
Change and continuity in special economic zones: a reassessment and lessons from China

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Special economic zones (SEZs) have been used as an important national development instrument around the world for the past several decades. While SEZs have continued to grow, they vary considerably across developing countries in form, function and effectiveness. This wide variation challenges development scholars and policymakers to probe factors that render some SEZs more successful than others and at certain stages of development than at others, and, second, allow some SEZs to sustain their success while triggering others to fail or become obsolete. China stands out not only in having created the largest number and variety of SEZs but also in building some SEZs in other developing countries. With this exceptional combination of inside and outside experience with SEZs, China presents a timely opportunity for reassessing the new global landscape of SEZs. This paper traces the evolution of SEZ development in China and draws out policy lessons.

Keywords: Special economic zones, change and continuity, China, experiment and innovation, policy mobility, lessons from China

1. Introduction

Special economic zones (SEZs) have become a national development strategy globally over time. While *The Economist* (4 April 2015) dated the first free-trade zone (FTZ) to ancient Phoenicia about 3,000 years ago, Easterling (2012) traced it

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to the Roman port of Delos in the Aegean Sea, which flourished in the first century B.C. From the Hanseatic League during the 13th to 17th centuries, we could fast-forward to find the first modern zone, created at Shannon airport in Ireland in 1959. This was followed by the Republic of Korea and Taiwan province of China using export processing zones (EPZs) in the 1960s and early 1970s to jump-start their export-oriented industrialization. China raised the SEZ approach to development to a new level in 1980 when it established four SEZs (Shenzhen, Zhuhai, Shantou, Xiamen) along its southeast coast which were much larger than the earlier EPZs and sited in or near existing cities. As SEZs grew in number, they expanded in size, and diversified and differentiated in function, again led by China. This led me to construct a spatio-temporal typology of SEZs (Chen, 1995) that I update and enrich in this paper.

From an estimated 500 in 1995, the number of SEZs has risen to 5,400 zones operating in 147 countries (UNCTAD, 2019). Given the large numbers and varied types of SEZs, their success varies widely. China is a global leader in SEZ development having operated the largest number and most varied types of SEZs with overall success. By comparison, SEZs in India and Africa have generally not done very well, for a variety of reasons such as shorter histories, insufficient incentives, weak infrastructure connections, excessive bureaucracy, and resistance to land acquisition (ADB, 2015; *The Economist*, 2015; UNDP, 2015). Timing of establishment and governance structure loom among other determining or facilitating factors that shape the differential performance of SEZs.

In this paper, I first trace the evolution and differentiation of SEZs into both distinctive and overlapped types over the past four decades, showing the changes and constancies that marked SEZs and exploring their role in fostering development. Second, I focus on China as a global leader in creating the world's largest number of SEZs and in diversifying its SEZs domestically and extending them internationally. Next I turn to the important factors shaping the earlier and continued success of some Chinese SEZs, especially in Shenzhen. Finally, I look at a new stage of SEZ development in China, which has set up special cooperative zones in other developing countries and cross-border zones spanning its neighbouring countries. Each of the sections draw lessons from China for developing countries, which are synthesized in the last section, highlighting China's role in shaping global SEZ development.

2. SEZs' evolution, differentiation and multiplication

In its long and checkered history, the SEZ in its generic form has evolved into more diverse forms and functions. However, three primary forms and functions have persisted through SEZs' evolution: the FTZ, the subsequent EPZ focused

on manufacturing, and the more recent service-oriented zones. This continuity is expected as these three forms and functions mirror the three main stages of economic development that have unfolded across most countries, from agriculture to manufacturing and then to services. The early FTZs, almost always located at or near seaports and focused on limited international trade with domestic economies, stimulated initial industrialization that led to more trade through FTZs. Since about 1960, EPZs have sparked and accelerated large-scale and export-oriented manufacturing, especially in East Asia but also beyond, further expanding international trade. The uneven transition toward services has created varied services-oriented zones, which retain, but extend far beyond, the original singular function in trade or the manufacturing-trade nexus. This sequential and partially recursive logic in trade-service linkages undergirds the structural transformation of most national economies and thus marks the continued relevance of SEZs today.

This account of SEZs, while meaningful in an evolutionary sense, is not sufficiently global and dynamic. Two powerful trends call for an updated look at SEZs from a global perspective that goes beyond domestic economic conditions as the primary enabler of zone development. One is the shift of the global manufacturing landscape from the higher-cost center of East Asia to cheaper locations elsewhere. This is accompanied by (1) the increasingly simultaneous dispersal and integration of global production networks and supply chains, and (2) the uneven concentration of more advanced and innovative manufacturing in high- and new-tech industries. The second trend, fuelled by the first, features the rise and fall of cities and regions that either succeed or fail in developing locally niched competitive strengths and strategically beneficial global connections. The latter trend has created a more diverse and fragmented field of winners and losers in both traditional and advanced manufacturing and services, as well as their new intersections. It reinforces an already saturated and increasingly uneven geographical distribution of successful or not so successful SEZs. This is a fundamental challenge facing any new players entering this crowded arena.

To understand the evolution of SEZs in their changing national and global contexts, I differentiate SEZs in terms of development stages, and by extension, of time periods (table 1). Although there were as many as 66 labels for types of SEZs at the beginning of the 21st century (cf. Easterling, 2012), table 1 uses three designations to emphasize functionality as the primary marker of differentiation (Vats et al., 2018). This paper adds a fourth type to capture a most recent variant with a strong connection to China (column 1). Across the table, the evolution of SEZs through three stages corresponds to three time periods.

Of the three plus one types, free manufacturing zones (FMZs) have experienced the most distinctive stages. For example, the EPZs set up in the 1960s in the Republic of Korea and Taiwan province of China, and the SEZs in 1980 in China

Table 1. The Evolution and Differentiation of SEZs: A Typological Framework

Zone type by stage and time	Stage I 1980s	Stage II 1990s-2000s	Stage III 2010s
1. Free Manufacturing Zones (FMZs) <ul style="list-style-type: none"> • Masan EPZ (Rep. of Korea) • Kaohsiung EPZ (Taiwan province of China) 	Takeoff <ul style="list-style-type: none"> • Enclave-like • Labour-intensive • Export-oriented • Incentive-heavy • Experimental and catalytic • Narrower focus 	Upgrading <ul style="list-style-type: none"> • Extra-zone spillover • Capital-intensive • Balanced export-import • Broader incentives • Spread effect • Diversification 	Innovating <ul style="list-style-type: none"> • Within-zone refocus • Knowledge-intensive • Domestic-oriented • Upgraded incentives • Clustering effect • Integration
2. Free Service Zones (FSZs)	Limited <ul style="list-style-type: none"> • Trade • Warehousing • Shipping 	Expanding <ul style="list-style-type: none"> • Finance • Back office • Real estate 	Dominant <ul style="list-style-type: none"> • Finance • Logistics • Other professional services like engineering design
3. Sector-Specific Zones (SSZs)	Rare <ul style="list-style-type: none"> • Trade • Shipping 	Growing <ul style="list-style-type: none"> • High-tech industry • Call center 	Emerging and Future-Oriented <ul style="list-style-type: none"> • R&D labs • Digital media • Tourism
4. Transnational (cross-border) and Extraterritorial (enclave) Zones (ETZs)	Beginning <ul style="list-style-type: none"> • Maquiladoras (United States–Mexico border) 	Growing <ul style="list-style-type: none"> • Growth triangles (ASEAN) • China–Kazakh border cooperation center 	Multiplying <ul style="list-style-type: none"> • Forest City (China-built in Malaysia) • SEZs in Africa and Middle East (China-built) • Boten SEZ in Lao People’s Democratic Republic (China-built)

