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REVIEW ESSAY

# Economic Growth or Sowing the Seeds of Destruction? The Role of Economic Development Zones in China

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**Abstract** Special economic zone (SEZ) programs in China have played a major role in the Chinese political economy. To examine SEZs, I address three questions. Are zones effective? What are the origins of SEZs? How do zones evolve? I argue that the origin of zones is under-theorized. Examining zone enactment is necessary for studying land-use patterns and urbanization. We must also pay closer attention to the level of analysis and evolution of zones over time. Clarifying the level of analysis will improve our understanding of the distribution of preferential policies across China. Understanding zone evolution will help scholars and practitioners assess when and how SEZs are an effective economic policy tool.

**Keywords** China · Political economy · Special economic zones · Economic intervention · Development

## Introduction

In the 1990s, one strategy used by local officials to guide development, and generate revenue, was the creation of economic development zones (*kaifaqu,* 开发区).[1] By the end of the decade, over 6800 zones were active.[2] "Development zone fever" [35] was out of control as complaints of land confiscation and allegations of corruption increased. Between 1998 and 2006, the State Council investigated these cases,[3] giving

[1]For translations of the Chinese SEZ terminology, see Table 2 in the Appendix.

[2]Zhang [35].

[3]NDRC [19].

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central government authorities, such as the Ministry of Land and Resources (MLR), more power to control land-use.[4] What was once considered a breakthrough in economic policy had become a pariah, prompting central government authorities to crack down on local officials. Yet, by the end of the 2000s, development zones were again appearing across China. What explains the continued use and expansion of SEZs despite efforts to limit land-use?

A growing body of economic and geospatial analysis find a positive contribution of SEZs to growth, FDI, productivity and inequality. However, we know far less about the origins of zones, differences based on the level of analysis, or the evolution of zones over time. Origins, evolution, and the level of analysis are crucial to properly evaluating economic and political outcomes. Moreover, these three dimensions provide evidence of the distribution of preferential policies across China and how that distribution has changed over time. In this review essay, I evaluate our understanding of SEZs based on new research and focus on two issues that still need to be examined: the level of analysis used to study the political economy of SEZs and the origins and evolution of zones. Concepts such as enactment and initial construction are currently under-theorized but represent distinct phases in the SEZ life cycle.[5] To effectively evaluate outcomes, we must analyze the phases of SEZ development. For the level of analysis, I argue that we must differentiate between local, provincial, and national zones to avoid conflating the effects of industrial policy with the reasons behind enactment. Clarifying the origins of zones and level of analysis fosters more accurate within-country comparisons. For example, equating *kaifaqu* to comprehensive SEZs, such as Shenzhen, is not appropriate given the different circumstances during enactment. Attention to the level of analysis is also necessary for cross-national comparisons. Zones in other countries are often much smaller than China's. Thus, overseas SEZs may be more similar to provincial-level zones in China rather than national-level ones.

I begin this review essay by summarizing the effects of SEZs because this is the most developed area of scholarship. I then shift to a discussion of SEZ origins and the SEZ life cycle. After the literature review, I embed SEZs more directly into the question of urban land-use. I do so because one deficiency in the literature is the focus primarily on economic outcomes, such as GDP and FDI, rather than political and social consequences. Meg Rithmire's book, *Land Bargains and Chinese Capitalism: The Politics of Property Rights under Reform,* begins to rectify this deficiency by describing how economic development zones fit into China's political economy. SEZs have been extremely successful but during each wave of zone expansion, new problems are generated, as seen with *kaifaqu* in the early 2000s. Zones generate deeply entrenched interests, resulting in their durability. Despite excellent recent contributions, we still lack an understanding of how zones emerge, especially provincial-level SEZs, and the scale and scope of their contribution to economic development. Rithmire [25] and Hsing [14] provide a starting point for considering the societal outcomes of zones and the relationship between zones and urbanization. In the conclusion, I highlight two research directions derived from these recent contributions.

[4] Sun [27].
[5] Omar et al. [21].

## Development Zones: The State of Our Knowledge

Scholarship in political science, economics, and geography have all begun to dissect patterns of development associated with special economic zones in China. In this section, I focus on three inter-related research questions. First, are zones effective? Second, where do zones originate? Third, what do we know about the evolution of zones? But before we delve into these topics, a brief review of China's zone programs is necessary.

SEZs are any geographically demarcated enclave within a national territory in which the legal and regulatory rules for trade and investment are different from national-level laws. In China, the initial SEZs in Shenzhen, Zhuhai, Shantou, and Xiamen[6] are the most famous; however, there are at least nine national-level zone programs in China. Table 1 summarizes the major programs currently in place.[7] The first zones in Guangdong and Fujian are considered "comprehensive" SEZs because of their large size and scale. In addition to these four, the whole of Hainan Island was declared an SEZ in 1988.[8] During the 1980s, two other programs were created. In 1984, under the purview of "coastal open cities," Economic and Technological Development Zones (ETDZ) were enacted.[9] In 1988, High-Tech Industrial Development Zones (HIDZ) were created under the purview of the Ministry of Science and Technology.[10] A range of other programs followed in the 2000s, each with a smaller scale and scope than earlier programs. For instance, Export Processing Zones (EPZs) were established in 2000, but under the restriction that EPZs could only be established in an already existing ETDZ.[11] The trend toward smaller enclaves inside already existing zones has been reversed with the latest zone program, the Pilot Free Trade Zone (PFTZ).[12] The PFTZ began with its first zone in Shanghai on September 29, 2013. Before the trial period was even complete, other jurisdictions pushed for their own PFTZs, with programs approved for Guangdong, Tianjin, and Fujian in 2014.[13] As of 2017, there are 11 officially approved PFTZs.[14]

