The Role of Planning in the Development of Shenzhen, China: Rhetoric and Realities

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Abstract: This paper examines the role played by socioeconomic and spatial planning in the development of China's first special economic zone (SEZ), Shenzhen. More specifically, it analyzes the impacts of socioeconomic five- and ten-year plans and Master Layout Plans in Shenzhen's metamorphosis from an industry-based SEZ relying on domestic investment (early 1980s) to a modern metropolis sustained by an export-oriented economy. The authors explore the tension between local officials' aspirations to make Shenzen a 21st century "world city" and the dual obstacles of policy control by the central government and the need to harness local development within Shenzhen. *Journal of Economic Literature*, Classification Numbers: H70, O18, O20. 2 figures, 4 tables, 67 references.

INTRODUCTION

The Shenzhen Special Economic Zone was established by socialist China in 1980 as the first step toward opening its door in an era of rapid globalization. Once a tiny rural town at the northern edge of the capitalist megacity of Hong Kong, Shenzhen² (Fig. 1) has grown at an astounding rate. From 1980 to 2001, Shenzhen's population increased fourteen-fold³, its GDP by 724 times, fixed capital investment 488 times, gross output value of industry 3,014 times, and imports and exports 3,918 times (SSB, 2002, pp. 44-47). Shenzhen is where the first overseas bank established its presence in China in 1982; where the first post-1949 Chinese stock came into existence in 1983; and where the first land auction took place in 1987. The SSZ is now home to 58 of the top 500 foreign-invested enterprises in China, and 11 of the nation's top 50 enterprises have established businesses in the city.⁴ About 64 percent of new and high- technology enterprises are joint ventures (CAUPD, 2000, p. 6). This exponential rate of economic growth and the rapid pace of integration with the world

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²Before 1993, Shenzhen was divided into the Shenzhen Special Economic Zone and the Bao'an and Longgang Counties. After 1993, the two counties became two districts, joining the four districts within the Special Economic Zone to form Shenzhen Municipality.

³If the population figure recorded in the Fifth National Census in 2000 is used, the population has in fact grown by 23 times (from 0.3 million to 7 million) (GSB, 2002).

⁴This information was derived from the website "Investment in Shenzhen" [http://www.sz.gov.cn/english/invest/default.htm] accessed March 21, 2003.

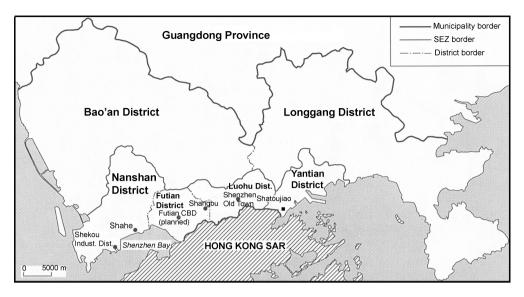


Fig. 1. The Shenzhen Municipality, SSEZ, and districts.

economy have intrigued many researchers on China's development (Chan, 1985; Wong, 1985; Yeh, 1985a, 1985b; Chiu, 1986; Sun, 1991; Sklair, 1992; Wong et al., 1992; Zhu, 1994, 1996, 1999a, 1999b; Leaf, 1998; Tang, 1998; Wu, 1999; Wang and Li, 2000; Yee, 1994; Cartier, 2002), and some have discussed various aspects of planning issues (Ng and Tang, 1999; Ng, 2002a, 2002b).

This paper attempts to build on these published works by examining the role planning has played in directing development in Shenzhen. "Planning" in this paper is not restricted to spatial land use planning, but rather also includes socio-economic planning. Integration of these two types of planning is essential because socioeconomic activities must take place in physical space, and if spatial planning is not integrated with socioeconomic planning, the latter will be very difficult to implement (Klassen, 1974; Bruton and Nicholson, 1985; Healey et al., 1997; Ng, 1997). This paper is divided into two main parts. The first part argues that existing theoretical perspectives do not adequately explain the Shenzhen experiment (Tang, 2001). However, one thing is certain: socioeconomic and spatial planning by the central and local governments has played a major role in the transformation of Shenzhen from a rural county into a modern metropolis. The second part of the paper analyzes in detail how planning rhetoric was fashioned to accommodate the development realities of Shenzhen over time. The historical account is conveniently divided according to the three Master Layout Plans formulated to cope with the evolutionary development of Shenzhen. The paper concludes with some thoughts on theorizing the role of government in the growth of the Chinese socialist market economy.

THEORETICAL PERSPECTIVES ON PLANNING RHETORIC AND DEVELOPMENT REALITIES

Special Economic Zones (SEZs) were first designated in 1980 by the Chinese central government to resolve socioeconomic problems encountered by the centrally administered system at that time. Their establishment represents not only an economic but also a political

transition. The SEZs were intended as "a window of technology, management, knowledge and foreign policy. We [China] can then import technology and learn various kinds of knowledge including management techniques. The SEZs will also be a base for economic opening and a nurturing ground of human resources, hence expanding our external influences." These new tasks have inevitably challenged the established institutional framework of the central planning system, forcing changes to the bureaucracy-led economy. Such a transformation will inevitably encounter difficulties that hence require planning efforts.

Difficulties in Conceptualizing Changing Roles of the Central and Local Governments

The need to introduce market mechanisms does not mean that the state can withdraw from planning, leaving the "invisible hand" to take its course. Rather, the state must practice another type of planning that is less familiar. Some scholars have attempted to apply the transition theory to make sense of the market-oriented transformation of socialist economies, including China. As privatization proceeds, they argue, the market will be installed and democratization will take place (see Thomas, 1998). Nee (1992), for example, argues that reforms in China can be viewed as a process of transition in which the economy proceeds from a bureaucratically directed command mode toward a market economy. This process is characterized by the decentralization of economic control and by the infusion of market mechanisms. Informed by this perspective, many studies have endeavored to provide a general picture of different types⁶ and scales of marketization (e.g., Dowall, 1993; Wong and Zhao, 1998; Wu, 1999; Zhu, 1999a). This perspective has special appeal for students of Shenzhen, since it is usually considered one of the most well developed markets in China.⁷ This "market transition" perspective highlights the increasing role of market forces in shaping the development of the political economy, while considering administrative commands largely irrelevant. The latter point is certainly debatable in China. Research has shown (e.g., Zhu, 1994; Tang, 1998) that the market mechanism is much less developed than anticipated by this perspective, with the state still playing a vital, or even dominant role in urban development at the current stage of reform. Some findings even point to the increasing importance of local government in accounting for urban expansion.

