China's Special Economic Zones at 30

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Abstract: Three Hong Kong–based geographers assess retrospectively the performance of special economic zones (SEZs) in China on the eve of the 30th anniversary of their founding. After exploring the general rationale and historical context for the launching of the SEZ concept, they devote considerable attention to the divergent development paths and outcomes of the five SEZs established in China during the 1980s. Of particular importance has been the differing specific roles assigned to the SEZs based on their internal characteristics as well as location relative to (and interactions with) areas of intense commercial activity (Hong Kong and Macao) subsequently coming under Chinese sovereignty. The paper concludes by viewing the past performance of the SEZs within the context of the gathering momentum of globalization that afforded entry for their export-oriented manufacturing activities into world markets, and explores some implications of the current worldwide financial crisis for their future. *Journal of Economic Literature*, Classification Numbers: O180, O200, P200, R120. 1 figure, 3 tables, 56 references. Key words: China, special economic zones, Open Door Policy, Shenzhen, Shantou, Xiamen, Zhuhai, Hainan, Hong Kong, Macao, innovation diffusion, technology transfer, wage reform.

In the late 1970s, China, still a developing country three decades after a revolutionary regime change in 1949, was in dire need of systemic change. The decade-long debacle of the Cultural Revolution had just ended, leaving the economy dormant and the people physically and emotionally drained. At that time the new idea of opening the country to global contacts and influences after three decades of partly self-imposed isolation seemed a no less drastic measure to China's leaders than the original policy of economic and social closure. Other new ideas were emerging as well. Deng Xiaoping, the chief architect of China's open policy and economic reforms launched in 1978, outlined a fundamentally new approach to gradual societal change:

> . . . I am of the view that we should allow some regions, some enterprises, some workers and farmers, who because of hard work and good results achieved, to be better rewarded and improve on their livelihood . . . [T]hey will engender powerful demonstrative effects on their neighbors and lead people in other regions, work units to follow their examples. In this way, the national economy will, wave-like, surge forward, with all the people becoming relatively well-off. (Deng Xiaoping as quoted in Xu and Chen, 2008, p. 14)

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Although Deng's recommendation by all accounts applied to no specific context, it nonetheless was embodied in a series of reforms and policy initiatives. In November 1978, farmers in Xiaogang, a small village in Anhui Province, pioneered the "contract responsibility system," which was subsequently recognized as the initial impetus for far-reaching and ultimately successful rural reforms in China (e.g., see *South China Morning Post*, November 17, 2008, A8). The following month, the Third Plenum of the 11th Congress of the Chinese Communist Party adopted the Open Door Policy, and in July 1979, the Party Central Committee decided that Guangdong and Fujian provinces should take the lead in conducting economic exchanges with other countries and implementing "special policies and flexible measures." By August 1980, Shenzhen, Zhuhai, and Shantou within Guangdong Province were designated as special economic zones (SEZs), followed by Xiamen in Fujian Province in October 1980 (CCPR, 1987, p. 52; Su, 2001). The term "special economic zone" was selected after considerable semantic discussion and intellectual debate, with SEZs being conceptualized as a complex of related economic activities and services rather than unifunctional entities (Wong, 1987). SEZs in China thus differed from export processing zones and similar special areas in Asia by being more functionally diverse and covering much larger land areas.[2]

DIVERGENT DEVELOPMENT PATHS

The SEZs were established primarily to attract foreign direct investment (FDI), expand China's exports, and accelerate the infusion of new technology.[3] The four SEZs established in 1980 were quite similar in that they comprised large areas within which the objective was to facilitate broadly based, comprehensive development. They were encouraged to pursue pragmatic and open economic policies, serving as a testing ground for innovative policies that, if proven effective, would be implemented more widely across the country. The emphasis on forward linkages with the world, especially through liberalization of foreign investment and trade relations with capitalist countries, and backward linkages with different parts of China, was very much the rationale for their establishment.

The SEZs were deliberately located far from the center of political power in Beijing, minimizing potential risks should any problems or political effects be generated during their functioning. More specifically, the original four zones were sited in coastal areas of Guangdong and Fujian that had a long history of contact with the outside world through out-migration, and at the same time were near Hong Kong, Macao, and Taiwan (Fig. 1). The choice of Shenzhen was especially strategic because it is situated across a narrow river from Hong Kong, the key area from which China was to learn capitalist modes of economic growth and modern methods of managing a bustling metropolis. Moreover, at the time of its designation as an SEZ, Shenzhen was a small fishing village of 30,000 population encompassing no more than 3 km^2 of dilapidated buildings, lacking even a traffic light (CCPR, 1987; Xu and Chen, 2008). Shenzhen was thus essentially a *tabula rasa*, upon which a new

[2]In 1988, the entire province of Hainan became China's fifth special economic zone. Prior to this time, Hainan was an administrative district within Guangdong Province.

[3]More specifically, the belief that SEZs could play a positive role in economic development was based on four assumptions, that they would: (1) overcome the common problem of limited resources by supporting large-scale investment; (2) foster incremental experimentation- and trade-based learning, supported by government policies; (3) attract FDI to promote export growth and generate employment; and (4) facilitate economic liberalization (including trade, financial, and institutional liberalization) through policy measures and in situ innovations (see Wei, 2000).

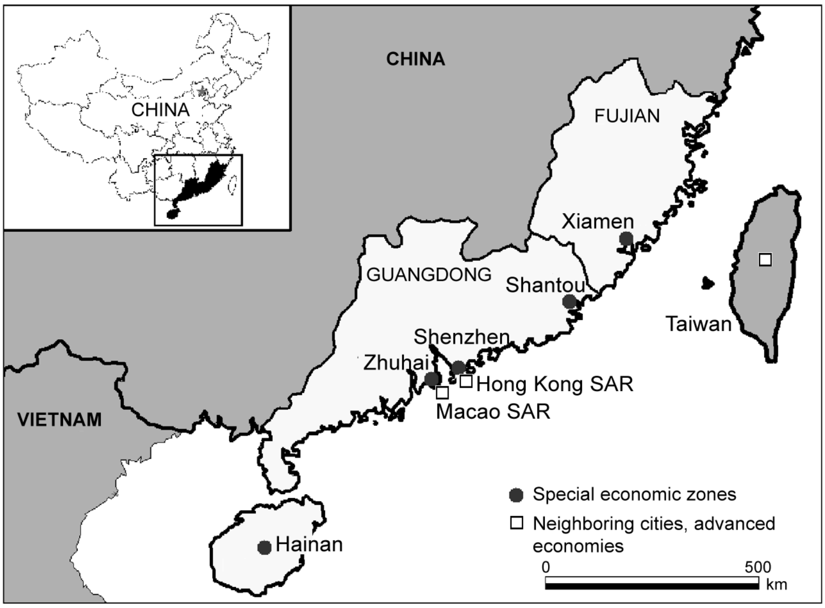

Fig. 1. Regional setting of the five SEZs.

landscape of urban and economic development could be writ. And in fact, Shenzhen was the most "special" of the four SEZs, with the greatest freedom to explore innovations.