[6] In Chinese, these zones are referred to as *jingji tequ,* 经济特区.
[7] Technically, there could be more than nine. For example, there are three different types of bonded zones but I have collapsed those categories into one type.
[8] Ge ([9], 1282).
[9] *Special Economic Zone and Coastal Economic and Technological Zones Yearbook* []. SEZ Yearbooks are published annually but the 1991 volume summarizes SEZ history from 1980 to 1990. Access to the SEZ Yearbooks was provided by the Library of Congress and facilitated by the staff of the Asian reading room. See also [10], "Provisions of the General Administration of Customs of the People's Republic of China on the Administration of Inbound and Outbound Goods at the Economic and Technological Development Zones, 26 April 1988." Available @ http://www.asianlii.org/cn/legis/cen/laws/potgaocotprocotaoiaogateatdz1695.
[10] Zeng [33].
[11] Hong Kong Trade Development Council [13].
[12] The PFTZ is a separate program from an earlier FTZ program.
[13] Angela Meng, "State Council approves free-trade zones for Tianjin, Fujian, and Guangdong," *South China Morning Post*, December 13, 2014, Available @ http://www.scmp.com/business/economy/article/1661619/state-council-approves-free-trade-zones-tianjin-fujian-and. Shanghai Daily, "New FTZs to follow Shanghai's lead," March 25, 2015, Available @ http://coverage.shanghaidaily.com/shdailyftz/news/.
[14] Li [17], 30.

**Table 1** China's zone programs

| Program name | Acronym | Year of enactment |
|---|---|---|
| Special economic zone | SEZ | 1979 |
| Economic & technological development zone | ETDZ | 1984 |
| High-tech industrial development zone | HIDZ | 1988 |
| Bonded zone | BZ | 1990 |
| Border economic cooperation zone | BECZ | 1992 |
| Export processing zone | EPZ | 2000 |
| Comprehensive reform testing district | CRTZ | 2005 |
| Free trade zone | FTZ | 2006 |
| Pilot free trade zone | PFTZ | 2013 |

## Evaluating Economic Outcomes: Are SEZs Effective?

Economists focus primarily on the effectiveness of SEZs. Until recently, much of the analysis of outcomes was primarily descriptive. For example, according to the International Labor Organization (ILO), national-level zones in China represent less than 1 % of land area but, in 2005, accounted for nearly 4% of total GDP.[15] Zeng [33] estimates that the contribution to GDP is higher. If you combine figures for ETDZs, HIDZs, and FTZs, in 2006, these three zone programs "accounted for a combined 11.1% of China's total GDP and 29.8% of exports."[16] If you include the initial SEZs, the contribution to GDP is closer to "18.5% of China's total GDP and about 60% of total exports."[17] In terms of FDI, by the mid-2000s, China's zones accounted for "one third of China's FDI stock" and over 16% of total FDI.[18] However, these figures are simply descriptive and do not show whether these contributions to growth are statistically significant.

Using a difference-in-difference strategy, Alder et al. [1] "find that the establishment of a state-level SEZ is associated with an increase in the level of GDP of about 20%."[19]Alder et al. [1] also note that without drawing a distinction between national and provincial-level zones, "the introduction of [a] SEZ would yield no statistically significant effect on GDP."[20] Demurger et al. [6] find a correlation between zones and FDI, interpreting this finding as an indication that preferential policies are driving FDI locational decisions rather than the availability of human capital.[21] Wang [29] finds that "municipalities with multiple SEZs experience larger effects [on FDI] than those with only one SEZ."[22]

[15] Fu and Gao [8].
[16] Zeng ([33], 13).
[17] Ibid.
[18] Fu and Gao ([8], 21-22).
[19] Alder et al. [1].
[20] Alder et al. ([1], 309).
[21] Demurger et al. [6].
[22] Wang [29].

Honing in on spillovers generated from FDI, Li et al. [18] find positive intra- and inter-industry spillover benefits; "at the city level … industries with a foreign presence in a particular location enhances the product innovation capabilities of domestic firms in that location."[23] Wang also examines the effect of an SEZ on capital formation, finding that a "SEZ program neither crowds in nor crowds out domestic investment."[24] Wang calculates total factor productivity (TFP) growth at the city-level estimating that a SEZ increases TFP by approximately 62% over cities without a zone. TFP effects are consistent with the economic literature on agglomeration effects and industrial clusters.[25]

Demurger et al. [6] examine inequality asserting that "the establishment of SEZs was largely to blame for th[e] sustained rise in regional disparity" across China.[26] The authors note, "the troubling aspect about preferential policies was not effectiveness, but the unequal access to them,"[27] finding only "conditional convergence" in China.[28] Other analysis focuses on income inequality rather than regional disparities. Using spatial decomposition methods, Valerio Mendoza [] finds that cities with ETDZs and HIDZs have higher incomes and lower income inequality than cities without these programs. HIDZs in particular saw a decrease in income inequality. Yet, cities that have "both an ETDZ and HIDZ, however, produces lower mean incomes and higher inequality levels."[29] State-level SEZs may decrease inequality but more than one competing program may dampen the effect.