There are, however, debates over how to conceptualize the changing role of the government in the course of economic transition. Oi (1995), Unger and Chan (1996), and Walder (1994), for instance, have applied the concept of corporatism⁸ to characterize state and local government in China. Unger and Chan (1996) argue that China exhibits several features that favor the development of a corporatist structure. Oi (1995) focuses on the application of corporatism at the local level, developing the concept of "local state corporatism." However, as Yep (2000) argues emphatically, corporatism exists in form but not in essence in China. Business organizations there do not function as effective venues of communication between the state and society. Also, heterogeneity among managers (e.g., in terms of educational level and objectives) hinders collective exchange, if not bargaining, with the state. In other words, one should apply the concept of corporatism to China quite cautiously.

⁵From selected works of Deng Xiaoping (cited in Shao, 1998, p. 9).

⁶The types include capital, labor, land, and property markets.

⁷See the debate between Leaf, 1998 and Zhu, 1996.

⁸Corporatism, as originally conceived in Western Europe, denotes a specific form of political exchange among the state, entrepreneurs, unions, and business organizations.

Can the Chinese government be referred to as "a developmental state," a term that originated from the Japanese development experience of close interaction between the state and the economy? This concept has been applied to theorize the development experience of the "Four Little Tigers" of South Korea, Taiwan, Singapore, and Hong Kong. Positing that the developmental state does exist in China, Zhu (1999b) applied urban regimes theory to understand the development of localism and a pro-growth alliance in Shenzhen.⁹ Urban regimes theory posits that local governments such as Shenzhen are interested in adopting a development strategy to stimulate growth and expand the revenue base. Given a high level of competition among China's localities for resources, the Shenzhen government plays a key role in blending government, market, and other non-state actors to form pro-growth coalitions. Local enterprises are subsidized through tacit agreements, in exchange for tributes and other special payments to the local government. Land in particular has been a major factor in formulating informal local urban regimes in China, fostering interactions between the local government, production enterprises, and property developers. However, "business" interests are diverse due to various types of ownership and levels of administrative subordination. The coalition between local government and local industries is therefore so heterogeneous that it is difficult to generalize. This diversity requires much more elaboration and research to capture why and how various alliances are formed.

Furthermore, the central government's intentions, policies, and programs are important variables in local development. For instance, present-day Shenzhen would be quite different if the central government had not designated it as an SEZ in 1980, followed by Deng Xiaopeng's "southern tour," which included the SEZ in the early 1990s. Moreover, Sum (1998), in her application of regulation theory to East Asia, reminds us that the economy is also politically regulated and embedded. This is especially relevant to China, where the central government is still influential in organizing economic activities. A recent example was an order sent by then-Premier Zhu Rongji instructing Shenzhen to help boost Hong Kong's tourist industry. The Tourism Board of Shenzhen subsequently formulated six proposals to coordinate development with the tourism industry in Hong Kong (Mingpao, 2002). In other words, it is necessary to understand interactions among local government, business, and citizens in Shenzhen in the larger context of state practices, and regional and global development.

The foregoing discussion suggests that existing theories of the state or governance mode cannot be applied directly (non-contextually) to understand the decisions and actions of central and local governments in Shenzhen's political and economic transitions. Much closer examination is essential for understanding these governments' roles in directing the transformation of the socialist economy.

The Role of Government in Attracting Foreign Investment

Shenzhen, as the testing ground for the importation of foreign capital, science, and technology into China, has been at the forefront of that country's efforts at integration with the world economy, especially since the mid-1980s. Levels and types of foreign direct investment utilized, its distribution into various economic sectors, and the consequent spatial transformation of Shenzhen all are well documented (Chan, 1985; Wong and Chu, 1985; Wong et al., 1992; Chu, 1998; Han and Yan, 1999; Wu, 1999; Wang and Chiu, 2000; Yeh, 2000). These studies have portrayed a trend of rather straightforward impacts of globalization on the

⁹See also Xia (2000, pp. 178-207).

local situation. Drawing on Amin and Thrift's (1995) concept of institutional thickness, Olds (1997) argued that the planning of Shanghai's new financial district by international design professionals was mediated through individual and social relations, together with local regulatory regimes. Globalization thus embraces not just economic, but also political, military, and cultural dimensions.

To properly manage these dimensions, the involvement of government is necessary, as much institution building is needed to attract foreign investment. The particular global-local nexus that a city experiences will depend on how globalization issues are conceived, comprehended, and assessed, individually and interactively, by central and local governments, and by individuals. One may investigate the global-local nexus using the network approach as suggested by some scholars (for instance, Xia, 2000, pp. 214-218). The networks are neither local nor global, but rather more or less connected (see Murdoch, 1995, pp. 749-750). Nevertheless, many dimensions of globalization and their constitution at different geographical levels can be represented by networks with the governments as the major nodes. The advantage of this approach is that it recognizes that the less-connected networks between the central government and the Shenzhen Municipal Government may be as important as foreign investment in terms of initiating urban actions. This recognition allows us to avoid downplaying central-local relations within China, or conversely, exaggerating the power of foreign capital. In other words, the effects of globalization on Shenzhen's development cannot be understood without paying attention to many governmental practices, including those initiated from the center.

The Role of Planning

The SSEZ was built on a greenfield site in a basically rural setting in south China, with only two urban settlements: (1) Luohu—the main customs checkpoint on the border between the mainland and Hong Kong, and a major entrance for Western and Chinese people traveling across the border via the Kowloon-Canton Railway; and (2) Shenzhen Old Town, serving as a stopover for cross-border travelers (Yeh, 1985a). There also were several scattered small market towns, serving nearby villages. Before 1978, the zone was predominantly agricultural in character, with almost 80 percent of the resident households classified as agricultural, and farming accounted for about 65 percent of the gross output value of industry and agriculture (SSB, 2001, pp. 63, 61). With nearly all facilities lacking, the zone required a lot of physical construction. As urban planning under the centrally planned economy was subservient to economic planning, using socioeconomic and spatial planning as a tool to facilitate and promote market development and economic growth was a novel and challenging task that planners in Shenzhen had to learn through practice only. This exciting social experimentation deserves much more theoretical treatment than it has gained so far.