As China had just reopened to foreign trade and investment, the SEZs had an almost immediate impact. In 1981, the four zones accounted for 59.8 percent of total FDI in China, with Shenzhen accounting for the lion's share at 50.6 percent and the other three roughly 3 percent each. Three years later, the four SEZs still accounted for 26 percent of China's total FDI. By the end of 1985, realized FDI in the four zones totaled US$1.17 billion, or about 20 percent of the national total (Wong, 1987). In this early period, policymakers were concerned that the proportion of the zones' industrial products destined for export tended to be low, and were accompanied by a negative foreign currency balance.[4] During the formative years of the SEZs, they hosted more than half of the total number of equity joint venture projects established in China, with the bulk of the investment originating in Hong Kong and Macao. Despite the emphasis on FDI, domestic capital investment in the zones, especially that related to infrastructure provision and domestically linked enterprises, far exceeded the foreign investment attracted to the zones.

From the outset, the combination of favorable policies and the right mix of production factors in the SEZs resulted in high rates of economic growth unprecedented in China. Conditions were particularly favorable for Shenzhen, whose leaders pioneered new policies and measures supporting a sustained period of spectacular growth. There was no shortage of funds either domestically or from abroad, an almost inexhaustible supply of cheap labor from

[4]Only Shantou fared reasonably well on both counts, with over 60 percent of its industrial output entering the international market, together with a positive foreign currency balance (Wong, 1987). However, this more favorable performance must be viewed within the context of Shantou's much smaller economy relative to those of the other three SEZs according to almost any FDI indicator (ibid., p. 30).

rural China, and a constant drive to scale-up production through technological innovation. As a result, against a national average annual GDP growth of roughly 10 percent per year in 1980–1984, Shenzhen grew at a phenomenal 58 percent annual rate, followed by Zhuhai (32 percent), Shantou (9 percent), and Xiamen (13 percent). Over the same period, Shenzhen's economy expanded sixfold, as opposed to 1.5 times for China as a whole, 3 times for Zhuhai, 1.4 for Shantou, and 1.6 for Xiamen (Xu and Chen, 2008, p. 18). By 1986, Shenzhen had already developed rudimentary markets in capital, labor, land, technology, communication, and other factors of production.[5]

By 1984, when the early success of the SEZs had been confirmed, China resolved to open its economy further, by extending similar favorable policies to 14 "coastal open cities"[6] (Yeung and Hu, 1992), and in the following year to cities in the Pearl River Delta, the Yangtze River Delta, and the Min Delta in Fujian. And, as noted above, in 1988 a fifth, Hainan Special Economic Zone was established. After the Tiananmen crackdown in 1989, Pudong New District in Shanghai was established in 1990, further opening areas along the Yangtze River to trade and investment. By 1992, the concept of openness was extended further, to a few cities in China's border areas and to all capitals of provinces and autonomous regions in the interior. Thus, by the latter year, when Deng Xiaoping undertook his historic and crucial southern tour reaffirming China's open policy, the mission that had started with the creation of the SEZs had in many respects been accomplished: the "special" economic zones (and related areas)[7] by that time were no longer so special.

In addition to the general goals and rationale for establishing the SEZs addressed above, each of the five zones was assigned a specific role that it has performed with a greater or lesser degree of effectiveness. Full marks can be given to Shenzhen for its sustained high growth, penchant for innovation,[8] and capitalization on geographical proximity to Hong Kong. In contrast, Zhuhai has overbuilt its infrastructure beyond sustainable demand, and the symbiotic relationship with Macao has not blossomed. Shantou and Xiamen have accomplished average rates of economic growth that at various times have been stalled by scandals traced to corruption, customs irregularities, and tax rebates. Furthermore, the political

[5]Many scholars have investigated Shenzhen's evolution to an incipient market economy (e.g., Wong, 1987; Sklair, 1991; Ge, 1999a; Su, 2001) as well as its innovations in particular areas such as employment, land policy, and urban physical development (e.g., Wang and Zhu, 1990; Zhu, 1994, 1996; Ip, 1995; Wei, 2000).

[6]Unlike the four SEZs, all located in southern China, the selection of the 14 coastal cities reflected the central government's determination to expose a much greater area to change. From north to south, they include: Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang, and Beihai.

[7]Since 1992, in addition to SEZs and coastal cities, experimentation with various forms of openness have proceeded throughout the country, including free trade zones, economic and technological development zones, and hi-tech industrial development zones (Chinagateway, 2004).

[8]Among Shenzhen's innovations were the implementation of a contract labor and new wage system, representing a break from the age-old fixed salary system. The city was able to organize tenders for contracts to specific projects and thus to consider bids from across the whole country. This effectively minimized costs and led to contracts being awarded to the best qualified and motivated enterprises. Efficiency gains were the obvious result. In 1987, Shenzhen was also the first city in mainland China to conduct a land auction, modeled after the Hong Kong leasehold system of selling land development rights over a specified period for a premium, with ownership of land remaining in the hands of the state. This system emerged in Shenzhen after the free use of land by work units was terminated in 1982 (Zhu, 1996, p. 190). The sale of land development rights has spurred urban development across the country, as nearly every city and county in China has used a variant of this practice as a means of raising capital for infrastructure and economic development. China's rapid urban development over the past two decades can be traced to this landmark event.

stalemate across the Taiwan Strait over the past three decades has not allowed the two cities to implement in any tangible way the specific regional roles envisioned for their discharge since 1980. Finally, the Hainan SEZ has also experienced an irregular development path. After an initial surge in development following its establishment, Hainan's performance has been hindered by a real estate bubble as well as by corruption. Table 1 summarizes the special roles assigned to the SEZs and outlines the innovations with which they have been associated.

By 1994, after the special policies pioneered in the SEZs had been extended to many parts of China, the country began to undertake nationwide reforms in tax remission, foreign exchange control, and foreign trade regulation. In particular, one of the factors facilitating rapid growth in China involved localizing the allocation of property rights, helping to coordinate more closely the actions of local governments and local economic actors. The process of innovation diffusion outward from the SEZs to China more broadly has been generalized as a series of stages—experimentation, propagation, and harmonization—the latter referring to the coalescence of national and SEZ growth rates over time, a narrowing that has been empirically validated by a comparison of such rates over different time periods between 1980 and 2004 (Xu and Chen, 2008, p. 24).

Shenzhen's experience as an SEZ—both as a completely new city and an innovation center—has been so successful that it merits special attention. While all four original SEZs rose from similar, humble economic origins, Shenzhen's GDP by 2007 had eclipsed by many times that of the other zones (Table 2). Similarly, its economic output in per capita terms dwarfs that of its competitors (Table 2).[9]

THE SHENZHEN MODEL

As the most prominent and comprehensive SEZ located adjacent to Hong Kong, Shenzhen's rapid rise from the outset has provided a demonstration effect for China's efforts to overcome poverty and underdevelopment. While some of the initial policies and measures utilized in Shenzhen were common to all SEZs, Shenzhen independently adopted many of the bold and creative measures that made it stand out from the rest. Among the SEZs, it has consistently been at the cutting edge of reform; eschewing undue reliance on limited-term government incentives, Shenzhen instead focused on private sector–led sustainable self-renewal and technological upscaling to improve its competitive position.[10]

In so doing it was adhering to the central government's admonition, upon establishing the SEZs, that rather than direct resource infusions of any magnitude, the only direct advantage that could be conferred on the SEZs was the relaxation of authority, and the freedom to experiment with new policies and measures. Given its humble beginnings, the lack of central

[9]The figures for per capita GDP presented for Shenzhen in Table 2 are generally comparable to those for the other SEZs, because *de facto* population data are used to calculate the values for it and Zhuhai (the two SEZs registering heavy in-migration) rather than *de jure* population. Chan (2007, p. 401), for example, has observed that, if the total *hukou* population is used rather than *de facto* population, Shenzhen's per capita GDP would be RMB 133,305 in 2000, compared to the RMB 32,800 shown in Table 3 (see table notes for more detail).

