

SEZ-led Growth in Taiwan, Korea, and India

Implementing a Successful Strategy

ABSTRACT

The present study examines the ingredients of strategic state intervention in growth driven by special economic zones (SEZs). Analyzing the experiences of Taiwan, South Korea, and India, the research reveals that essential components of a strategic SEZ policy include the spirit of experimentation with strategic policy making informed by a medium- to long-term vision, as well as a strong commitment, pragmatic approach, dynamic learning, and institution-building.

KEYWORDS: Special Economic Zones, Korea, Taiwan, India, SEZ strategy

INTRODUCTION

Special Economic Zones (SEZs)¹ have been in existence for decades but have attracted renewed attention in recent years. Most countries that have shifted from an import-substitution to an export-promotion regime are increasingly focusing upon SEZs as a strategy for expanding and modernizing their economies. There were 176 zones across 47 countries in 1986; by 2006 (the latest year for which data are available), the number of zones had increased to over 3,500 in 130 countries.² The total employment in SEZs almost tripled within 10 years, from 22.5 million in 1997 to 66 million in 2006. Not only

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1. This paper uses the generic term "Special Economic Zones" to cover the range of export zone types relying on favored business treatment.

2. ILO (International Labor Organization), *Export Processing Zones Statistics* (Geneva, ILO), <<http://www.ilo.org/public/english/dialogue/sector/themes/SEZ/stats.htm>>, accessed August 10, 2009.

Asian Survey, Vol. 52, Number 5, pp. 872–899. ISSN 0004-4687, electronic ISSN 1533-838X. © 2012 by the Regents of the University of California. All rights reserved. Please direct all requests for permission to photocopy or reproduce article content through the University of California Press's Rights and Permissions website, <http://www.ucpressjournals.com/reprintInfo.asp>. DOI: AS.2012.52.5.872.

has the number of SEZs increased lately, so has their variety.³ Nonetheless, the policy has not been an unequivocal success; developing countries have had varied results. A pertinent question is: What are the crucial ingredients of a successful SEZ program? There exists a rich literature addressing this question. It acknowledges that the state has a key role in ensuring the success of the program.

However, much of the analysis of state intervention in SEZs is static. It acknowledges that the state must set realistic objectives; put together a coordinated package of incentives, infrastructure, and good governance to achieve these goals; and coordinate the development of zones with the rest of the economy. But most analysis ignores the dynamics of state intervention. As SEZ-assisted growth takes place, it induces significant structural changes in the economy that affect domestic conditions. A successful SEZ strategy must respond quickly to these changes in the broader economy by focusing on evolutionary objectives, incentives, and facilities offered. In “strategic refocusing,” the criteria are set in order to reallocate the SEZ resources from labor-intensive assembly type activity to more capital- and skill-intensive activity to boost the economy to the next stage. From a dynamic perspective, therefore, structural changes in the SEZ sector and the broader economy are mutually reinforcing, and the state plays a pivotal role in this process through strategic refocusing. The present study is an attempt to examine the ingredients of strategic state intervention in SEZ-led economic growth.

The study focuses on three Asian countries, namely, Taiwan, South Korea,⁴ and India, vis-à-vis their SEZ policy, analyzing the evolutionary role of the state in the zone-induced development process. It draws lessons that could be considered in the pursuit of SEZ-led development strategies.⁵ All three countries started this program roughly around the same time. India established its first zone in 1965, Taiwan and Korea in 1966 and 1970, respectively. Furthermore, all three adopted the traditional variety of SEZs, which are usually fenced-in areas that specialize in export manufacturing and offer firms

3. Guangwen Meng, “Evolutionary Model of Free Economic Zones: Different Generations and Structural Features,” *Chinese Geographical Sciences* 15:2 (2005), pp. 103–12; Aradhna Aggarwal, *Social and Economic Impact of SEZs in India* (New Delhi: Oxford University Press, 2012), p. 2.

4. South Korea will be referred to as Korea in the rest of the text.

5. These case studies are presented as illustrative rather than representative, with the objective of providing insights to policy makers useful for a successful SEZ strategy.

free trade conditions and a liberal regulatory environment. Finally, all of them adopted SEZs under politically closed regimes and in the initial stages of national economic growth.

Despite these similarities, the countries have traversed divergent evolutionary trajectories and met with varied success. While Taiwan and Korea have capitalized on opportunities created by SEZs, India's experiment with them met with limited success. This study analyzes how international and domestic conditions changed over time and how the three states responded to them in an effort to reap the benefits of the SEZs. Academics, policy makers, and empirical researchers may find it instructive to review the evolution and performance of SEZ policies in these countries.

The paper is structured as follows: Section 2 presents the theoretical underpinnings of the dynamic perspective on state intervention in SEZ development. Section 3 examines the contexts in which SEZs were established in the three selected countries, while Section 4 traces the respective trajectories of SEZ evolution. Section 5 evaluates their economic performance. And finally, Section 6 draws important policy implications.

EVOLUTION OF SEZs AND STATE INTERVENTION: A DYNAMIC APPROACH

The existing literature shows that the underlying conditions for successful SEZs include a favorable international environment, the proximity of international ports, a well-developed infrastructure, a pool of skilled and semiskilled labor, a generous package of incentives, a minimum of governance and red tape, an open macroeconomic regime, and sound and stable monetary and fiscal policies. Broadly, these factors can be grouped into two categories: international and domestic. International conditions define opportunities and constraints for SEZs. A favorable international environment characterized by rapidly expanding international trade and foreign capital inflows has a positive effect on the performance of SEZs. Domestic conditions, on the other hand, shape the investment climate in which a country's SEZs operate and promote trade and investment flows. The term "investment climate" captures a wide array of factors including infrastructure, labor costs, governance, incentives, macroeconomic policy, and regional economic and social conditions affecting the zone. These factors pertain to investment climate at three different levels: within the SEZ (micro-investment climate), within the region (meso-investment climate),

and within the host country (macro-investment climate).⁶ While the macro-climate involves nationwide economic policies, resources, and constraints, a micro-climate is determined primarily by conditions offered in the SEZs. Between the two lies the meso-climate, which is determined by regional factors. Each layer has distinct elements:

- Macro-climate: Macro policy framework, exchange rate policies, market size, trade policy tools, resource availability, political and economic stability.
- Meso-climate: Regional economic infrastructure, export infrastructure, availability of labor, labor laws, and regional governance.
- Micro-climate: Legal framework, incentive package, zone infrastructure, and zone administration.

The investment conditions of a given zone are thus determined not only by the conditions within the zone but also by meso- and macro-investment climates prevailing outside it. The state is instrumental in setting the objectives and influencing all three layers of investment climate through its policies. It chooses the site, develops infrastructure within and outside the zone, offers a package of incentives, and develops the legal framework for SEZs. These policies are likely to be reflected in the performance of the zone.

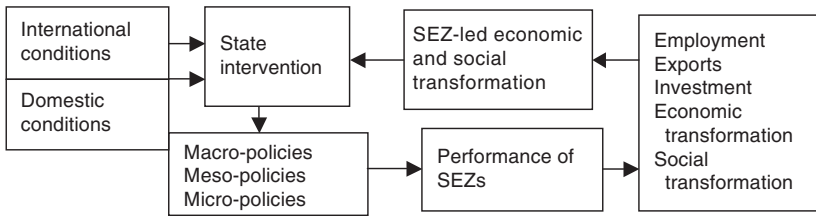
International and domestic conditions change over time. Although international conditions change exogenously, changes in domestic conditions may be exogenous or endogenous. Exogenous changes in this context are those that occur due to some force applied from outside the SEZ system (for instance, shifts in economic regime, trade liberalization, or industrial policy changes); endogenous changes take place when economic structures change in response to SEZ-assisted development. To harness the potential of SEZs in diversifying and modernizing the economy,⁷ a state must reevaluate its policies and objectives against these changes and adapt them. However, states vary in their commitment and ability to respond to change. The more flexible the state is in adapting to changing economic realities, the more successful its SEZ program is expected to be.