More recent research on Chinese urban planning reforms (e.g., Leaf, 1998; Ng and Tang, 1999; Yeh and Wu, 1999) has addressed the situation of Shenzhen, but does not provide an in-depth analysis. Others have identified, in addition to the government, the presence of many other actors in urban development, such as the floating 10 population and foreign investors, and argue that urban planners must take on the new role of facilitating non-state projects (Khakee, 1996, p. 130) and mediating a variety of different interests (Yeh and Wu, 1999, p. 221). However, there is little evidence that planners have become involved in these new

¹⁰"Floating population" (*liudong renkou*) refers to those who have not been granted permanent, official household registration in cities where they currently reside (see Wei and Li, 2002).

activities in Shenzhen. Urban planning, in the final analysis, serves the objective of promoting growth in a transitional political economy. The detailed mechanisms, however, require closer examination. For instance, little research (Ng, 2003, 2004) has examined the relationships between socioeconomic and spatial land use planning in transitional cities. As shall be argued later, strategic socioeconomic planning provides a significant basis for spatial planning in the case of Shenzhen.

Planning, Rhetoric and Realities

We have argued above that an informed understanding of the development of Shenzhen cannot neglect the roles of planning in reforming the socialist political economy, in attracting international investment, and in constructing the built environment. Whatever policies or programs formulated for Shenzhen are the outcomes of interaction among relevant agents in these three networks that extend over different scales. These outcomes are translated into development plans as rhetoric. These development plans epitomize a particular socio-historical context that facilitates the mobilization of relevant agents in support of a particular course of action. In implementing these policies and programs, although the Shenzhen government still needs to obtain quotas, material supplies, etc. from the central government, it increasingly must take into consideration local needs; otherwise grievances grow, resistance multiplies, and nothing concrete will happen. The context within which the rhetoric is based may change over time as well: global forces expand unevenly over space and the local political economy may undergo reforms and change. Once the context changes, be it global or local, the rhetoric also has to be changed. It is thus not uncommon that the implementation of development plans has produced outcomes that are at variance with the realities. The gap can be especially wide when the context changes drastically during any course of plan implementation. This might, in turn, lead to another round of development plan formulation, ad infinitum. In other words, implementation of planning rhetoric forces us to face changing realities, very often leading to new rhetoric, to be challenged by yet another set of realities.

The specificity of Shenzhen's development over the last 20 years offers a way of viewing this iterative and heuristic process of rhetoric-realities. Shenzhen was one of the earliest test sites for reforming the urban economy and attracting overseas investment. At its inception, everything was basically under the realm of the central planning system. The latter's rationalities and techniques must have been reflected in most practices of that time. As time has proceeded, with reform gradually spreading over space, the influence of central planning has faded, certainly with respect to plan formulation. As a result, the content and format of the earliest rhetoric are more likely to reflect the various dimensions of the lingering central planning system than more recent incarnations. The following section of the paper applies the aforementioned general observations to the specific context of Shenzhen and elaborates on the history of planning rhetoric/development reality over the past 20 years.

PLANNING RHETORIC AND DEVELOPMENT REALITIES IN SHENZHEN

The Shenzhen Special Economic Zone (SSEZ), similar to other SEZs, was designated by the central government as "a 'window' for observing global trends in economic, technological, and scientific development; an 'experimental ground' of reforms; and a 'school' for human resources training" (Shenzhen Museum, 1999, p. 22). Shenzhen was given a "bridging" function: to unite with the domestic front and to foster economic cooperation and

Table 1. Socioeconomic and Spatial Plans in Shenzhen

Year	Planning document
Phase 1: 1980-	1985
• Rapi	d development of domestic economic linkages
 Outv 	vard processing industrial activities
1980	Draft Master Layout Plan
1981–1985	Sixth Five-Year Plan
1982	Shenzhen Socioeconomic Outline Plan (SSEOP)
1982	The First Master Layout Plan
Phase 2: Mid-1	980s to mid-1990s
 Expense 	ort-oriented economy through attracting foreign direct investment

• Economic restructuring toward high-tech and tertiary-sector development 1986-1990 Seventh Five-Year Plan

Second Master Layout Plan 1989 The Comprehensive Report on Modifications of the Second Master Layout Plan

1991-1995 Eighth Five-Year Plan and the Shenzhen Socioeconomic 10-Year Development

Phase 3: Mid-1990s onward

1986

- Planning control extended as Longgan and Bao'an Counties were turned into Districts within the Shenzhen Municipality in 1993
- · A need to reinvent Shenzhen in the face of mounting competition within China and in the global economy

1993 Review of Master Layout Plan started.

1995 Municipal Government approved the Outline for Modifying the Shenzhen Master

Layout Plan

Ninth Five-Year Plan 1996-2000

1996 Draft Third Master Layout Plan

2000 Third Master Layout Plan approved by the State Council

2001-2005 Tenth Five-Year Plan

Source: Authors.

technology interflow with foreign countries (wai vin nei lian). This program has been implemented more or less under the auspices of the central planning system. The latter system is famous for producing plans, ranging from five-year economic plans and annual plans to master layout plans. It is also supposedly the norm that master plans are formulated on the basis of city and population and land area targets furnished from above, after consideration of national economic five-year plans, resulting in the famous Chinese saying that "urban planning is the continuation and concretization of national economic planning" (e.g., Tang, 2000). In other words, paralleling the growth of Shenzhen over time as an SEZ was the formulation of a few five-year and master plans. Table 1 has listed some of these plans in chronological order. Since the form and contents of the various plans differ as a function of the concerns prevailing during a particular time period, it is the goal of this section to document the changing rhetoric. For simplicity, we have divided the past two decades into three phases. Thus, the discussion is divided into three subsections to elaborate three sequential iterations in the "feedback loop" of rhetoric-reality.

1980-1985: Building a Special Economic Zone

Rhetoric: An industrial SEZ. One can imagine that the idea of building an SEZ in Shenzhen prior to 1980 was a nonstarter, as the place lacked both hard and soft infrastructure. Under the centrally planned economy, cities were developed by central investments, not foreign investments. Hence, no local government had any clue as to how to build a city that would appeal to foreign investors. Insofar as economic reforms were still at their infancy, the central government had played a relatively important role in steering the early development of the SSEZ. The traditional concerns of a productive (industrial) city and the traditional procedure of plan formulation dominated planning thoughts and practice. For instance, in the first draft "Master Layout Plan of Shenzhen" formulated in August 1980, the municipal government planned "to develop Shenzhen into an industry-led modernized SEZ at the border, based on the integration of agricultural and industrial development" (Gu, 1998, p. 89). The zone as a whole was to encompass 327.5 km², and the planned urban area was to cover 49 km². However, the central government rejected this modest blueprint and in July 1981, it demanded that the SSEZ should be developed into a large industrial city with multiple functions, specializing in commercial, agricultural, residential, and tourist activities. The central government also ordered the formulation of a Shenzhen Social and Economic Outline Plan (SSEOP) to integrate economic development in Shenzhen and direct its physical development.