Source: Author.

defined the dominant manufacturing focus and function of SEZs through the 1980s and beyond. This temporal shift is marked by industrial upgrading from the takeoff of labour-intensive and export-oriented manufacturing to knowledge-intensive innovative manufacturing. Since hosting much earlier services such as warehousing for duty-free goods in FTZs, free service zones (FSZs) have diversified over time into broader coverage of more modern and high-end services such as logistics. While overlapping somewhat with FSZs, sector-specific zones (SSZs) have a shorter history and feature more specialized economic functions and activities that

increasingly herald the future. In terms of temporal development, the cross-border and extraterritorial SEZs are the newest type, of the largest geographic scope, and truly border-intensive and transnational in function and governance (see two illustrative cases later).

Table 1 offers a most recent view of the general evolutionary direction of SEZs (from left to right) by identifying and specifying the intersections between the functional differentiation and specialization of SEZs and their change over time. By doing so, this table also aims to remap SEZs as subnational units of and for development, as well as their temporal varied positions and roles, onto the development ladder of climbing or sliding national economies based on shifting comparative advantages.

2.1. Past and present comparative advantages

The EPZs of the Republic of Korea and Taiwan province of China were established at an opportune time when the comparative advantages of these economies and the international division of labour converged into a mutually beneficial association. With a combination of cheap labour, lack of raw materials and small domestic markets, the Republic of Korea and Taiwan province of China were ideal locations for labour-intensive and export-oriented manufacturing. Externally, Western and Japanese multinational corporations (MNCs), facing rising production costs at home, began to relocate their manufacturing facilities to attractive overseas destinations. In a similar way throughout the 1980s, China's SEZs benefited from the coexistence of even cheaper factors of production and greater surplus capital from both the rapidly industrializing economies of both West and East Asia including the Republic of Korea and Taiwan province of China, with Hong Kong (China) being the largest external investor during Shenzhen's first stage of development.

By stage II of SEZ evolution (table 1), the East Asian intraregional and global comparative advantages had shifted again, which reshuffled countries on the development ladder. Having served their initial trigger role, the EPZs were no longer competitive and effectively disappeared into the national economies of the Republic of Korea and Taiwan province of China, which moved into high-tech manufacturing in response to their rising labour costs and highly educated workforces. The SEZs, especially Shenzhen, entered and then accelerated the process of industrial upgrading in response to pressure similar to that experienced by the two smaller economies earlier. During this stage, China's SEZs dropped the most salient attribute of the earlier EPZs, as narrow manufacturing enclaves. Instead, they became more open cities with growing regional and global economic connections. The first decade of the 21st century ushered in a new stage of manufacturing-based SEZs exemplified by Shenzhen, which also became a global center of innovative high- and new-tech manufacturing with a heavy concentration of research and development (R&D) activities (Chen and Ogan, 2016; Nylander, 2017). Unlike

the Korean and Taiwanese EPZs, Shenzhen's rapid industrial upgrading as a dynamic FMZ has created a key node for China's broader effort to move up the development ladder and forward along global value chains (GVCs), marking the crucial connection that can and should develop between a favourable entry into GVCs and subsequent and sustained development (Gereffi, 2018).

2.2. Obsolete and adaptive incentives

The baseline financial incentives for the early EPZs and China's SEZs during stage I were very generous and needed to be so. They mattered much more in attracting initial investors and laying the foundation for sustained manufacturing relative to other requirements, even though some investors would leave, either as incentives expired or as they could not turn a profit despite the incentives. During stages II and III, the EPZs' incentives were no longer relevant. Shenzhen demonstrated the flexible and targeted reinforcement of incentives to encourage industrial upgrading and discourage labour-intensive and polluting industries (stage II). Shenzhen replaced most of the earlier fiscal incentives with heavy state subsidies to attract R&D labs. In sum, baseline fiscal incentives can become obsolete as national economies become more open and better equipped with connected infrastructure (Vats et al., 2018). More importantly, research has shown that institutions such as legal and regulatory frameworks and procedures are more important than fiscal incentives in the long run (ADB, 2015).

2.3. Institutional factors

As table 1 also indicates, there was an experimental or testing dimension to the earlier manufacturing-based EPZs in East Asia and the SEZs in China, albeit much more for the latter. They were geographical containers for trying out "good" institutions such as market activities and property rights when other national economies were not ready and were vulnerable to experimental failures. Led by the so-called "developmental state", the Korean and Taiwanese governments used EPZs to bypass or overcome such prevailing institutional problems as the lack of transparent laws and inefficient resource allocation (ADB, 2015). This experimental function was more important for China's SEZs, which had to trial-run a variety of historically unprecedented institutional reforms, such as enacting investment laws and contractual employment, that were forbidden by the centrally planned economic system. While the Republic of Korea and Taiwan province of China no longer needed their EPZs for this function as they became market democracies in the 1980s, Shenzhen continued to pioneer broader and deeper institutional reforms for China during its socialist transition (Chen and de'Medici, 2012).

2.4. Mutating towards general convergence and Chinese distinction

The above points stemming from table 1 convey a simultaneous mutation of SEZs toward both some convergence across the zonal types over time and a persistently distinctive Chinese mode of SEZ development typified by Shenzhen. On the side of general convergence, SSZs in table 1 can actually host either low- or high-end services ranging from tourism to financial services. Depending on development needs for national or regional economies, FSZs and SSZs may be functionally more overlapped than either with FMZs. An SSZ with a clustering of R&D labs may be more justified than congregating a group of real estate firms. Geographical proximity, which facilitates face-to-face contact, is a key to fostering the exchange of ideas and knowledge flows that lead to innovation. Silicon Valley is a good example. Locating an R&D-centric SSZ near an FMZ can create short and quick reciprocal loops between advanced manufacturing and R&D.