[10]From the beginning, the private sector has spearheaded Shenzhen's development. Between 1980 and 1990, the central government was responsible for only 1.4 percent and the local government for 13.1 percent of total investment in Shenzhen's physical development. Another data source indicates that non-state capital contributed 56.0 percent of the total capital investment of RMB 1.03 billion in the physical environment during the first three years of the 1980s, while the funds from the central and local governments only accounted for 20.4 percent (Zhu, 1996, pp. 190, 193).

Table 1. Special Roles and Innovations in the Special Economic Zones

	Shenzhen	Zhuhai	Shantou	Xiamen	Hainan
Special roles	Slow but steady shift to market conditions on a greenfield site (fishing village). Learn from Hong Kong methods of global capitalism, modern management methods; raise capital.	Capitalize on geographical proximity to learn from and work with Macao. A bridge to Europe and Portuguese-speaking countries; raise capital.	Hail from Chaozhou culture with extensive domestic and global links to overseas Chinese. Once second largest city in Guangdong, with a fair chance of rapid development.	Establish itself as a central city in southeastern China. Play a constructive role in peaceful relations with Taiwan. Possible free port status to facilitate cross-strait travel.	A model of reform with local characteristics. Tropical climate, rich resources, strategic location relative to Southeast Asia, and large land area are strengths to pursue special development.
Innovations	New contrast labor and wage system. New tender system Home-purchase scheme for workers First urban land development rights auction (1987) Separation of commercial functions from the state and government departments. Increasing emphasis on the role of the legal system and the democratic election of factory managers. First stock exchange in China (1990). Price reform system Market-led industrial upgrading (Wong, 1987; Huang, 2008)	First local legislation in China. Speed and success in developing infrastructure. A state-of-the-art airport built in 1994 but not founded on sound market principles. First (but abortive) plan to build bridge spanning the western and eastern sides of the Pearl River Delta.	Somewhat off-center location in terms of regional growth and institutional innovations Weakest of all SEZs in terms of innovation. First legislation in China on individual self-funded enterprises.	Particularized culture predicated on a competitive spirit to acquire efficiency, an entrepreneurial environment, an urge to innovate, and a healthy human environment. Four pieces of legislation in China on management of use of marine districts, scholars establishing new enterprises, marine traffic management, and minimum standards of life protection (Xiong, 2006).	Top-down administration from province to cities and counties; end of "small government" mentality. First in China to: abandon dual-track reporting on production/livelihood data; simplify procedures for company registration; implement ungated highways; implement comprehensive social insurance protection; and engage in large-scale infrastructure projects via a stock-sharing system

Table 2. Economic Performance of Special Economic Zones, 1978–2008

Year	Shenzhen	Zhuhai	Shantou	Xiamen	Hainan
			GDP, bill. current RMB[a]		
1978	0.196[b]	0.209[b]	1.079[c]	0.48	2.886[d]
1990	17.167	4.143	7.245	5.709	10.242
2000	218.745	33.143	45.016	50.187	52.672
2006	581.356	74.770	73.738	116.802	105.285
2007	680.157	89.590	85.010	137.526[g]	122.96[g]
2008[e]	561.176	70.041	72.083	111.442	106.275
			Per capita GDP, current RMB[f]		
1978	606[b]	579[b]	366[c]	528/n.a.	510[d]
1990	8,724	6,678	2,029	5,103/n.a.	1,562
2000	32,800	27,693	9,741	38,233/24,481	6,798
2006	69,450	52,185	14,872	72,827/50,130	12,654
2007	79,645	61,693	17,048	n.a./56,595[g]	14,631[g]

[a]Although the territories of each of the four original SEZs occupied only part of their respective cities upon their establishment in the 1980s, as a result of the urbanization process over time (e.g., the conversion of the counties supervised by Shenzhen and Xiamen into city districts) as well as the early success of the SEZs, almost the entire city areas (i.e., both city districts and counties) of Shenzhen, Zhuhai, Shantou, and Xiamen now fall within the boundaries of some type of "special" area, either the SEZ or some other type of economic zone. As noted earlier, in the case of the fifth SEZ, Hainan, the entire province is included within the SEZ. Therefore, for ease of comparison, and because of the availability of statistical data, figures for the population, GDP, and per capita GDP are reported either for the entire city or the province. It should also be noted that some old statistical data on population and GDP have been revised in recent years.
[b]1979.
[c]1980.
[d]1982.
[e]January–September (preliminary estimates).
[f]Reflecting the availability of statistical data and the conditions of in-migration, per capita GDP is reported either on the basis of the *hukou* (*de jure*) or permanent/ordinary (*de facto*) population. Per capita figures for Shenzhen and Zhuhai are denominated in the *de facto* population, whereas those for Shantou and Hainan utilize the *de jure* population. For Xiamen, the first figure reported indicates the *hukou* population and the second one is in permanent population. According to the national One Percent Sample of the population census held in 2005, the *de facto* populations of Shantou and Hainan on November 1, 2005 were 4.94 million and 8.26 million, respectively, only 0.03 million and 0.07 million, respectively, more than the *de jure* population. Both inter- and intra-provincial flows of population were limited here years before and even a few years after the economic reforms in 1978, because of the strict migration controls. Therefore, the *hukou* population is an appropriate (if not the only) statistical indicator of the real populations of these cities. However, for cities such as Shenzhen and Zhuhai, inundated by large waves of migrant workers, a substantial difference exists between the *de facto* population and *de jure* populations, and therefore, the *de facto* figure should be used (for background, see Chan, 2007).
[g]Preliminary figures.
Sources: Compiled by the authors from SBST, 1994, 2007; SBHN, 2007, 2008; SBSZ, 2008; SBXM, 2007, 2008; SBZH, 2007; SBGD, 2008; and websites of the statistical bureaus of the respective city and provincial websites.

resource infusions into Shenzhen posed a particularly daunting problem, making its initial progress rather modest. The army had to be brought in to help build some basic infrastructure, and early reliance was placed on joint ventures in housing and other basic facilities with

Hong Kong developers (*South China Morning Post*, November 18, 2008, A8). The latter approach was not without precedent.[11]

Additional administrative powers were granted to Shenzhen in order to allow it more freedom in pursuing new policies and development measures. In 1981, the Guangdong Provincial Party Committee granted Shenzhen the same political status as Guangzhou, the provincial capital (CCPR, 1987, p. 53), and in 1988 it was upgraded to the level of a province for economic planning purposes (Sklair, 1991, p. 203). Furthermore, Shenzhen was exempted from the requirement of submitting tax revenues to the central and provincial governments over its first 10 years, an unparalleled advantage that allowed it to experiment with whatever policies and practices it deemed expedient to vitalize the economy (Zhu, 1996, p. 189).