Overall, the effectiveness of SEZs in China is broadly positive but raises the question of why are national and provincial zone programs different? The baseline regression in Alder et al. finds a strong effect from national-level zones but provincial-level zones do not show statistically significant effects. This finding is not fully explained, although one potential explanation might be that the sample does not take into account that national-level zones may have begun as provincial zones. This possibility introduces questions of causality. For example, do SEZs only become successful once officially designated as a national-level zone? If SEZs are not a panacea across levels of analysis, then how do we determine whether effects are based on location, regional characteristics, or reasons for approval? The cited studies of GDP growth also raise the question of timing. What is the average time for development to return results? Alder et al. find that "the effects of SEZ on GDP per capita and on the capital-labor ratio become statistically significant around seven years after the reform."[30] Is a lag of seven years reasonable given the length of time for initial construction? Ge [9] cites five years for initial construction of the Shenzhen SEZ,[31] but estimates of the amount of time for initial construction are derived from an extremely small sample. Thousands of zones exist in China and worldwide but we have insufficient information to assess whether these timelines are the norm.

[23] Li et al. [18].
[24] Wang ([29], 140).
[25] Blonigen and Piger [2].
[26] Demurger et al. ([6], 446).
[27] Ibid.
[28] Demurger et al. [6] attribute this finding to restrictions on factor movements, most notably the household registration system and financial sector limitations.
[29] Valerio Mendoza [28].
[30] Alder et al. ([1], 331).
[31] Ge [9].

In addition to differences in the level of SEZ, distinct categories of zones may vary in effectiveness. For example, ETDZs and HIDZs have a positive effect on growth while EPZs have none.[32] Is the success of ETDZs and HIDZs because of unique characteristics of those programs or have other factors not been sufficiently controlled? The ETDZ and HIDZ programs were both enacted in the 1980s, while EPZs and other smaller programs arose in the 2000s. According to Huang [15], financial policies in the 1980s were far more entrepreneurial and favored rural development, but were then discontinued in the 1990s.[33] Thus, the large effects of ETDZs and HIDZs may be due to the more lenient policy environment in the 1980s and path dependency. The more restrictive policy environment that emerged in the 1990s may also explain why zones enacted in that time period were smaller in size than those created earlier.[34]

## Origins and Enactment of SEZs

Despite thousands of zones and various program types, Shenzhen remains the implicit (or explicit) model for all zones. Shenzhen is well researched but there are two problems with using it as the model for understanding enactment of all zones. First, Shenzhen SEZs did not arise from a logical, pre-planned model as the current story portrays.[35]Rather, these zones emerged from experimentation, trial and error, and changes in course. O'Donnell et al. [20] argue that activities and policies used in the early phase of the Shenzhen SEZ often skirted the edge of what was legal.[36] Similar policy flexibility is unlikely to be allowed elsewhere. Moreover, policy changes, such as the 1994 tax reform and revisions to the land-use law, altered the incentives for jurisdictions creating zones in the 1990s and 2000s. Shenzhen did not have these restrictions and thus faced a much different policy environment.

The development zone fever episodes provide a useful illustration of how local incentives influence the pace of zone creation. Between 1992 and 2003, the number of zones increased from 1951 to 6866.[37] Despite concerns from the central government, local officials continued to create zones and, according to Hsing [14], "the scale of the development zones was considerably larger, from 1 to 3 sq. km [in average size] in the early 1990s to 10 to 20 sq. km" in the early 2000s.[38] Hsing estimates that "by 2003, the total area designated for development zones nationwide was … 36,000 sq. km, compared with 15,000 sq. km in 1993."[39] Thus, the total land area within zones doubled between the first and second wave of development zone fever. In 1994, Premier Zhu Rongji initiated a series of austerity measures to cool the economy,[40] and the second wave of development zone fever in the early 2000s prompted a formal crackdown on the number and scope of approved zones.

[32] Alder et al. ([1], 327).
[33] Huang [15].
[34] Author's calculations based on NDRC [19] and Zhong [37].
[35] For example, the Shenzhen Museum does an excellent job of portraying the development process as quite logical and straightforward.
[36] O'Donnell et al. [20].
[37] Zhang ([35], 146).
[38] Hsing [14], 99.
[39] Ibid.
[40] The majority of these reforms were focused on local financial institutions but the lack of loans slowed the ability of local governments to build development zones.

Rithmire's case studies of Dalian, Changchun, and Harbin show how access to SEZ policies altered the way in which the local government managed development.[41] All three cities are located in northeastern China and were similar at the outset of reform. However, each city diverged based on the timing of opening policies and the stakeholders involved. Preferential policies were not initiated randomly and early access to policies, such as Dalian's designation as a coastal open city, altered how local governments established control over land. Counterintuitively, Dalian was able to exert greater control over urban land than cities that opened to investment later. Unlike Dalian, city governments that did not have access to foreign capital had to bargain with local stakeholders over land. In Changchun this resulted in a more pluralistic property rights regime but one in which the regulatory authority of the city government remained concentrated. Alternately, in Harbin, the authority of the local government was dispersed and authorities had to bargain with multiple stakeholders, resulting in a fragmented management of city land. The process of SEZ creation and access to external finance became tied with other fiscal imperatives and the ability to extract revenue.