Figure 1 depicts the dynamic relationship between state policies and the domestic and international factors that affect SEZ performance. It also shows

6. V. F. S. Sit, "China's Export-Oriented Open Areas: The Export Processing Zone Concept," *Asian Survey* 28:6 (June 1988), pp. 661-75; Jing-Dong Yuan and Lorraine Eden, "Export Processing Zones in Asia: A Comparative Study," *ibid.*, 32:11 (November 1992), pp. 1026-45.

7. Aggarwal, *Social and Economic Impact of SEZs in India*, pp. 137-38.

FIGURE 1. A Model of the Dynamic Interactions between the State and SEZs



SOURCE: By author.

that the state can be instrumental in forging and reinforcing the linkage between SEZs and economic development through dynamic interactions. To examine the importance of these dynamic interactions in zone performance from a perspective spanning different countries, one must control for both the international conditions in which the zones operate and the initial domestic conditions under which the zones were established. We have therefore selected three Asian countries that started their SEZ programs around the same time and hence faced the same international conditions in the initial phases. In the following section, we explore the history of SEZs in these three economies to establish that the domestic conditions faced when they started their respective SEZ programs were also very similar.

HISTORICAL REVIEW OF SEZ ESTABLISHMENT: TAIWAN, KOREA, AND INDIA

SEZs were launched in the three selected countries when their economic structure was still dominated by primary economic activity, and they were pursuing an inward looking policy. In Taiwan, the first major effort to boost economic potential was made in 1952 when the first four-year plan was introduced; it focused on developing the industrial sector and on an import substitution regime. In the initial phases, the focus was on labor-intensive manufactured products. These industries did create jobs and reduced unemployment, but they developed quite fast; by 1956, the domestic market was almost saturated. The government therefore sought to encourage exports.⁸ The “Statute for the Establishment and Administration of Export Processing

8. See, for the analysis, Frederic C. Deyo, “Introduction,” in *The Political Economy of the New Asian Industrialism*, ed. Frederic C. Deyo (Ithaca, N. Y.: Cornell University Press, 1987), pp. 1–22.

Zones EPZ” was promulgated in 1965, and the first EPZ⁹ was inaugurated in December 1966 on 68 hectares of reclaimed land in the southern port of Kaohsiung. Known as the KEPZ, it was initiated under a policy of expanding the export of labor-intensive products to world markets, creating employment opportunities, absorbing industrial investment both domestic and foreign, and introducing modern manufacturing and managerial practices to Taiwan.¹⁰

Korea launched its first Five-Year Economic Development Plan in 1962. In the initial phase of growth, the government adopted a two-pronged strategy: rigorous export-oriented policies in mature industries¹¹ and import substitution in the consumer goods sector. Because the country’s own technological capabilities were limited, the dual trade policy placed continuous pressure on firms to acquire foreign technologies. The policy led to massive imports of foreign capital goods and a foreign exchange shortage. To address the issue, the government sought to encourage foreign direct investment (FDI) in export-oriented sectors that could garner new technologies and promote Korean manufacturing competitiveness.¹² Because FDI policies were highly restrictive within the domestic economy, the government planned to build its first export zone in 1970 in Masan, where it allowed only FDI. In January 1970, it announced the Free Export Zone Law, and the construction of an SEZ in Masan began.

In India, the process of industrial growth was initiated as early as 1948, when the government announced its first Industrial Policy Resolution, IPR 1948. The centerpiece of the development strategy was promoting import substitution-based industrialization with a particular emphasis on basic and heavy industry. Growing imports along with other crises such as an agricultural failure and two border conflicts led to a severe foreign exchange crisis in the early 1960s. To promote Indian exports, several fiscal incentives were offered to exporters. In 1965, the government set up its first EPZ (official nomenclature adopted for SEZ) in Kandla in the state of Gujarat. Because

9. Officially, Taiwan adopted the nomenclature EPZ for SEZs.

10. *The Establishment and Development of Export Processing Zones (EDEPZ) in China*, EPZ Administration Taiwan (1987), quoted in Ying Zhu, “The Role of Export Processing Zones in East Asian Development,” Ph.D. diss., Melbourne University, 1992, ch. 4.

11. These included industries such as food and textiles (in the 1960s), and metal, shipbuilding, and chemicals (in the 1970s).

12. Lee Sang Cheol, “Korea’s Experience on Special Economic Zones (SEZs) and Its Implication for Uzbekistan,” in *Feasibility Study on Establishing Special Economic Zones in Uzbekistan*, ed. Y. C. Jeong (Seoul: KIER, 2008), pp. 27–47; Rajiv Kumar, *India’s Export Processing Zones* (Bombay: Oxford University Press, 1989); and Deyo, *The Political Economy of the New Asian Industrialism*, pp. 1–22.

EPZs were viewed simply as tools for offering fiscal incentives for export promotion, the program was not supported by any legislation or administrative infrastructure.¹³

It is apparent that all three countries started their SEZ programs in the initial stage of their development, with restrictive regimes. The objectives of these traditional “fenced-in” SEZs were primary: promoting exports, earning foreign exchange, and spurring employment. In the context of Korea, attracting FDI was also a major SEZ objective. The trajectory and development of the zones are analyzed below.

THE EVOLUTION OF SEZS

Both Taiwan and Korea located their SEZs near existing business centers to draw upon their competitive strengths. They offered a highly lucrative, comprehensive package of incentives to investors to promote export industries, quickly attaining full occupancy. In Taiwan, by 1969, applications to set up businesses in the KEPZ far exceeded the space available. The government then decided to open two more zones: one large zone (90 hectares) in Nantze, just outside of Kaohsiung, and a smaller one (23 hectares) near the central city of Taichung. Officials upgraded the SEZs first from labor-intensive traditional industries to capital-intensive and then high-tech industries, using fiscal incentive schemes specified in the “Statute for the Encouragement of Investment” (SEI). The statute was enacted in September 1960 and expired at the end of 1990. Between those years, it was amended several times to steer EPZs in changing economic directions. In the beginning, all EPZ enterprises were exempt from taxes for a period of five years. During the 1970s, tax incentives focused on imports of intermediate and capital goods and on new export industries such as consumer electronics; traditional export items ceased to be eligible. In the late 1980s, the government introduced structural adjustments in the wake of the ongoing global recession. Under the program, EPZs were shifted away from traditional industries toward higher-value-added industries including high-value-added electronics, optoelectronics, and information and communication products. As the focus shifted to technology intensive industries, the incentives were further upgraded.¹⁴

13. Aggarwal, *Social and Economic Impact of SEZs in India*, p. 64; Ashok Kundra, *The Performance of India's Export Zones* (New Delhi: Sage Publications, 2000).

14. Robert Wade, *Governing the Markets: Economic Theory and the Role of Government in Industrialization* (Princeton, N. J.: Princeton University Press, 2003); Heather Smith, “Taiwan’s Industrial Policy in the 1980s: An Appraisal,” *Asian Economic Journal* 11:1 (1997), pp. 1–33.