Although China has contributed to the overlap between the first three types of SEZs, it endowed its SEZs, especially Shenzhen, with distinctive goals and functions for experimenting with bold reforms in its centrally planned economy and rigid governance system. This Chinese distinction goes much beyond the broad similarity and comparability in exploring comparative advantages by using SEZs as a development instrument. In light of how the initial successful reforms in Shenzhen have sparked similar ones in other Chinese cities over time, this beneficial effect of spatial policy mobility distinguishes China's approach to SEZs beyond the conventional use of SEZs for climbing the development ladder.

Furthermore, China stands apart from most other countries with SEZs by developing the fourth type as a new model of SEZ that crosses national boundaries. The China-built SEZs in Asia and Africa often feature a partnership between the Chinese government, often through a state- or privately-owned Chinese company, and a foreign sovereign government. Although these zones focus on labour-intensive manufacturing that may imitate or even replicate the basic functions of China's own SEZs in the 1980s, their actual performance is subject to strong Chinese influence through generally asymmetrical power relations (see details later). In the general evolution of SEZs, China is an inherent part of its logic and process, exhibiting some shared features of other SEZs. Deviating from this evolution, however, China has also charted its own path of developing and diversifying SEZs. Between this linked dual track, China's SEZs have experienced both the slow and incremental aspects of evolutionary transformation (implied by table 1) and the dynamic and potentially disruptive aspects of critical transformation (see table 2 and sections 4 and 5), which constitute two definitional elements of a new conceptual framework for understanding development (Henderson and Jepson, 2018).

3. Sectoral focus for SEZ development: lesson one from China

Given the distinctive attributes of China's SEZs, I examine them more closely in turn to draw multiple lessons that may extend beyond the Chinese context. Since key sectors or anchor industries are the main drivers of SEZ success, I start by looking at how this process has worked in and for China. The initial tenants of any SEZ lay the foundation for its subsequent growth and performance. They benefit from the most generous financial incentives, which are usually offered at the outset and adjusted later, as first-mover advantages (such as new publicity and growth momentum) fade. The analysis below leads to the first lesson from the Chinese experience with SEZs.

3.1. Baseline and other incentives and initial investments

Using Shenzhen as the primary case, I elaborate on the relationship between baseline incentives and initial investments at the early stage of its development. Although the special incentives offered by Shenzhen were designed to attract the first wave of foreign investment into China, China envisioned and intended Shenzhen and the other three SEZs to serve more lofty goals as its window to the world, and as a pioneer and experiment for trying capitalist principles and market activities in a controlled spatial "container" located far away from the political center.

The baseline incentives for China's first four SEZs were granted exclusively to them. They were indeed extra generous in light of China's planned and closed economy at the time. In return, the Chinese government expected the SEZs to play a significant role in achieving the larger economic goals of (1) expanding foreign trade; (2) attracting technology and management expertise as part of capital investment; (3) increasing employment; (4) accelerating economic growth to lure domestic investors and stimulating regional development; and (5) generating more land leases, transfers and rents. (The last one is particularly pertinent to understanding other Chinese SEZs later.) These goals were only partially achieved during the SEZs' first stage of development. The bulk of early inward investments came across the border from Hong Kong (China), from its labour-intensive, export-oriented and footloose manufacturing industries such as garments, shoes, household electric goods and simple consumer electronics.

Generous financial incentives aside, the high priority of institutional and monetary support from the Chinese central, provincial and municipal governments enhanced Shenzhen's investment environment further. The government at different levels sank the bulk of the capital to build up the physical infrastructure, primarily the industrial parks. In 1979, combined investments through central government allocation, ministries and Guangdong province accounted for 72.3 per cent of all construction capital. The share of state investment declined to 10.4 per cent in 1984. Investment

by the Shenzhen government itself rose from 16.7 per cent in 1979 to 70.4 per cent in 1984, although most of the money came from bank credits essentially controlled by the central government (Chen, 1987).

The baseline incentives coupled with government investment in infrastructure worked quickly, while surplus capital in Hong Kong was ready and primed to move across the border. By March 1981, total foreign investment in Shenzhen had grown to \$400 million, far exceeding any other single locale in China. From 1983 to 1985, foreign direct investment (FDI) in Shenzhen rose about 75 per cent annually. By the mid-1980s, more than 52 per cent of all the equity joint ventures in China were located in Shenzhen and the three other SEZs. The four zones accounted for 34.6 per cent of the total pledged foreign investment in such projects, with Shenzhen getting the lion's share. From 1986 to 1993, Hong Kong (China) accounted for 66 per cent of the overall FDI in Shenzhen and 64.2 per cent of the cumulative foreign investment (Chen and de'Medici, 2010).

From a comparative perspective, during the first three years of its operation, Kaohsiung EPZ in Taiwan province of China attracted only \$26 million in foreign investment, but it accounted for approximately 30 per cent of the economy's total FDI during that period. In the first three to four years, although the Masan EPZ's cumulative foreign investment did not exceed \$200 million, it accounted for 22.3 per cent of total FDI in the Republic of Korea during 1972-1976 (Chen, 1994). Shenzhen did much better than either Kaohsiung or Masan in terms of the absolute amount of foreign investment attracted during its first few years, even though it performed less well in absorbing the national share of foreign investment, due to Shenzhen's capacity relative to China's much larger scale and pent-up demand for overseas investment.

3.2. Key factors in Chinese SEZs' success

China's SEZs benefited from a combination of favourable factors that do not exist and cannot be replicated as a set in other contexts, but these factors offer some broader comparative implications and lessons. They point to other factors that matter differentially to the original and subsequent types and stages of China's SEZs.

a. Area

As the largest of the four original SEZs, Shenzhen reaped particular benefits from having much more land for its earlier development from the base of a small fishing village (Chen and de'Medici, 2012). Besides offering more space for hosting the concentration of labour-intensive and export-oriented factories, its larger area also meant a much bigger ratio of the new system to the old one and smaller resistance

from the old. The lack of existing infrastructure obviated the need to maintain or rebuild the old system. It also allowed Shenzhen to design a new template for planned development and effective governance for becoming a more diverse and integrated new city. In contrast, Shantou and Xiamen SEZs, with much smaller initial areas, were quickly filled up with initial investors from Hong Kong (China), some of whom were just as happy finding a home in Shenzhen. More importantly, their smaller sizes made it difficult for the other three SEZs to strike out with new and innovative strategies and practices beyond the constraints of the existing and well-established larger cities. From its original 372 square kilometers in bounded area to about 2,000 square kilometers in municipal territory today, Shenzhen is the only known case of a very large and sparsely populated SEZ turned into a dense megacity. It set an earlier and delayed precedent for a new breed of SEZs that have been built up as sizeable and multi-functional cities today, involving China as the primary driver and actor (see section 5).

