145 square kilometer city that will ultimately sustain a population of one million. It's a mixed use, integrated free zone development with Al Maktoum International Airport at its heart. Through the Dubai Logistics Corridor, Dubai South is able to provide a dedicated corridor by connecting Jebel Ali Seaport and Al Maktoum International Airport, creating the first integrated multimodal logistics platform in the Middle East.
<b>Dubai Multi Commodities Centre Authority</b>	The DMCC was set up in 2002 with a mandate to enhance commodity trade flows through the emirate by providing the appropriate physical, market, financial infrastructure, and services.
<b>Dubai Internet City</b>	Opened in 2000, the DIC provides a knowledge economy ecosystem designed to support the business development of information and communications technology companies. It is the Middle East's biggest ICT infrastructure to be built inside a free trade zone.
<b>Dubai Outsource City</b>	An outstanding business park dedicated to local and international outsourcing companies, the DOC was launched in 2007 to cater to the market demand for outsourcing companies. It supports business process outsourcing, human resources outsourcing, IT outsourcing, and back-office and call center operations.
<b>Dubai Silicon Oasis</b>	The DSO was launched in 2005 to facilitate and promote modern technology-based industries, thus supporting the region's demand for business expansion.
<b>Dubai Media City</b>	DMC provides an advanced infrastructure and supportive environment for media-related businesses to operate globally out of Dubai. Since its official launch in 2001 DMC has become a thriving media community comprising leading international and regional media companies and hundreds of freelance media professionals.

**Table 7-1. Continued**

Name of Zone	Description
<b>Dubai Studio City</b>	Launched in 2005, DSC is a global business community that provides cutting-edge facilities and services to companies across the broadcasting, film production, TV, music, and entertainment sectors.
<b>Dubai Production City</b>	Dubai Production City is a leading business hub enabling the global and local publishing, printing, and packaging industries to excel.
<b>Dubai Science Park</b>	The DSP is the region's first free zone community that serves the entire value chain of the sciences, energy, and environmental sectors, dedicated to supporting scientific entrepreneurs, small and medium-sized enterprises, and multinational enterprises.
<b>Dubai Design District</b>	DDD (3D) represents a new class of economic free zone or business park: it has been created to provide a platform for a very specific niche sector - those working in the design industry.
<b>Dubai International Financial Centre</b>	Launched in 2004, the DIFC is a purposely built financial free zone committed to encouraging economic growth and development in the region through its strong financial and business infrastructure. Its client base comprises almost 912 active registered firms, including 19 of the world's top 25 banks.
<b>Dubai Gold &amp; Diamond Park</b>	This specialty mall has a selection of 90 leading retailers, 118 manufacturing blocks, and commercial space for more than 350 offices.
<b>Dubai International Academic City</b>	The DIAC is the world's only free zone dedicated to higher education. Launched in 2007 to cater to the needs of the region's growing and diverse academic community, it aims to develop the region's talent pool and establish the UAE as a knowledge-based economy.
<b>Dubai Knowledge Park</b>	The DKV is the world's only free zone area dedicated to human resource management and learning excellence. Established in 2003 as part of TECOM Investments, it aims to develop the region's talent pool and establish the UAE as a knowledge-based economy.

**Table 7-1. Continued**

Name of Zone	Description
<b>Jumeirah Lakes Towers Free Zone</b>	The JLT Free Zone, with 64 mixed-use commercial and residential towers and over 160 retail outlets, now has 55,000 people working and living within the development. Today, over 5,900 businesses ranging from startups to multinationals across all sectors operate from the free zone.
<b>Dubai Healthcare City</b>	The DHCC was launched in 2002 to meet the demand for high-quality, patient-centered health care. It is home to two hospitals, more than 120 outpatient medical centers and diagnostic laboratories with over 3,700 licensed professionals occupying 4.1 million square feet in the heart of Dubai.
<b>International Humanitarian City</b>	The International Humanitarian City puts Dubai's expertise in transport and logistics to work for aid agencies as they reach out to help the victims of crises and families whose lives are scarred by hunger and poverty.
<b>Dubai Wholesale City</b>	The recently launched Dubai Wholesale City is envisioned as a fully integrated global wholesale trading hub. Spanning 550 million square feet, the destination is set to serve as a global primary one-stop shop for traders, catering to all wholesale needs.
<b>Dubai Flower Centre</b>	Dubai Flower Centre was completed adjacent to the Dubai International Airport in 2004 to handle flower imports and exports. As is a major hub for the import and export of flowers, the Dubai airport required a specialist facility to cater to the special requirements of the flower sector.
<b>Dubai Maritime City</b>	Dubai Maritime City is a mixed-use development for the maritime industry, comprising industrial, commercial, residential and leisure facilities housed on a man-made peninsula.

Source: Dubai Free Zones Council; World Free Zone Organization; official free zone websites.

## 4. Key Factors for Success

- *Investments in export infrastructure complemented by integrated government leadership have created a solid platform for multimodal logistics*

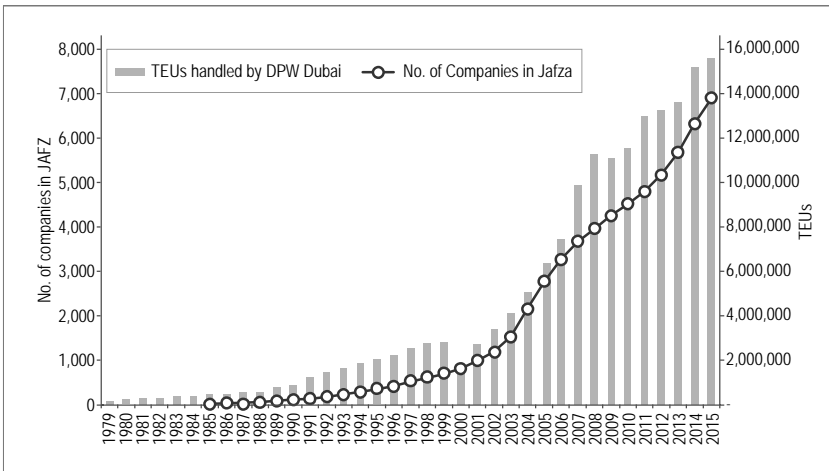
Dubai's main competitive advantage is the optimal combination of different transport modes - ports, airports, and roads - to reach all GCC countries and all the way to Lebanon. Jebel Ali Free Zone is located on the cusp of all these modes. In the near future it could be complemented by the GCC rail-road network. This physical connectivity is enhanced by the cluster of several thousands of logistics companies in the Jebel Ali Free Zone, which bring know-how, international projection, and critical mass. The focus lies mainly on air and maritime transport modes, along with roads.

Dubai is the world's third-largest reexport hub, after Hong Kong and Singapore. As mentioned, Jebel Ali Free Zone is directly adjacent to the Jebel Ali Port, with its advanced infrastructure, efficient operations, and global connectivity. Furthermore, the Dubai Logistics Corridor (see Figure 7-4) and the Dubai Aviation City Corporation, located at Al Maktoum International Airport, joined forces to form one of the largest multimodal logistics platforms in the world linking sea, land, and air for the first time in the Middle East.



customers generate substantial volumes of cargo for the port. Both port operators DP World and the JAFZ are subsidiaries of Dubai World - they share the same chairman and both are owned by the government of Dubai. This means there is cohesion in planning, delivery, and innovation, with the two entities working together under the same leadership to ensure the conditions are right for their customers.

**Figure 7-5. Complementary Growth of Number of Companies in JAFZ and Trade Volumes at Dubai Ports**



Source: DP World.

As DP World’s flagship port, Jebel Ali is the largest of DP World’s 70 terminals in 31 countries, across six continents. This means that not only is there an integrated offering within the Jebel Ali Free Zone to shippers using the port, but that the integration extends globally through DP World’s integrated global operations, lending credence to the claim by Dubai and the JAFZ to be one of the world’s focal transportation and logistics hubs.

## *Dubai Logistics City*

As mentioned earlier, one of the key features of the JAFZ is the unhindered physical and operational links between the Jebel Ali Free Zone, Jebel Ali Port, and Dubai Logistics City in the nearby Dubai South development, which is home to Al Maktoum International Airport (AMIA). Dubai South's dedicated bridge links the Jebel Ali Free Zone and Port and AMIA to create a logistics corridor that forms a single custom-bonded zone - a one-of-a-kind infrastructural feature in the Middle East. Goods docking at Jebel Ali Port can become airborne at AMIA in a record time span of four hours, headed toward the next point in their journey.

## *Dubai Customs*

Central to the smooth operations of both Jebel Ali Port and the JAFZ is their integration with Dubai Customs, considered among the most efficient and transparent in the world. On a day-to-day basis, both the port and the JAFZ work closely with other stakeholders to manage security, using the latest technology and processes to safeguard people, cargo, and assets, as well as facilities.

Dubai Customs has invested heavily in technologies so that facilities in the port can move in and out as quickly as possible with minimum disruption. The director of Dubai Customs cites, for example, that "Dubai Customs implemented the latest international system for containers scanning and inspecting and moving trucks contents via X-ray, which is capable of scanning 150 trucks per hour while driving at an average speed ranging from 8 to 15 Km/h, the equivalent of one truck every 24 seconds."<sup>12)</sup>

Dubai Customs is also one of the JAFZ's key strategic partners and is the key enabler of the JAFZ's unique logistics corridor, providing sea-land-air

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12) <http://www.dubaicustoms.gov.ac/en/NewsCenter/Pages/NewsDetail.aspx?NewsID=502>.

connectivity between the Jebel Ali Port, the JAFZ, and Al Maktoum International Airport, under customs bond. This decreases the number of customs checkpoints that goods in transit have to pass through, reducing the number of potential security “weak spots.” The single customs bond allows goods to move duty-free within the corridor, making it exceptionally cost-effective and efficient for reexports.