With a progressively increasing level of freedom, Shenzhen achieved many successful policy breakthroughs, some of which are listed in Table 1. One of the major challenges was to reconcile the goal of profit maximization in a market economy with the basic tenets of a planned economy. Wage reform was undertaken at a time when it was taboo elsewhere in China. The Shekou wage model, adopted in 1983, restructured wages according to three elements: base pay, occupational pay, and a variable allowance. The SEZ's authorities also adopted an official minimum wage,[12] and all permanent and most contract workers received a social insurance package superior to anything previously available in China (Sklair, 1991).[13] With improving terms of employment and social protections, migrant workers soon began to gravitate to the city from many parts of China; by 1989 more than one million temporary workers already had converged on the Zone. Improvements in labor productivity followed (Ip, 1995), and the beginnings of a "free" labor market emerged by the early 1990s.

To their credit, Shenzhen's leaders recognized early on that the aforementioned tax and policy measures applied to firms in the SEZ conferred only a temporary advantage, and that over the long term, structural transformation and technological learning would be necessary for development to become self-perpetuating. Consequently, a second principle guiding Shenzhen's development was "learning by doing," a striving for continued improvement with a view toward the future. Shenzhen's forward and backward linkages have encompassed a large number of foreign and domestically funded enterprises capable of synergistic learning. In 1985, 409 industrial projects operated in Shenzhen, more than 70 percent of which had domestic linkages (Wong, 1987, p. 37). One decade later, by late 1995, the number of domestic projects alone had increased to 1,400, and the number of joint ventures to nearly 9,000, manufacturing more than RMB 1 billion worth of products (Ge, 1999a, p. 113).[14] The side-by-side operation of domestic and foreign enterprises proved conducive to the diffusion of technologies.

As a result, the Shenzhen SEZ developed a certain competitive edge in manufacturing. As early as 1985, Shenzhen's output of television sets and radio-cassette recorders accounted

[11]A previously successful experimental development venture in trade, transport, and communications in the Shekou district of Shenzhen, based on a joint investment involving the China Merchant Group in Hong Kong (the so-called Shekou Model), was invoked as a basis for development of the newly created Shenzhen SEZ (CCPR, 1987; Su, 2001).

[12]Based on Shekou's RMB 165 per month wage in 1988.

[13]The Shenzhen SEZ also took the lead in civil service reform, restructuring wages and benefits within the existing cadres' wage system (Wang and Zhu, 1990).

[14]The exchange rate of the yuan in 1995 was RMB 835.10 per US$100, and by January 2009 had climbed to RMB 683.82.

for one-sixth and one-third, respectively, of the national total (Wong, 1987, p. 33). By the following decade, this competitive advantage had extended to the international arena; by 1998, Shenzhen accounted for 14 percent of world output of floppy disks, 6.2 percent of PC motherboards, almost 8 percent of hard disk drives, and 10 percent in magnetic heads. Within the domestic market, Shenzhen by this time produced 70 percent of liquid crystal displays (LCDs), 33 percent of digital wireless telephones, 30 percent of personal computers, and 85 percent of the floppy disks (Wei, 2000, p. 202).[15]

Such high market shares within China and the world result both from the deliberate emphasis placed on R&D in the leading domestic high-tech firms, such as Huawei Technology and Zhongxing Telecommunication, as well as the increasing presence of Western companies utilizing firms in the SEZ as subcontractors manufacturing their branded products to international specifications (e.g., see Fallows, 2007). On the whole, the Zone has sought a balanced approach between global and local in its development (Tang, 2001). By 1998, high-tech industries accounted for almost 40 percent of the industrial output within Shenzhen SEZ (Wei, 2000), reflecting the goal since the late 1980s of moving toward a more technology-intensive, higher-value-added stage of development.[16] Many Chinese-patented products have large international market shares, such as Huawei and ZTE Corporation telecommunications equipment, as well as Great Wall computers (Shenzhen, 2009).

Although the role of foreign firms and entrepreneurs in Shenzhen's economy certainly points to the effects of globalization in upgrading the technological content of the Zone's output, the domestic forces at work should not be overlooked. The number of patents registered in China as a whole has increased rapidly; in 2007, China authorized 351,782 patents, up 31.3 percent from the previous year. In 2008, the number grew further to 411,982 (SIPO, 2009), a trajectory that puts it on a path to overtake Japan (the current world leader in new patents) by 2012 (Fox, 2008).

Within China, Shenzhen ranked first among all Chinese cities in 2008, registering 2,480 new patents (*Shenzhen SEZ Pao*, January 5, 2009, A01). Until late in 2008, at least, Shenzhen's high-tech industries appear to have held up well in the face of the strengthening global financial crisis.[17] Whether this trend is sustainable going forward will not be known until the release of statistics for fourth-quarter 2008 and into early 2009.

The third factor underlying Shenzhen's success has been its ability to attract FDI by providing a favorable environment for foreign investment. Measures designed to attract FDI included streamlined administrative control, relative independence for local planning authorities, direct access by foreign entrepreneurs to provincial- and central-level planning units, tax breaks, reduced duties on imported equipment and production materials, free or low-rent business accommodation, flexibility in hiring and firing workers, depreciation allowances, negotiated limited access to the domestic Chinese market for goods produced within the

[15]In 2008, Shenzhen ranked second overall (after Hong Kong) among over 200 Chinese cities in the *Annual Report on Urban Competitiveness* (Nei, 2008, pp. 3, 19), and fourth in the science and technology sub-index.

[16]The Shenzhen High-Tech Industrial Park, one of five state-level high-tech parks in China, was established in Nanshan District in 1996. It focuses on the development of key industries in telecommunications, computers, electronics, bioengineering, and networking. Of the Park's total value of industrial output of RMB 71.9 billion in 2002, high-tech output accounted for RMB 69.2 billion.

[17]In the first three quarters of 2008, Shenzhen's industries increased their profits by RMB 51.6 billion (15.2 percent above the same period in 2007), accounting for one-third of Guangdong Province's industrial profits. During the same period, export earnings by Shenzhen's software industry increased to RMB 5.1 billion, 69 percent above the equivalent period in 2007 (*Shanghai Securities News*, November 25, 2008, p. 10).

Table 3. Exports and FDI Inflows in SEZs, 1978–2008

Year	Shenzhen	Zhuhai	Shantou	Xiamen	Hainan
			Exports, billion current US$		
1978	0.009[a]	0.009[a]	0.251[b]	0.082	n.a.
1990	8.152	0.489	0.84	0.781	0.471
2000	34.564	3.646	2.595	5.880	0.803
2006	135.959	14.843	3.484	20.508	1.376
2007	168.542	18.477	3.912	25.555[c]	1.838[c]
2008[d]	163.780	19.730	3.278[e]	26.970	n.a.
			Utilized FDI, million current US$		
1978	5.48[a]	n.a.	1.61[b]	n.a.	0.10[b]
1990	389.94	69.1	98.09	72.37	100.55
2000	1961.45	815.18	165.61	1031.50	430.8
2006	3268.47	824.22	139.60	954.61	748.78
2007	3662.17	1028.83	171.62	1272[c]	1120[c]
2008[d]	3929.58	1138.49	n.a.	1955.63	n.a.

[a]1979.
[b]1980.
[c]Preliminary figures.
[d]January–November.
[e]January–September.
Sources: Compiled by authors from SBST, 1994, 2007; SBHN, 2007, 2008; SBSZ, 2007; SBXM, 2007, 2008, SBZH, 2007; and SBGD, 2008.

SEZ, and residence and work permits and income tax exemption for foreigners working within the SEZ. This package of measures consistently attracted more FDI to Shenzhen than to the other SEZs, and in most years Shenzhen's FDI intake exceeded that of any other single province or municipality in China, including Shanghai and Beijing (Wei, 2000, p. 204).