b. Choosing the right focus

Shenzhen's sectoral focus on labour-intensive manufacturing was not necessarily strategic and forward-looking at the beginning. Yet it made much economic sense for Shenzhen to do what it did during its early years, given China's overall comparative advantages in very low land and labour costs. We may even call it success by default, not by design. In comparison, Zhuhai SEZ, on the border with Macau, did not do what Shenzhen did. On the contrary, Zhuhai looked at simple processing-based manufacturing less favourably and failed to attract much of it, which was also related to the much weaker industrial base in Macao (China), as a gambling center. Instead Zhuhai SEZ favoured a development plan of investing in big infrastructure such as its port and airport. As a result, Zhuhai missed the great opportunity for profiting from the cross-border relocation of labour-intensive manufacturing investment from Hong Kong (China), and less so from Macao (China), during the 1980s. It paid a price for not building up a sufficiently strong manufacturing foundation from the 1980s through the 1990s.

c. Institution and inclusion

Finally, bolder institutional reform put Shenzhen ahead of the other three SEZs, especially during the 1980s. Shenzhen led the SEZs, and the rest of China for that matter, in specifying and protecting property rights through the law. The establishment in 1990 of one of China's only two stock exchanges in Shenzhen (the other one is in Shanghai) further solidified the marketization of property rights. This strengthened the SEZ's openness and transparency for both international and domestic investors. To prove the importance of this factor from the negative side, the Indian state of Maharashtra lost developers in 61 of its 139 approved SEZs

due to capricious policymaking, a murky screening process and concern over economic prospects (*The Economist*, 2015).

Shenzhen's institutional reforms also translated into a more efficient and flexible policy for attracting human talent. During the 1980s, Shenzhen's personnel officials would bring the letters of introduction, job descriptions and employment contracts with them when they travelled to recruit in the interior. They could finalize the labour contracts in the places of recruitment upon mutual agreement and then begin the process of relocating these new hires. As China's first zone/city for introducing contractual employment by also offering higher salaries and benefits, Shenzhen benefited considerably from new human resources to offset the shortage of an indigenous talent pool. This not only earned Shenzhen notice as "China's largest and most tolerant city for immigrants" (Chen and de'Medici, 2012), but also laid the foundation for its transition to a high-tech and advanced service economy from the early 1990s.

4. SEZ diversification: lesson two from China

SEZs in China have evolved and diversified over the last four decades. While Shenzhen is the single most successful zone, it is not representative of the different types of other zones and their times of establishment and development. By constructing a broad typological overview, I intend to illustrate how SEZ development in China has unfolded temporally and diversified functionally.

As table 2 shows, China's SEZs have stayed both constant and diversified in four main types through four decades. The first two types of zones started in the 1980s a few years apart, with the economic and technological development zones (ETDZs) launched in 1984. All the early ETDZs built by the 14 established coastal industrial cities were sited some distance away from the central cities as greenfield development projects. In this sense, they were similar to Shenzhen in that the new location and construction would keep the zones less connected and thus influenced by the old system. While both the SEZs and ETDZs experienced their transitions through industrial upgrading, China unleashed a wave of high- and new-technology zones (HNTZs) across much of the national economic space starting around 2000, although an earlier variation called high-tech industrial development zone started in the 1990s. The fourth type, heralding a new phase of China's SEZ development that reflects its more open economy, appeared with the official unveiling of the Belt and Road Initiative in 2013 (see below).

Table 2. Types of China's SEZs by Time Periods

Type of zone by time period	1980s	1990s	2000s	2010s
1. Special Economic Zones (SEZs)	<ul style="list-style-type: none"> • Shenzhen • Zhuhai • Shantou • Xiamen • Hainan (province) 	Industrial upgrading began	Uneven success in upgrading	Uneven success in upgrading <ul style="list-style-type: none"> • Kashgar • Horgos
2. Economic & Technological Development Zones (ETDZs)	14 coastal cities including: <ul style="list-style-type: none"> • Shanghai • Ningbo • Nantong • Others 	Began industrial upgrading	Transition and diversification to high-tech manufacturing and service	Fully institutionalized and stable
3. High- and New-Technology Zones (HNTZs); Border SEZs		Special zones spread to coastal, central and western border regions <ul style="list-style-type: none"> • Ruili • Mohan (Yunnan) 	Growing and spreading nationally	Uneven success
4. New Free Trade Zones (FTZs) and Overseas Economic and Commercial Cooperation Zones (OECCZs)		Growing gap between coastal and inland/border regions	"Go West" and "Go Global" policies began <ul style="list-style-type: none"> • China-built SEZs in Africa 	Belt & Road Initiative (BRI) launched <ul style="list-style-type: none"> • Shanghai FTZ • Forest City, Johor, Malaysia • China–Laos (Mohan–Boten) Economic Cooperation Zone (ECZ)

Source: Author.

4.1. New incentives for new industries in Shenzhen

After Deng Xiaoping's visit to Shenzhen in 1992 confirmed the continuation of China's SEZ policy, Shenzhen entered a new stage of development characterized increasingly by capital- and technology-intensive manufacturing in response to rising land and labour costs and worsening environmental degradation. The focus during this stage was eventually labelled as Shenzhen becoming three centers for high- and new-tech manufacturing, finance services and logistics. In 2003, a cultural industry focus was added. In 2009, Shenzhen added a fifth focus on becoming an international innovation center. Shenzhen and Hong Kong also began

to discuss developing a new area for advanced services and another focal area for international finance. It is timely to note that the successful Shenzhen model has recently been extended and transferred to China's far western border region where the cities of Kashgar and Horgos (table 2) in Xinjiang, bordering South and Central Asia, were designated as state-level SEZs, bringing the number of Chinese zones carrying the official SEZ title and status to seven.

Shenzhen exemplifies a bold and creative use of adapting incentives to advancing industrial innovation. Pushing harder on industrial innovation a few years ago, Shenzhen designed a set of very generous financial incentives for attracting R&D labs of national, provincial and municipal grades ranked by a sliding scale of importance and prestige, as well as labs set up by multinational corporations. National- and provincial-level labs, especially those certified as "excellent", would each receive financial support of up to 10 million RMB (\$1.5 million), while each municipal level lab would be granted 5 million RMB (\$750,000). Shenzhen would also provide 5 million RMB for offsetting the cost of constructing each of these labs. In addition, Shenzhen has built new R&D lab spaces that are available to new-tech firms without rent for the first two years and at a discount of half of the rent for the next three. These new incentives have fuelled the dense emergence and rapid expansion of high- and new-tech firms that have placed Shenzhen at the forefront of global industrial and technological innovation today (Chen and Ogan, 2016; Nylander, 2017).

4.2. Upgrading through connection, expansion and differentiation

Successful SEZs of any kind should be connected actors, as exemplified by Shenzhen. The original ETDZs have also undergone a metamorphosis as their first-mover advantages began to erode. Given their new locations away from their associated central cities, the latter in collaboration with the former have built road – and increasingly subway – connections for better integration and cooperation. Despite starting in the middle of agricultural fields 30 years ago, the ETDZs have become parts of expanded metropolitan regions. As their original bounded areas were filled up, the ETDZs have expanded into the surrounding lands, making it possible for new investors and existing tenants to grow. This reinforces the perception of surface area as a potential barrier to SEZ success and the importance of anticipatory planning early on to store or hoard available land for later expansion. Most importantly, the ETDZs have diversified by adding new functional zones, especially for high- and new-tech industries. During my recent field research in the Nantong ETDZ near Shanghai, I was struck by the simultaneous and complementary development of two to three types of SSZs including warehouses within the ETDZ's boundary (see table 2).