### ***Security in the Free Zone***

Security within the free zone is handled by a dedicated security company especially established for the port and the free zone. World Security, a sister company under Dubai World, oversees all security arrangements within the JAFZ. All gates leading into the JAFZ are manned by security personnel 24/7, allowing restricted access to people and goods entering and exiting the free zone. Security cameras also record vehicular movement at all gates.

#### **• *Various business facilities that help to lower entry costs***

The earlier section of this report described the various facilities offered by the JAFZ to its customers - land, pre-built and customized warehouses, offices, and the like. A key strategy of the JAFZ has been to offer the right facility to the right customers, no matter big or small - ranging from large plots of seafront land for the construction of oil rigs to a single desk in a business center with shared facilities.

By offering a wide range of options for locating in the free zone, the JAFZ sees itself as a business facilitator that can accommodate the largest, most established customers, as well as those that are new to the market or startups. The strategy here is by offering lower entry costs to new companies or those with smaller operations, the JAFZ provides the platform to help nurture their growth and expansion, which typically leads to an evolution in their size, scale, and facility requirements.

This strategy appears to be working since many of the companies that

started by leasing pre-built office spaces have evolved to building their own offices, warehouses, and factories on large leased plots of land - and meanwhile, the number of companies inside the free zone has grown steadily since its inception.

- ***Conducive business environment: transparency + innovation + minimal red tape = maximizing business opportunities***

The government has taken steps to ensure that setting up and operating a business in the JAFZ is as streamlined and simple as possible. While the World Bank's Ease of Doing Business report 2016 ranks UAE 31st out of 189 overall, it can be argued that, although more difficult to quantify, setting up and operating a business in the Jebel Ali Free Zone is even easier.<sup>13)</sup> Key to this is the delegated authority afforded to the JAFZ by the government in such critical areas as business licensing and company registration. The JAFZ operates as an autonomous body under government decree and therefore is able to show a greater degree of flexibility and efficiency to the areas of doing business for which it has the authority.

Information related to licensing and company registration was detailed earlier, but one of the key aspects is a simple and transparent application procedure. The JAFZ adopts a relationship management approach with its customers that involves close personal interactions and guidance during the setup process, complemented by an extensive one-stop-shop operation aimed at ensuring that customers' needs are accommodated as efficiently as possible. Beyond the physical one-stop shop, the JAFZ provides its customers with a secure e-service platform for conducting the majority of their business transactions. The JAFZ has more than 162 e-services available on the portal that include services in the areas of free zone registration, license management, zone administration, and online payment services. The JAFZ be-

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13) World Bank Group, "Doing Business 2016: Measuring Regulatory Quality and Efficiency," 13th Edition (Washington, DC: World Bank, 2015), 5.

believes that customer centricity is at the core of its strategy for provision of everyday services that makes operating out of the JAFZ easy. More recently, this approach has extended to the development of mobile applications that enable customers to use the JAFZ's services on-the-go from their smartphones.

The JAFZ's customer focus is underpinned by a robust regulatory framework that is transparent for all to see. It provides clarity with respect to how a company should operate in the free zone and the support that companies can expect from the JAFZ, as well as the incentives that companies can avail.

• ***Location, location, location***

As discussed throughout this chapter, it is evident that Dubai's location offers a distinct geographical advantage to businesses (see Figure 7-6). Within a four-hour time zone of billions of people, Dubai offers a significant catchment area, serving a number of dynamic emerging markets throughout the Middle East, Africa, and South Asia - home to 23 percent of the world's population, and whose combined GDP is projected to reach US\$12.8 trillion by 2022-2023.

Figure 7-6. Dubai's Strategic Location



Source: Bin Kalli *et al.* (2015).

The integrated multimodal logistics connectivity, most notably the Jebel Ali Free Zone, Jebel Ali Port, and Dubai South logistics corridor, means that companies can make the most of Dubai's locational advantage by using it as a good place for inventory hubs when taking their first steps into new markets, as well as meeting the delivery needs of their existing markets.

In summary, the JAFZ's success can be attributed to a number of interrelated factors driven by commitment and leadership from the top of the government. At the heart of the matter is understanding what drives investments from a strategic and operational perspective and what the government, and the JAFZ in particular, can offer to help; as well as investing in the infrastructure, services, technology, and regulatory framework that will give investors the best possible chance of success.

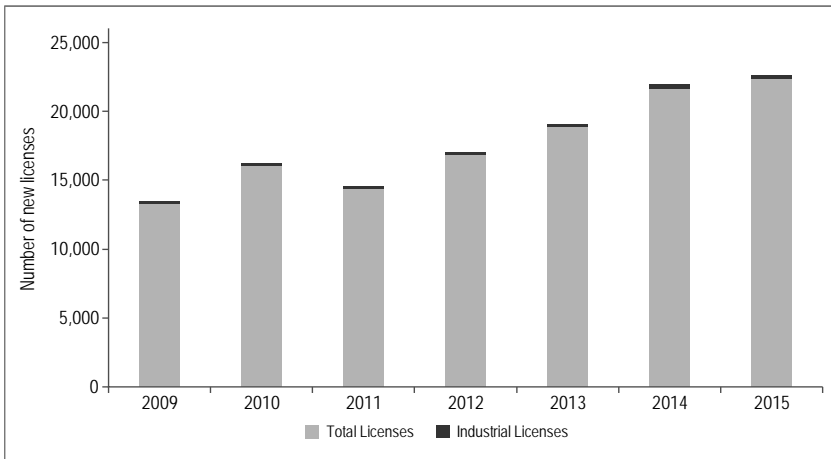
## **5. Challenges for Continued Success**

While Dubai's economic development is widely regarded as a global benchmark of success, catalyzed in large part by the development of Jebel Ali and other free zones, Dubai faces some challenges as it continues its development story.

- 1) Access to the global market still limited. Dubai facilities are indeed serving a wide region, but access to other countries is hampered by factors outside the reach of UAE authorities. A relevant example is the customs service in Saudi Arabia, where systems and procedures have not been modernized in line with the requirements of 21st-century logistics chains. As a result it is common for cargo to be delayed passing through Saudi customs, which impedes economic integration.
- 2) Limited value addition of the Dubai hub. Currently Dubai is predom-

inantly a transit and consolidation hub with little physical value added to the products. A world-class logistics hub should foster the establishment of higher-value-added services and manufacturing clusters inside and between industries. Figure 7-7 shows a steady growth of new business licenses issued in Dubai over the past seven years, yet the number of new industrial licenses remains very small. A paper published by the Dubai International Financial Centre suggests that one plank of the Dubai development strategy needs to focus on adding value to goods that transit through its logistic hub facilities for trade and intermediate goods.<sup>14</sup> This is something that Dubai’s free zones are well suited to do.

**Figure 7-7. Number of New Business Licenses Issued in Dubai**



Source: *Dubai Statistics Centre*.

- 3) Limited diversification of exports. In sectors where value addition is evident, Dubai’s exports (and reexports) appear to be concentrated,

14) Saidi Nasser *et al.*, “Dubai World Central and the Evolution of Dubai Logistic Cluster,” Economic Note 10 (Dubai: Dubai International Financial Centre, 2010), 22.

both in terms of product space and partners. More than half of exports and reexports are concentrated in gold and jewelry. This kind of low export diversification puts Dubai in a risky position. Changes in international gold prices are frequent and can have a substantial impact on the profitability of exporting and reexporting activities. The Dubai Economic Council's research shows that Dubai's exports and reexports are also largely concentrated on two partners: India and Iran.<sup>15)</sup> India imports the majority of Dubai's gold and is also the major provider of gold to Dubai. This might be the result of production specialization and the development of profitable market niches; in this case, there would be just the usual business risk involved. But it might also be the result of India's regulations on gold trading: any change in such regulations would adversely affect Dubai.

- 4) Low technological contents of exports. Dubai's export and reexports are concentrated on goods with low technological contents and with little linkages with the rest of the economy. The latter is particularly the case of reexports that are processed in free zones and disconnected from other industries in the main economy of Dubai. Goods that are transshipped and reexported, by definition, do not link with other sectors of the economy beyond logistics, packaging, and transport activities within the free zone. Exporting firms from the main economy are also isolated by the nature of the goods they produce: gold and jewelry that contain some processing, base metal products, prepared foodstuffs, and plastic and rubber products. Their contents are not very sophisticated and do not link significantly with other industries.

An obvious drawback of producing non-sophisticated export products is that it does not provide a boost to the rest of the domestic economy

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15) Dubai Economic Council, "Dubai's Foreign Trade: Diversification, Challenges and Policies" (Dubai: Dubai Economic Council: 2012), 8.

in the upswing of the global value chains. Participation in more sophisticated export products induces faster and more aggressive technological changes in production, fosters higher productivity gains, and improves human capital by the continuous demand of a better educated manpower. Singapore and Hong Kong made the transition from exporting low-quality, non-technological goods in the 1960s and 1970s to highly sophisticated, technology-rich products including electronics, chemicals, biotechnology, pharmaceuticals, and precision engineering. Firms in these countries gradually shifted away from labor-intensive activities to knowledge- and capital-intensive activities by deepening their technology base and strengthening knowledge-based services.