Shenzhen's success in attracting FDI also is reflected in its importance as a source of Chinese exports (Table 3). In both 2006 and 2007, Shenzhen accounted for about 14 percent of China's total exports, the latter year representing the fifteenth consecutive year in which it ranked as the leading exporting city in China (Huang, 2008, p. 25). Although during Shenzhen's early years, Hong Kong and Macao were the dominant sources of foreign investment, by 2008 FDI inflows came from as many as 82 countries, involving 148 Fortune 500 companies. In fact, more than 60 percent of the value of its industrial production and exports originated from foreign investors, with FDI accounting for more than half of total GDP (ibid.).

The sustained rapid growth of FDI and foreign trade in Shenzhen has been accompanied by a structural shift in its economy, manifest most prominently in the rapid decline in the importance of agriculture. The share of the primary sector in Shenzhen's total GDP plummeted from 37.0 percent in 1978 to 4.1 percent (1990), and then to 0.1 percent in 2007. Agriculture's decline was compensated by growth in the shares of the secondary sector (from 20.5 percent in 1978 to 50.1 percent in 2007) and the tertiary sector (42.5 percent in 1978 to 49.8 percent in 2007) (SBSZ, 2008). More specifically, by the start of the 11th Five-Year Plan (2006–2010), Shenzhen's economy could be described as supported by four economic "pillars": high-technology industrialization, logistics, finance, and the culture industry (e.g., tourism, entertainment, educational materials, and the mass media) (Huang, 2008).

In addition to the innovative policies described above, Shenzhen introduced China to several practices associated with economic liberalization in Western countries. For example, Shenzhen was the first city in China to set up a center to monitor currency exchange rates, to privatize a portion of its state-owned enterprises through stock-sharing plans, to permit the entry of foreign banks, and to establish a stock exchange (1990) (see Table 1). The importance of the innovations launched in Shenzhen for the entire country was emphasized during two visits to the Zone by China's supreme leader, Deng Xiaoping—the first, in 1984 to proclaim the central government's view of the SEZ experiment as an unqualified success, and the second in 1992 (as one of several stops during Deng's famous "southern tour") in the aftermath of the Tiananmen crackdown, to emphatically reaffirm the leadership's commitment to the open policy and to an acceleration of economic reforms.

TERRITORIAL COOPERATION AND INTEGRATION: RELATIONS OF SHENZHEN AND ZHUHAI WITH HONG KONG AND MACAO

As all the SEZs were located along or close to China's borders, the prospects they afford for potential territorial cooperation, even integration, with neighboring areas have been the subject of attention. In particular, Shenzhen and Zhuhai, which share boundaries with Hong Kong and Macao, respectively, have been the topic of such discussions. Certainly there are some commonalities in the ways in which these regions (i.e., the two SEZs and adjacent Hong Kong and Macao) have been viewed vis-à-vis China as a whole. For example, Shenzhen, as an advanced laboratory for reforms, is sometimes mentioned (alongside Hong Kong and Macao) in the debate surrounding the "one country, two systems" concept within China, i.e., as a seedbed for successful experimentation with new policies that can subsequently be introduced to other parts of the country (Wang and Zhu, 1990). More concretely, the pace of economic interaction and cooperation across a broad range of issues between the two SEZs and adjacent Hong Kong and Macao has accelerated after handover of the latter two regions to China in 1997 and 1999, respectively. Since their return to China, Hong Kong and Macao have been designated Special Administrative Regions (SARs) guided by their own Basic Laws, or mini-constitutions. Thus they too are "special," but in a different sense than the SEZs.[18]

Shenzhen and Hong Kong

Shenzhen and Hong Kong have for some time been exploring how the two special territories can better coordinate their daily as well as longer-term interaction in areas of mutual interest. Prior to Hong Kong's reunification in 1997, there was a high level of expectation among Shenzhen's political leaders and academics of closer cooperation between the two cities. However, these expectations did not elicit a favorable response from Hong Kong at the time. Post-1997, the mood for closer cooperation has markedly improved, with governments on both sides now taking proactive steps to realize economically sensible and mutually beneficial plans to work more closely on a range of trans-boundary and other matters.[19] And in

[18]For background on the development of Hong Kong and Macao following their reunification with China, see Yeung (2007) and Yeung et al. (2008). The question of the marginalization of Hong Kong was perceived as a real possibility in a study of the 11th Five-Year Plan (Yeung et al., 2006).

[19]A 2005 survey by Yeung (2006), for example, demonstrated that Hong Kong's population was generally supportive of closer cooperation between the two cities.

fact considerable tangible progress already has been made in the areas of cross-boundary transport and environmental protection (Yeung and Kee, 2007).[20]

Trans-boundary interaction has increased at a time when the gap in levels of the development between the two regions has narrowed considerably. Shenzhen's GDP in 1981 was only 0.9 percent of Hong Kong's, but by 2005 had improved to 34 percent. Similarly, the per capita GDP of Shenzhen in relation to Hong Kong is reported to have improved from 11.4 percent in 1987 to 28.5 percent in 2005 (Shen, 2008). One of the reasons has been the flow of FDI into Shenzhen from Hong Kong and Macao. Although this flow as a percentage of total FDI in Shenzhen decreased from 78.9 percent in 1986 to 53.0 percent in 2005, this reflects an increase in the number of countries investing in Shenzhen rather than an absolute decrease of investment coming from Hong Kong and Macao. More important from a social perspective is the fact that an increasing number of Hong Kong residents have opted to work and live in Shenzhen.[21] This has raised questions about whether the Hong Kong SAR government should be involved in supporting its residents who work in Shenzhen, including day care/education for children, housing, medical care, and old age support and assistance.

Although issues of trans-boundary social support are just now coming to the fore, joint plans to foster collaboration across a wide range of economic activities have progressed considerably further. As early as June 2004, with an eye toward establishing a world-class Hong Kong–Shenzhen metropolis, the two governments signed a memorandum and eight cooperation (1+8) agreements, followed in December 2007 by a major cooperation agreement and six additional (1+6) agreements for the purpose of enhancing bilateral cooperation.[22] In May 2007, the two governments had also taken steps to facilitate sharing of technology and innovations, concluding an umbrella agreement known as the Shenzhen–Hong Kong Innovation Circle, under which they would pursue comprehensive technological collaboration across many fields.[23] This agreement committed the two parties to exchange talent, share resources, and upgrade technology. It is expected that Hong Kong's Science Park, other allied quasi-government institutions, along with the local universities and research centers will play active roles under the agreement.

Another step toward concrete cooperation between Hong Kong and Shenzhen was reached in September 2008, when Hong Kong's Chief Secretary Henry Tang and Shenzhen Mayor Xu Zongheng signed five new agreements on issues including the development of the Lok Ma Chau Loop, tourism, and education. The Lok Ma Chau Loop agreement was especially meaningful because it is the most visible and feasible project for cross-boundary cooperation. The Loop is an undeveloped, roughly 1 km^2 tract of Shenzhen land left on the Hong

[20]However, the extent of regional cooperation and intercity networking has nonetheless been impeded by the different administrative and governance structures of the two parties. The Guangzhou–Shenzhen–Hong Kong Express [rail] Line is a good example. While construction on the Guangdong section has already started and is expected to be operational by 2010, the Hong Kong SAR's government has taken an unduly long time to finalize the route of the Hong Kong section. The time lag between the completion of the mainland and Hong Kong sections of the line is now expected to be four to five years (Lee and Ng, 2007).