With the help of the local economic planning commission and the municipal planning department, the Municipal Party Committee drafted the SSEOP in November 1982. According to various sources (Chiu, 1986; Shenzhen Museum, 1999; Wong, 1985), the SSEOP specified that: (1) Shenzhen would become an economic entity embracing tourism, manufacturing, agricultural production, commercial, and real estate development; (2) industrial growth was accorded top priority, focusing on high-tech and capital-intensive activities; and (3) Shenzhen's agricultural sector was charged with providing food for the growing population of Hong Kong and Shenzhen.

These objectives provided the basis for formulation of the First Master Layout Plan of Shenzhen. It was expected that the SSEZ would be transformed from a predominately agricultural county to a city led by industrial and tertiary activities to propel growth and provide employment opportunities. The general planning strategy was to create an environment conducive to foreign investment in industry, housing, and tourism, and to maximize the utilization of land and other natural resources to build urban infrastructure to attract foreign investment (Yeh, 1985a). Ten industrial districts with a total area of 10 km² were identified (Chiu, 1986). As evident in the itemized land budgets in the First Master Layout Plans presented in Table 2, industrial areas were to occupy about 10 per cent of the total land area. Given that everything was to be built from scratch, more than 25 percent of the land area was to be devoted to residences, 16.3 percent to public buildings, 13 percent to green open space, and another 16.3 percent to public utilities. Accordingly, the emphases of the First Master Layout Plan were on building an industrial city.

Reality: Growth driven by domestic linkages. One indicator of the realities is the source of investment. Table 3 summarizes sources of capital construction investment in Shenzhen from 1980 to 2001. Except in 1980, when state budgetary investment comprised about 26 percent of the total capital construction investment, its importance waned dramatically to a negligible portion in subsequent years. In the first two years of its existence, overseas investment accounted for about 40 percent of capital construction investment. However, that investment went largely into real estate development and the amount declined steadily

Table 2. Planned Land Uses in the SSEZ in the Three Master Layout Plans

	First Mas	First Master Layout	Second Master Layou	ster Layout	I	hird Master Lay	Third Master Layout Plan (1996)	
Land use categories	Plan (Plan (1982)	Plan (1996)	(966)	2000	00	2010	0
	km ²	pct.	km ²	pct.	km ²	pct.	km ²	pct.
Total land used	86	100.0	153.5	100	130.25	100	160.9	100
Industrial use	10	10.2	18.5	15.1	13.25	10	14.0	6
Warehouse	4	4.1	5.3	4.4	4.90	4	8.8	5
External transport	4	4.1	11.3	9.2	12.40	10	16.5	10
Residential	25	25.5	22.4	18.2	35.50	27	42.8	27
Public buildings	16	16.3	13.8	11.3	n.a.	n.a.	n.a.	n.a.
Green open space	13	13.3	14.2	11.6	17.70	14	22	14
Roads	16	16.3	17.7	14.5	21	16	24.5	15
Public utilities	7	2.0	2.5	2.0	3.60	3	4.2	3
Govt/institutional/community	n.a.	n.a.	n.a.	n.a.	14.90	11	19.4	12
Recreational	4	4.1	11.7	9.5	n.a.	n.a.	n.a.	n.a.
Services and R&D	n.a.	n.a.	4.5	3.7	n.a.	n.a.	n.a.	n.a.
Commercial	4	4.1	n.a.	n.a.	5.50	4	7.5	5
Others and land bank			8.0	9.0	1.50	1	1.5	1

Sources: Data for the Master Layout Plans were obtained as follows: First—SDPB, 2002, p. 4; Second—SUPB and CAUPD, 1986, p. 27; and Third—SMG, 1997, p. 19.

 Table 3. Financial Appropriation of Capital Construction Investment in Shenzhen Municipality, 1980–2001

Voor	Total FA of CCI ¹	FA of CCI in SSEZ ²	State budgetary investment	lgetary ment	Investment from overseas	ment erseas	Domestic loans	c loans	Funds raised locally	raised Ily	Others	rs
Ical	mill. RMB	pct.	mill. RMB	pct.	mill. RMB	pct.	mill. RMB	pct.	mill. RMB	pct.	mill. RMB	pct.
1980	125	90.4	33.0	26.4	53.9	43.2	7.0	5.6	30.9	24.8		
1985	2,761	94.2	42.9	1.6	360.7	13.1	563.5	20.4	1,561.3	56.5	233.0	8.4
1990	4,998	n.a.	26.4	0.5	1,640.7	32.8	1,150.4	23.0	1,814.1	36.3	366.8	7.3
1995	13,906	n.a.			2,305.6	16.6	1,675.1	12.0	9,095.9	65.4	829.6	0.9
2000	26,736	n.a.	236.5	8.0	1,824.7	8.9	2,127.0	8.0	21,372.3	6.62	1,175.3	4.4
2001	27,925	n.a.	8.7.8	2.4	1,332.8	4.8	3,616.4	13.0	21,761.7	6.77	545.8	2.0

'Total FA of CCI = Total financial appropriation of capital construction investment in Shenzhen Municipality. ²FA of CCI in SSEZ (%) = The percentage of Shenzhen SEZ's financial appropriation of CCI in total FA. *Sources*: Figures for 1980–1989 are from SSIB, 1993, p. 239; for 1990–2001 from SSB, 2002, p. 152.