There is a pressing need to develop and diversify the export base of Dubai for a number of reasons:

- The development and opening of airports and ports in neighboring countries will increase the supply of reexporting facilities and, potentially, might drive some businesses away from Dubai's ports and airports. Likewise, firms in Dubai's free trade zones, and other exporters, have invested heavily in their business, and sunk costs will prevent them from moving quickly to other locations. But for new businesses coming to the region, Dubai and its free zones might encounter stiffer competitions from its neighbors.
- Dubai's location advantage is not unique: Qatar, Bahrain, and even the other emirates share similar location advantages and could become competitors for, essentially, the same trade routes and cargos. Currently, Dubai has a significant advantage in terms of infrastructure and reputation vis-à-vis all other locations in the Gulf of Arabia. However, infrastructure is being built in most places and, eventually, other countries will build up their own reputations as well.
- A third issue is that Dubai requires the trade sector to become in-

strumental in its drive to become a knowledge-based economy. Dubai's development model has been based on accumulating capital and importing expatriate workers. This might be considered in some quarters as limited and unsustainable, calling for a gradual shift toward the production of knowledge-intensive goods in high-value-added industries. Considering the small size of the Dubai, UAE, and regional markets, Dubai's trading firms will have to increasingly compete in the global markets for such industries to develop.

- Another challenge, according to Bin Kalli et al., is the lack of local human capital, with the local Emirati workforce constituting about 5 percent of the total workforce in the UAE.<sup>16)</sup> The problem with non-local labor is multidimensional - it raises the question of its sustainability, given that expats are usually not embedded in the system in the long run; the demographic imbalance; and issues related to working conditions and human rights. More than 80 percent of local Emiratis are employed in high-wage, low-working-hour public sector jobs, which makes it very unattractive for them to pursue jobs in the private sector.

While there may be other challenges facing Dubai that are common across many of the world's economies, in the context of this study, there are three main challenges: engaging in greater economic integration with its neighbors; developing a sustainable and diversified export base; and developing and upgrading local human resources. These are applicable to both Dubai and its free zones, including the JAFZ.

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16) Kalli Bin *et al.*, "The Dubai Logistics Cluster."

## 6. Key Lessons

When one considers the case of Dubai and Jebel Ali Free Zone in particular, a number of lessons emerge as key takeaways

### **Robust Regulatory Environment.**

Underpinning all success factors is a solid and transparent legal and regulatory framework. For the JAFZ, and other free zones, this is an essential ingredient since not only is it important for investor confidence, but it also empowers the zone authority to offer its basket of investor-friendly services.

Intrinsic to this is the autonomy of the free zone authority as a result of the high level of delegated authority afforded to it by the government. To investors in the JAFZ this means expeditious decision making, licensing, company registration, and business operations - all within a clearly articulated legal and operational framework.

### **Beyond Incentives**

While incentives may traditionally have been perceived to be among the key factors influencing an investor's decision to locate in a free zone, investors are increasingly looking beyond incentives for a more services-driven free zone environment. In that regard, hard and soft infrastructure offering is becomingly ever more important.

Hard infrastructure encompasses the many tangible capital intensive infrastructure investments already discussed in this chapter, ranging from the various onsite facilities that are available for lease within the free zone, to reliable and cost-effective utilities and world-class transportation facilities and connections.

Soft infrastructure encompasses the elements that are critical to setting up

and operating a business as smoothly as possible. In this regard one of the JAFZ's key attributes is its one-stop-shop operation that offers more than 100 services in a traditional over-the-counter format as well as electronically, which means that companies for the most part need to deal with only a single window. This easy and cost-effective means of doing business in the free zone is a key factor of the JAFZ's success and has been replicated by the other zones in Dubai.

Therefore, while incentives are still a part of the equation, other policies that determine how efficiently a company can start, operate, and grow its business, as well as get its goods to market, are critically important success factors for a free zone.

### **Integrated Development**

Inclusive leadership is a vital part of Dubai and Jebel Ali Free Zone's success, since it is this that has ensured that the various developments in Dubai, free zone and otherwise, are carried out in an integrated and therefore complementary manner. While zones that are developed in isolation may still be successful in their own right, when a zone is developed as part of an integrated vision that not only complements but also leverages the advantages of other related projects, the benefits will be greater to the individual zone, the country as a whole, and perhaps most important the investor that the zone or country is trying to attract.

In order to achieve this it is essential that top-level government commitment is in place, and in the case of Dubai, it is the spearhead.

Examples in the context of Jebel Ali Free Zone, already mentioned in this paper, include the free zone's historical synergies with the Jebel Ali Port and the new logistics corridor that provides seamless custom-bound connectivity between the JAFZ and the new Al Maktoum International Airport.

## Lifestyle

Although not emphasized in this paper in great detail, one of Dubai's main attributes is the quality of life it offers to investors and their families. The government has gone to great lengths to ensure that not only does Dubai offer an attractive business environment but that investors are also able to enjoy a high standard of living. International schools, high-quality medical care, world-class recreation facilities, shopping, and dining are all readily available throughout Dubai and are an intrinsic part of the Dubai success story.

## 7. Policy Implications

In the Global Competitiveness Index, the UAE was ranked 17th, with a score of 5.42 against 5.76 for Switzerland, the top performer.<sup>17)</sup> In terms of the infrastructure subcomponent, the UAE was ranked fourth behind Hong Kong, Singapore, and the Netherlands. Notwithstanding other critical factors, the clear and positive relationship between the availability of performing infrastructures and global competitiveness is widely recognized. While physical infrastructure is a fundamental ingredient, it is also important to emphasize that complementary policies are needed to realize the full potential of the infrastructure investment.

### Regional Harmonization

A research paper in the *Journal of Applied Business* suggests that while the GCC Union, consisting of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE, is performing well on most fronts, attention should be paid to hidden trade barriers such as unnecessary administrative delays at GCC coun-

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17) World Economic Forum, "Global Competitiveness Report 2015-2016" (Geneva: World Economic Forum, 2015), 8.

tries' borders, which are hampering the free flow of goods.<sup>18)</sup> Therefore, while Dubai, and the UAE overall, is lauded for its efficient logistics facilities and customs inspections procedures, to fully maximize the benefits of this efficiency and its world-class infrastructures, Dubai and the UAE would benefit from greater harmonization of customs procedures with some of its regional partners.

## Global Trade

Trade has traditionally been the backbone of the economy of Dubai. Contrary to other emirates in the UAE, its foreign trade does not depend on energy and is more diversified in terms of products. To a large extent, this is the result of a deliberate policy initiated by the government in the mid-1980s when confronted with the inevitable exhaustion of its oil reserves.

Dubai has benefited immensely from its strategic geographical location and has developed world-class transportation and logistics networks to capitalize on this. Effective participation in international trade has enabled the economy of Dubai to diversify and grow. However, improving its competitive capacity, building a resilient and strong economic base, and profiting from the opportunities provided by fast-changing global markets require a comprehensive trade policy to address some of the issues inherent in its trade structure and patterns.

Research by the Dubai Economic Council (DEC) suggests that there is ample space for Dubai to expand exporting and reexporting activities.<sup>19)</sup> From a comparative point of view, most countries in the world with the size of Dubai's economy tend to export substantially more. Furthermore, city-state economies that Dubai would like to emulate - such as Hong Kong

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18) Fernandes Cedwyn and Gwendolyn Rodrigues, "Dubai's Potential as an Integrated Logistics Hub," *Journal of Applied Business Research* 25, no. 3 (May/June 2009), 90.

19) Dubai Economic Council, "Dubai's Foreign Trade: Diversification, Challenges and Policies" (2012), 57.

or Singapore, in their roles as regional trading hubs - rely significantly more on foreign trade to develop and, in terms of value, they export and reexport four to five times as much as Dubai. It is therefore suggested that fostering exports and reexports should be a priority for Dubai's trade policy, and the country's free zones could be the ideal vehicle to push that agenda.

### Using More Local Inputs

DEC studies have found the relatively limited use of local inputs by firms in Dubai's free zones, which might merit public policy intervention to incentivize these firms to source higher share of local inputs and hence further enhance their backward linkages to the local industries.<sup>20)</sup> For example, allowing local firms supplying intermediate inputs to firms located in free zones to recover the customs fees on their imported primary inputs would generate incentive for higher backward linkage capabilities of the free zones.

### Enhancing Skills and Education

The UAE's relatively modest ranking in the newly introduced "Higher Education" indicator in the Global Competitiveness Index hints at the challenge of producing a local workforce with the necessary skills and qualifications that is needed in Dubai.<sup>21)</sup>

DEC suggests a two-pronged approach for enhancing Emirati employment, as part of a public sector strategy.<sup>22)</sup>

- In the short term, the Dubai government might consider providing an

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20) Al Iriani Mahmoud *et al.*, "Assessing the Economic Linkages between Free Zones and Dubai Main," Dubai Economic Council Working Paper 03-12 (2012), 22.

21) World Economic Forum, "Global Competitiveness Report 2015-2016" (Geneva: World Economic Forum, 2015), 13.

22) Al Iriani Mahmoud *et al.*, "Assessing the Economic Linkages between Free Zones and Dubai Main," 21.

- incentive package to firms willing to hire Emiratis in engineering, financial, and other relatively high paying non-managerial professions.
- As a medium to longer term strategy, a major realignment of the educational system toward professions that are in high demand by the private sector will be required to eventually create a critical mass of nationals with the required professional qualifications and skills.

In addition, given Dubai's positioning as a global logistics hub and its huge investments in infrastructures, it might be wise for Dubai to invest more in educational institutions that specialize in the development of logistics professionals, as well as related fields such as engineering, robotics, and architecture.