[21]For general trends in the number of passenger trips between Hong Kong and China, especially Guangdong Province, see Planning Department (2008).

[22]The 1+8 agreements extended to such areas as legal services, industry and trade, investment promotion, economic and trade exchange, tourism, and advanced technology. The 1+6 agreements focus on recently initiated major infrastructural projects, environmental protection, town planning, the services industry, tourism, innovations, and medical and nursing services (ISD, 2007).

[23]The body charged with implementing the agreement is known as the Steering Group on Shenzhen–Hong Kong Cooperation in Innovation and Technology.

Kong side of the border after straightening of a meander of the Shenzhen River (the administrative boundary between the two regions) in an engineering works project that was completed in 1997. The land belongs to Shenzhen but has been administered by Hong Kong, thus making it an ideal candidate for cooperation involving both sides. The land, after environmental studies designed to assist in decontamination of mud brought up by the river straightening/dredging operations, most likely will be used to build a higher educational hub with associated high-tech and creative industries, and will serve as a training base to raise the competitiveness of the Pearl River Delta economy (Lok Ma Chau, 2008; *South China Morning Post*, November 14, 2008).

It has been argued that the Shenzhen SEZ, in many respects, has already been integrated economically with Hong Kong, and has played an active role in shaping the Greater Hong Kong Economy since the early 1990s. Hong Kong's recent return to Chinese rule can only hasten the process (Ge, 1999b, p. 115; Yeung, 2007). In fact, in a recent visit the Chinese Premier, Wen Jiabao, strongly advised Shenzhen to "serve" Hong Kong, so that the two places would mutually benefit from the move (*Wen Wei Po*, July 22, 2008, A3). Taking a cue from Hong Kong's long-term plan to 2030, Shenzhen mounted a parallel study—Shenzhen 2030—with the expressed intention of supporting and developing in tandem with Hong Kong. The increasing cooperation between Hong Kong and Shenzhen has been widely viewed as an effort to transform the two cities into a single, synergistic mega-metropolitan area that will rank among the world's largest in terms of population, logistics, high-tech industrialization, and finance.[24]

Zhuhai and Macao

Unlike the situation with Shenzhen and Hong Kong, past efforts at cross-boundary cooperation between Macao and Zhuhai have not yielded visible results. The recent surge of economic development in Macao since 2002 has put that tiny city of 29.2 km^2 (consisting of a peninsula and two outlying islands) under considerable pressure to cope with vast increases in foreign investment, tourist arrivals, demand for land for construction, and widening social inequality (see Yeung et al., 2008). Macao has entered a stage of unprecedented prosperity and rapid development, much of it generated by the gaming industry, but does not have the land resources to meet surging demand.

One of the most obvious and easiest ways to create land in Macao is to reclaim it from the surrounding seas. However, such initiatives are greatly constrained by the fact that, unlike Hong Kong, Macao has no jurisdictional authority over adjacent water bodies.[25] The most likely way for Macao to break out of its land-shortage impasse is to work cooperatively with the Zhuhai SEZ to jointly develop the island of Hengqin, with an area three times that of the Macao SAR. However, previous attempts to develop Hengqin under various scenarios and institutional arrangements have not succeeded.

The latest incarnation of the plan to jointly develop Hengqin surfaced in conjunction with the Greater Pearl River Delta Coordinated Urban-Regional Development Plan spearheaded by planning departments in Hong Kong and Guangdong and drafted by Peking University and the Guangdong Urban and Rural Planning and Design Institute

[24]There are others who believe that, even if the governments become much more closely integrated, Shenzhen and Hong Kong will never become a single city (e.g., see England, 2007).

[25]Central government approval must be obtained before any land reclamation work can be initiated.

(2008).[26] The concept moved one step closer to reality in January 2009, when China's Vice-President Xi Jinping and a high-level delegation visited Macao, and it was reported that at least a 5 km^2 plot of land might be jointly developed for such land uses as educational institutions, logistics, convention facilities, and other uses (*South China Morning Post*, January 12, 2009; *Ming Pao*, January 12, 2009, A6).

CONCLUSION AND FUTURE OUTLOOK

After a hesitant but historic start, the People's Republic of China turned its back on its first three decades of "walking on two legs" and decided in 1978 to open to the world and subsequently establish five special economic zones as windows and laboratories to test new and innovative policies and measures. As experience has shown, this proved a tentative but sure way forward, given the uncertainties that prevailed both in China and the world at the time. By 2008, three decades after launching of the reforms, China's decision to focus on economic rather than political development, and on a gradualist approach symbolized by the establishment of the SEZs, can be judged a success. The country today is a world economic powerhouse.

Nonetheless, the current global financial turmoil has not left the country unscathed. China's export machine has decelerated following the sharp downturn of the American and European economies. However, the fact that its financial system remains only partially open and integrated with the world has, at least over the near term, allowed China extra maneuverability in its efforts to steer clear of the storm. The country's leaders also have taken a series of recent measures to strengthen China's economy and, with the world's largest foreign reserves, it is in a relatively good position to adjust to the changing global situation.[27]

One concern no doubt felt in the SEZs is that the migrant labor that has been driving their growth machine over the past 30 years is now facing the prospect of unemployment, after thousands of factories have closed for a variety of reasons since early 2008. The Pearl River Delta area has been particularly hard hit, as many of the factories established in earlier times were of a labor-intensive and/or polluting character, and were already slated for upgrading, relocation, or closure. In the first nine months of 2008, some 50,000 out of 1 million industrial enterprises in Guangdong Province had collapsed, and its 30 million migrant workers are inevitably affected (*Straits Times* (Singapore), November 15, 2008). Many have returned to their home villages in other provinces, which would be deprived of the economic benefits derived from the remittances of these workers.[28] There will be an adjustment process in migrants' areas of origin and destination, but to the SEZs, the extent of the impact will depend largely on the nature of their industrial production and the number of migrants involved. Shenzhen, for example, is relatively well positioned to face the new situation given its high-tech orientation and the strength of its economy.

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[26]Macao's rapid economic development since 2002 and the global financial crisis emerging in 2008 have prompted its government to adopt much more of a regional mindset regarding the city's future development. For example, regional cooperation and coordination is emphasized in the government's Urban Concept Plan, constituting Macao's long-term urban development strategy (CEEDS, 2008).

[27]For instance, China has attempted to target its industrial production more toward the domestic market, in view of the declining international market, and has taken measures to stimulate the domestic economy (e.g., for background, see Barboza, 2008; Wong, 2009).

[28]More generally, see Bradsher (2009).

Given its stellar economic growth over the past 30 years, China owes much (but certainly not all) to the demonstration effect provided by its five SEZs, which as this paper has shown pioneered many innovative policies and practices that had a truly revolutionary impact on the country's economic transformation. However, a recent reviewer of China's rapid growth has argued that success since 1978 also has been due in no small part to the legacy of infrastructure and industrial development remaining from the Mao regime (Kueh, 2008).

The fortuitous nexus of domestic circumstances and the global environment was another factor in China's favor. In 1978, with China's people deeply disillusioned by the decade-long Cultural Revolution, the country's leadership was ready to try almost anything that promised better prospects for improving the public welfare. As it turned out, this "worst time" was the best time for change in China, in terms of the external economic situation: globalization was gathering momentum at precisely the time that export-oriented manufacturing began to be developed in the SEZs. Through global production chains, China's opening afforded it the opportunity to enter the world market in manufactured goods, in turn facilitating urban and regional change within the country (Yeung, 2000). The consequent rise of Shenzhen shattered many records for economic and urban growth, not just for China but the world.