Although we know that the timing of zones influences how property rights evolve, it is difficult to determine when a zone is officially enacted. An example from Hangzhou shows that identifying the exact date of enactment, necessary for identifying causal effects generated from zones, is more complex than one would think. Hangzhou was not one of the fourteen coastal open cities but as soon as Ningbo and Wenzhou, also in Zhejiang Province, were granted this status Hangzhou began making plans for zones of its own.[42] National authorities approved the master plan for Hangzhou in 1983. In 1985, the local party committee decided to create the Xiasha Industrial Area.[43] Early planning documents state that the goal of Xiasha was to attract investors from Taiwan, but Hangzhou also had other development considerations. Due to the need to preserve West Lake, an important historic and cultural site, economic development zones were created outside of the city's urban core. Municipal and provincial leaders created zones by converting agricultural land on the banks of the Qiantang River to the east of West Lake. Presently, built-up sections of the city center blend into adjacent neighborhoods but, at the time, the area was empty farmland far from the urban core (see Fig. 1).[44] These early *kaifaqu* were eventually granted provincial status but not approved as a national ETDZ until 1993, approximately eight years later.[45] Thus, the date of enactment of Hangzhou's zones could be 1985, 1990, or 1993. The initial industrial area, ostensibly a local *kaifaqu*, was established in 1985. The Zhejiang Provincial government formally approved the Hangzhou City Qianjiang Taiwan Business Investment Zone in 1990, upgrading it from a local to provincial zone. Then, in 1992, the size of the provincial zone was expanded. However, it was not until 1993 that Hangzhou's development zone was granted the same preferential status as Dalian, Ningbo, and other coastal open cities.

[41] Rithmire [25]. Chapter 3 introduces the comparative cases in Northeast China. Chapter 4 discusses property rights in Dalian. Chapter 5 describes Harbin and Chapter 6 assesses Changchun.

[42] The history contained in this paragraph is derived primarily from [11]), and the city's urban planning museum.

[43] Hangzhou City Party Committee.

[44] Hangzhou City Party Committee [11].

[45] Hangzhou City Party Committee ([11], 3). The Hangzhou ETDZ was approved in April 1993 and the Xiaoshan ETDZ was approved in September ([16]).


**Fig. 1** Photograph of the Eastern section of the Hangzhou ETDZ, November 1992

Timing matters if we are to accurately assess economic outcomes so we must be clear about when a zone officially becomes a zone. In the Alder et al. study, do they only find an effect from national-level zones because of policy selection? Perhaps only successful provincial-level zones are approved for national-level status and, if so, the approval process is an important measure of policy selection. The path by which zones are created, approved, and upgraded matters for our understanding of more than purely economic outcomes. Rithmire notes that the timing and sequencing of reforms "explain why different cities adopted different roles for local governments in the arena of land control."[46] The period in which jurisdictions were granted the right to adopt preferential policies for FDI directly affected the "resources and constraints available to them."[47] Thus, developing a theory of SEZ origins illuminates the selection process itself. How are preferential policies distributed and how has that changed as policies are enacted nationwide? What does this distribution of preferential policies tell us about China's political economy over time?

## The SEZ Life Cycle

In theory, SEZs are meant to be a temporary or transitional policy. However, this is rarely the case in practice. Early scholarship on zones acknowledged multiple phases in the development process, termed the "SEZ life cycle." The enactment process typically has two phases, a period of initial construction and a period in which the legal and regulatory rules are created.[48]Omar and Stoever [21] describe the SEZ life cycle as a four-step process. In their model, the first phase is initial construction, which leads to "an inflow of FDI."[49] In the second stage, exports expand. Then, the growth of exports slows and eventually, in the fourth stage, foreign firms divest. While this framework may properly characterize small-scale EPZs, the most common type of zones in the developing

[46] Rithmire [25].
[47] Rithmire [25].
[48] Ge [9] and Warr [30].
[49] Omar et al. ([21], 139).

world in the 1970s, it is problematic for two reasons. First, it ignores zone creation thereby underemphasizing the legal framework or reasons for enactment. Initial construction may be the first physical realization of a zone but the legislation or official policy guidance often begins much earlier. To understand origins we must examine how the initial idea becomes a formal legal and regulatory framework.

The second problem with current "life cycle" models is that local leaders have been actively pursuing industrial upgrading policies. Wei et al. [32] examine upgrading in their study of Wenzhou. Wenzhou had been a model of locally-led private development during the early reform era, but zones were not crucial to Wenzhou's family-owned business model. After the city's initial success in the 1980s, growth slowed due to intense competition from foreign and domestic firms.[50] In the early 2000s, the Wenzhou government focused on a strategy of industrial relocation. Firm clusters were maintained in Wenzhou but many operations moved to more favorable locations such as Shanghai and Hangzhou. In their survey of Wenzhou firms, Wei et al. [32] find that "industrial land, provided mainly by development zones, was ranked as the most important factor in relocation."[51] Not only do zones have life cycles but may attract firms from other jurisdictions where land is more scarce. Thus, models of the SEZ life cycle that end with firms divesting may not accurately capture the long-term evolution, and durability, of SEZs.