## Chapter 8



# Policy Implications of SEZ and Business Hub Development in Asia

Douglas Zhihua ZENG (World Bank)

Hyung-Gon JEONG (KIEP)

1. Key Elements of a Holistic Approach
2. A Sound Legal and Institutional Framework
3. An Attractive Business Environment
4. Careful Planning, Design, and Operations
5. Persistent Skills Training
6. Constant Technology Learning, Innovation, and Industrial Upgrading
7. Strategic Location and Strong Connectivity
8. Linkages With Local Economy
9. A Good Balance Between Industrial Development and Social/Urban Development
10. A Monitoring, Evaluation, and Exit System
11. Some Factors Specific to SEZs or Business Hubs
12. Conclusion

## **1. Key Elements of a Holistic Approach**

The concept of special economic zones and business hubs and their impact on economic growth has been globally accepted, and the instrument has been widely applied. The mixed results of SEZ development in different countries, however, show that it is not a panacea and has to be implemented properly and carefully tailored to harmonize with a country's specific situations. The environments in which zone programs are developed are complex and heterogeneous. Therefore, it would be useful to establish a clear framework for situations in which SEZs are appropriate, and the likely preconditions for their success.

The great success of SEZs and business hubs in Asia (especially East Asia) offers many useful lessons that could be relevant to other developing economies. A key lesson is the “holistic” or “whole of value chain” approach, which involves all the important aspects (both soft and hard infrastructure) for building a conducive industrial or business ecosystem. Based on the successful lessons from Singapore, South Korea, China, Hong Kong (China), and Dubai that have been examined in details in the previous chapters this book, the key elements of such a holistic approach includes but not limited to the following.

## **2. A Sound Legal and Institutional Framework**

A predictable and transparent legal and regulatory framework is needed to ensure the clarity of roles and responsibilities of various parties, and to provide protection and certainty to the developers and investors. Such a framework also helps to ensure that the zones or hubs attract the right investments and are implemented with high standards. That will also avoid unpredictable

risks, such as political setbacks or interference and land speculation, among other factors. Strong, long-term government commitment provided additional guarantee for the success of the zone or hub through ensuring policy continuity and adequate provision of various public goods and services. Meanwhile, close coordination between the central and local governments and clarity over their roles are very important for the smooth implementation of the different programs. In Singapore, the Republic of Korea, Malaysia, China, and other countries or economies with successful SEZ or business hub programs, relevant laws and regulations were already in place or were put in place when the programs were launched. Additionally, in their implementation processes, various levels of governments have given strong and long-term support in a concerted effort.

Since the late 1960s, the heavy-handed government in Singapore has passed legislation to create a sound legal system, while at the same time it carried out many economic and social programs aimed at stimulating economic growth and generating jobs. Under the leadership of Lee Kuan Yew and other enlightened technocrats such as Goh Keng Swee, new policies were implemented and numerous economic institutions were established to bring about macroeconomic stability. Rational monetary, fiscal, exchange rate, and savings policies were instituted to focus on long-term economic growth and sustainability rather than just short-term effects. The government's clear and unwavering focus on the attraction of multinational corporations and the creative talents in the two growth stages ensured the success of its "borrowed hinterland" strategy.

In South Korea, export had always been the top priority during its industrialization process, and the government had put in place a great number of policy instruments to facilitate the export industries. One of the key measures is to provide financial support for export industries, including small and medium-sized enterprises. The support comes as loans with discounted rates and includes technological development, informatization, enterprise setup,

small business development, and small-large enterprise collaboration. Such measures helped to increase the competitiveness and productivity of the export-oriented firms in the zones and strengthen the inter-firm linkages.

In China, the free economic zones are mainly used as a way of implementing China's national and regional development strategies and building growth poles of economic development and urbanization. The three stages of Shanghai free economic zones were in line with the national and regional strategic development goals. Such an integration ensures that these zone programs get the full support of the national and local governments. For example, the Shanghai Economic and Technological Development Zone was to achieve the strategic goal of revitalizing the coastal cities in China; the development of Pudong New Area (a comprehensive SEZ) was to build Shanghai into a global economic, financial, and trade center; and the most recent Shanghai Pilot Free Trade Zone was to promote high-end service industries and explore ways to achieve industrial upgrading and structural transformation for China.

Hong Kong (China) is known for its effective and efficient legal and regulatory system, which is of international standard. Its trusted legal system is based upon English common law and complemented by local enacted ordinances. The judicial system is firmly based on the principle of the independence of the judicial branch of the government from the executive and legislative branches. The well-respected rule of law and freedom of press make it an ideal location as a global business and financial hub. Although the Chinese government has taken a hands-off approach in terms of economic development, which is quite different from many East Asian economies, it has played a pivotal role in terms of providing the public-goods infrastructures (both physical and social) to support Hong Kong's economic and social development.

In Dubai, the government has invested heavily in export infrastructures, and strong leadership and a shared government commitment for operational

collaboration have ensured that the investments in infrastructures, technology, and training achieve the desired results. One of Dubai's competitive advantages is the optimal combination of different transport modes - ports, airports, and roads - to reach all Gulf Cooperation Council countries and go all the way to Lebanon. The great coordination between zone authorities and ports and customs administrators has helped the different transport modes to join forces to form one of the largest multimodal logistics platforms in the world, linking sea, land, and air for the first time in the Middle East. All of this would have been impossible to achieve without strong government support and commitment.

### **3. An Attractive Business Environment**

One of the key objectives of zone or business hub programs is to overcome the constraints (both soft and hard) of doing business in a given economy. Instead of focusing too much on fiscal incentives such as tax holidays, zones and business hubs should strive to provide a conducive business environment.<sup>1)</sup> Such programs must provide good infrastructure, such as power, water, roads, and telecommunications. Meanwhile, zones or hubs can be used to “pilot” policy and regulatory reforms to support economic development, as evidenced in many East Asian countries. What's important is to make sure that benefits (e.g., the simplification of customs procedures) can then be made available economy-wide.<sup>2)</sup> In all the successful zones or hubs examined in this book, all the basic infrastructures are provided with high

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1) In certain circumstances, reasonable “smart incentives” could be used to encourage skills training, technology transfer and spillover effects, as well as adoption of green technologies, energy efficiencies, and the like.

2) Fruman, Cecile and Douglas Zhihua Zeng, “How to Make Zones Work Better in Africa?” World Bank blog, July 27, 2015.

quality and one-stop-shop services, and moreover aftercare has been very efficient and effective. All of these qualities make the zones or hubs very attractive to investors.

The Economic Development Board (EDB) in Singapore is famous for its efficient one-stop-shop service, which has become an exemplar for other countries to emulate. The adoption of a very open policy with regard to foreign direct investment (FDI) and foreign workers makes Singapore one of the most welcome destinations for foreign investors. The government has generated great credibility not only because of its clean and transparent governance system, but also because of its entrepreneurial and pro-business spirit. Many have likened the Singapore government's management of the economy to that of a corporate entity. Although government runs many government-linked corporations, they are often operated in a private sector approach. Strategic investments in both "efficiency infrastructure," such as port, airport, logistics, telecom, banking, and industrial estates, and "social infrastructure," such as technical and vocational institutes, have made Singapore one of the most competitive economies in the world.

In China, many zones have been used to test new reforms and new development models. The SEZs, such as Shenzhen, Xiamen, and Shanghai Pudong New Area, were used to conduct policy reforms in such areas as land, taxation, finance, labor, and customs, and are characterized by sound physical infrastructures and highly efficient one-stop-shop services. They serve as models for nationwide economic reforms and various zone programs. The most recent Shanghai zone, the Pilot Free Trade Zone, was used to further improve the business environment through more simplified administrative procedures, such as the "negative list," and to open up service sectors, such as trade and finance, which is important for China's transition from an export- and investment-driven growth model to one that is consumption-driven. The negative list was adopted in China for first time ever, and it has been shortened as reforms have progressed.

In South Korea, one of the benefits of the free trade zones is the simplified customs procedures, which contributes to a significant reduction of time and costs. To attract foreign investment to the zones, the government has provided many customs incentives such as customs waiver, tariff delays, or exemption for re-exports. Unlike the rest of the economy, the free trade zones are not subject to the import quota system. In addition, the government provides one-stop-shop services, such as investment consultation, registration, and approval of business and operations, through the free trade zone authority. However, at the same time, Seoul still needs to improve its SEZ governance system. While the designation of an SEZ comes mostly from the central government, the implementation of these SEZs falls on the shoulders of local government, which lacks enforcement power, legal mandate, and autonomy as well as implementation capacity. More empowered implementation agencies or committees need to be set up at the local level, with greater participation by the private sector.

In Dubai, beyond the first-class hard infrastructures, such as the ports, roads, and multimodal transport networks, the government has taken measures to ensure that setting up and running a business in the free zones is as streamlined and simple as possible. All the business service functions such as registration, licensing, and process of various applications are provided through an extensive one-stop-shop operation within the zones. Beyond the physical one-stop shop, the Jebel Ali Free Zone (JAFZ) provides its customers with a secure e-service platform for conducting most of their business transactions. With delegated authority, JAFZ operates as an autonomous body under government decree and enjoys a great degree of flexibility and efficiency. In addition, JAFZ provides various business facilities such as pre-built and customized warehouses, offices, and other shared facilities to help companies lower their production costs.

As opposed to the heavy interventionist approach in Singapore, South Korea, mainland China, and Dubai, Hong Kong (China) took a more free

market approach in terms of economic management, characterized by a free trade system, free competition in the private sector, and the free flow of capital and people. Hong Kong is also known for its low tax burdens, with a standard corporate income tax rate of 15 percent. The transparent and free market policies have created a fair business environment and attracted a large amount of foreign investments. Hong Kong insists on fair competition by creating a level playing field for both domestic and foreign companies, and its FDI policies are very open, transparent, and consistent. Despite its noninterventionist approach, the government has properly fulfilled its role by creating a sound legal and regulatory environment and building high-quality infrastructures to support its economic development.