TABLE 1. Description of Manufacturing- and Logistics-oriented SEZs in Taiwan

EPZ	Area (Hectare)	Major Industry	Free Trade Port	Location	Area
Taichung	26.2	Digital cameras and opto-electric products	Keelung FTZ	Keelung City	71.16
Chungkang	177.0	Auto and metal	Taipei FTZ	Taipei County	79.00
Douliou Silk Weave Zone	268.0	Textile	Taoyuan Air Cargo FTZ	Taoyuan County	35.00
Nanzih	97.8	Integrated circuits	Taichung FTZ	Taichung City	536.00
Kaohsiung	72.0	R&D and LCDs	Kaohsiung FTZ	Kaohsiung City	415.41
Chenggong Logistics Park	8.4	Logistics	Suao Port		
Linguang	9.0	R&D and LCDs			
Kaohsiung Software Park	7.9	IT			
Pingtung	124.1	Auto and bio tech			

SOURCE: Industrial Development Bureau, Ministry of Economic Affairs, June 2004.

In the late 1990s, against the backdrop of the East Asian financial crisis (1997–99), Taiwan's government committed itself to developing a logistics industry and decided to use EPZs as the vehicle to promote it.¹⁵ In 2001, the Warehouse Transshipment Special Zone Plan was launched, emphasizing logistic firms.¹⁶ Since then, Taiwan EPZs have been promoting well-equipped logistics facilities, assisting companies in bringing in specialists and training personnel, and helping firms create their own brands and markets internationally so they can sustain development. Over time, the EPZs have attracted advanced storage and transportation centers with pick-up and delivery services for speedy onward shipment of goods by land, sea, or air. Since the introduction of the Plan, EPZs have increased in total area from 192 to 844 hectares across nine operating EPZs¹⁷ (see Table 1).

In response to economic globalization and digitization as well as the emergence of the knowledge and service economy, the Taiwan government enacted the “Act for the Establishment and Management of Free-trade Ports” in 2003.

15. Invest Taiwan, <http://investtaiwan.nat.gov.tw/library/main_eng_general.jsp>, accessed August 16, 2009.

16. EPZA (Export Processing Zone Administration), Taiwan, <http://en.epza.gov.tw/index_redir.jsp?>, accessed August 12, 2009.

17. Ministry of Economic Affairs (MOEA), *Cost of Investing in Taiwan—Taxes, Compensation, Real Estate, and Other Expenses*, Industrial Development and Investment Center, MOEA, Korea, November 2004, p. 114.

Free trade ports (or zones) are trade-based logistics-oriented zones set up adjacent to ports (port-based) or airports (airport-based) to facilitate transiting trade in dutiable goods by offering custom-duty-free treatment. Free trade zones (FTZs) allow storage, exhibition, selection, classification, and repackaging of goods, free of duty.¹⁸ They are aimed at reducing inventory and raw material procurement costs of FTZ firms by offering swift, customer-oriented just-in-time (JIT) services and value added logistics services. Taiwan established FTZs in 2003 with the official objectives of promoting the development of global logistic and management systems; attracting high-value-added manufacturing; facilitating the smooth flow of personnel, goods, funds, and technology; and upgrading Taiwan's national competitiveness. Since then six FTZs have been set up (see Table 1 above). Of them, the Taoyuan Air Cargo FTZ is a public-private partnership; the rest are government owned.

In Korea, the success of the Masan export zone encouraged the government to construct another zone on the west coast in Iri in 1973. Initially, only foreign firms (including majority owned local companies) were allowed to operate in "free export zones." They were largely involved in labor-intensive processes such as production of textiles, footwear, and electronic parts; there was little linkage with the outside economy. To motivate SEZ firms to forge subcontract relations with firms outside, the law was amended to allow outsourcing of production processes outside the zone. By the 1980s, Korean firms were being allowed to invest in these zones. In 1987, there was a political transformation in the country from dictatorship to democracy. Soon, disputes over labor rights were proliferating.¹⁹ As a result, Korean wages increased steeply, and the country started losing its competitive advantage in labor-intensive products. This led the government to restructure the economy. In line with changing industrial policy, SEZs were also restructured in favor of capital- and technology-intensive products. As a result, after 1987, there was a sharp decline in employment within SEZs, but exports actually increased. Clearly, production had become increasingly automated and technology intensive.²⁰

18. Unlike the FTZs that concentrate on transit, logistic, and commercial activities, SEZs (or EPZs) emphasize processing and manufacturing activities, and offer, along with tax incentives, an effective administrative model, favorable locations, well-developed industrial infrastructure, and low labor costs, as well.

19. Mayumi Maruyama and Yokota Nobuko, *Revisiting Labour and Gender Issues in Export Processing Zones: The Cases of South Korea, Bangladesh, and India* (Tokyo: Institute of Developing Economies, 2008); Dong-One Kim and Johngeok Bae, *Employment Relations and HRM in South Korea* (London: Ashgate Publishing, 2004).

20. Zhu, "The Role of Export Processing Zones in East Asian Development," ch. 5.

TABLE 2. Evolution of SEZs in Korea

FTZ: Mfg.-type SEZs	Year of Establishment	Area (Ha)	FTZ: Logis- tics-oriented SEZs	Year of Estab- lishment	Area (Ha)	FEZ	Period of Completion	Area (Km ²)	Infra Cost (Won Trillion)
Masan	1970	95.4	Busan	2002	545.1	Incheon	2003-20	209	14.7
Iksan	1973	31.0	Gwangyang	2002	675.5	Busan/Jinhae	2003-20	104	7.7
Gunsan	2000	125.4	Incheon	2003	229.4	Gwangyang	2003-20	90	8.1
Daebul	2002	115.6	Incheon Airport	2005	301.5	Daegu/ Gyeongbuk	2008-25	39	—
Donghae	2005	24.8	—	—	—	Yellow Sea	2008-25	55	—
Yulchon	2005	34.3	—	—	—	Saemangeum/ Gunsan	2008-25	66	—

SOURCE: Jeong Hyunggon, "Operation System and Policies for the Success of Navoi FIEZ," p. 117; and FEZ Authority, Korea, <<http://www.fez.go.kr/en/what-is-free-economic-zone.jsp>>.

Until 2000, there were only two SEZs in Korea. That year saw an expansion phase begin (see Table 2). Between 2000 and 2005, four more traditional zones were set up by the Ministry of Knowledge Economy as a way to bolster regional economies.²¹ In 2004 the nomenclature was changed to "manufacturing-oriented free trade zones."²² Furthermore, in 2000 Korea had also introduced FTZs under the aegis of the Ministry of Land, Transport, and Maritime Affairs. These zones, as discussed above, were aimed at improving the competitiveness of the logistics industry through greater added value from transshipping, distribution, repackaging, multiple-country consolidation, processing, and manufacturing. Under the policy, four logistics-oriented zones (three ports and one airport) are operational, and one port is under construction. In 2004, these zones came to be called logistics-oriented FTZs.

In 2002, Korea devised the concept of free economic zones (FEZ) as part of its efforts to attract more foreign investment, particularly in the service and research and development (R&D) sectors. Unlike the traditional SEZs set up in the initial phase, which are enclosed industrial estates, FEZs are mega open industrial cities spread over several square kilometers. The goal of setting up this new variety of SEZ was for the country to transform itself into a financial, logistics, and business hub of Northeast Asia and to act as a test-bed for corporate

21. Park Jae-gon, "Direction for Free Trade Zone Policy," *Korea Focus* 16:3 (Autumn 2008), pp. 121-31.

22. Invest Korea, <http://www.investkorea.org/InvestKoreaWar/work/reg/eng/co/index.jsp?l_unit=90202&m_unit=90311&code=145050103>, accessed August 2009.

deregulation intended to help revive the sluggish domestic economy.²³ The Act on Designation and Management of Free Economic Zones was adopted in December 2002, effective July 1, 2003. In 2003, an FEZ Committee was inaugurated, and an FEZ Planning Office was set up. A total of six FEZs were designated and are currently under operation (see Table 2). In the first phase, three zones were developed, Incheon, Busan/Jinhae, and Gwangyang Bay Area. The second phase witnessed the development of three more zones, Yellow Sea, Daegu/Gyeongbuk Knowledge Creation, and Saemangeum/Gunsan.