4.3. Late upgrading and built-in limits

Most HNTZs have been built since about 2000. Despite their shorter histories than the SEZs and ETDZs, the HNTZs have become quite productive and effective, in parallel with China's overall effort to move to higher valued-added manufacturing and knowledge industries. By 2009, China had approved 54 HNTZs occupying a total area of 962 square kilometers. Although this is only 1/10,000 of China's total territory, it produced 10.4 per cent of China's total industrial output that year. Of these HNTZs, 16 produced over 20 per cent of their cities' total output, up from eight that did so in the previous year (Yu, 2011). Productive as they are, some HNTZs have run into the land bottleneck and acquired some surrounding areas without administrative approval by the higher authorities. In some cases, the areas around the originally approved HNTZs have been developed into residential and commercial zones, which has pushed up land prices. This has restricted and diluted the original purpose and focus of building high- and new-tech industries.

This process also reflects another critical factor in SEZ success – leadership. Most of the zones of various types are led by a vice mayor or Party secretary of the cities where the zones are located. These leaders tend to do quite well early on because they can leverage and utilize the autonomy granted to the zones and their new momentum, with some institutional separation from their municipal administrative anchor. Some of the leaders were innovative and led the HNTZs to varied levels of success. However, as these zones have become more integrated with their host cities through mixed-use development and inertia, some of their leaders have become more conservative and content with the status quo. The leadership factor exposes a fundamental dilemma facing China's SEZs. Since they are not special political zones and have to be governed indirectly by the larger system, they carry a strong built-in limit for sustaining their vitality.

4.4. Domestic pressure and overseas expansion

China's different types of SEZs have created many entry and exit points for the Chinese and global economies to be closely connected. Under pressure to further open up its economy, China initiated a fourth type of SEZ more recently (see table 2, row 4). To attempt greater financial integration with the global economy from its premier global city, China launched the Shanghai FTZ in 2013, but it has only seen limited success. It is very difficult for financial firms in the zone to act independently with China's capital controls, without having the effects spilling over to the rest of the economy. A recent survey found that three-quarters of American firms in Shanghai said the zone offered them no benefits (*The Economist*, 2015). This shows that China's larger institutional environment within which SEZs operate tends to constrain heavily regulated services such as finance more than the considerably open sector of manufacturing.

Partly pressured by its domestic overcapacity in steel, cement and the overall saturation of the construction market, China has begun to build a variety of SEZs abroad as part of the infrastructure-led development strategy under the Belt and Road Initiative (BRI). In 2014, a Chinese company started construction on Forest City, a private, gated, luxury mega-development for 700,000 people on four reclaimed islands in Malaysia's Johor state near Singapore (Moser, 2017). But this project has been halted since the second election of Prime Minister Mahathir, who is more critical and cautious about China's heavy investment in Malaysia. In the meantime, Alibaba has recently helped Malaysia launch the Digital Free Trade Zone (DFTZ), a warehousing facility close to Kuala Lumpur's international airport. The DFTZ is designed to serve as a regional logistics hub to help small and medium-sized businesses better connect to global commerce.¹

These recent cases mark another phase of China's SEZ development featuring a "going global" strategy. It is a logical extension of China's cumulative strength and experience in building and running SEZs at home. China's global SEZ development provides new development opportunities for countries that are relatively new to SEZs. These countries can learn another useful lesson from China's uneven success with SEZs that may or may not transfer to other contexts.

5. A new model and phase of SEZs: lesson three from China

To shed more light on this new phase of China's SEZ development with global extensions and implications, I briefly discuss a pair of cases that span and bridge the China–Southeast Asia borderlands to show two new analytical dimensions to SEZs and their potential roles in national and local economic development under some altered global conditions. The first dimension concerns the connection between or combination of private and public investments that previously tended to flow separately across borders. The other dimension is the new and broader spatial metamorphosis of the earlier geographically confined SEZ, which has increasingly taken on city-like qualities such as larger demographic scale, more expansive spatial coverage, a more diversified economy and greater spillover influence. The coupling of these two dimensions points to the co-evolution or "strategic coupling" (to borrow a short phrase from Yeung, 2016, who used it in a different context) of SEZ diversification within China and its SEZ internationalization.

¹ "Malaysia and Alibaba launch regional logistics hub", *The Straits Times*, 3 November 2017; <http://www.straitstimes.com/asia/se-asia/alibaba-launches-electronic-trading-hub-in-malaysia>.

5.1. The China–Myanmar case

The first case is the combination of SEZs on both sides of the China–Myanmar border and its extension to a larger and longer cross-border economic corridor. Its emergence and evolution reflect the transition from stage II to stage III in table 1 and has covered the last three time periods in table 2. This case reconfigures the local, regional and transnational or trans-local geographical scales that straddle an international boundary and can add a new rung to the development ladder for more than one country. It also offers a new opportunity to examine the sectoral connection between formal and informal economic activities and the upward scaling from domestic SEZs to transnational or transboundary SEZs and the latter's development feedback loop to the former.

The local base of a multi-scaled cross-border SEZ is the city of Ruili of Yunnan province bordering Myanmar. Ruili is a small but key city for stimulating lagged economic development in China's southwestern region from about 1990 (see table 2). The starting project was Ruili's establishment of the Jiegao Border Economic Development Zone in 1991 to facilitate its border trade with the Myanmar town of Muse. Jiegao's role was further elevated when a special EPZ policy was implemented in 2000. Ruili's importance has since moved far beyond a mere border market. This bustling city with a large international population, mostly from Myanmar, has become more regionally linked to China's overall strategic plan to develop its vast western region while extending its influence across borders, and thus both the central and local governments have been building Ruili up to a regional hub. The Master Plan of the Ruili Experimental Zone approved in 2013 included 238 projects intended to boost Ruili as a gathering place and gateway for economic activities and flows with the neighbouring Southeast Asian economies. This reflects the evolution and extension of China's SEZs from the 1990s to the 2010s in response to the development initiatives of "Going West" and "Going Out" around 2000, and more recently, the Belt and Road Initiative.