Whereas the SEZs were "special" by virtue of the exclusive policies and other privileges extended them in the early years, by 1992 these favorable policies had spread to many other parts of China. By 2001, the "special" aura that might still be associated with SEZs was further diluted by China's admission to the WTO, which bound all parts of the country to the same set of rules for liberalizing trade and opening to foreign investment.[29] Thus, whatever "special" attributes that are associated with the SEZs today are a legacy of past policy and reflect internal strengths. Nonetheless, the contribution of the zones to accelerating economic growth within China by popularizing new policies, marketing capital flows, and spreading successful new practices and policies cannot be overlooked or underestimated.

Looking forward, it is important for the SEZs to follow Shenzhen's example of actively exploring new ways of administrative cooperation and integration within a wider territorial and regional context. The focus of attention in the years ahead should be on how, through administrative restructuring and innovative thinking, to make their respective regions more open to foreign participation, competitive growth, and sustainable development. The recently approved planning guideline for developing the Greater Pearl River Delta is a step in the right direction.

If the SEZs in 1980 stood at the threshold of a period of rapid economic growth attributable to a new way of initiating economic development in urban areas, 2008 may have signaled the beginning of another period of growth focused on the Chinese countryside. In October 2008 at the Third Plenum of the 17th Party Congress, a potentially important decision was announced with respect to rural land. Whereas China's rapid post-1987 urban development can be traced to the historic auction of land development rights in Shenzhen, the new policy of allowing farmers to subcontract, lease, or exchange rural land-use rights may unharness some of the immense development potential attending the circulation of rural

[29]Thus, whereas in 1979 the SEZs could offer an advantageous flat corporate income tax rate of 15 percent, only half that levied in other parts of the country (Ge, 1999b, p. 51), under WTO rules many such regional differences have been replaced by uniform standards required, for example, for conformance with the General Agreement on Tariffs and Trade. Under the WTO China has substantially decreased its customs duty rate (to 9.9 percent in 2005), compared to 43.2 percent in 1992 (Zheng, 2006).

land assigned a market value.[30] This could affect an even greater portion of China's land and population than did the SEZ reforms. At face value, one might consider this new policy statement as signaling the belated arrival in China's rural areas of the same "development impulse" that led to the creation of the SEZs some three decades earlier. As such, the conditions may finally be falling into place for China to effectively address the goal of balanced national development (Yeung and Shen, 2004) recently reaffirmed in the 11th Five-Year Plan's goal of "a harmonious socialist society."

However, the SEZs, and Shenzhen in particular, may also be called to play an additional role in the achievement of the latter goal. As vanguards in the quest for modernization and development, Shenzhen and its surrounding Guangdong Province also can be considered as positioned at the leading edge of the social and political challenges attending China's rapid economic development—i.e., as locations where future reforms needed to support and perpetuate economic progress are first most clearly evident. Some have speculated (Bergsten et al., 2008, p. 65) that, under the direction of Guangdong Party Secretary Wang Yang (a close associate of China's President Hu Jintao), Shenzhen may be again called upon to serve as a national laboratory, but this time as the country's first "special political zone," in which political reforms in both inter-party and grassroots democracy are tested before dissemination elsewhere in the country. A draft proposal for "Shenzhen's Future Reform" was recently posted on the Shenzhen municipal government's website, including such proposals as direct election of deputies to district people's congresses as well as mayoral elections (ibid.). Thus Shenzhen (and perhaps other special zones) may again act as the seedbed for a reform impulse, this time one focusing on political and social change.

REFERENCES

Barboza, David, "China Announces Sweeping Plan to Aid Economy," *The New York Times*, November 10, 2008, A1, A8.

Bergsten, C. Fred, Charles Freeman, Nicholas R. Lardy, and Derek J. Mitchell, "Democracy with Chinese Characteristics? Political Reform and the Future of the Chinese Communist Party," in *China's Rise: Challenges and Opportunities*. Washington, DC: Peterson Institute for International Economics, 2008, 57–74.

Bradsher, Keith, "Juggernaut in Exports Is Withering in China," *The New York Times*, January 1, 2009, B1, B4.

CCPR (China City Planning Review), special double issue (nos. 1–2) on Shenzhen, *China City Planning Review,* **3**, 1987.

CEEDS (Research Centre for Sustainable Development Strategies of the Macao SAR Government), *Consultation Booklet for the Outline for Macao Urban Concept Plan*. Macao: CEEDS, 2008 [http://www.cplan2008.gov.mo/], accessed December 23, 2008.

Chan, Kam Wing, "Misconceptions and Complexities in the Study of China's Cities: Definitions, Statistics, and Implications," *Eurasian Geography and Economics,* **48**, 4:383–412, 2007.

Chinagateway, "Special Economic Zones and Open Coastal Cities," 2004 [http://en.chinagate.com.cn/english/1209.htm], accessed December 23, 2008.

England, Vaudine, "Mega-city Plans for Hong Kong," *BBC News*, September 17, 2007 [http://newsvote.bbc.co.uk/], accessed January 21, 2009.

[30]Readers in the West can find the content of the legislation summarized in Yardley (2008). Although some have questioned the efficacy of the policy (e.g., Freeman, 2008), noting that it largely ratifies existing practices (albeit while solidifying land rights) and may benefit commercial agribusiness more than individual farmers, the broad trajectory of the reform, in the direction of greater privatization, supports more flexible rural land use rights.

Fallows, James, “China Makes, The World Takes,” *The Atlantic Monthly* (online), July/August 2007 [http://www.theatlantic.com/doc/print/200707/shenzhen], accessed January 19, 2009.

Freeman, Will, “A Controlled Land ‘Revolution’,” *China Economic Quarterly*, December 2008, 7–8.

Fox, Maggie, “China Patents Set to Rule the World,” *Shanghai Daily*, December 11, 2008, A7.

Ge, Wei, “Special Economic Zones and the Opening of the Chinese Economy: Some Lessons for Economic Liberalization,” *World Development*, **27**, 7:1267–1285, 1999a.

Ge, Wei, *Special Economic Zones and the Economic Transition in China*. Singapore and River Edge, NJ: World Scientific, 1999b.

Huang, Ling, “Shenzhen: The Paradigm of Tracing Socialism with Chinese Characteristics,” *Guangdong Dangshi* (*The History of the CCP in Guangdong*), 3:22–28, 2008 (in Chinese).

Ip, Olivia K. M., “Changing Employment Systems in China: Some Evidence from the Shenzhen Special Economic Zone,” *Work, Employment, Society*, **9**, 2:269–285, 1995.

ISD (Information Services Department, Hong Kong SAR government), “Hong Kong/Shenzhen Co-operation Achieves a Milestone,” press release, 2007 [http://www.info.gov.hk/gia/general/200712/18/P200712180273.htm], accessed January 2, 2009.

Kueh, Y. Y., “Not to Forget Mao Zedong—Discussion on the Historical Value of Mao in China’s Openness and Reforms and Its Peaceful Transformation,” *Hong Kong Economic Journal Monthly*, December, 381:40–48, 2008 (in Chinese).