Table 4. Planning Targets of the Socioeconomic Plans in Shenzhen

Indicators	SSEZ (actual)	SSEOP and Sixth FYP ¹ (target)	SSEZ (actual)	Seventh FYP (targets)	SSEZ (actual)	Eighth FYP and SSE10YDP ² (target)	YP and YDP ² (et)	SSEZ actual)	SSEZ Ninth FYP 10th FYP (actual) (targets)	10th FYP (Targets)	SSEZ (actual)
	1980	1985	1985	1990	1990	1995	2000	1995	2000	2005	2000
Total population (million)	0.33	1.00 by 2000	0.88	9.0	2.02	2.5	3.0	3.45	4.0	4.8	4.33
Temporary pop. (million)	0.01		0.40	0.2	1.33	1.6	1.9	2.46	n.a.	n.a.	3.08
Pct. temporary pop.	3		45.50	33.3	65.80	62.8	61.7	76.5	n.a.	n.a.	71.10
Pop. with permanent household registration (million)	0.32		0.48	0.40	69.0	6.0	1.15	0.99	n.a.	n.a.	1.25
GOVI³ (mill. RMB)	106.30	1,200.00 by end of 20th century	2,466.60	5,600	22,022	30,000		122,648.9 175,000	175,000	500,000	267,241.80
GDP (mill. RMB)	270.10		3,902.20	5,000	17,167	25,000	45,000	79,569.5	79,569.5 165,000	300,000	166,546.50
Per capita GDP	835		4,809	6,800	8,724	10,000	15,000	23,381	41,000	63,100	39,745
Export value (mill. \$)	11.20		563.40	$1,000^{4}$	8,152	5,000	8,000	20,527.4	28,000	48,500	34,563.3
Import and export	17.50		1,306.30		15,701			38,769.6	63,900	85,500	63,939.80
Foreign direct investment actually used	32.60		329.30		518.60			1,735	n.a.	4,800	2,968

¹SSEOP = Shenzhen Socioeconomic Outline Plan; FYP = Five-Year Plan.

²SSE10YDP = Shenzhen Socioeconomic 10-Year Development Plan.

 $^{3}GOVI = Gross output value of industry.$

⁴For entire city.

Source: Figures for Five-Year Plan targets are for SDPB, 2002, various pages; actual data are from SSB, 2002, pp. 44-47.

afterward (Wong, 1985; Chiu, 1986). Inadequate physical and legal infrastructure deterred many potential investors and only three of the 10 planned industrial districts were completed and ready to host industries in 1985 (Wong, 1985). Instead of attracting foreign investment, the SSEZ had captured a lot of domestic investment from central ministries and other provinces that were eager to capitalize on the preferential policies offered. One example was the Shekou Industrial District (Fig. 1) established by the State Council in 1979 and owned by the China Merchant Steam Navigation Company (CMSNC), under the Ministry of Communication. Another one was Shangbu, where one square kilometer of land was allocated to the Ministry of Electronic Industry and several additional pieces of land were allocated to departments from the central government. To attract investment from the central ministries, tax exemption and free land tracts were offered. In 1984, enterprises of more than 24 bureaux and departments from the central government had committed investment in Shenzhen, either operating factories or building industrial estates.

The construction program and the development of the industrial zones led to rapid population growth. Between 1980 and 1985, the number of permanent residents in the SSEZ increased at an annual rate of 217.7 percent and the temporary population¹¹ grew by 40,000 per year (SUPB and CAUPD, 1986, p. 6). In 1985, the population reached 880,000, about 46 percent of whom were temporary residents who were not anticipated in either the master plan or the SSEOP (Table 4).

The SSEZ also experienced a high rate of economic growth between 1980 and 1985, surpassing almost all of the economic and production targets specified in the plans. As shown in Table 4, the planned gross output value of industries in the Sixth Five-Year Plan for 1985 was renminbi (RMB) 1,200 million. By 1985, the actual figure was RMB 2,467 million, doubling the target. Over this six-year period, the GDP of the SSEZ expanded more than 14 times from RMB 0.27 billion to reach RMB 3.9 billion (Table 4). The most dramatic change was a sharp decline of the percentage share of agriculture in the economy (from 37 to 6.7 percent) and the growing importance of the industrial sector (from 11.8 to 26.2 percent). The Tertiary sector also gained in importance (from 42.5 to 51.4 percent) (Fig. 2).

Foreign investment in the nascent SSEZ was almost exclusively in the construction industry or in low- value-added, and labor intensive activities outsourced from industries in Hong Kong. As shown in Table 3, most of the capital construction investment came from domestic sources, including credits from China's state banks and investment from domestic enterprises. Hence, development in the SSEZ became closely linked to China's fiscal and credit policies. When the central government adopted very stringent fiscal and credit policies to curb the construction boom in various parts of China, capital construction investment in Shenzhen plunged from RMB 2.8 billion to 1.9 billion in 1986 (SSIB, 1993, p. 239). This crisis made the Shenzhen Municipal Government realize the risk of relying on domestic sources of investment and the importance of developing an export-oriented economy to sustain the momentum of the SSEZ's growth.

Moreover, by 1985, the SSEZ was confronted with a new challenge, in the form of 14 new "open" coastal cities, designated by the central government the preceding year to attract foreign capital and advanced technology. In face of rising competition, the SSEZ decided to upgrade its infrastructure and urban environment. The local municipal government committed itself to building an export-oriented economy that would lead to dramatic increase of foreign direct investment and boost international trade.

¹¹The temporary population resides in a city without local permanent household registration, and is deprived of the social benefits that usually come with such status.

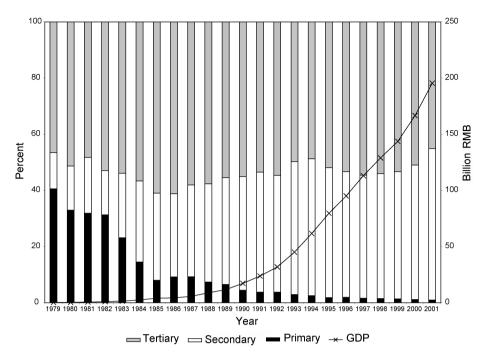


Fig. 2. GDP and contributions of the primary, secondary, and tertiary sectors to GDP, 1979–2001.

1986–Early 1990s: Export Orientation and Economic Restructuring

Rhetoric: Building an export-oriented economy. Shenzhen's Seventh Five-Year Plan (1986–1990), published in August 1986, emphasized the need to promote exports (SDPB, 2002, p. 50). The Plan stated clearly that the development objective of the SSEZ was "to reform and remain open, strengthen administrative capacity, raise economic efficiency and build an export-oriented economy" (ibid., p. 49). As can be seen in Table 4, total export value in 1985 was only 563 million USD but the planned target stated in the 7th Five Year Plan was US\$1 billion, representing an annual growth rate of 12.2 percent.