On the other side of the border, the Myanmar State has responded to its Chinese counterpart through a series of SEZ-like policies to strengthen Muse's role in executing border trade with China. The Myanmar Export and Import Services set up trade offices in Muse and another border town Nantkam in the early 1990s. The Border Trade Office in Muse introduced "one-stop service" in 1995, expanded its range of services in 1996 and introduced the use of US dollars to settle transactions in 1997, instead of the Chinese renminbi and Myanmar kyat. In addition, the creation of the 150-hectare Muse Border Trade Zone allowed Myanmar merchants to freely export goods from across the country to Muse, and export licenses can be issued on the spot within one day after a formal sales contract is confirmed with Chinese buyers. Partly owing to these cumulative efforts, Myanmar's border trade at Muse rose to \$3.36 billion in 2015, from \$2.95 billion in 2014. By comparison, Myanmar's

second largest trading station of Myawaddy, on the Thai border, recorded a volume of \$411 million, up from \$211 million in 2014.²

To see the booming border trade between China and Myanmar in a tangible way, one only needs to stroll through the vibrant jade market in the Jiego SEZ in Ruili. This is where Myanmar traders such as 47-year-old Soe Paing sell raw jade – one of his country's main and valuable natural resources. His family has been in the jade trade for generations. While examining various pieces of raw jade in his shop-office, he said, "Chinese people didn't just start to like jade. They have always liked jade and used it for thousands of years." He went on, "Our business depends mainly on China, though, since other countries are not as fond of jade as the Chinese."³ The scale and centrality of jade trade in Ruili struck me during my field research trip there in 2013 and again in January 2019. Jade trade, almost by itself, has helped elevate this once sleepy town to a vibrant city by attracting a large number of outside traders on both sides of the border. The physical location of the jade market, which literally straddles the border and is a stone's throw from a major border gate, has turned into an in-between space where buying and selling, with long-distance sourcing and marketing ties, defines and dominates the China–Myanmar borderland.

Along with jade, the fruit business has also flourished through designated zones of trade along the China–Myanmar border. In the recent past, Myanmar companies based in Muse would buy fruit from growers in Myittha and Mandalay and as far as Yangon. The fruit business in Muse did well, with workers from all over Myanmar making good money from about a 1,000 trucks that delivered daily. Since 2012, when Chinese traders first entered the Muse trade zone, they have slowly taken over the fruit market. "China is very prominent here and influences all the markets in Muse. Chinese businesspeople are engaged in both imports and exports, according to the owner of Khwar fruit retail shop.⁴ Like the jade market in Ruili, the fruit market has become more favourable to Chinese traders as they have taken over the more important and powerful positions from Myanmar traders. The two markets together, in discrete geographical locations but forming crucial cross-border trade links, represent the multiplication of key zones of activities extending beyond a traditional border (Sassen, 2015).

² "Border trade up by \$500m over last year", Mya Htwe Chan, *The Myanmar Times*, 24 November 2015; <http://www.mmtimes.com/index.php/business/17774-border-trade-up-by-us-500m-over-last-year.html>.

³ "China polishes Myanmar relations as West closes", Eunice Yoon, "Asia Tomorrow," a CNBC special report, *ETCNBC.com*, 15 June 2015; <http://www.cnbc.com/2015/06/15/china-polishes-myanmar-relations-as-west-closes-in.html>.

⁴ "Chinese fruit traders extend reach into Shan State", *The Myanmar Times*, 25 November 2015; <http://www.mmtimes.com/index.php/business/17625-chinese-fruit-traders-extend-reach-into-into-shan-state.html>.

In addition to border trade through SEZs by private traders, the earlier Jiegao SEZ also helped raise the city of Ruili to a critical through-point or land port for gas and oil pipelines that China has built from the port city of Kyaukphyu on Myanmar's west coast to Kunming. The gas pipeline became operational in 2013 and carried 2.86 million tons of gas in 2016, accounting for about 5 per cent of China's total imports. The oil pipeline, which was completed in 2014, opened in 2017 after a long delay, and the Myanmar government has agreed to lower transit fees. The 771-kilometer pipeline is designed to carry 22 million tons of crude a year (about 442,000 barrels a day) for the Kunming-based refinery, which can process 13 million tons a year, while Myanmar can take 2 million tons annually from the line.⁵

This transnational energy supply line is localized in an SEZ being built at Kyaukphyu Port in Myanmar. The Kyaukphyu SEZ had been on the cards for some time and finally got the go-ahead in late 2018 when Myanmar and China signed a framework agreement to jointly develop this zone. After months of difficult negotiations between China's state investment vehicle CITIC Group and the Myanmar government, the two sides agreed to reduce the Chinese consortium's stake in the port from 85 per cent to 70 per cent, while CITIC won the original tender to build the port and an SEZ with an 85:15 ratio. The CITIC Group is still negotiating to develop an industrial park with an investment of \$2.7 billion, with a 51 per cent and 49 per cent stake between the Chinese firm and Myanmar, respectively. In addition, the Myanmar railways and the China Railway Group signed a memorandum of understanding to build a railway line between Mandalay and Muse on the Chinese border, part of an ambitious road/rail project to connect Yunnan with Mandalay to Yangon and onward to the deep-water port at Kyaukphyu. This trans-local expansion of SEZs to anchor and support cross-border energy and transport infrastructure differs considerably from the informal nature of private traders in jade or fruits congregated in the SEZs on the border, in that it is financed and built by large corporations such as CITIC, backed by the Chinese government. The more expansive and border-spanning scale of SEZ development has created more space and opportunities for informal/private and formal/public activities and projects to co-exist in stretching and enlarging the early model of fixed or geographically confined SEZs and their delimited development benefits.

⁵ "China Opens Delayed Myanmar Oil Pipeline to Get Mideast Crude Faster", *Bloomberg News*, 18 April 2017; <https://www.bloomberg.com/news/articles/2017-04-11/china-opens-delayed-myanmar-oil-link-to-get-mideast-crude-faster>.

5.2. The China–Lao People’s Republic case

The second case of border-intensive and border-straddling SEZ development is taking place between the Chinese border city of Mohan (also in Yunnan province) and the Lao border town of Boten. Mohan and Boten pale in comparison to the scale of population and vibrancy of economic activities within and between Ruili and Muse. Before 2013, the twin-city relationship was marked by infamous gambling in Boten, which drew Chinese over the border to squander their money. Other Chinese came to the border on buses from Kunming and beyond, as tourists who would travel on to tourist cities such as Luang Prabang. They could swap Chinese currency for Lao currency freely. Lao locals in Boten who could speak Chinese offered car services and peddled cheap goods. The gambling-related problems led the Chinese government to pressure the Lao government to shut down the casino in town and left Boten a “ghost town” (Chen, 2018b).