## Land Developers: Location, Regulation, and Expansion

Economic effectiveness is important but zones also have a crucial influence on other social, political, and environmental outcomes including land-use, property rights, and urbanization. Urbanization raises three issues related to SEZs: location, regulation, and administrative upgrading. In this section, I draw heavily from Hsing [14] and Rithmire [25], as well as my own field research in Zhejiang Province.

At the national-level, questions remain about how preferential policies are distributed throughout China. In the 1980s, coastal cities were selected because of their proximity to seaports. Later, ETDZs were expanded and many provincial capitals were able to enact these types of zones.[52] However, as China opened nationwide, why continue to use a geographically restricted SEZ as the way to dole out preferential treatment? Rithmire [25] explicitly notes that she "treat[s] as exogenous the distribution of preferential policies."[53] The timing of granting these privileges, however, remains a key question. Scholars have developed datasets to test zone effects on GDP, FDI, and other outcomes and those datasets could be used to test theories of enactment, such as the characteristics that correlate with zone initiation and upgrading. Do powerful mayors drive approval or is it some other combination of factors? By examining zone origins holistically, we can test theories of how cities opened and learn which characteristics correlate with preferential policies.

[50] Wei et al. ([32], 431).
[51] Wei et al. ([32], 433).
[52] Alder et al. [1] and Wei [31].
[53] Rithmire ([25], 81).

Also related to location, but centered on local rather than national policy, is the exact placement of zones. Whether a zone is placed in the city's core or in the outskirts may influence eventual success and is likely to generate very different political confrontations. Rithmire [23] defines territory as the "politicized space over which groups struggle for control, occupation, and access."[54] In the case of Dalian, the site for the ETDZ was outside of the urban core. In the mid-1980s, locating a zone and "directing new investment an hour's driving distance from a traditional urban centre was novel."[55] However, by selecting this site, Dalian leaders created path dependency. In 1992, a bonded zone was created next to the Dalian ETDZ. Rithmire notes, "Of the 17 smaller development zones established between 1992 and 1999 … only one of the zones is located within the three core urban districts."[56] Unlike Dalian, Harbin was unable to centralize control over land because it needed to use land as a bargaining tool in its relationship with the state-run economic sector. Early site selection for zones in Dalian influenced patterns of urbanization while Harbin's non-selection for preferential policies limited the city government's ability to control land and manage growth at later stages of development.

Hsing [14] notes, "By 2002, among the 3837 registered *kaifaqu* in China, 68% were approved by local governments at the municipal, district, and county levels."[57] Some land was not actually developed, especially after the central government grew increasingly concerned about rural land conversion, but in the 1990s and 2000s, economic development zones were local rather than national. Thus, while Shenzhen is the SEZ that lives in the imagination of most foreign observers, the Shenzhen model is not the best comparison for smaller *kaifaqu* developed in the 1990s. Adding a further complication, the term *kaifaqu* does not necessarily distinguish national from local zones. Early on, national-level programs used the *kaifaqu* nomenclature, and provincial development zones do so today.[58] Yet, to understand effects, we must differentiate between local, provincial, and national-level zones, regardless of terminology.

The second major issue is regulation, as both national and provincial regulations constrain the choices of city officials. Early regulations in Shenzhen focused on the basics of labor policy, foreign exchange, and personnel.[59] For other early zones, preliminary or "provisional regulations" (*zanxing tiaoli,* 暂行条例) functioned as policy for most of the initial construction phase.[60] National-level regulations may create perverse incentives for local officials. Ong [22] analyzes state-led urbanization noting, "the central government implemented a policy that [explicitly] established a link between urban and xrural 'construction land'."[61] The central government sought to limit the options of local leaders, but those officials were still expected to generate economic growth. Some provincial leaders received a lower land quota than they felt

[54] Rithmire [23], 873.
[55] Rithmire ([23], 881). The Dalian ETDZ is also referred to as the Dalian Development Area (DDA).
[56] Rithmire ([23], 882).
[57] Hsing [14], 99.
[58] *Special Economic Zone and Coastal Economic and Technological Zones Yearbook* [26].
[59] Most of these regulatory policies took several years for the first official drafts to be published and were often subject to significant interpretation. For an early legal assessment, see Fenwick [7].
[60] Provisional regulations for the Ningbo ETDZ, one of the fourteen open coastal cities, were obtained from the Zhejiang Provincial Library and the Ningbo Municipal Library in July and August 2016.
[61] Ong [22], 165.

they deserved, prompting these leaders to devise creative methods for transferring quotas. Land is ostensibly fixed, but Cai [3] describes how land in Zhejiang Province was "moved" to circumvent quotas. Despite restrictions on land use, "flying land (*feidi,* 飞地)" was transferred between urban and rural areas to facilitate continued development in cities such as Hangzhou. Payment was provided to rural areas in exchange for not developing their land so that urban centers could continue to expand.[62]

The final issue related to urbanization is the expansion and contraction of SEZs. Zone expansion can take at least three different forms. An individual zone can physically expand. A zone program can expand in the number of jurisdictions that house that type of zone. For example, when the ETDZ program began, there were only 14; as of 2012, there are 128 nationwide.[63] Third, a new zone program can be created incorporating an entirely new class of zone into the already existing system. Following Deng Xiaoping's Southern Tour in 1992,[64] the desire to increase industrialization resulted in the first "development zone fever."[65] Jurisdictions wanted access to preferential policies for foreign investment so cities throughout China took on a "build-it and they will come" mantra. Zhang [35] uses a formal model to examine this economically inefficient increase in infrastructure-building. Decentralization in the 1980s and fiscal reforms in 1994 combined to make it both easier and more imperative for local officials to devise new methods of generating revenue. According to Zhang's model, "in equilibrium, the number of jurisdictions actively participating in competition exceeds the number of FDI projects, resulting in … underused development zones."[66] The fact that a policy is nationally-inefficient belies the fact that it may be quite efficient locally. Land-use fees became a vital source of revenue. Thus, unless fiscal incentives change, the desire for this type of revenue will continue.