In each FEZ, a distinct growth model has been adopted. While Incheon FEZ is envisioned as a logistical center for international business, finance, and tourism, Busan-Jinhae FEZ (BJFEZ) aims to become a center for telecommunications, high technology industries, and maritime logistics. Gwangyang FEZ focuses on logistics, petrochemicals, and steel; Yellow Sea FEZ specializes in automobiles, information technology (IT), biotechnology, and logistics; Daegu-Gyeongbuk FEZ focuses on knowledge-based services (e.g., education, medicine, fashion, and IT); and Saemangeum-Gunsan FEZ is a hub for automobile manufacture, shipbuilding, and environmental production.

Unlike Taiwan's FTZs, the FEZs of Korea are more ambitious in scope and are patterned after the Chinese SEZs. While the former are trade-based, the latter attract high-value-added economic activity of all forms (manufacturing, trade, and services). They are being conceptualized as world-class cities with cutting-edge airports, ports, and office facilities as well as first-rate schools, hospitals, financial services, malls, leisure services, and tourist facilities.

In India, the first zone in Kandla was slow to pick up steam. The overall economic philosophy of regulation and protection influenced the attitude of the government toward zones as well. There was a very stony suspicion about the intentions of entrepreneurs, and it was feared that they might take advantage of the benefits offered without contributing much to the economy. SEZs were therefore subjected to numerous controls and regulations and were characterized by poor-quality infrastructure, unattractive fiscal incentives, and weak domestic linkages. Inspired by the success of zones in East

23. Lee, "Korea's Experience on Special Economic Zones," pp. 27–47; Hyunggon Jeong, "Operation System and Policies for the Success of Navoi FIEZ," in *Development of Navoi Free Industrial Economic Zone*, prepared for the government of Uzbekistan (Ministry of Strategy and Finance, Republic of Korea, and Korea Development Institute, 2010), pp. 114–48; Y. D. Ahn, "Foreign Direct Investment in Korea's Free Economic Zones," presentation on June 2, 2007, at <cfs8.blog.daum.net/attach/12/blog/2008/.../49043808ac2...-South Korea>, accessed August 15, 2009.

Asia, the Indian government set up another zone at Santacruz in 1973, in the commercial hub of Mumbai, with the objective of promoting the electronics industry in the country. During the late 1980s, five more zones were set up. But the investment climate inside them remained poor because the zones could not be insulated from the external investment climate.

In 1991, a massive dose of liberalization was administered to the Indian economy. Wide-ranging measures also were initiated by the government to revamp and restructure SEZs. The focus had been on improving the investment climate by delegating powers to zone authorities, providing additional fiscal incentives, simplifying policy provisions, and providing expanded facilities. In the late 1990s, services were also permitted in the SEZs. Despite these efforts, the zones neither took off in terms of export/employment growth rates nor in their contribution to overall exports/employment.²⁴

A major shift in approach and policy was introduced when, inspired by the success of the Chinese model, the Indian government in 2000 launched a revamped approach to SEZs permitting the zones to be set up in the private sector as well. Several incentives, both fiscal and non-fiscal, were extended to promoter companies seeking to establish SEZs, and measures were adopted to improve the quality of governance in the zones. But no legislation was enacted to govern them. The policy did not spur private investors into action in a significant way.

To address this, a comprehensive SEZ Act was promulgated in 2005, almost 40 years after the first zone was set up. The Act became operative from February 10, 2006, when SEZ rules were also finalized. Under the Act, SEZs encompass a wide variety of export oriented zones such as single enterprise zones, sector specific zones, multiproduct zones with large townships, and logistics-oriented FTZs. A wide variety of economic activities has been permitted in the SEZs, including services, manufacturing, trading, reengineering, and reconditioning. This new focus set the stage for the SEZs to take off in terms of both exports and employment. As of September 2010, 580 SEZs had been formally approved in India. Of them, 122 had begun operations. Huge amounts of resources are being invested in the zones,²⁵ and a total of 3,139 units received approval to operate in these SEZs.

24. Aradhna Aggarwal, "Export Processing Zones in India: Analysis of the Export Performance," Indian Council for International Economic Relations (ICRIER), Working Paper, no. 148 (New Delhi: ICRIER, November 2004).

25. Aggarwal, *Social and Economic Impact of SEZs in India*, ch. 7.

TABLE 3. Composition of Economic Activity in SEZs in the Selected Countries

<i>Taiwan</i>	<i>Korea</i>	<i>India</i>
EPZ: High-tech, high-value added, and low pollution industries; warehousing; and transportation service center	Manufacturing-type FTZ: Multi-product high-tech, high-value-added manufacturing	All activities except cultivation
FTZ: Trading and logistics	Logistics-type FTZ: Trading and logistics	
	FEZs: High tech services, R&D, non-polluting high tech manufacturing	

SOURCE: FEZ Authority, Korea, <<http://www.fez.go.kr/en/what-is-free-economic-zone.jsp>>; EPZA, Taiwan; Ministry of Commerce, India.

TABLE 4. Structure of SEZs in Taiwan, Korea, and India

<i>Taiwan</i>	<i>Korea</i>	<i>India</i>
EPZs: Manufacturing oriented	FTZs: Manufacturing type	SEZs:
FTZs: Logistics oriented	FTZs: Logistics type	• Single enterprise
	FEZs: High-class cities	• Sector specific
		• Logistics type
		• Service oriented
		• China-type industrial towns

SOURCE: By author.

The upshot is that all three countries under discussion have devised specific policies to upgrade their SEZs. The policy evolution in both Korea and Taiwan has essentially been conditioned by international and domestic economic realities and the past performance of their SEZs. In both cases, SEZ policy is strictly scrutinized, and the state is working to expand their scope in new directions. In India, on the other hand, upgrading the SEZ policy has been forced by the repeated failure of the program to take off. Further, both Korea and Taiwan have been using their SEZs to promote high tech and high-value-added industries to diversify and modernize their economies. India, on the other hand, still aims simply to promote economic activity and generate employment through its SEZs, which now cover almost all economic activities except farming (see Table 3).

Finally, all three countries have been developing various zone types, as shown in Table 4. In Korea and Taiwan, different kinds of SEZs are governed by different institutional frameworks and sets of incentives; conversely, in India, zones are all covered by the same legislative framework.

PERFORMANCE OF SEZs: TAIWAN, KOREA, AND INDIA

Taiwan

FOREIGN INVESTMENT. Historically, Kaohsiung was the most successful EPZ in Taiwan. It attracted 30% of Taiwan's total FDI in 1967 and 39% in 1972.²⁶ During the first 20 years, FDI to Taiwan increased continuously from US\$8.32 million in 1966 to \$138 million in 1985. In the late 1980s, FDI declined for a short period amid the ongoing global recession. However, the government took this opportunity to introduce structural adjustments, shifting EPZs away from traditional industries to higher-value-added ones. The share of electronics and precision instruments in total FDI increased from 58% in 1975 to 67% by 1990, while that of metal products and other labor-intensive products declined from 42% to 33% during the same period. By 1990, 88 enterprises operated in the KEPZ with a total investment of \$170.38 million. Foreign investment accounted for \$140 million (82%), while the rest (18%) was local investment. EPZs were thus instrumental in attracting FDI in the initial stages of growth. Japan provided the largest portion of FDI, 57%, while the U.S. level reached 35%.