The bad image and marginal status of Boten experienced a dramatic turn to good fortune in 2015 when the governments of China and the Lao People’s Democratic Republic signed the Agreement for Joint Construction of the China–Laos (Mohan–Boten) Economic Cooperation Zone (ECZ). In fact, this bilateral plan was predated by the establishment of the Boten SEZ in 2009 directed by the Lao government, but little had happened through 2015. The ECZ became China’s way to jump-start and scale up the Boten SEZ by building a new and much larger city where the Boten zone is located, on the Lao side of the border. The construction has been undertaken by Haicheng, a private real estate development company based in Kunming. The signing of another joint development master plan for the ECZ in 2016 accelerated the construction, with the vision and goal of turning the zone into a comprehensive and integrated city for 300,000 people characterized by four functions: international commerce and finance; duty-free logistics; culture, education and health care; and tourism and vacation. It recalls Shenzhen’s functional expansion into a real city from its early years of industrial dominance.

While the Boten ECZ is being built into a new city, it offers a set of familiar financial incentives accorded to the Boten SEZ and other SEZs. These include (1) the exemption of import duties for all goods and materials used, sold and served in the zone; (2) tax reduction or exemption for 2–10 years for factories in the zone; and (3) tariff-free exports to third countries and qualification for most-favoured-nation status relative to advanced economies. The ECZ also benefits from being located at the central crossing point for both rail and road lines linking China, the Lao People’s Democratic Republic and Thailand that will eventually extend to Malaysia and Singapore. It also serves as the distribution and connection hub for cross-border trade and tourism. Moreover, the ECZ, in the heart of four concentric circles with travel radiuses of one to seven hours, allows easy and quick access and travel to a number of major cities and their hinterlands that span the connected adjacent

border regions of China, Myanmar, the Lao People's Democratic Republic, Thailand and Viet Nam.

The ECZ's ultimate success is most likely to depend on the completion and operation of the China–Laos Railway that runs by the Mohan–Boten border zone. Although the idea for the China–Laos Railway project germinated in 2010, the official agreement was not signed until November 2015; ground for construction was broken in Vientiane in December 2015. The line starts in Kunming and travels southward to Jinghong and Mohan until it enters the Lao People's Democratic Republic through the Lao border city of Boten. It will then move past Luang Prabang and Vang Vieng before arriving in Vientiane. Designed to carry both passengers and cargo, the railway will run at an average speed of 160 kilometers per hour, which qualifies it as a high- to medium-speed train, and 60 per cent of the line will be bridges and tunnels.⁶ The Lao government expects roughly 4 million Lao passengers a year to use the railway's 420-kilometer route through the country at first, with the figure growing to 6.1 million passengers in the midterm and 8.1 million passengers in the long run.⁷

The fundamental benefit of this planned railway is billed as turning the landlocked country and its “disconnected destiny” to a land-linked one. In June 2010, China and the Lao People's Democratic Republic signed a memorandum of understanding to build the Saysettha Development Zone along the railway near the planned railway freight station in Vientiane. The zone aims to attract about 150 enterprises to operate from the hub, with a total output value to reach \$6 billion, and to create about 30,000 new jobs for locals by 2030 after its full development. After 2013, 32 companies were reported to have entered the zone and had already brought new ideas and best practice on operation and management to local factories.⁸ If this is initial evidence of the potential multiplier effect of the planned railway, then it holds up hope for the future.

In comparison, the China–Myanmar case features a mixture of informal and formal economic activities and the scaling of SEZs in existing border cities and towns into booming hubs. The China–Lao People's Democratic Republic case reflects the dominance of Chinese State capital and a narrower focus on cross-border transport infrastructure in the China–Laos Railway, although the new China–

⁶ “China, Laos sign railway deal”, Zhao Lei, *The China Daily*, 14 November 2015; http://www.chinadaily.com.cn/business/2015-11/14/content_22456633.htm.

⁷ “Laos and China come to terms on loan interest rate for railway project”, *Radio Free Asia*, 4 January 2016; <http://www.rfa.org/english/news/laos/laos-china-come-to-terms-on-loan-interest-rate-for-railway-project-01042016163552.html>.

⁸ “China's Belt and Road Initiative to unlock Laos economic potential”, Liu Tian and Rong Zhongxia, *Global Times*, 4 September 2016; <http://www.globaltimes.cn/content/1004596.shtml>.

Laos ECZ in Boten is being built up rapidly as a hub for anchoring cross-border regional development. It is also too early to gauge the prospect of manufacturing-oriented SEZs being planned near some stations of the China–Laos Railway. The Lao People’s Democratic Republic is expected to host SEZs for labour-intensive industries that have begun to leave China due to its more expensive labour and land and upgrading to high-tech manufacturing in new zones (see table 2). The China–Laos Railway, however, has stimulated only limited subcontracting of partial production to small Lao companies. The expected completion of this cross-border railway in 2021 looms as a critical point for assessing both the local and extra-local economic impacts of SEZ development on both sides of the border, along the route of the railway.

6. Global SEZ development: a synthesis of Chinese lessons

Change and continuity in SEZs in the world over the past four decades have been accompanied and influenced by China’s own economic development and global integration. These two processes have paralleled and intersected with each other through phases that reflect not only their own dynamics but also linked mechanisms and outcomes. Around 1980, China adopted the main elements of the early generation of EPZs through its experimental version of SEZs, crystalized in Shenzhen. Then China expanded the “learned” SEZs geographically to scale up export-oriented manufacturing based on its low-cost labour and land. At subnational levels the Chinese government aggressively subsidized its comparative economic advantages by building physical and transport infrastructure for all forms of SEZs. This Chinese mode of SEZ development continued into the 1990s and largely tracked the first stage of SEZ evolution into its second (tables 2 and 1).

As China upgraded its low-cost manufacturing, heavily concentrated in industrial zones in the coastal region, towards the end of the 1990s, it created more SEZs in its inland or border regions and began to “export” SEZ development, most notably to Africa, such as the Eastern Industrial Zone near Addis Ababa, Ethiopia. With approval by the Chinese government and the participation of regional governments, State companies, and private firms, China has built SEZs in Africa where it can not only relocate its labour-intensive manufacturing production but also introduce reforms and experiments that harken back to Shenzhen’s role (Dannenberg, Kim and Schiller, 2013). There was evidence linking the establishment of an SEZ in Ethiopia to the Chinese economist Lin Yifu, a former chief economist for the World Bank, having convinced former Ethiopian President Meles Zenawi of its value (Pairault, 2019). In 2019, China’s growing role in building African SEZs was significantly boosted when Hua Jian Group Co. (based in the largest shoe-making hub of Dongguan in southern China), which operates a large shoe factory in the

Eastern Industrial Zone near Addis Ababa employing some 6,000 local workers, acquired the right to operate Ethiopia's Jimma Industrial Park for 40 years.⁹

The stronger connection between the post-2010 phase of global SEZ evolution and China's SEZ evolution is also reflected in China's push to stretch its border SEZs into its Asian borderlands. This is strong evidence that China has played the most important role of all countries in shaping global SEZ diversification. It has done so in three linked domestic and international manners. First, China has contributed the largest number and most varied types of SEZs to the world. Second, China has become the most purposeful and aggressive exporter of SEZs to other developing countries, with a combination of its domestic SEZ features and new adaptations to overseas locations. Third, China has created a new generation of SEZs that straddle national boundaries and scale up into mini-cities with mixed formal and informal economic activities and functions.