## **4. Careful Planning, Design, and Operations**

Because developing a zone or business hub is a very expensive undertaking, the process requires careful planning, design, and management. This should include a rigorous assessment of the demand situation, local market conditions, connectivity, industrial base, supply chain, business environment, and land and labor supplies. Of foremost importance is to ensure that the zone or hub programs are based on business demand lest they turn into white elephants. To ensure smooth and efficient operations of zones or hubs, private sector participation can be encouraged through a public-private partnership approach. In such cases, experienced private sector partners can help with the planning, management, and even the provision of certain infrastructures and services.

In Singapore, land is treated as a strategic asset, and the allocation of land for industrial and commercial use is carefully carried out through road maps such as the Singapore Concept Plan and executed through various government agencies to ensure that land is catering to economic and social develop-

ment needs and being used in a productive way. The Singapore Concept Plan, which was formulated in 1971 and is reviewed every 10 years, provides a strategic land use and transportation plan that is intended to guide development over a period of 40 to 50 years. As Singapore entered a new development stage in the early 2000s, the Concept Plan 2001 sought to turn it into a global financial and knowledge hub by devoting prime land in the city center to the financial and creative sectors. In terms of operation, the Singapore government runs the economy the way the private sector is run - with efficiency and productivity always being the central focus.

In China, based on their different strengths, locations, and development stages, the different zones have been designed for different priority sectors. Based on their key sectors, the Shanghai free economic zones can be divided into processing and manufacturing-oriented, science-oriented, trade-oriented, service-oriented, and mixed zones. With China's deepening of reforms and opening up, each free zone also transforms itself both functionally and spatially to cater to the evolving business needs. For example, the Jinshan zone transformed from an export processing zone into an economic and technological development zone, and the Caohejing zone transformed from an economic and technological development zone into a new and high-tech zone. The management and development model is also quite pragmatic to ensure efficiency. The earliest economic and technological development zone in Shanghai employed an enterprise-oriented management model to guarantee commercial flexibility, and each zone established its own development corporation to undertake the development and operational functions. It should be pointed that, however, in China as a whole, the zone program faced an "oversupply" situation at the later stage when local governments ran into fierce competition for investments and gross domestic product (GDP) growth.<sup>3)</sup>

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3) Douglas Zhihua Zeng, "Global Experiences with Special Economic Zones: Focus on China and Africa," World Bank Policy Research Working Paper 7240 (April, 2015).

In Dubai, the zone programs are well suited to its economic development needs. Each of Dubai's 23 free zones is geared toward catering for a specific market segment, ranging from manufacturing and industry, to logistics, information and communication technology, media production, and education. Being positioned as a regional trading hub, JAFZ built high-quality warehousing, logistics, and distribution infrastructures to meet the needs of trade-related service sectors and heavily export-oriented light manufacturing sectors such as medical supplies and instruments, machine tools, electronics, and textiles. The zone is managed by JAFZ, which operates in a very business-driven approach. Once land is purchased or a structure is built, operation must commence within a stipulated time frame.

In South Korea, results of the zone program seem to be more mixed than those of any other economies examined in this book. At the initial stage, the government set the zone program on the right path. In the 1970s, when the Masan Free Trade Zone was established, for example, it rightly captured the industrial transfer wave from the Japanese electronics sector. Leveraging its superior proximity to maritime and airport facilities, Masan achieved remarkable success. In the later stage, however, Seoul's zone program became caught up in a political agenda, which was not necessarily based on real business demand. This led to stagnation and the failure of many zones. One of the key reasons was that many of the SEZ projects were driven by local governments for the purpose of "balanced development strategy," rather than by economic feasibility. Joining forces with local governments, each government ministry is also carrying forward its own SEZ initiatives. That has resulted in the creation of an excessive number of SEZs with various names, such as foreign investment zones, free economic zones, free trade zones, enterprise city, Innopolis, International Science and Business Belt, and on and on. The overlap and overdevelopment of different types of SEZs has caused excessive competitions and wasteful use of public resources. To avoid such problems, each SEZ's objectives need to be clarified and its target industries

identified through a rigorous feasibility study and demand assessment. South Korea's experience offers a very important lesson for other countries in South Asia, the Latin America region, and Africa that are developing or planning to develop SEZ programs.

## **5. Persistent Skills Training**

One of the highest priorities of any zones or business hubs is to make available experienced and skilled workers, and the customized and specialized education and training that generate, upgrade, and deepen knowledge and skills. This has become an indispensable part of the overall business environment, and its importance is increasingly recognized and appreciated by investors. The contents and training modalities may vary based on the different needs of different zones and sectors, but they need to be constantly updated according to the business and industrial development needs. Certain policy incentives can also be provided to encourage firms to provide their employees with skills training and retraining. When certain talents are not available locally, policies can be implemented to attract these skills from other parts of the county or overseas.

In Hong Kong (China), skilled labor and talented professionals played a very important role in its development into a global business and financial center. Nearly 200,000 people work in Hong Kong's financial sector, and many of these professionals were attracted from overseas. The low income tax rate, open immigration policy, and other talent incentives encourage highly educated people from all over the world to work in Hong Kong.

In Singapore, various vocational training programs were offered through a number of newly set up polytechnics and vocational institutes to prepare the workforce for manufacturing jobs in the SEZs. These technical institutes have continued to evolve over time to ensure that the skills they provide stay

relevant to the industries. With the emergence of information technology (IT) sectors, a new government agency, the National Computer Board, was created to drive the learning and applications of IT-related skills among workers. The government also actively leveraged the training capacity of FDIIs and the assistance from the home governments. A large number of joint institutes were set up to provide skills training in different areas in demand, for example, such as the Japan-Singapore Technical Institute, French-Singapore Institute, German-Singapore Institute, and others.

As an emerging international business hub, Dubai, with its open immigration policy, has attracted vast number of skilled workers from all over the world who are seeking better job opportunities. However, one of its challenges is the lack of highly skilled local talent. This is in contrast to Shanghai, which has a large number of both local and foreign workers, including the Chinese diaspora. With its various talents policies and extensive vocational and technical training institutes, China is able to foster a skilled labor force to feed into its growing manufacturing sector. However, today, while China is upgrading toward higher-value-added sectors, it, too, faces some challenges to finding sufficient workers whose talents are in demand.

## **6. Constant Technology Learning, Innovation, and Industrial Upgrading**

Ongoing technology learning and innovation are crucial for zones or hubs to enhance productivity and sustain long-term competitiveness. To stay relevant to the economic needs and to be sustainable, zones and hubs also need to catalyze and facilitate the industrial upgrading by promoting technology innovation and transfer and high-valued sectors that cater to the different development stages. These efforts include expanding well-focused, appli-

cable R&D expenditures, strengthening university-industry linkages, supporting targeted business incubators, and attracting talent.<sup>4)</sup> They need to foster both hardware, such as science and technology bases and platforms, innovation labs, incubators and pioneering parks, and software, such as sound regulatory and incentive regimes and, most importantly, the high-end skills attracted through various talent strategies.

Generally speaking, a free economic zone or free trade zone or a business hub has its own life cycle. As production costs or other costs of doing business increase, the zones or hubs need to be innovative to move up the global value chains. Most economies start with relatively low-tech and labor-intensive sectors, and then gradually move toward the high end of the value chains and more knowledge-intensive service sectors. However, this is not an easy process. It requires both the market forces and governmental support to be put into play in a right approach.

In China, the government has always made a conscious effort to encourage the zones to upgrade themselves and to follow the market trend. Most zones are hosting technology diffusion centers or incubators to cultivate new sectors or encourage the application of new technologies. Besides industrial upgrading, zones transform their functions or extend spatially depending on the particular business needs. In Shanghai, for example, some original export processing zones became economic and technological development zones, and some free economic zones established subzones to upgrade or expand themselves. However, it also needs to be noted that despite the many achievements that China has made to date, as it moves toward high-value-added manufacturing sectors and services, it faces significant challenges. Among them: to upgrade the massive existing industries, build the indigenous innovation capacity, and obtain a vast number of qualified professionals.

In Singapore, promotion of technology innovation has been a constant ef-

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4) Ming Zhang, "What Can Cities Do to Enhance Competitiveness? Local Policies and Actions for Innovation," *en breve* (Washington, DC: World Bank, 2008).

fort as Singapore has moved to the high end of the value chain. However, it still lacks adequate indigenous productive capacity. In particular, small and medium-sized enterprises have not been able to play a vital role in innovation and economic growth. Meanwhile, Singapore has been slow in making progress in terms of productivity improvement and innovation. Based on an INSEAD study, Singapore ranked 110th in terms of innovation efficiency in 2014 despite huge investments in innovation-related projects.

Dubai was able to diversify its economy from one that is based on natural resources toward some manufacturing and broad range of service sectors. However, Dubai is still struggling with limited diversification and low technological contents of its exports. Despite some diversification, more than 50 percent of exports and re-exports of Dubai remain concentrated in gold and jewelry and thus are subject to the external shocks of gold price fluctuation. Overall the exports and re-exports are mainly in low technological sectors with little linkage to the rest of economy. This requires further improvement of production technologies, higher productivity gains, and a better educated workforce.

Hong Kong (China) has been successful in transforming itself from a low-technology manufacturing hub to a high-value-added business hub, with service industry accounting for more than 90 percent of its GDP. However, with the increasing openness of mainland China, Hong Kong's traditional advantage of being a transit trade and capital transfer hub is gradually weakening. This means that Hong Kong may have to consider developing some high-tech manufacturing sectors (especially R&D and design, marketing, and the like) to maintain its competitiveness in the long run.

## 7. Strategic Location and Strong Connectivity

Connectivity among individuals, firms, countries, and regions is increasingly understood as a key factor in achieving competitiveness and sustainable, inclusive economic growth. Connectivity has both physical and policy dimensions. Trade, migration, information, transport and transit, energy, and financial flows interact in complex ways. To be a catalyst for structural transformation, the zones or hubs need to have or be linked to key elements of infrastructure (such as ports, railways, and highways) with good trade logistics and customs service. They also need to be well matched to local resources, able to leverage the nation's or city's comparative advantages (e.g., agro-processing or electronics), and be part of the global value chain. Finally, they need to be focused not only on exports, but also on the domestic market.