LINKAGES WITH THE DOMESTIC ECONOMY. Zones' effectiveness as an instrument for achieving long-term industrial development depends on the degree of backward and forward linkages that they establish with the domestic economy. The former are forged when SEZ firms raise demand for domestic inputs; the latter occur when the products produced in the zones are sold in the domestic markets. These linkages provide a key channel through which various technologies may be diffused from the SEZs to the rest of the host economy. During the initial period, SEZs in Taiwan not only helped attract FDI but also generated technological spillover effects. The procurement of domestic raw materials, only 8% of total input cost in 1970, reached 70% by 1979. Forward linkages were not significant though. Until 1987, domestic market sales by SEZ units were not allowed. In 1987, the rule was relaxed, and the units could sell up to 50% of their products in the domestic markets. Even as domestic sales were allowed, their percentage of total sales remained negligible. However, SEZs were instrumental in pushing the country to become a world power in electronics through backward linkages. The Nantze, Kaohsiung, and Taichung

26. Zhu, "The Role of Export Processing Zones in East Asian Development," ch. 4.

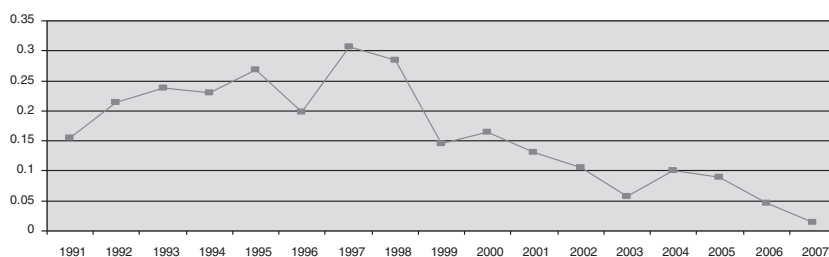
EPZs proved to be Taiwan's "cradles of manufacturing," where most of the country's electrical and electronic manufacturing industries started up some four decades ago.

EMPLOYMENT. SEZs also contributed to solving the problem of unemployment. By 1973, SEZ employment reached 52,209, increasing to over 66,000 in the late 1980s. In 1991, Taiwan SEZs hosted 241 units with a total investment of US\$886 million and employment of 66,151 workers. By 2000, the number of units had increased to 260, with a total investment of over US\$4.3 billion and employment of 67,451, a mere addition of 1,300 new jobs. Apparently, there had been a substantial structural change in the SEZs toward more capital-intensive economic activities. Since 2001, the SEZs have increased in total area and investment, an expansion that occurred as part of the Warehouse Trans-shipment Special Zone Plan. According to the website of the EPZ Authority, as of June 2010, 357 manufacturers were operating in Taiwan's SEZs, with a total investment of US\$11.5 billion. However, employment has declined since 2000 to 59,289 persons. This reflects acceleration in the structural shift of SEZs toward high-tech industries during this period; the zones also changed from being employment generators to promoters of high-tech industries. In the 1970s, typical EPZ products were hair dryers, fishing poles, and sewing machines. By the 1980s, factories in the zones were making cameras, microscopes, and golf clubs.²⁷ Currently, semiconductor testing-and-packaging operations and LCD (liquid crystal display) companies dominate the zones. The proportion of zone workers who hold at least a college degree grew from below 8% in 1986 to more than 52% in 2010; the average annual productivity of an EPZ employee (half of what a science-park worker produced in 1986) increased to 71% as much as their science-park counterparts by 2001.

EXPORTS. SEZs represented 9.4% of total Taiwanese exports in 1973. The KEPZ share alone was over 7%. However, as the economy developed, the total share of the three existing SEZs in national exports declined slowly to 6% by 1986. Nonetheless, they accounted for over 50% of the total trade surplus until the mid-1980s. They thus proved to be instrumental in leading the transition of the economy from import substitution to an export-oriented regime. Even as the SEZ share of exports further declined, their average share

27. S. Crook, "Taiwan's Export-Processing Zones: Shifting Roles through the Decades," *Taiwan Business Topics* 40:12 (December 2010), p. 2.

FIGURE 2. Share of Trade Surplus in National Trade Surplus in Taiwan, 1991–2007



SOURCE: Author's calculations based on the EPZA data, Taiwan, <<http://en.epza.gov.tw/onweb.jsp?webno=3333333366>>.

in Taiwan's trade surplus remained over 20% during 1991–2000 (see Figure 2). This percentage has been declining since then. The zones' share of exports currently stands at around 3.5%. The SEZs are not the showcase of Taiwan's development that they were a generation ago, but they continue to make a significant contribution to the economy.²⁸

Trade-based SEZs

Trade-based zones have also shown marked growth. In February 2006, there were 18 tenants in port-based zones and 70 in the Taoyuan Airport FTZ. The Taichung Port FTZ is the largest and the most successful harbor-based zone in the country. This zone has recorded the highest trade value and cargo volume among Taiwan's four major harbors since 2007. Other successful FTZs are the Kaohsiung FTZ and those in Keelung and Taoyuan. These FTZs are expected to be the main axis of the global operations development plan of the government of Taiwan.

Korea

Manufacturing-type SEZs

INVESTMENT. The Masan export zone is regarded as the most successful SEZ in Korea, as it has the longest history and has had excellent results. In its first five years, FDI in the zone increased from \$1.23 million to over \$88 million. During 1980–85, investment declined in the Masan export zone because of the oil crisis, followed by global recession and labor conflicts. However,

28. Ibid., p. 1.

TABLE 5. Performance of Manufacturing-Type SEZs in Korea, December 2007

	<i>Total Firms (No.)</i>	<i>Foreign Firms (No.)</i>	<i>Exports (US\$mn)</i>	<i>Imports (US\$mn)</i>	<i>Investment (US\$mn)</i>	<i>Foreign Investment (US\$mn)</i>	<i>Employment</i>
Masan	83	52	3,256	1,921.2	213.5	135	7,318
Iksan	31	6	150.4	82.6	44	5.3	1,501
Gunsan	13	6	13.9	0.51	157.3	5.8	1,200
Daebul	26	21	280	13.0	240.3	1.3	3,063
Donghae	—	—	—	—	—	—	—
Yulchon	—	1	—	—	0.05	0.05	20

SOURCE: Jeong Hyunggon, "Operation System and Policies for the Success of Navoi FIEZ," p. 117.

this proved to be a period of major capital restructuring in Korea, just as in Taiwan. Several small, traditional firms closed down and in place newer, more automated firms emerged. The share of electronics and precision instruments in total investment increased from 56% in 1979 to 78% in 1989, while that of metal and the traditional sector declined sharply during the same period.²⁹ By 1990, Masan had attracted a total of 70 enterprises with \$218 million in investment. Of this, \$186 million (85.4%) was FDI, while the rest was local investment. Japan alone invested 97% of total FDI. Unlike in Kaohsiung, the U.S. share of FDI was only 2%.

Currently, manufacturing-type traditional SEZs in Korea are dominated by domestic investment (see Table 5). Masan is the only zone attracting substantial FDI; the share of FDI is negligible in other SEZs. Four SEZs set up in the post-2000 period are Gunsan, Daebul, Donghae, and Yulchon. Of them, only Gunsan and Daebul succeeded in attracting investment; the other two failed to take off.