A key element of the urbanization process is the physical expansion of zones. Increasing the size of a zone may occur at the local or provincial level but merging previously separate administrative units requires central government approval. The administrative structure of cities and counties often has to be altered. For example, "Shenzhen witnessed a steady creation of new administrative districts and subdistricts carved out of the historically rural Bao'an County."[67] Adjacent counties are "assigned municipal status as urban districts"[68] and thereby incorporated into the administrative hierarchy of the municipal government. This point needs to be emphasized for outside observers looking to China as a model for their own SEZs. Carolyn Cartier and Hu De note that "the idea of zones as places in synchronization with global markets belies the reality of zones as administrative divisions. . . . Understanding that *qu* is an area or district of the system of administrative divisions offers a corrective to notions about economic zones as if somehow separate from the political system."[69] SEZs are embedded within the political system even if zone regulations differ from the rest of the economy.

[62] Cai [3] provides an example of an exchange between Hangzhou, an urban core with high land prices, and Quzhou, a rural jurisdiction (72).
[63] Zeng et al. [34].
[64] Zhao [36].
[65] Zhang [35].
[66] Zhang ([35], 157).
[67] O'Donnell et al. [20].
[68] Ibid.
[69] Cartier and De [4], 157.

In Hangzhou, the size and scope of zones expanded as the city incorporated once separate counties into the urban core. Prior to 2001, Yuhang and Xiaoshan were classified as county-level cities and each managed their economic affairs separately from the city of Hangzhou, maintaining their own separate government and party committees. Due to continued urban expansion, and the desire to alleviate urban congestion in the vicinity of West Lake, Hangzhou needed to push development farther outside the core. Both Xiaoshan and Yuhang already had development zones. Xiaoshan ETDZ was approved by the central government in 1993,[70] the same year Yuhang County created its provincial-level zone. Unlike Xiaoshan, the Yuhang zone did not receive national-level approval until 2012, nearly twenty years after its initial inception.[71] In 2001, Yuhang and Xiaoshan were integrated into Hangzhou as urban districts and recent policy guidance notes that "districts like Xiaoshan, Yuhang and other development zones should be managed with unified planning . . . [in order to] complement each other, share resources and facilities" in the interests of coordinated development.[72] Essentially, the demands of urban planning have been prioritized over local autonomy. By the 2000s, Hsing [14] argues that urban governments throughout China consolidated "control over the rural hinterland and launched mega-projects at the urban fringe … signify[ing] the formation of an urban-dominant territorial governance system in China."[73]

## Conclusion: Urbanization and Local State-Building

The use of zones as a tool of urbanization is fundamentally intertwined with patterns of land-use. Recent contributions provide vital case studies and a better understanding of the effects of zones, but a more comprehensive analysis of zone origins will provide insight into the distribution of preferential policies and their evolution over time. Zone origins are likely to differ by city, province, and time period. Only a combination of macro and micro analysis will allow us to understand how, when, and why so many zones exist in China and how those differences influence economic outcomes. Prior to *Land Bargains*, Rithmire summarized the "new regionalists" arguing that the subnational turn in comparative politics has a couple of unique characteristics in China.[74] The "new regionalists" describe how local leaders operate in an environment of "endemic uncertainty" and "are not reacting to clear direction but rather are making do with the resources they have in a climate of ambiguity."[75] National policy may outline limits, but the spectrum of what is allowed is highly ambiguous and contingent. Additionally, this new era of scholars is skeptical of "the importance of a single variable or even a single causal process" but

[70] Leadership Small Group Office [16].
[71] Hangzhou People's Government [12].
[72] State Council [26].
[73] Hsing ([14], 94).
[74] Rithmire [24].
[75] Rithmire ([24], 169).

interested in "how local-level variables determine different local economic realities."[76] This may hamper our ability to devise generalizable theories but reflects an honest attempt to characterize "heterogeneity and endogenous change" in modern China.[77]

I argue there is a similar heterogeneity in SEZ use, including how zones arise, fit into urbanization patterns, and evolve over time. As such, I recommend two paths for future research. First, additional case studies, similar to Hsing [14] and Rithmire [23, 25] need to be conducted. The uncertainty associated with Shenzhen's initial incarnation is much different than the path seen in northern and inland cities. Are the patterns Rithmire identifies in northeastern China found in other regions or cities? Rithmire examines three cities in three different provinces. While the region is the same, provincial policies could have an influence on economic outcomes. A set of city comparisons within one province could control for policy at the provincial-level. For example, in Zhejiang Province, the economic growth models for Hangzhou, Ningbo, and Wenzhou differed in the early 1980s, as did the timing of preferential policies. Hangzhou has now eclipsed the importance of Wenzhou and Ningbo within the province so it is necessary to examine how the timing of opening altered the property rights regime in each city, while holding provincial-level policy variables constant.