All the successful zones or hubs studied in this book have very convenient locations and easy access to regional and global markets. They also boast the world's best road networks and infrastructures, which help them to achieve efficiency and broad connectivity. Hong Kong is situated on the southeastern coast of China, next to the fastest-growing region in the world, and its time zone between London and New York gives it the advantage of being the clearinghouse of information and financial services. Its territorial openness is also ideal for the free flow of goods, capital, and information.

Singapore, meanwhile, occupies a strategic geographical location in the center of Southeast Asia, giving it a strong edge over other cities as the trading hub of the region. For more than 150 years, the city-state thrived as a free port under British colonial rule with few restrictions on trade and the movement of capital and labor from the beginning. This laid a solid foundation for the city's success as a business and financial hub. Similarly, in the Middle East, Dubai enjoys the same advantage of being the connector of the Middle East, Africa, and South Asia, serving a number of dynamic emerging markets

in the process. Its transport and logistics infrastructure is among the best in the world.

In terms of zones, Masan and Shanghai are also ideal locations. The Masan Free Trade Zone is in a seaside industrial complex located on the southeast tip of South Korea, and it is near Masan Port and within a one-hour drive of the Busan Seaport and Gimhae Airport. It is also in close proximity to related industries and highly developed infrastructures, and it has easy access to excellent labor resources from surrounding cities. Shanghai is also known for its strategic location. Being at the intersection of the middle point of the Chinese east coast and the estuary of Yangtze River, it offers convenient transportation and proximity to major Chinese and East Asian markets. All the zones in Shanghai have easy access to the major air, sea, and land, as well as a large pool of skilled labor.

## 8. Linkages With Local Economy

Zones need to build on local comparative advantages and have local suppliers as part of their value chains. In many countries, zones are often criticized for being an “enclave” without much linkage to the local economy. To fully benefit from the zone programs, governments and zone management need to consider the local comparative advantages in identifying the priority sectors and try to help the local firms link with investors in the zones through supply chains or subcontracting relations.<sup>5)</sup>

In China, most zones are well plugged in the existing local clusters, so the zones and local clusters reinforce each other through business linkages. Chinese zones also encourage foreign investors to establish joint ventures with local counterparts. In Taiwan, China, and South Korea, governments al-

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5) Zeng, “Global Experiences with Special Economic Zones.”

so encourage the backward linkages through technical assistance and other policy interventions. The Masan Free Trade Zone in South Korea is a good example in this regard. The zone's administrators had actively promoted linkages between local firms and investors in the zone by allowing preferential access to intermediate goods and raw materials to local companies that supply firms in free trade zones. In addition, the zone administration provided technical assistance to subcontracting firms. According to Engman et al., granting "equal footing" to local suppliers of capital and intermediate goods and the use of subcontracting mechanisms from zone investors to local producers are very effective measures.<sup>6)</sup> Combined with trade and investment reforms, these measures help to generate strong backward linkages between the FDI and local economy.

## **9. A Good Balance Between Industrial Development and Social/Urban Development**

The Asian experiences show that a special economic zone, business hub, or city that wants to increase the share in urban GDP of skill- or knowledge-intensive industries will need a particular ambiance. The quality and cost of housing, health services, and schooling and the incidence of crime make up one set of concerns, which are uppermost for any group of workers and not just the technically qualified. For knowledge workers, recreational amenities, the cleanliness of the environment, and the state of the physical infrastructure (transportation and telecommunications, for example) also very important.<sup>7)</sup>

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6) Engman *et al.* (2007). <not in References; need citation info>

7) S. Yusuf and K. Nabeshima, *Post-Industrial East Asian Cities: Innovation for Growth* (Palo Alto: Stanford University Press, 2006).

All the cities that host the SEZs or business hubs that we have studied in this volume - from Singapore in East Asia to Dubai in the Middle East - offer the best livable environment and first-class urban amenities. In fact, they are constantly improving their physical infrastructures and business environment (such as legal and regulatory environment) and social infrastructures (such as education and health service systems) to increase their competitiveness and attractiveness. These qualities make them global magnets of high talent.

## **10. A Monitoring, Evaluation, and Exit System**

Despite the great effects and structural transformation impact of successful special economic zones or business hub programs, they are in general very expensive and highly risky. This requires a rigorous system to regularly monitor and evaluate their performances. The absence of such a system may result in the zones or hubs being diverged from their initial purposes. To ensure policy efficacy, it's important to evaluate the economic feasibility of zones or hubs before they are set up and the outcomes after they are created, and incentives should be designed to match their performances.

In addition, based on the experience of South Korea, it is important to have an exit system in case a zone program is not performing adequately. At a later stage of SEZ development, many zones were set up without conducting a thorough demand assessment, and the oversupply situation led to development delays and empty spaces. To avoid this situation, legislation that stipulates the performance criteria of zone programs and conditions for de-designation has to be put in place and implemented effectively even if it is challenged with potential opposition from local governments.

## 11. Some Factors Specific to SEZs or Business Hubs

Besides these common lessons derived from the case studies of special economic zones and business hubs in Asia, some distinctive factors are inherent to SEZs or business hubs, given that the development approach and trajectory for a special economic zone are not the same as those for a business hub, as mentioned in Chapter 1.

For a zone to be successful, it also needs the following important ingredients:

- *A clear SEZ strategy.* Such a strategy should be fully integrated in national or regional industry policy and economic development strategy. With no exception, SEZ programs should be part of the broad national or regional development agenda and should be designed to best complement and support comparative advantages, as validated through a detailed strategic planning, feasibility, and master planning process. This is the key to ensure their viability and long-term sustainability based on real market demand. The experiences of China, South Korea, Dubai, and Singapore (the whole country could be treated as a SEZ) have all highlighted this point.
- *A certain level of autonomy at the local/zone level coupled with clear objectives and sound monitoring and evaluation.* While it's important for the central government to define the overall SEZ strategy and planning process and put in place the right frameworks, the local or zone level should have a certain amount of autonomy to test new reforms and approaches to make zones work. In East Asia, especially in China, SEZs are given the autonomy to pilot reforms to improve the business environment. Many reforms in the areas of land, finance, taxation, customs, and labor market have been

tested in the SEZs and then rolled out throughout the nation once they are successful. While enjoying a certain level of flexibility, SEZs are also held accountable for the intended results, measured rigorously against the preset targets. The success of this approach also hinges on the consistent capacity building of the local governments and zone administrations.

For a business hub, its development is inseparable from the host city. The experiences of Asia as well as other regions show that successful cities or business hubs are built on several enabling factors in the agglomeration process.<sup>8)</sup>

- **Institutions and regulations:** taxes, licenses, duties, legal regulation, promotion and branding
- **Infrastructure and land:** roads, electricity, water, sanitation, transportation, communications, and land (including colocation arrangements for similar firms)
- **Skills and innovation:** basic education, vocational training and workforce development, and innovation networks
- **Enterprise support and finance:** access to capital, subsidies, incentives, export assistance, and capacity development for operational activities (legal, financial, administrative)

Those four categories try to encompass the suite of policies and interventions available to city governments. Therefore, competitive cities or business hubs are more than simply a geographic space in which competitive firms and industries grow. They are environments that enable firms to perform effectively by providing factors and conditions such as regulations, in-

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8) World Bank Group, “Competitive Cities for Jobs and Growth: What, Who and How?” (Washington, DC: World Bank, 2015).

frastructure, services, quality of life, talent, and strong governance.

A recent study by the World Bank Group shows that it appears that the building blocks of competitiveness - institutions and social and basic physical infrastructure at lower incomes, then innovation capacity - can be sequenced to build the human capital base required to compete, grow, and prosper as a high-income city.<sup>9)</sup>

**Figure 8-1. Correlates of City Competitiveness Vary by City Income Level and Move Sequentially**

Category	Metric	Market Towns ≤\$2,500 GDP per Capita			Production Centers \$2,500-\$20,000 GDP per Cap.			Creative and Financial Centers \$20,000 GDP per Capita		
		Disp. Income	Labor Prod	Emp. Growth	Disp. Income	Labor Prod	Emp. Growth	Disp. Income	Labor Prod	Emp. Growth
Institutions & Regulations	Ease of Doing Business Index (DB)	+ Start with Basic infrastructure and Regulation...			+ ...then upgrade infrastructure...			+		
Infrastructure & Land	Physical Infrastructure <sup>1</sup>			+	+		+	+		
	Social Infrastructure <sup>2</sup>	-			+		+	+		
Skills & Innovation	Human Capital <sup>3</sup>						+	+	+	
Enterprise Support & Finance	Innovation <sup>4</sup>						+	+	+	
	Financial Infrastructure <sup>5</sup>						+		+	

1. Physical Capital (EIU), Infrastructure Index (UN), Cost of Electricity (DB)    + Positive Statistically significant Correlation at the 10% level  
 2. Social And Cultural Capital (EIU), Healthcare (EIUL), Quality of Life (UN)  
 3. Human Capital (EIU), Education (EIUL)  
 4. Number of patents (GUC)  
 5. Private Credit Bureau Coverage (DB), Financial Maturity (EIU)  
 - Negative Statistically significant Correlation at the 10% level

Source: Fikri, Kenan and Juni Tingting Zhu, “City Analytics.” Companion paper for “Competitive Cities for Jobs and Growth: What, Who, and How.” (Washington, DC: World Bank, 2015).