LINKAGES WITH THE DOMESTIC ECONOMY. Just as in Taiwan, SEZs in Korea have had significant spillover effects. In the beginning, over 80% of total imports into SEZs were from overseas markets; the share of domestic market procurements was just 20%. However, this ratio improved over time. The average share of domestic procurement in total imports was 25% in the 1970s, which increased to 40% by 1990.³⁰ In 1974, the Korean government allowed

29. Zhu, "The Role of Export Processing Zones in East Asian Development," ch. 7.

30. Dorsati Madani, "A Review of the Role and Impact of Export Processing Zones," World Bank Policy Research, Working Paper, no. 2238, World Bank Development Research Group Trade,

outsourcing of production processes from Masan export zone, necessitated by the fact that the zone was fully occupied, and firms had difficulty in expanding their facilities within it. Outsourcing proved to be instrumental in the development and technological upgrade of firms located outside SEZs. Unlike in Taiwan, forward linkages also operated in Korea. In 1980, the government allowed 100% domestic sales in all industries except electronics, where only 5% of sales could be domestically sold. This led to immediate increases in domestic sales to 14.7% in 1981, increasing further to 36% in 1990. SEZs thus played a key role in stimulating and updating economic activities in the domestic economy.

EMPLOYMENT. Masan was instrumental in generating employment in the initial stages of Korean development. By 1973, employment in Masan had increased to over 21,000. Thereafter, it increased slowly, peaking at over 36,000 in 1987 and then declining continuously. Employment opportunities triggered large scale migration in the initial phases and stimulated economic activity in the region, thereby contributing to the regional economy. However, by 2007, employment declined to 6,706 in Masan. Other SEZs could not compensate for this decline in employment.

EXPORTS. The share of SEZ exports in national exports had never been substantial in Korea. It peaked at 3.99% in 1964 and declined thereafter. In 1990, the export share of Masan was a mere 1.21%. Unlike for Taiwan, Korea's trade balance remained unfavorable until 1985. However, SEZs generated a positive trade surplus during this period. Thus, SEZs covered up some of the deficit in the balance of trade. In the late 1980 when trade surplus appeared, Masan contributed significantly to the total surplus. It constituted 69% of the total trade surplus.

In recent years, with rapid growth taking place in the Korean economy, the role of the traditional SEZs has become marginalized. Their export share in 2007 was less than 1%, although their trade surplus still formed over 11% of the national trade surplus.

Logistics-oriented SEZs

Busan and Gwangyang, both logistics-oriented SEZs, have proved to be major stimulants of FDI. More than 90% of the total investment attracted by these zones is of foreign origin. In absolute terms, however, these inflows remain small (see Table 6). The importance of these FTZs lies in the fact that they are instrumental in the

Washington, D.C. (November 1999).

TABLE 6. Performance of Logistics-oriented SEZs in Korea, December 2007

	<i>No. of Firms</i>	<i>Foreign Firms</i>	<i>Cargo (000 Tons)</i>	<i>Investment (US\$mn)</i>	<i>Foreign Investment (US\$mn)</i>
Busan Port	25	22	19,970	130.9	121.5
Gwangyang	15	13	9,820	321	284.7
Incheon	12	2		Existing companies moved in	
Incheon Airport	546	15		108.9	

SOURCE: Ibid. to Table 5.

transformation of these regions into FEZs, the city-sized, open, new-generation SEZs, by promoting logistics services and a critical mass of activity.

Free Economic Zones

The establishment of FEZs is an unprecedented drive by the Korean government to boost FDI. Of the six FEZs being set up, Incheon has emerged as the fastest growing, with a goal of attracting \$12.7 billion of FDI by 2020. Over the first five years, foreign investment of \$9 billion was promised for Incheon in memoranda of understanding (MOUs), generating positive expectations.³¹ But actual performance has fallen short. As of the end of April 2010, the zone had drawn a mere \$890 million in FDI.³² Overall, only \$1.5 billion in FDI made it to the FEZs from 2003 to the middle of 2009, just 14% of the amounts foreign firms promised in MOUs. Still, the FDI attracted to these zones so far is substantial for the projects' early stages. According to official sources, in the first half of 2010, the six FEZs drew around \$2.7 billion of foreign investment.

Evaluation of Korean FEZ policy in 2008 revealed that progress had been slower than hoped. Major issues being faced by FEZs were the high cost of land, cumbersome bureaucratic procedures, a slow approval process, insufficient incentives, restrictive regulations on FDI, the image of Korea as a closed society, and tough competition from China. Subsequently, several measures have been taken by the Korean government to bolster FEZs. These include extension of

31. "Incheon FEZ Wants More Help from New Govt," *Korea Times*, February 24, 2008, <http://www.koreatimes.co.kr/www/news/special/2012/05/240_19522.html>, accessed August 20, 2009.

32. "Stalled Zones Not Quite Free Enough," *JoongAng Daily* (Seoul), May 5, 2010, <<http://joongangdaily.joins.com/article/view.asp?aid=2919990>>, accessed December 22, 2010.

the period of tax breaks, elimination of restrictions on FDI in FEZs, delegation of authority to municipal mayors and provincial governors to give permission to development plans to reduce bureaucratic red tape, permission to overseas institutional (not only individual) investors to invest in the domestic hospital business, easing of immigration rules for investors engaged in logistics and research center developments, and easing of the visa issuance process for employees who are to work in foreign-invested companies in FEZs.

The Korean zones are benchmarked against Dubai; Singapore; and China's Shanghai-Pudong, Hong Kong, and Tianjin Binhai zones; these measures are intended to help FEZs catch up with their counterparts in competing nations. Seoul has provided financial assistance to these zones for operating expenses. Post-evaluation, the Busan-Jinhae FEZ alone was slated to be given about 779 million won (\$699,000). Gwangyang and Incheon would be given 734 million won (\$658,621) and 690 million won (\$619,139), respectively. The government has been making efforts to revamp its FEZ policy and weed out some uncompetitive zones.

Thus, in both Korea and Taiwan, traditional SEZs have played a crucial role in

- employment and foreign exchange generation in the earlier stages of economic growth; and
- building technological capabilities in the manufacturing sector in the take-off stages.

In the advanced stages of growth, SEZs are being used as key tools in upgrading technological aspects of the economy.

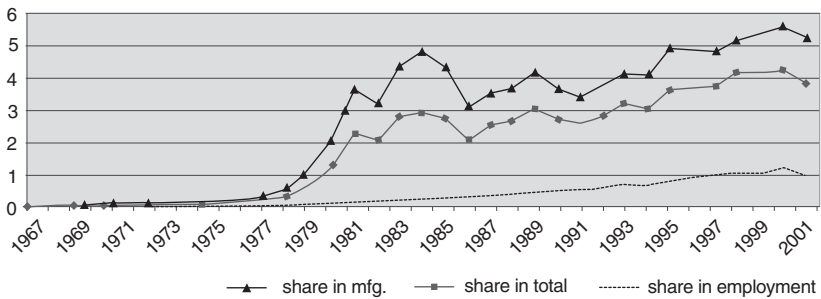
Their role is marginal at present. But they continue to add foreign exchange inflows and economic diversification to these economies. Further, newer varieties of SEZs such as FTZs in Taiwan and FTZs and FEZs in Korea have emerged. Since FEZs are still in their infancy, Korea has been evaluating and reshaping its policies for intervention to ensure their success.

India

Manufacturing-type SEZs (1965–2000)

INVESTMENT. During the first phase of their development (1965–2000), seven EPZs were set up across seven Indian states, occupying an area of 2,521 acres. The total investment in all seven zones in 1998 stood at a mere \$407 million.