Rithmire's property rights framework could also have broader applicability for land-use debates in other countries. For instance, in Jordan, the Aqaba SEZ may reflect Rithmire's patterns of oligarchic property rights, in which legitimate claimants are restrictive but the regulatory authorities overseeing management of the land are dispersed. Moreover, China continues to employ SEZs as a component of its foreign economic policy. How those zones are managed and how they fit into the local political economy will matter for their success. As such, Rithmire's property rights framework should be used to compare land-use patterns in other non-democratic regimes, as well as across Chinese cities.

A second research direction should address central government efforts to limit land development. Sun [27] finds that enforcement of the ban on new golf course construction has only been partially successful. How effective have other regulations been for limiting land-use? Are the "new cities" of the 2000s any better at limiting land conversion or are these development projects simply a new version of *kaifaqu*? In terms of size, how much land area is and has been within an SEZ over time and at different levels? Were the zones slated for closure in the early 2000s actually closed or did they simply shift from one type of zone to another? Is zone placement based on patronage, an underlying economic logic, or something more arbitrary? In China, national-level zones represent less than 1 % of China's land area[78] but we do not yet have a full accounting of how much land area was (or is currently) designated as a provincial or local zone. Further investigation into the relationship between space and economic outcomes helps us understand agglomeration effects and whether or not forward and backward linkages are created from the use of SEZs. Each of these questions are vital for understanding how zones fit into the larger development process, thereby improving China scholarship and comparative politics more broadly.

[76] Rithmire ([24], 170).
[77] Rithmire ([24], 171).
[78] Fu and Gao ([8], 22).

## Appendix

**Table 2** China's SEZ Terminology

| English | Acronym | Pinyin | Chinese |
|---|---|---|---|
| Special Economic Zone | SEZ | *jingji tequ* | 经济特区 |
| economic development zones | EDZ | *kaifaqu* | 开发区 |
| Economic & Technological Development Zone | ETDZ | *jingji jishu kaifaqu* | 经济技术开发区 |
| High-tech Industrial Development Zone | HIDZ | *gaoxin jishu chanye kaifaqu* | 高薪技术产业开发区 |
| Bonded Zone | BZ | *baoshuiqu* | 保税区 |
| Border Economic Cooperation Zone | BECZ | *bianjing jingji hezuo qu* | 边境经济合作区 |
| Export Processing Zone | EPZ | *chukou jiagong qu* | 出口加工区 |
| Comprehensive Reform Testing District | CRTD | *zonghe peitao gaige shiyan qu* | 综合配套改革试验区 |
| Free Trade Zone | FTZ | *ziyou maoyi qu* | 自由贸易区 |
| Pilot Free Trade Zone | PFTZ | *ziyou maoyi shiyan qu* | 自由贸易试验区 |

## References


1. Alder, Simon, Lin Shao, and Fabrizio Zilibotti. 2016. Economic reforms and industrial policy in a panel of Chinese cities. *Journal of Economic Growth* 21(4):305–349.
2. Blonigen, Bruce A. and Jeremy Piger. 2011. Determinants of Foreign Direct Investment. NBER Working Paper No. 16704. http://www.nber.org/papers/w16704. Accessed 08 Mar 2016.
3. Cai, Meina. 2015. Chapter 3: 'Flying Land' Institutional innovation in land management in contemporary China. In *Local governance innovation in China: Experimentation, diffusion, and defiance*, eds. Jessica C. Teets and William Hurst. New York: Routledge.
4. Cartier, Carolyn and Hu De. 2015. Chapter 9: Administrative territory. In *Handbook of the politics of china*, ed. David S.G. Goodman, 147–164. Northampton, MA: Edward Elgar Publishing.
5. China Special Economic Zones and Coastal Economic and Technological Zones Yearbook (1980 – 1989), 中国经济特区与沿海经济技术开发区年鉴, *Zhongguo Jingji Tequ yu Yanhai Jingji Jishu Kaifaiqu Nianjian*. 1991. China: Academic Journal Electronic Publishing House. Access provided by the Library of Congress Asian reading room.
6. Demurger, Sylvie, Jeffrey D. Sachs, Wing Thye Woo, Shuming Bao, and Gene Chang. 2002. The relative contributions of location and preferential policies in China's regional development: Being in the right place and having the right incentives. *China Economic Review* 13: 444–465.
7. Fenwick, Ann. 1984. Evaluating China's special economic zones. *Berkeley Journal of International Law* 2(2): 376–397.
8. Fu, Xiaolan and Yuning Gao. 2007. *Export processing zones in China: A survey*. Technical Report 31/10/2007, International Labor Organization. https://www.researchgate.net/publication/254416524_Export_Processing_Zones_in_China_A_Survey. Accessed 05 May 2016.
9. Ge, Wei. 1999. Special economic zones and the opening of the Chinese economy: Some lessons for economic liberalization. *World Development* 27(7): 1267–1285.
10. General Customs Administration. 1988. Provisions of the general administration of customs of the People's Republic of China on the Administration of Inbound and Outbound Goods at the Economic and Technological Development Zones, Issued 26 April 1988. http://www.asianlii.org/cn/legis/cen/laws/potgaocotprocotaoiaogateatdz1695. Accessed 01 Nov 2014.
11. Hangzhou City Party Committee. 2010. *Hangzhou economic and technological zone Gazetteer, 1990–2007*.
12. Hangzhou People's Government. 2012. Yuhang upgrading realizes major breakthrough, Hangzhou Yuhang economic development zone successfully upgrades to national-level. http://www.hzarchives.gov.cn/pub/hzdaj/info-center/hz-news/news/t20120924_45199.htm.
13. Hong Kong Trade Development Council. 2000. China establishes 15 pilot processing zones. http://info.hktdc.com/alert/cba-e0007a.htm. Accessed 30 Jan 2015.
14. Hsing, You-tien. 2010. *The great urban transformation: Politics of land and property in China*. Oxford: Oxford University Press.
15. Huang, Yasheng. 2008. *Capitalism with Chinese characteristics: Entrepreneurship and the State*. New York: Cambridge University Press.