The Chinese Academy of Urban Planning and Design, together with the Municipal Planning Department, began to formulate the Second Master Layout Plan in late 1984, completing the first draft in 1985. During the following year, the Shenzhen Urban Planning Committee was set up to refine the draft plan. The Second Master Layout Plan was modified in 1989, and then approved by the provincial government. The main focus of that plan similarly was development of the SSEZ into an export-oriented economy spurred by overseas investment (SUPB and CAUPD, 1986, p. 5), so that by the end of 2000 the Zone would become a modernized, outward-looking metropolitan city with industrial, port, trading, and tourism development. Major economic sectors would include industry, commerce, trade, tourism, and finance. The major industries were projected to be capital- and technology-intensive enterprises, the electronics industry, machinery, food processing, high-end construction and building materials, and textiles.

As shown in Table 2, the amount of land allocated for various uses increased dramatically from the First to the Second Master Layout Plan (for industry from 10 to 18.5 km², for

external transport from 4 to 11.3 km², and for recreation from 4 to 11.7 km²), reflecting the government's determination to build an export-oriented economy. 12 Moreover, 4.5 km² of land was set aside for the construction of Shenzhen University and a related R&D-based industrial park.

The objective of building Shenzhen into an export-oriented economy was evident in one of the planning principles adopted in the Second Master Layout Plan (SUPB and CAUPD, 1986, p.4), which emphasized that "[s]trategic planning of land use, transport and communication development to enhance Shenzhen's hub functions and as the window of China to the outside world". Nevertheless, the bold planning ideas were constrained by the planned population figure defined by the central government. Although the local government attempted to control the influx of migrants between 1980 and 1985, the population of Shenzhen increased from 0.33 million to 0.88 million (SSB, 2002, p. 44). To cope with the rapid increase, substantial investment was necessary in social, educational, and other urban services. In fact, the new infrastructure constructed since that time was designed to accommodate a population of 1.5 million, and the transportation system to serve a population of 2 million. As can be seen in Table 4, the planned population targets, especially for temporary population, remained unrealistic and seriously underestimated the pressure of population growth. By 1985, the temporary population had already reached 400,000, double the target of 200,000 in the Seventh Five-Year Plan.

In addition to the problem of limiting population size, the Second Master Layout Plan had to address a number of issues that were a legacy of the SSEZ's development as a "centrally-owned" special economic zone. As different state bureaus and departments had constructed their own "factories" and "communities" in the SSEZ, their "autonomous" management and development resulted in a segregation of "communities," and quite often, uncoordinated spatial development. This posed difficulties for planners in creating a built environment that could facilitate the circulation and accumulation of capital, a prerequisite for foreign investment. To fundamentally change the old system, various administrative and socioeconomic reforms were implemented to restructure the bureaucracy-led economy. Five phases of administrative reform were carried out in the 1980s and 1990s. The reforms in the 1980s sought to gradually curtail the bureaucracy's control over economic enterprises and prepared the way for the government to focus on macroeconomic control rather than day to day running of the economy (Shenzhen Museum, 1999, pp. 273-274). Furthermore, land reform and housing reform were launched to introduce market mechanisms in the reforming economy. Since the transfer of land use rights was introduced in 1987, land has become a much sought-after production factor, and housing reform has weakened the tradition of government-provided accommodation. All of these reforms led to further changes that required even more creative responses by planners. The next section of the paper examines these emerging challenges more closely.

Realities: deindustrialization, economic restructuring, and The introduction of a land market and the transfer of land use rights in 1987 led to a boom in property development and increased the extra-budgetary capital available for the local government to improve infrastructure and implement development plans. However, as much of the land had been given free of charge or at rather low prices to various state enterprises before the introduction of the land market, land scarcity presented a real problem to the municipal government. The advent of the land market also led to economic restructuring in the Special Economic Zone.

¹²Industrial output according to the plan was to grow at an annual rate of 16 to 18 percent.

¹³These figures were cited by a planner interviewed by the authors in Shenzhen on March 18, 2003.

In 1988, industrial land occupied more than 20 km², exceeding the planned target in the Second Master Layout Plan. However, rising land and production costs and regional competition led to the phasing out of traditional labor-intensive and low-value-added industries. By 1994, the land area used by industry had fallen to 14 km² in 1994.

By the 1990s, most of the reforms to end the bureaucracy-led economy had been implemented. In 1994, all economic entities had to sever their functional and manpower linkages with the government, as well as terminate any formal affiliations evident in their names (Shenzhen Museum, 1999, p. 276). High-tech industries began to gain prominence, and foreign direct investments increased. In fact, the amount of foreign capital actually utilized in Shenzhen from 1994 to 2001 was RMB 1.4 billion, 78 percent of the total amount since the SSEZ was established (SSB, 2002, p.198).

Despite the economic restructuring process, rapid population growth continued. From 1986 to 1989, the SSEZ population grew at a 30 percent annual rate and the total population more than doubled to reach one million, much higher than the original planned target of 600,000 for 1990 (Gu, 1998, p. 89). Since 1987, the number of temporary residents has outgrown the permanent ones, increasing from 1.33 million to 3.08 million between 1990 and 2000 (SSB, 2002, pp. 44-45). In fact, given the central government's stringent requirement that the population be maintained at or below four million by 2000 (SMG, 2000, p. 3), one has good reason to suspect underreporting. In 2000, when the Fifth National Census was conducted, the population of Shenzhen was found to be 7 million, 2.68 million (62%) more than the official figure of 4.33 million (GSB, 2002; SSB, 2002, p. 45). 14

Population growth also exerted pressure on spatial development. Development intensity increased in the central part of the SSEZ (Luohu District [Fig. 1]). To ease development pressure in the center, planners assigned new residential projects to Futian District, resulting in a sharp increase of traffic between urban clusters in the two districts. However, as secondary road networks were not well developed then, movement of people became a major problem in the 1990s. There were also shortages of fresh water and environmental problems (SMG, 1997; Ng, 2002a).

The changing regional context also posed a challenge for planning in the SSEZ. In 1987, the central government decided to deepen the open policy by announcing additional special economic zones, including one in nearby Hainan Province, and in 1990 Shanghai became an open city. In response, the Shenzhen Municipal Government, under the approval of the State Council, set up two low-tax zones at Futian and Shatoujiao in an effort to attract internationally mobile capital. During the early 1990s, SEZs were attacked by political conservatives who were concerned with coastal-inland disparities (Sklair, 1992; Shenzhen Museum, 1999). To counteract the attack, Deng Xiaoping and Jiang Zemin made several trips to Shenzhen in 1992 and 1994 to show the reformists' support for the SSEZ and urge the local government to further restructure its economy (Shenzhen Museum, 1999). While Shenzhen had managed to provide a hard and soft environment for rising foreign investment by the 1990s, the SSEZ had to reposition itself again in face of intensifying competition.