FIGURE 3. Share of SEZs in Total Exports, Manufactured Exports, and Employment in India (%)



SOURCE: Aggarwal, "Export Processing Zones in India: Analysis of the Export Performance," p. 11.

This generated a minuscule 0.33% of total Indian manufacturing investment that year. While most developing countries including Taiwan and Korea used their zones as platforms for attracting export-oriented FDI, in India the share of FDI in total SEZ investment was less than 20% until 2000. Zone employment stood at 81,371 in 2000 but remained less than 1% of formal factory sector employment.

EXPORTS. Average annual exports increased from \$0.5 million during 1966–70 to \$1.988 billion during 2000–03. The share of SEZs in Indian national exports peaked in 1986 when it reached 5% of manufacturing exports. However, unlike in the other two countries, SEZ exports in India were directed to the Soviet Union and East European countries during this period because they offered Indian firms protected export markets under the umbrella of bilateral trade arrangements.³³ After the collapse of the Soviet Union, exports from Indian SEZs declined sharply (see Figure 3).

In the 1990s, SEZ exports grew again and slowly reached nearly 5%, the previous peak. One caveat is that this was primarily due to the growth in high-value jewellery exports and software exports, which accounted for almost 50% of total exports during this period.

LINKAGES WITH THE DOMESTIC ECONOMY. SEZs could not forge strong linkages with the rest of the economy because of tight government regulations on transactions between domestic and SEZ units. The rules for domestic

33. Kumar, *India's Export Processing Zones*.

procurement, subcontracting, and domestic sales had been rigid to prevent misuse of the fiscal incentives offered to SEZ units. Many of the successful domestic SEZ entrepreneurs expanded their businesses and contributed to the diversification of the industrial sector.³⁴ However, even while there are success stories at the industry level, the overall gains were not substantial. Most zones failed to make an impact. Policy reversals, failure to provide world-class infrastructure, strict regulations, and poor regulation of zones all contributed to the slow growth of SEZs.

Special Economic Zones (2000 Onward)

In 2000, the SEZ policy was launched with great expectations to give India a major thrust toward export-oriented production. Between 2000 and 2005, 12 new SEZs were set up. But most of these zones were the result of state government initiatives; the policy did not induce private investment in SEZs. The scenario was transformed completely after the SEZ Act was passed in 2005, sparking a tremendous response from investors in India. However, soon it was caught in a countrywide controversy due to land acquisition for setting up SEZs.³⁵ Compulsory acquisition of land by the state under eminent domain clauses for private SEZ developers and expropriation without fair compensation emerged as the two most contentious issues that led to countrywide protests against SEZs. A massive intellectual boost for the agitation against SEZs came from the media, activists, and academia, both right- and left-wing. In the wake of the controversy, the government appeared a house divided and defenseless. The key issue of land acquisition was addressed by imposing a cap on the size of SEZs.³⁶ Further, the state governments were directed not to acquire land for SEZs. Many states adopted a policy of “go slow.” The Reserve Bank of India directed banks not to treat SEZs as infrastructure projects but as real estate development. This not only raised the cost of debt but also prohibited SEZ developers from seeking external commercial borrowings. These policy reversals sent negative signals around the world regarding the Indian government’s sincerity over its policy, discouraging both local and foreign investors.

34. Aggarwal, *Social and Economic Impact of SEZs in India*, ch. 8.

35. Aradhna Aggarwal, “Special Economic Zones: Revisiting the Policy Debate,” *Economic and Political Weekly* 41:43–44 (November 2006), pp. 4535–36.

36. The size of individual SEZs cannot exceed 5,000 hectares.

TABLE 7. Employment and Investment in SEZs in India

	<i>Total, September 30, 2010</i>	<i>Total, February 2006</i>
Investment (US\$ billion)	28.5	0.8877
Employment (no.)	489,831	134,704
No. of notified SEZs	374	19

SOURCE: Author's calculations based on the Ministry of Commerce, India, data.

TABLE 8. Export Performance of SEZs in India over the Period 1985–2010 (US\$ million)

	<i>Average Annual Growth Rate (%)</i>	<i>Share in National Exports (%)</i>
1985–2000	13.72	3.2
2001–06	24.7	4.7
2006–07*	48.34	4.0
2007–08*	116.27	6.5
2008–09*	32.73	7.6
2009–10*	112.37	16.9

SOURCE: Ibid. to Table 7.

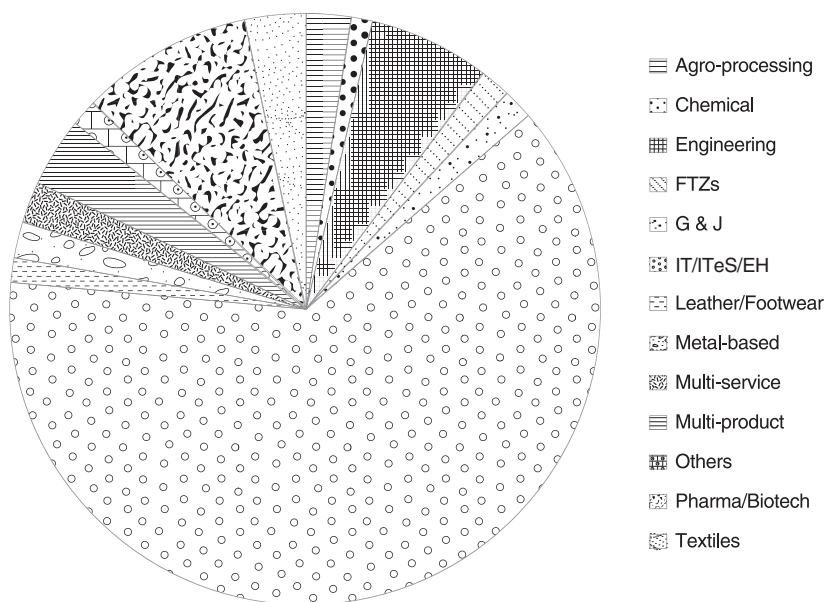
*Includes service exports.

Despite these setbacks, by November 18, 2010, 580 new SEZs across 23 states had received formal approval by the government of India to develop the zone upon the developers' meeting the requirements stipulated in the Act. Of the total, 367 across 16 states had been notified by the government, that is, they obtained all final clearances for initiating authorized operations. Moreover, in February 2006, 40 years after the first SEZ was set up in Kandla, total Indian SEZ employment and investment stood at 134,704 and \$888 million, respectively; by November 2010 total employment had reached 620,824 persons, while investment was a staggering \$39 billion (see Table 7).

Table 8 reveals that the enactment of the SEZ policy also provided a major push to the zones' export performance. In 2007–08, the average annual growth rate of physical exports outside India from SEZs zoomed to over 100%. It dropped to 32% in the recession year 2008–09 but then picked up again to over 100%. Since 2006–07, Indian SEZ exports have been rising much faster than exports from domestic economy.

While in the first phase (1965–2005), Indian SEZs were dominated by labor-intensive activities, since 2005 diverse generations of industries have

FIGURE 4. Sectoral Composition of Notified SEZs in India, September 2010



SOURCE: Author's calculations based on data from the Ministry of Commerce, India, <www.sezindia.nic.in>.

coexisted in them (see Figure 4). Apache in Andhra Pradesh, Cheyyar in Tamil Nadu, Brandix in Andhra Pradesh, and Apparel Park in Gujarat are the prominent examples of labor-intensive low-tech SEZs. At the other end, high-tech zones include Nokia SEZ, SIPCOT High Tech SEZ, Flextronics SEZ, and Velankani SEZ, all in Tamil Nadu, as well as Moser Baer SEZ in Uttar Pradesh, among many others. In addition, there are several skill-intensive zones for IT, auto components, electronic components, and metal fabrication. The hope is that low-tech SEZs will generate employment while high-tech zones will produce dynamic externalities for creating new paradigms and industries.