Regarding China's domestic SEZs, two main policy lessons can be drawn. The first lesson, of a positive nature, has to do with a national government commitment to using SEZs of various kinds and locations to achieve multiple goals: drive industrialization, create jobs, promote exports, induce technology transfer and innovation, and stimulate broader regional development to reduce inequality. The second lesson, with an undesirable twist, pertains to many local governments competing to build identical SEZs and ending up with wasteful investment, unfair competition and partial failure. The combination of these two lessons points to the critical importance of vertical and horizontal policy coordination and operational sensitivity in creating truly needed SEZs for clear and achievable development goals from and beyond the most favourable locations.

China's venture to build SEZs overseas thus far invokes two other policy lessons that harken back to its domestic experience. The first and more positive lesson reinforces the two-sided trend that SEZs can continue to facilitate economic development and that the successful aspect of China's SEZs can be transferred to other developing countries with necessary adjustments. Despite their slow and stalled earlier development, the few SEZs set up in Africa through formal cooperation since 2006 have begun to address their development challenges and have managed to attract local and foreign investment. While some of the zones' business operations are nascent, in other zones significant numbers of jobs have been created (UNDP, 2015). These findings contradicted earlier studies that had showed the China-sponsored SEZs in Africa to be largely unsuccessful. The report also pointed to the challenges facing these SEZs, such as ensuring high-level

⁹ "Hua Jian takes over an Ethiopian state industrial park, to build shoe and coffee-processing factories", *Sina.com*, 15 June 2019; <https://cj.sina.com.cn/articles/view/1851435074/6e5aa84202000180t?from=finance&>.

political commitment and support for effective interministerial collaboration and integrating SEZ programmes into national development strategies and plans, which has characterized many of China's SEZs.

The other lesson concerns coordination and cooperation, as reflected in the challenges faced by a China-sponsored SEZ in Mauritius. One of the first African nations to use EPZs in the 1970s, earlier than China, Mauritius has seen its own EPZs and SEZs through stages of change and continuity that mirror the periods of global and Chinese SEZ evolution in response to shifted comparative advantages (tables 1 and 2 in this paper; Tang, 2019). Planned in partnership with Chinese textile company Tianli in 2006 to do manufacturing, the Mauritian zone struggled early on from the global financial crisis that severely weakened the Chinese company's ability to bring over investment for on-site development. To correct course, the Chinese government handed the project over to Shanxi province, which encouraged two resource companies to become partners in the endeavour and converted Tianli to a minority partner. Although the rebranded zone of Jinbei completed its basic infrastructure by 2011, few investors had showed up by 2015. By June 2017, the Jinbei zone took the shape of a finance and business area, a culture and leisure area and a port industrial area for logistics, and a popular tourist destination that offers a one-stop travel service to Chinese tourists, which amounted to a very different orientation than the original focus on manufacturing.¹⁰ This case reflects the lack of good coordination and cooperation between China's national interest in building SEZs in Africa and the involvement of the Chinese private sector as the actual builder and investor in a foreign locality.

Regarding China's third role in global SEZ development – building cross-border or transboundary SEZs – two mixed lessons stem from two China–Southeast Asia cases. The China–Laos (Mohan–Boten) SEZ discussed earlier is similar to the Mauritian zone in that it is built by a regional private Chinese company (Haicheng) under a bilateral agreement at the national level. However, this SEZ is being built up and out on the Lao side of the border with China as an integrated city, like Shenzhen in its early years, albeit on a much smaller scale, making it very different from the narrow sectoral focus on the Jinbei zone in Mauritius. Still another recent case is the China–Kazakhstan International Border Cooperation Center, located in the city of Horgos in Xinjiang on the border with neighbouring Kazakhstan. Under a bilateral agreement, China has built 65 per cent of the space and Kazakhstan has built 35 per cent. This enclosed zone offers shared infrastructure facilities and

¹⁰ "Rise and stall: China's stepping stone to nowhere", *African Business*, 8 April 2015; <https://africanbusinessmagazine.com/sectors/infrastructure/rise-and-stall-chinas-stepping-stone-to-nowhere/>; "China and Mauritius: An enduring friendship", *China Today*, 7 June 2017; http://www.chinatoday.com.cn/english/report/2017-06/07/content_741757.htm.

linked duty-free shopping that attracts both domestic and international tourists, especially small vendors and buyers for consumer goods from interior China and some parts of Central Asia. Although this informal economic activity in a lightly regulated SEZ resembles the jade market on the China–Myanmar border discussed earlier, it coexists with the formal nearby logistic hub for China–Europe freight trains that pass through Horgos and Central Asia to Europe (Chen, 2018a). These cases, which belong in the lower right corners of both tables 1 and 2, represent China's most distinct and influential impact on the global SEZ landscape. They are spatially much larger than the conventional SEZ and contain more diverse sectors and activities. This dual nature of China-initiated trans-border SEZs, if successful in stimulating underdeveloped border regions in developing countries, may turn out to be a positive policy lesson for improving and advancing SEZs in general.

The potential downside of this Chinese approach to global SEZ development may stem from the risk that these zones become exclusive spaces only for Chinese investors, workers and residents to the exclusion of citizens of the countries where the zones are located. This scenario is particularly likely on the Lao side of the zone, which is being built by a Chinese private development company that is also heavily involved in local governance. In this kind of large-scale infrastructure development driven by a powerful outsider, local “others” can easily be absent and excluded by what is included (Wiig and Silver, 2019). This can lead to the likely erosion of political and territorial sovereignty and governance of the countries hosting China-funded SEZs (Frazier, 2018). It also recalls the enclave-like nature of the early EPZs and more recent special infrastructure spaces that bypass or surpass the State's legal and governing reach and capacity (Easterling, 2014). The involvement of both the Chinese State and private companies in building SEZs overseas is consistent with the growing diversity and complexity of actors and agencies in China's overall global engagement. Given the marginal location of the China-championed cross-border SEZs in or near small cities in developing countries, it is capable of repositioning traditional cores and peripheries by both building large-scale infrastructure projects and stimulating more informal economic activities in transnational hinterlands (Klinger and Muldavin, 2019).

At this critical time for re-evaluating the evolution of SEZs and how they can continue to benefit development, we are only beginning to recognize and understand China's growing and multifaceted role in global SEZ development. Despite China's success with SEZs at home, often inflated by the singular prominence and reputation of Shenzhen, we should be cautiously optimistic that certain elements and practices of China's SEZs may be adapted to some developing countries, either through inter-country policy mobility or the new breed of China-foreign ECZs. As this potential grows from the further implementation of China's Belt and Road Initiative, it emerges as a new area of policy research that can inform and foster sustainable economic development through South–South cooperation.

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