¹⁴According to the *2002 Shenzhen Statistical Yearbook* (SSIB, 2002, p.44), the year-end resident population in Shenzhen was 4.3 million, of which 1.25 million were population with residence cards and 3.08 million were population with temporary residence cards. However, according to the *2002 Guangdong Statistical Yearbook* (2002, p.102), the year 2000 Census recorded 7 million population in Shenzhen: 0.9 million (13%) registered residents; 5.4 million (77 percent) residing in Shenzhen for over half a year but registered elsewhere; and 0.66 million (9 percent) residing in Shenzhen for less than half a year but leaving their place of registration for over one-half year.

1990s: World-Class City Aspiration

Rhetoric: Building Shenzhen into a world-class city. The aspiration to make Shenzhen a world-class city is evident in the Ninth and Tenth Five-Year Plans. The Ninth Five-Year Plan (1996–2000) states that the building of a new city center in Futian will lead Shenzhen into the 21st century (SDPB, 2002, p. 168). The project, undertaken after consultations with major international firms, symbolizes the local government's efforts to transform Shenzhen from a manufacturing-based SEZ to a "world city" (Cartier, 2002, p. 1513). Both five-year plans have also emphasized the importance of high-tech industrial and tertiary-sector development. In order to pursue world-city status and promote high-tech development, the emphasis has been put on human resource development, institutional reforms, and the establishment of a legal system that meets international standards (SDPB, 2002, pp. 181-187).

The Tenth Five-Year Plan (2001–2005) has focused on the need to integrate with the global economy, develop regional economic networks, and promote an information-based network economy (SDPB, 2002, pp. 214-215). Unlike previous plans, which had focused primarily on economic growth, the Tenth Five-Year Plan also discusses quality of life issues, environmental protection, and sustainable development, as well as the need for legal and democratic institutions and the perfection of market mechanisms. Although the Tenth Five Year Plan continues to specify socio-economic development targets (Table 4), it also includes a set of modernization indicators embracing socioeconomic, livelihood, and sustainability issues. These have put in place an important strategic framework for urban planners to reconceptualize the city's development in the 21st century.

To boost the power of planning, the Shenzhen Urban Planning and Land Administration Bureau was formed in 1989, putting planning, land administration, and housing development and management functions under the same roof. Subsequently, planners were granted the power to utilize five percent of total land revenue to support planning work (Wang and Li, 2000, p. 26). In 1993, Bao'an and Longgang counties were converted into districts and, together with the four districts in the SSEZ, formed the Shenzhen Municipality (Fig. 1). To cope with economic restructuring and intensified regional competition, planners in Shenzhen began to formulate the Third Master Layout Plan in 1993. The Plan encompasses the entire Municipality—not just the SSEZ—and the planning area is 2,020 km². The entire process took seven years to complete, and the State Council finally endorsed the plan in 2000 (Table 2).

With reference to the socioeconomic framework outlined in the Ninth and Tenth Five-Year Plans, it is not surprising to find that the Third Master Layout Plan has mapped out an urban development strategy focusing on land use, transportation planning, heritage conservation, environmental protection, and planning for tourism, public utilities, and infrastructure. Major issues addressed include the following (Shenzhen Municipal Government, 2000, p. 2): (1) utilizing land effectively, solving the problem of idle land, protecting farm land and critical ecosystems; (2) developing Futian into a new CBD to prepare for the building of Shenzhen into a world-class city; (3) providing adequate and affordable housing and improving the living environment for residents; (4) ensuring high standards and a high level of development for urban infrastructure, public utilities, and other urban facilities to facilitate international economic cooperation; (5) creating an attractive urban landscape with pleasant open spaces; and (6) creating an environment to reflect "modernity" and "civilization" through the construction of large cultural, sports, and entertainment facilities to attract international or regional visitors; providing more creative urban landscapes such as symbolic

buildings, squares, and street furniture; and by protecting both natural and human environments with strong links to local culture.

The basic strategy is to develop Shenzhen into a modern world city with a prosperous economy, a stable and safe society, an attractive environment, and a rational spatial layout with comprehensive infrastructure provision. Shenzhen is to be developed into a city with the "environment of Singapore and efficiency of Hong Kong" (SMG, 2000, pp. 1-2). The city is striving to become a regional center of finance, information, trade, commerce, transportation, and tourism, as well as a high-tech development and R&D center for southern China. Supporting high-tech and other advanced industry will be modern service sectors such as logistics, finance, information, trade, and a well-developed urban agricultural sector. As indicated in Table 2, new land use categories for government/institutional/ community and commerce were created to accommodate the evolving spatial needs. Socially, the plan lists controlling city population size, improving the quality of human resources, using technology and education to enhance development, and nurturing a modern urban culture as goals. Environmentally, pollution and soil erosion are to be controlled, new land development limited, and nature reserves and historic sites and features protected. It is planned to turn Shenzhen into an environmentally and ecologically model city in the Pearl River Delta and in China. At the regional level, Shenzhen will coordinate its land use and transportation planning and development with neighboring Hong Kong.

While the Third Master Layout Plan stresses the importance of building Shenzhen into a world city with local characteristics, the Plan is again constrained by the centrally defined population projection and the availability of urban land (high population density). The latter problem reflects the fact that the area of urban land allocated for construction is linked to the central government population projections. Although the current population has long exceeded 4.3 million, the central government has instructed that the total population should not exceed 4.3 million by 2010 (see SMG, 2000, Article 10), and rejected the 1997 draft plan, which had a land budget of 520 km². As a result, the land use target was reduced to 480 km². While this helps on paper meet the targets of the central government, the planning implications of an underreported population figure and an artificial constraint on land supply are enormous.

Realities: Metamorphosis of an SEZ—A World City? Simply Another Super-Large City in China?