While zones and business hubs are different instruments, they are closely related and can reinforce each other. Therefore, they can be implemented together to support each other where appropriate instead of simply existing as competing tools. Among the cases we have studied, the Incheon Free Economic Zone is playing a pivotal role in helping to make Incheon a logistics and business hub for the Northeast Asian region; the Shanghai Free

9) *Ibid.*

Trade Zone and Pudong New Area (SEZ) are the key drivers for Shanghai to become a regional business and service hub in Asia; and the Jebel Ali Free Zone and other industrial zones are important pillars to transform Dubai into the regional business and logistics hub in the Middle East.

Similar cases exist that are not discussed in this book. For example, the Aqaba Special Economic Zone played an important catalyst role in positioning Jordan as a regional transport hub, and in Panama, the Panama Pacifico Special Economic Zone is the determining force in transforming the former US Howard Air Force Base into a regional hub for international trade, residential logistics, and business services.

However, these two instruments do not always come together. For example, in the case of Hong Kong, the zone instrument has not played an obvious role in building Hong Kong into a globally competitive financial and business hub. Hong Kong's key success factor is its sound legal and regulatory environment and its *laissez-faire* business port status and the government's hands-off approach, which is quite different from other cases studied in this book. Therefore, depending on the specific context and regional and local conditions, different policies and approaches can be adopted even in the same region or country. There is indeed no one-size-fits-all approach to SEZs and business hubs.

## 12. Conclusion

The special economic zones and business hubs studied in this book all belong to upper-middle-income or high-income countries. Their future growth will increasingly come from the strength of innovative activities instead of factor accumulation. The development of such innovative activities is influenced by ongoing structural changes and initiatives by governments and private sector firms. A successful transition from an export-oriented manu-

facturing economy to a service-based economy that is competitive and integrated with the global systems involves a reshaping of the urban landscape so that providers of business services and the creative industries perceive it to be adding value for their purposes and a basis for competitive advantage.<sup>10)</sup>

For the postindustrial East Asian cities - and for that matter any major city in the industrial world - the need to refresh and expand the industrial base is urgent. Technology, globalization, and the increasingly fluidity of industries and of multinational corporations have made it imperative for cities to anticipate continuums of change and to be closely tracking industrial changes, scrutinizing the actions of their competitors, and planning their own moves well in advance.<sup>11)</sup>

This means that future zones and business hubs (and the cities where they are located) need to strive to create environments that promote innovativeness through openness to talented people and to fresh ideas. There is no tested formula, but it's important to continuously strengthen the four building blocks of city competitiveness plus diversity and recreational and cultural amenities, as emphasized by Florida.<sup>12)</sup>

Beyond the current success of Asian cities as business, logistics, and financial hubs, whether they are able to nurture a generation of industries that interlace high-tech manufacturing with knowledge-intensive services will determine how these cities fare. Industries such as biotechnology, IT, multimedia, robotics, and fashion are among the promising candidates. Newly emerging service sectors such as online banking, internet financing, and e-clinics also have a bright future. This new phase of industrialization leads into uncharted territory. The challenge for cities going forward is to augment

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10) Yusuf and Nabeshima, *Postindustrial East Asian Cities* (2016).

11) *Ibid.*

12) Richard Florida, *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community, and Everyday Life* (New York: Basic Books, 2002).

and realize their dynamic comparative advantages. By doing so, they will generate growth, high-quality jobs, and momentum for the continued success for the entire economy.

What's critical always is that cities need to pursue their own unique strategy based on their comparative and competitive advantages, rather than blindly applying different actions. In addition, it's important to understand that even though zones and business hubs are different policy instruments, they are highly related to each other. Wherever appropriate and necessary, they can be implemented together to reinforce each other to achieve the agglomeration effect as well as more dynamic and innovative growth as demonstrated in many Asian economies and beyond.

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## Executive Summary

Around the world, there are 4,300 special economic zones throughout more than 130 countries: the zones in Asian countries have been quite successful, while on the other hand, those of Africa and some other countries have not performed well so far. Especially, some special economic zones and business hubs in Asian countries such as South Korea, China, Hong Kong and Singapore, as well as Dubai, have been quite successful in terms of innovative and dynamic economic growth. Not all of the zones in the countries were successful: some of those were recognized as so-called “white elephants.” As successful cases received more and more attention, however, there has been a steady increase in the need to learn the secret of success from these cases in terms of policy implications. This paper was designed to fulfill these needs, and especially to be a fine policy guide book for developing countries which will introduce special economic zones as a way to boost their economies in the near future.

The subject cases of this study include the Masan Free Trade Zone and Incheon Free Economic Zone in Korea, the Shanghai special economic zone in China, Hong Kong, Singapore, and Dubai. In this study, special economic zones are classified into two types, industrial zones and business hubs, analyzing each type’s success factors and policy implications. The examples of successful SEZs in industrial zone-type included the Masan Free Trade Zone and Shanghai special economic zone. These zones are the rep-

representative SEZs which have functioned as industry and economy boosters, along with the industrial clusters of the surrounding areas. The examples in business hub-type zones were Singapore, Hong Kong, and Dubai. The Incheon Free Economic Zone in Korea was also considered in the same category, which focuses on switching to a new innovative economy and growing into a business hub for the Northeast Asian region.

In general, the types of special economic zones in a certain country are closely related to the level of its economic development. Most of the industrial zone-type special economic zones have begun in labor-intensive industries, and then shift into a more complex form of SEZ as the income level increases. Especially, the zones gradually evolve into a business hub which covers all the features of a city, such as better circumstances for living, R&D environment, and superior environment for investments. In general, special economic zones based on manufacturing industries, the so-called “1st generation of special economic zones,” have less forward and backward industrial effects through linkages with the domestic economy, and are very dependent on the financial support of the central government. However, in modern times, more and more countries are now introducing new special economic zones in areas which have strong linkages with the domestic economy and relaxed regulation systems. For example, special economic zones in China have functioned well as “test-beds” for new policies and deregulations, as well as for maximized freedom of economic activities. These are the 2nd generation of special economic zones. Global environmental change and the concern about the sustainability of the environment have led to a new type of SEZ, which is a high-ranked and correlated type of SEZ. It can be called the 3rd generation SEZ, which is a convergence of the first and second types of SEZs, pursuing such goals as low carbon, green growth, and eco-industrial parks. As such, regardless of the generation of the special economic zones, the suc-

cess of special economic zones is highly dependent on a certain country's economic circumstances and comparative advantages. Based on this precondition, the long-term development plan of the country, commercial feasibility, target markets, accessibility of SOC, skilled workers and technical innovation ability have become additional success factors.

First, as a part of this study, the Masan Free Trade Area (Chapter 2) and Shanghai special economic zone (Chapter 4) were introduced as successful industrial zones. The Masan Free Trade Zone has been rated as one of the most successful examples since it was first designated as an export processing zone in 1971. It has contributed to the advancement of Korea's export industries in conjunction with neighboring industrial clusters, greatly facilitated by Masan's superior geographical location. It has also contributed to the dynamic growth of Korean companies through job creation, technology transfer, and technical cooperation between domestic and foreign companies such as Sony and Nokia. Due to its great achievements, the Masan SEZ is considered to be one of the best EPZs (Export Processing Zone) in the world and was chosen as a success model of promoting foreign investment policy for developing countries by the World Economic Processing Zone Association.

In China, the central government has designated a number of special zones since 1980 to carry out economic reform. The purpose of the zones was not only to attract foreign investment zones to boost manufacturing industries, but also to create test-beds of to compare the market economy against the formal socialist planned economy. Shanghai has designated various types of zones depending on each phase of the economic development, and has made steady efforts to make Shanghai the center in terms of economy, finance, trade, logistics and innovative economy through mutual cooperation between the zones. In this study, Economic and Technological Development Zones, Pudong New Area, Export Processing Zones, and the

recently designated Free Trade Zone were included as the subjects. The study aims to indicate the roles of special economic zones in the process of transition to a dynamic economic development and innovation in the economy, the success factors, and the problems they face.

Business hub-type special economic zones are bigger than industrial zones, designated in areas where trade and finance, logistics and services activity is very intense. Incheon Free Economic Zone, Hong Kong, Singapore, and Dubai, which aim to be the business hubs of Northeast Asia, serve as a logistics and financial hub as well as the regional headquarters of multinational companies. Business hub-type zones require a substantial period from their development to success. In order to attract multinational companies, a considerable period of time is required to establish confidence in the region's bright future. Hard infrastructures such as ICT, transport and logistics infrastructure, better training conditions, and living environments that allow residents to enjoy their leisure time are very important. In addition, regulation should be minimized, English should be the official language, and efforts should be made to insure soft infrastructures, such as convenience in administration processes, are well developed.

The representative examples of successful business hubs in Asia would be Singapore and Hong Kong. Singapore has rapidly grown from an underdeveloped country into one of the most affluent countries in the world within a mere 50 years. Since its independence in 1965, it has transformed into one of the most dynamic and innovative economies, and one of the most successful business hubs in the world today. All institutions in Singapore work with the most transparent and advanced systems, and operate training facilities which can foster skilled workers and professionals. In particular, the nation is equipped with the hard and soft infrastructures mentioned above as a precondition of business hubs. With the govern-

ment's active support and one-stop services, a business-friendly environment and excellent human resources, it is recognized as one of the most successful business hubs in the world, with its geographical advantages. The fifth chapter of this report provides an analysis of this method of dynamic and innovative economic growth as a business hub. An analysis on Singapore's economic policies after the 2000s, which have focused on the transition to an innovative economy, is also included in the chapter. Hong Kong is another city located in the most advanced and opened area, which operates as a representative business hub for the Asian region. Chapter 6 of this report indicates how Hong Kong has developed into Asia's business and financial center, and into a dynamic and innovative economy.