At the aggregate level, India's SEZ policy in the initial stages has made useful contributions to investment and export sectors of the economy. But a disaggregated analysis is less favorable, for several reasons. First, performance has been far below expectations. As of July 6, 2012, 589 formal approvals had been granted for setting up SEZs, out of which 389 (less than two-thirds) had been notified. Of them, only 158 (slightly above one-third) are exporting. Second, over 85% of the total investment in Indian SEZs comes from

TABLE 9. Export Patterns of Newly Notified Zones

	<i>Newly Notified (after Feb. 10, 2006)</i>	<i>Exporting</i>	<i>Share of Best Performing SEZs in Each State's Exports (%)</i>	<i>Share of Best Performing SEZs in Total SEZ Exports (%)</i>	<i>State's Share in Total SEZ Exports (%)</i>
	<i>(No.)</i>	<i>(No.)</i>			
Andhra Pradesh	74	31	50.2 (3)	3.0	6.0
Gujarat	29	10	97.4 (1)	52.6	54.0
Karnataka	36	20	62.8 (2)	14.9	23.8
Maharashtra	63	15	43.7 (2)	1.8	4.0
Tamil Nadu	48	20	51.4 (2)	4.7	9.0
<i>Total</i>	250	96	—	77.0	96.9

SOURCE: Author's calculations based on data from the Ministry of Commerce, India.

NOTE: Parentheses show the number of zones.

domestic sources; FDI remains elusive. Third, SEZ investment is dominated by investment in land and infrastructure development; funding for production is rather low. Fourth, IT and other service sectors now account for 60% of total SEZ activity, whereas manufacturing zones lag behind. Fifth, SEZ activities are concentrated in India's five most-developed states, Gujarat, Maharashtra, Karnataka, Andhra Pradesh, and Tamil Nadu. These states account for over 69% of all (notified) SEZs and over 89% of the land tied up in SEZs countrywide. These states' share between 2006 and 2011 in total SEZ employment and investment increased from 73% and 57% to 79% and 82%, respectively. The states contributed over 50% of employment, over 60% of investment, and 83% of exports taking place in SEZs. Other states have little to report. Finally, even in the five best-performing states, most of the newly notified SEZs are in limbo. Of the 250 notified zones in these states, only 96 have reported exporting by March 2011. Of them, only 10 accounted for 77% of the total exports of newly notified zones (see Table 9).

Future prospects are not bright, either. The central government has diluted its support to SEZ investors in terms of business facilitation for fear of losing popular support, in view of adverse public opinion against SEZs. This in turn has badly affected investors' confidence. The lack of cooperation from state governments has also become a matter of concern. Although the SEZ policy has been in effect since February 2006, state laws have not been amended commensurately. This provides a loophole in the system and is a major roadblock for entrepreneurs to take advantage of SEZ benefits. In principle, SEZ Rules are expected to have overriding effects, but in the

absence of commensurate amendments in the state laws they are being overridden by the latter. Further, the government is actively considering diluting the policy by withdrawing the tax incentives offered to SEZs. This has created uncertainty among SEZ investors and has already slowed down the process of establishing SEZs. As a matter of fact, SEZ developers are approaching the government seeking to downsize or de-notify³⁷ their SEZs. According to recent statistics, as of August 31, 2011, 33 SEZs had been de-notified, and many others were waiting to be.

Clearly, the Indian government has never demonstrated a strong commitment to the program. In the early phase, the crippled investment climate it offered in SEZs thwarted the program from taking off. In 2005, it passed the Act with high expectations but soon came under heavy pressure to withdraw the benefits offered to SEZ developers; it responded by diluting the policy through policy reversals. Currently, further policy changes are under consideration that threaten to remove exemptions making the SEZs unattractive to investors. Overall, the weak commitment, policy reversals, and lack of vision in policy design and implementation have seriously jeopardized efforts to promote Indian industrialization via SEZs.

CONCLUSION

All three countries, Taiwan, Korea, and India, adopted SEZ policies almost at the same time. While Korea and Taiwan adopted a dedicated strategic approach toward SEZ development and steered the economy toward higher growth, India initially used zones simply as an export incentive scheme to generate foreign exchange via import substitution. No concerted efforts were made to insulate the Indian zones from the investment climate prevailing in the domestic economy, nor to forge linkages with the domestic economy to strengthen spillover effects. Thus, while both Korea and Taiwan achieved phenomenal success in terms of their zones' impact on early industrial growth, India failed to exploit the potential of its SEZs.

Recently, the three countries have all moved to the next evolutionary stage in their SEZ policy. Taiwan is creating trade-based SEZs to promote high-tech industries. Korea is attracting FDI through FEZs in an effort to

37. De-notification means surrendering SEZ status (or SEZ-related benefits). The government approves de-notification provided the company pays back the tax benefits it received while developing its SEZ.

transform itself into a regional business, logistics, and financial hub while spawning world-class cities. India has upgraded its policies on SEZs, hoping to use them strategically to accelerate economic activity. But whereas Taipei and Seoul have pushed rather hard to make their zones successful, Delhi has already diluted the policy. It is hoped that this overview of the three countries' experience will provide useful lessons to policy makers and specialists.

The literature on SEZs is insistent that their success hinges on several factors: a streamlined, prompt, and efficient bureaucracy operating throughout the creation and running of an SEZ; efficient customs controls; an appropriate location; world-class infrastructure; and attractive incentives.³⁸ There has also been much debate over the issues of public and private ownership. However, the role of strategic intervention by the state as a critical factor in the success of SEZs is less appreciated. Synthesizing the experiences of the three countries, the present study reveals that a crucial element in the success of SEZs is a strategic policy intervention that includes vision, strong commitment, legal and institutional frameworks, and a continuously unfolding and dynamic set of policies. A strategic approach harnesses the opportunities and confronts the challenges of the instrument.

One major ingredient of the strategic approach is vision: clarity about the objectives and realism about the underlying model. The goals set for SEZs need to be realistic, achievable, and flexible within national and international frameworks, and should continuously be reevaluated. Another important ingredient is strong commitment to growth that reflects an intense focus, knowledge of the necessary and sufficient conditions, and belief in the strategy adopted. The third key ingredient of a strategic approach is the creation of a legal and institutional framework. A simple and transparent legal framework influences the zone's attractiveness to foreign and domestic investors. The fourth crucial decision is how to design policies that are coherent and consistent with other national objectives and suitable for achieving the goals set for the zones. Constraints need to be identified and addressed.

A related decision is how to provide institutional support to foster backward and forward linkages between SEZs and the domestic economy to stimulate industrialization. From the three cases studied here, it is apparent that institutional support helped spur a gradual, strategically conceived integration of SEZs with the rest of the economy. Finally, as the outside economy

38. Madani, "A Review of the Role and Impact of Export Processing Zones."

progresses into more advanced stages and economic realities change, SEZ policies and vision need to be reoriented to make them responsive to changing economic environments and needs. The zones must be allowed to move up the value chain to produce higher-value-added goods based on continued upgrading and technological innovation. A strategic policy of promoting investment in the development of local suppliers and value chains, and in skill development, can bolster the zones' technological sophistication and economic significance. SEZs thus need to be seen as part of a nation's overall industrial strategy, facilitating two-way linkages with the rest of the economy.