16. Leadership Small Group Office. 2008. *Xiaoshan economic and technological development zone Gazetteer*. Hangzhou, China: Xiaoshan Local Records Publishing House.
17. Li, Keqiang. 2017. *Report on the Work of the Government.* Delivered at the Fifth Session of the 12th National People's Congress of the People's Republic of China on March 5, 2017. Xinhua News Agency. http://news.xinhuanet.com/english/china/2017-03/16/c_136134017.htm. Accessed 14 Mar 2017.
18. Li, Jing, Dong Chen, and Daniel M. Shapiro. 2013. FDI spillovers at the national and subnational level: the impact on product innovation by Chinese firms. *Management and Organization Review* 9 (3): 413–435.
19. National Development and Reform Commission. (2006). Directory of Development Zones, *Zhongguo Kaifaqu Shenhe Gonggao Mulu*, 中国开发区审核公告目录. http://www.ndrc.gov.cn/zcfb/zcfbgg/200704/W020070406535176330304.pdf. Accessed 25 Mar 2015.
20. O'Donnell, Mary Ann, Winnie Wong and Jonathan Bach, eds. 2017. *Learning from Shenzhen: China's Post-Mao Experiment from Special Zone to Model City*. Kindle edition. Chicago: University of Chicago Press.
21. Omar, Karima, and William A. Stoever. 2008. The role of technology and human capital in the EPZ life-cycle. *Transnational Corporations* 17 (1): 135–159.
22. Ong, Lynette H. 2014. State-led urbanization in China: Skyscrapers, land revenue and 'concentrated villages'. *The China Quarterly* 217: 162–179.
23. Rithmire, Meg. 2013. Land politics and local state capacities: The political economy of urban change in China. *The China Quarterly* 216: 872–895.
24. Rithmire, Meg E. 2014. China's 'New regionalism': Subnational analysis in chinese political economy. *World Politics* 66 (1): 165–194.
25. Rithmire, Meg E. 2015. *Land bargains and chinese capitalism: The politics of property rights under reform*. Kindle edition. Chicago: Cambridge University Press.
26. State Council. 2007. State council approval about overall urban planning of Hangzhou. Hangzhou Urban Planning Bureau. URL:http://www.hzplanning.gov.cn/index.aspx?tabid=ee9de7c7-99a3-4b63-ad41-6852a916ba8
27. Sun, Xin. 2015. Selective enforcement of land regulations: Why large-scale violators succeed. *The China Journal,* no. 74: 66–90.
28. Valerio Mendoza, Octasiano M. 2014. Income inequality in China's economic and technological development zones and high-tech industrial development zones, 1995–2002. *China Economic Policy Review* 3 (2): 1–22.
29. Wang, Jin. 2013. The economic impact of special economic zones: Evidence from Chinese municipalities. *Journal of Development Economics* 101: 133–147.
30. Warr, Peter G. 1987. Export promotion via industrial enclaves: The Philippines' Bataan export processing zone. *The Journal of Development Studies* 23(2): 220–241.
31. Wei, Dennis Yehua. 2015. Zone fever, project fever: Development policy, economic transition, and urban expansion in China. *Geographical Review* 105 (2): 156–177.
32. Wei, Yehua Dennis, Wangming Li, and Chunbin Wang. 2007. Restructuring industrial districts, scaling up regional development: A study of the Wenzhou model, China. *Economic Geography* 83 (4): 421–444.
33. Zeng, Douglas Zhihua. 2011. How do special economic zones and industrial clusters drive China's rapid development? *World Bank Policy Research Working Paper* 5583.
34. Zeng, Xiangquan, Chenggang Zhang, Liwen Chen, Xue Yang and Yichen Su. 2012. *Export processing zones in China: A survey report and a case study.* Technical report. Renmin University of China and the International Labor Organization, http://www.ilo.org/actrav/info/pubs/WCMS_221012/lang–en/index.htm. Accessed 07 May 2016.
35. Zhang, Junfu. 2011. Interjurisdictional competition for FDI: The case of China's 'development zone fever'. *Regional Science and Urban Economics* 41: 145–159.
36. Zhao, Suisheng. 1993. Deng Xiaoping's Southern tour: Elite politics in Post-Tiananmen China. *Asian Survey* 33 (8): 739–756.
37. Zhong, Jian, ed. 2010. *Annual report on the development of China's special economic zones. Blue book of special economic zones*. China: Social Sciences Academic Press.

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