Dubai is one of the most dynamic and efficient business hubs in the world thanks to its various geographical advantages, linking Asian and European continents. The success of Dubai was based on huge investment in the infrastructure sector by the Dubai government, which has made Dubai one of the world's most important trade hubs in a relatively short period. Dubai International Airport is the largest airport in the world, attracting 70 million passengers a year. Air freight has also increased exponentially — approximately 250 million tons of logistics passed through Dubai in 2015. The Jebel Ali Free Zone (JAFZ), founded in 1985, has been rated as the most successful free trade area in the world and become a benchmark target due to its success based on global linkages (connectivity) and the supply chain. The JAFZ currently generates approximately 20% of Dubai's total GDP, and contributes to expanding the manufacturing base and the dynamic growth of Dubai's economy. Chapter 7 provides a detailed analysis on the JAFZ in conjunction with the success story of Dubai. In particular, the success factors of the JAFZ, its roles in the process of Dubai's growth into a global logistics hub, and JAFZ's current challenges and the policy difficulties are discussed.

Finally, the Incheon Free Economic Zone is included as a subject of this study because it is seeking to transition into an innovative economy and attract foreign investors through deregulations, and finally aims to become a Northeast Asian business hub. South Korea designated the Free Economic Zone in 2003 as a measure to shift toward higher value-added industries and strengthen service industries after the Asian financial crisis in 1998. The Free Economic Zone was dedicated to attracting foreign investment by ensuring the maximum level of economic freedom and improving living environments for foreigners. The background of promoting the policy was to become a business hub of Northeast Asia, because Korea can utilize its geopolitical and economic advantages, located between Japan and China. The Incheon Free Economic Zone, introduced in Chapter 3 of this report, has the highest potential for success among the eight free economic zones in South Korea due to its advantageous geographical location. Incheon Free Economic Zone is drawing a huge amount of attention in terms of Korean SEZ policy, and a number of international media have expressed their interest. The Incheon Free Economic Zone is close to Incheon International Airport, which is one of the most competitive airports in the world in terms of service, and is also adjacent to Seoul and other industrial clusters in Korea, as well as to China. Based on this superior infrastructure, service industries and high-tech industries have been fostered intensively. Incheon Free Economic Zone serves as a test bed for the introduction of new technologies, as well as a shelter for leading research institutions for R&D, world-class universities, and a number of international organizations. Despite the achievements so far, many challenges lie ahead for the Incheon Free Economic Zone. This study provides a wide range of policy proposals for the success of the Incheon Free Economic Zone.

Chapter 8 provides the conclusion, drawn from the analysis of the suc-

cess stories of the six special economic zones, and a summary of key success factors. In conclusion, the success factors of industrial zones and business hubs are each explained, together with the appropriate types of special economic zones for each step of economic growth. In addition, a well-run special economic zone policy enables dynamic and innovative growth, but an inappropriate special economic zone policy leads to a waste of high costs and effort, ending with a “white elephant” situation. The policy implications provided in the conclusion of this study were derived from the case studies in the previous chapters.

# List of KIEP Publications

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## Hyung-Gon JEONG

Dr. Jeong Hyung-Gon graduated from the University of Bonn and holds a Ph.D. in Economics from the University of Cologne. He was a Fulbright Visiting scholar at Johns Hopkins University, School of Advanced International Studies (SAIS). Dr. Jeong is currently a senior research fellow at the Korea Institute for International Economic Policy(KIEP). He serves as a Consultant at the Fair Trade Commission, the Advisory Committee of Free Economic Zone of the Ministry of Trade, Industry and Energy. He is also Member of the Presidential Committee for Unification Preparation. He also served as a Consultant of Special Economic Zone for the governments of Vietnam, Uzbekistan, and Kazakhstan as part of the Korean knowledge-sharing projects. Before joining KIEP, Dr. Jeong was Director General of the Office of Strategic Planning at the National Security Council (NSC), the Blue House from June 2003 to December 2005. Dr. Jeong has published many refereed journal articles, books and working papers on international economics including trade and investment, transition economy and North Korean economy etc. He can be reached at hgjeong@kiep.go.kr.

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## Douglas Zhihua ZENG

Dr. Douglas Zhihua Zeng is a Senior Economist at the World Bank, and a global expert on macroeconomic policy, spatial economy, innovation, cluster/value chains, competitiveness and knowledge economy. He graduated from Shaanxi Normal University (China) and received advanced degrees in Economics, MIS and International Business from the George Washington University. Prior to joining the World Bank, he worked as an Economist at the Chinese Academy of Social Sciences and a Visiting Scholar at Stanford University. His work has been published in journals related to International Economics Review, International Commerce, Economics & Policy, International Studies Review, and China Quarterly, etc. His recent books (including co-authored or edited) include Building Engines for Growth and Competitiveness in China: Experience with Special Economic Zones and Industrial Clusters; Knowledge, Technology, and Cluster-Based Growth in Africa; Promoting Enterprise-Led Innovation in China; Innovation for Development and the Role of Government; and Enhancing China's Competitiveness through Lifelong Learning, among others.

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### **Kim Song TAN**

Prof Tan holds a PhD in Economics from Yale University and a Bachelor of Economics (First Class Honors) from Adelaide University.

Professor Tan Kim Song is currently a Faculty Member at the School of Economics and Director of the Master of Applied Economics Program at the Singapore Management University (SMU). From 2008–2010, he also served as the Director of the China Capital Market Research Center (CCMRC) at SMU. Besides his work at the SMU currently, Prof Tan is also active in various businesses in the Mekong region and in China. He was the founding partner of the Frontier Investment and Development Partners, a company specializing in private equity investment businesses in the Mekong region. He currently sits on the board of a number of companies in Singapore and Myanmar, including Hotel Royal Ltd (SGX-listed), Myanmar Carlsberg, Myanmar Consolidate Media etc. He can be reached at [kstan@smu.edu.sg](mailto:kstan@smu.edu.sg).

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### **Yan DONG**

Dr. Yan Dong received her Ph.D. degree in Economics from the Graduate School of Chinese Academy of Social Sciences.

Yan Dong, senior research fellow, director of trade department of Institute of World Economics and Politics (IWEP), Chinese Academy of Social Sciences (CASS), post doc in University of Western Ontario, visiting scholar in Columbia University. Her research fields include international trade theory and policy, regional economic integration, and global value chain. She had hosted and attended tens of research programs include Chinese national social science fund, Chinese national science fund, and the Scientific Research Foundation for the Returned Overseas Chinese Scholars, funded by State Education Ministry of China, the Scientific Research Starting Foundation for Returned Overseas Chinese Scholars Funded by Minister of Human Resources and Social Security of China. Her academic research papers have been published in the journals of The World Economy, Economic Modelling, Journal of Policy Modelling, and Applied Economic Letters. She can be reached at [dongyan@cass.org.cn](mailto:dongyan@cass.org.cn).

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## **Guangwen MENG**

Dr. Guangwen Meng obtained his doctorate from the University of Heidelberg. He is currently a professor at the Tianjin Normal University.

Dr. Guangwen Meng was born in 1960 in Tianjin, China. He began his studies in 1978 at Tianjin Normal University, Department of Geography and achieved his BSc in June 1982. He obtained his MSc in June 1988 after his second study in 1985 at the Tianjin Normal University and the Manchuria Normal University. He was employed as an assistant and lecturer for the Department of Geography at Tianjin Normal University from 1988 to 1993. In 1994 and 1995 he continued his research work as a visiting scholar at the University of Tübingen, Germany, and obtained his doctorate in 2003 from the University of Heidelberg. His research focuses on Free Economic Zones, Regional Planning and Regional Policy, German Human Geography. He can be reached at [gwmeng98@hotmail.com](mailto:gwmeng98@hotmail.com).

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## **Sherif MUHTASEB**

Sherif Muhtaseb, a British national, holds a MBA from the University of Strathclyde in Glasgow, United Kingdom. Currently he is Senior Operations Officer in the World Bank Group's Trade & Competitiveness Global Practice based in Istanbul, where he is the global lead for Special Economic Zones. Prior to Istanbul he was based at WBG's office in Dhaka, Bangladesh, where he was technical lead for SEZ advisory activities in South Asia. Prior to joining the World Bank Group, Sherif held various senior positions spanning a period of 12 years for one of the world's foremost SEZ operators in Dubai, working on both the domestic and international SEZ operations. Prior to Dubai he started his career in London working for various consultancies focused on industrial research. Sherif is a regular speaker and contributor at international conferences related to economic development and special economic zones. He can be reached at [smuhtaseb@ifc.org](mailto:smuhtaseb@ifc.org).

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## **Jong-Hun PEK**

PEK Jong-Hun graduated from Sungkyunkwan University. He has a master's degree in Actuarial Science from Sungkyunkwan University. He is currently a researcher at the Korea Institute for International Economic Policy (KIEP). He can be reached at [jhpek@kiep.go.kr](mailto:jhpek@kiep.go.kr).



# Promoting Dynamic & Innovative Growth in Asia: The Cases of Special Economic Zones and Business Hubs

Edited by Hyung-Gon JEONG and Douglas Zhihua ZENG

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Around the world, there are 4,300 special economic zones throughout more than 130 countries: the zones in Asian countries have been quite successful, while on the other hand, those of Africa and some other countries have not performed well so far. In particular, some special economic zones and business hubs in Asian countries such as South Korea, China, Hong Kong and Singapore, as well as Dubai, have been quite successful in terms of innovative and dynamic economic growth. Not all of the zones in the countries were successful: some of those have been recognized as “white elephants.” As successful cases receive more and more attention, there has been a steady increase in the need to learn the secret of success from these cases, in terms of policy implications. This paper was designed to fulfill these needs, and especially to be a fine policy guidebook for developing countries which will introduce special economic zones as a way to boost their economies in the near future.