Lee, Joanna and Mee-kam Ng, “Planning for the World City”, in Y. M. Yeung, ed., *The First Decade: The Hong Kong SAR in Retrospective and Introspective Perspectives*. Hong Kong: The Chinese University Press, 2007, 297–320.

“Lok Ma Chau Loop Study to Start in Mid-2009,” *Infrastructure and Logistics News*, December 31, 2008 [http://news.gov.hk/en/category/infrastructureandlogistics/], accessed January 21, 2009.

Nei, Pengfei, ed., *Annual Report on Urban Competitiveness No.5*. Beijing, China: Social Science Academic Press, 2008 (in Chinese).

Peking University and Guangdong Urban and Rural Planning and Design Institute, *Planning Study on the Co-ordinated Development of the Greater Pearl River Delta Township*. Draft report, 2008 (in Chinese).

Planning Department, Hong Kong SAR, *Northbound Southbound 2007—Cross-boundary Travel Survey 2007*. Hong Kong: Hong Kong Planning Department, 2008 [http://www.pland.gov.hk/p_study/comp_s/index_e.html], accessed December 23, 2008.

Shen, Jianfa, “Research on Hong Kong-Shenzhen Cross-boundary Urban Development.” Paper presented at The Third Cross-Strait Forum on Humanities and Social Seiences, The Chinese University of Hong Kong, November 22–23, 2008 (in Chinese).

Shenzhen High-Tech Industrial Park, website [http://www.ship.gov.cn/en/index.htm], accessed January 2, 2009.

Sklair, Leslie, “Problems of Socialist Development—the Significance of Shenzhen Special Economic Zone for China Open-Door Development Strategy,” *International Journal of Urban and Regional Research*, **15,** 2:197–215, 1991.

SBGD (Statistical Bureau of Guangdong), *Guangdong Statistical Yearbook 2008*. Beijing, China: China Statistics Press, 2008 [http://www.gdstats.gov.cn/tjnj/ml_e.htm], accessed January 9, 2009.

SBHN (Statistical Bureau of Hainan), *Hainan Statistical Yearbook 2007*. Beijing, China: China Statistics Press, 2007.

SBHN (Statistical Bureau of Hainan), *Annual Statistical Bulletin of Hainan 2008*, 2008 [http://www.stats.gov.cn/tjgb/ndtjgb/dfndtjgb/t20080228_402468482.htm], accessed January 9, 2009 (in Chinese).

SBST (Statistical Bureau of Shantou), *Shantou Statistical Yearbook 1994*. Beijing, China: China Statistics Press, 1994.

SBST (Statistical Bureau of Shantou), *Shantou Statistical Yearbook 2007*. Beijing, China: China Statistics Press, 2007.

SBSZ (Statistical Bureau of Shenzhen), *Shenzhen Statistical Yearbook 2007*. Beijing, China: China Statistics Press, 2007.

SBSZ (Statistical Bureau of Shenzhen), *Shenzhen Statistical Yearbook 2008.* Beijing, China: China Statistics Press, 2008.

SBXM (Statistical Bureau of Xiamen), *Xiamen Statistical Yearbook 2007.* Beijing, China: China Statistics Press, 2007.

SBXM (Statistical Bureau of Xiamen), *Annual Statistical Bulletin of Xiamen 2008*, 2008 [http://www.stats-xm.gov.cn/plamin/mjds00006.htm], accessed January 9, 2009 (in Chinese).

SBZH (Statistical Bureau of Zhuhai), *Zhuhai Statistical Yearbook 2007.* Beijing, China: China Statistics Press, 2007.

SIPO (State Intellectual Property Office of the PRC), website [http://www.sipo.gov.cn/sipo2008/], accessed January 14, 2009.

Su, Dongbin, *A Brief History of Chinese Economic Special Zone*. Guangzhou, China: Guangdong Economic Press, 2001 (in Chinese).

Tang, Wing-shing, *Urban Development and Planning in Shenzhen Special Economic Zone: Elements for an Informed Understanding*. Hong Kong: Centre for China Urban and Regional Studies, Hong Kong Baptist University, Occasional Paper No. 2, 2001.

Wang Guixiu and Manliang Zhu, "A Research and Investigative Report on the Pioneering Implementation of a Civil-Service System in the Shenzhen Special Economic Zone," *Chinese Law and Government*, **23**, 4:85–97, 1990.

Wei, Xie, "Acquisition of Technological Capability through Special Economic Zones (SEZs): The Case of Shenzhen SEZ," *Industry and Innovation*, **7**, 2:199–221, 2000.

Wong, Edward, "China Announces Subsidies for Health Care," *The New York Times*, January 22, 2009, A15.

Wong, Kwan-yiu, "China's Special Economic Zone Experiment: An Appraisal," *Geografiska Annaler Series B, Human Geography*, **69**, 1:27–40, 1987.

Xiong, Zhewen, *Fazhi Shiye Zhong De Jingji Tequ* (*SEZs from a Legal Perspective*). Beijing, China: Law Press China, 2006 (in Chinese).

Xu, Xianxiang and Xiaofei Chen, "SEZs: The Starting Point of Progressive Revolution and Opening of China," *World Economic Papers*, 1:14–26, 2008 (in Chinese).

Yardley, Jim, "China Enacts Major Land-Use Reform for Farmers," *The New York Times*, October 20, 2008.

Yeung, Yue-man, *Globalization and Networked Societies: Urban-regional Change in Pacific Asia.* Honolulu, HI: University of Hawaii Press, 2000.

Yeung, Yue-man, *Hong Kong–Shenzhen Cooperative Development: The Search for Forward-Looking Ideas*. Hong Kong: Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong, Occasional Paper 166, 2006 (in Chinese).

Yeung, Yue-man, ed., *The First Decade: The Hong Kong SAR in Retrospective and Introspective Perspectives.* Hong Kong: The Chinese University Press, 2007.

Yeung, Yue-man and Hu Xu-wei, eds., *China's Coastal Cities: Catalysts for Modernization*. Honolulu, HI: University of Hawaii Press, 1992.

Yeung, Yue-man and Gordon Kee, *The Networked Region: Basic Infrastructure Development in the Pan Pearl River Delta Region.* Hong Kong: Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong, Research Monograph No. 70, 2007 (in Chinese).

Yeung, Yue-man, Joanna Lee, and Gordon Kee, "Hong Kong and Macao under Chinese Sovereignty," *Eurasian Geography and Economics*, **49,** 3:304–325, 2008.

Yeung, Yue-man and Jianfa Shen, eds., *Developing China's West: A Critical Path to Balanced National Development.* Hong Kong: The Chinese University Press, 2004.

Yeung Yue-man, Jianfa Shen, and Li Zhang, *China's 11th Five-Year Plan: Opportunities and Challenges for Hong Kong—Final Report*. Hong Kong: Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong, commissioned by Bauhinia Foundation Research Centre [http://www.bauhinia.org/publications/China11FYP-HK-FR-English.pdf], 2006.

Zheng, Jianfei, "Discussion on the Speciality of SEZs," *China Today Forum*, 2–3:55–56, 2006 (in Chinese).

Zhu, Jieming, "Changing Land Policy and its Impact on Local Growth: The Experience of the Shenzhen Special Economic Zone, China, in the 1980s," *Urban Studies*, **31**, 10:1611–1623, 1994.

Zhu, Jieming, "Denationalization of Urban Physical Development," *Cities*, **13**, 3:187–194, 1996.