Developments in the SSEZ during the 1990s have taken a diverse path. On the one hand, there is a trend toward high-tech industrial development as a result of economic restructuring. High-tech industries gained prominence and experienced phenomenal growth. By 1999, high-tech industry recorded an output value of RMB 82 billion, 40.5 percent of the gross value of industrial output, and six times the figure in 1990 (CAUPD, 2000). In 2000, high-tech industries contributed 42.3 percent of the gross output value of industry in the SSEZ (SDPB, 2002, p. 241). On the other, after the onset of the Asian financial crisis, the Shenzhen Municipal Government has invested a substantial amount of money to boost infrastructure development in order to stimulate the depressed market. Shenzhen has since become a regional retailing center. In 1999, the SSEZ's retail sales reached RMB 47 billion, one-third of which was believed to be contributed by Hong Kong residents (Mingpao, 2000). Given the price differentials between Shenzhen and Hong Kong, many Hongkongers purchase not only

¹⁵In other words, the total area of land being used and designated for use in the 1997 plan was 520 km².

personal services and daily necessities on visits, but also consumer durables. The latter items may be shipped back to Hong Kong, or in some cases used to furnish property they have purchased in Shenzhen.

Shenzhen has also stepped up its efforts in environmental protection and sustainable development. In 2000, it was honored as the top "World Garden City"; in 2001, it became the champion among 10 cities recognized by China's central government for their efforts in protecting and cleaning the environment; in June 2002, it hosted the Global 500 Environmental Forum during the World Environment Day celebrations and was awarded the UNEP's Global 500 Roll of Honor for environmental achievement (Ng, 2002b, p. 46). Yet despite all the rhetoric about natural and heritage conservation, Shenzhen in the end is an economics-driven city. For instance, the Futian Mangrove and Birds Nature Reserve is the only state nature reserve located on the urban fringe of a major Chinese city. In order to construct the seafront boulevard and other development projects, the area of the nature reserve has decreased, threatening the quantity and variety of bird species (Wang, 1998).

The problem of development control also has continued to frustrate planners' efforts to build a world- class city. In an attempt to address this issue, planners were able to introduce a statutory planning system in the late 1990s to provide more legitimacy to spatial land use plans and "force" different stakeholders to develop according to planning directives. Far from a society "ruled by law," Shenzhen likely still has a long way to go in establishing a strong and effective development control system.

Nevertheless, Shenzhen has changed dramatically in the past two decades. A city of immigrants, it was viewed as a place for making quick money in the 1980s. Unbounded by traditions, people in Shenzhen are open minded and have developed an assimilative culture. First-generation immigrants have established their businesses and families in the municipality, which they now call home. A sense of belonging has gradually developed among elite groups as well. Among them are government officials and planners who have tried to formulate plans appropriate to the changing circumstances, with the objective of building Shenzhen into a city that they can be proud of.

CONCLUDING REMARKS

This excursion into Shenzhen's planning and development brings us back to the original point of inquiry: the role of planning in Shenzhen's development. As we have argued, transitional theories, concepts of the developmental state, or regime theories cannot quite capture the bold and unique experience in Shenzhen—a huge social experiment in transforming a centrally planned economy into one with market mechanisms through plans and pilot reform measures. The entire process has involved policy controls from the central government and administrative and planning responses from the local government. The central government continues to rely on planning to regulate the development of market mechanisms. Five-year plans, from the national down to the city level, are still in effect, and are used to: define the new rules of the game; configure development strategies; allocate resources at the national, provincial, and city/county levels; and stimulate/hinder foreign and local, non-state investment and development.

The central government also regulates the distribution of resources within the built environment by stipulating the form, contents, and procedure of master plan formulation. With the legacy of central planning being still in the foreground, local planners in Shenzhen are forced to negotiate resources by adding, as much as possible, local dimensions to the city's Sixth, Seventh, Eighth, Ninth, and Tenth Five-Year Plans and First, Second, and Third

Master Layout Plans. In the past two decades, whenever problems arose, the central government was not hesitant to tighten control, including that via planning, whereas local planners invented new rhetoric and implemented corresponding measures to address changing realities. Since the mentality of control still prevails, reforms have not progressed far enough to establish the majority of conditions needed for the market to function completely in Shenzhen. This limitation is reflected in part in the prevailing incompatibility among reform measures. Planners have experienced difficulties in comprehending new realities and devising appropriate measures, leading to somewhat widespread discrepancies between rhetoric and realities. Although Shenzhen is certainly different from the developmental state of Singapore, where the "visible hand" takes care of the "invisible hand" (Ng, 1999, p. 17), in Shenzhen the central government's policies and the local government's various reform attempts were necessary conditions for the "birth of market mechanisms," including land, housing, labor, capital investment, and technological development. In other words, Shenzhen would not have developed to its present state without planning.

Two major points, however, are worth noting about this process. Although the central government has facilitated the birth and growth of the SSEZ, it perhaps needs to revamp its means of "directing" the SEZ's growth. The population and land use targets set by the central government are a case in point. Shenzhen clearly has failed to restrain growth within the set limit, as the Fifth National Census exposed some 2.7 million unregistered individuals (i.e., "floating" population) in the city. It is very difficult to plan for a city with such a large "invisible" population. Shenzhen's per capita GDP will certainly look much less impressive if we factor in this extra population, not to mention the nearly impossible task of planning for the social amenities and infrastructure required by that population.

Another issue that will affect Shenzhen's future development is the need for planners to realize their plans in the implementation process. As stated in the Five-Year Plans, building a world-class city requires the existence of a legal system that meets international standards. Unless the implementation of plans is protected by stipulated and enforced laws and regulations, planners' efforts can be easily frustrated by the actions of government officials or parties with vested interests (Chen, 2003). The prevalence of illegal construction within the city is testimony to this observation (Han, 2003). Perhaps given Shenzhen's considerable success in attracting foreign investment and building a "socialist market economy," the most recent challenge is no longer simply planning but plan implementation and development control.

The history of Shenzhen's modernization is still unfolding. It is a bold experiment for a transitional political economy, and the experience of a reforming socialist city seeking to join the globalizing economy has much to offer the study of globalization processes. The early failure to attract foreign investment forced Shenzhen to look inward to powerful central government bureaus and departments for capital investment. This had considerable implications for subsequent development. More importantly, the central government, by defining the maximum population size and area of urban land set aside for construction in the SSEZ, has made it very difficult for local planners to come to terms with a rapid growing economy heavily influenced by changes affecting the entire region.

The experience of Shenzhen suggests that much more research needs to be done to develop a more theoretically informed understanding of the inter-relationships among the central and Shenzhen-municipal governments, domestic and foreign investors, and urban planners. One thing that is certain is that planners in Shenzhen have been very creative and bold in directing the spatial developments of China's first socialist market economy in its pursuit of global integration.

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