

**Understanding Special Economic Zone Policy in China:
A Conceptual Framework and Two Cases**

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ABSTRACT

As a prominent place-based policy (PBP) in China, special economic zones (SEZ) contribute a substantial portion of GDP using very little land. Similar practices such as enterprise zones, industrial parks, and business districts widely exist in other parts of the world, but studies of such PBP's effects in the United States and Europe show both positive and negative outcomes. Recent studies on China's SEZs and industrial parks show a positive agglomeration and spillover effect, which indicate effective coordination through the visible hand—policy intervention. However, empirical studies also show problems of over-investment and spatial misallocation. To complement existing empirical evidence of the outcome of SEZs, I propose a conceptual framework to help understand the development model of China's SEZs utilizing an analysis of two specific case studies, Bazhong New Economic Zone in Sichuan Province, and Gu'an High-tech Special Economic Zone in Hebei Province. In this framework, I propose three modules to examine an SEZ, including the formation of the central coordinator, the industry selection mechanism and outcome, and a conceptual cash flow model. This thesis finds that the SEZs which are collaborated with private developers are more likely to be successful than the Government-led SEZs. It discusses the reasons for and implications of this tendency.

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CHAPTER 1

Special Economic Zone as A Prominent Place-Based Policy (PBP) In China

1.1 China’s Urbanization

This thesis investigates the rapid city-making process of China. Since the economic reform in 1978, China has experienced a rapid process of urbanization, which has accelerated in the last 20 years. Since 1978, 500 million people have moved from rural China to cities, increasing the urban population share from 20% in 1978 to 52% in 2012.¹ Figure 1 shows the urban population percentage from 1950 to 2050 (projected), from United Nation data in 2018.²

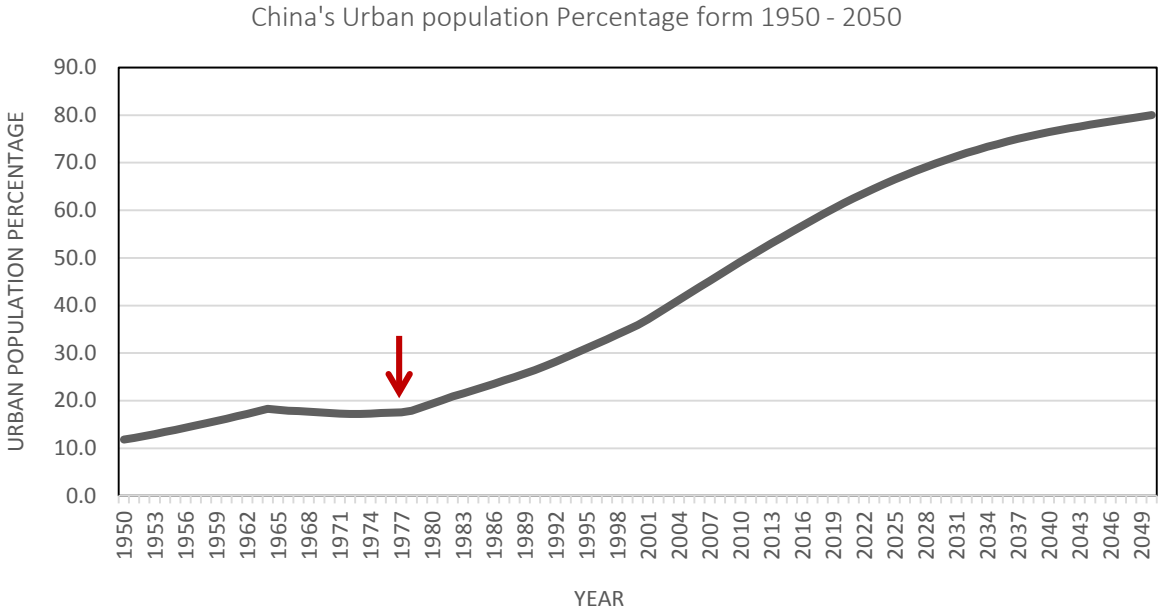


Figure 1. China’s Urban Population Share. Data Source: United Nations, 2018.

The most intensive development post economic reform happened mostly in China’s coastal areas rather than inland. In the past four decades, given their locational advantage and policy support, coastal cities in southeastern China have thrived and flourished while inland cities have lagged behind.

¹ Urban China, Toward efficient, inclusive, and sustainable urbanization. The World Bank Development Research Center of the State Council, The people’s Republic of China.

² United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, Online Edition.

China's urbanization in the last few decades of the 20th century occurred in first and second-tier cities. This wave of urbanization greatly increased the land and property value in these cities, changing people's way of life. Among these rapidly-constructed cities, some have been more successful than the others. It is obvious to raise some basic questions: What defines success in this context and why are some cities more successful than others? Are there key factors that can lead to the process of city-making success? What is required to understand the model from the best-practices and the failures? Is success replicable elsewhere, or is the successful development model highly dependent on place? These questions are not only of academic interest, but are of practical concern given the tremendous economic growth and urbanization rates experienced in China over the last 30 years.

This paper chronicles two case studies: Gu'an High-tech Economic Zone, a satellite town 50 km outside of Beijing, and the Special Economic Zone (SEZ) in Bazhong City, which ranked third from the bottom in terms of GDP within Sichuan Province in the first three quarters of 2018.³ The case of Gu'an is analyzed using primary documents and reports. For the Bazhong case, I conducted research through policy analysis and qualitative interviews with local government officials from the Management Committee of Bazhong SEZ.

1.2 Special Economic Zones in China's Context

"As of 2006, there were 1568 national-level and provincial-level industrial parks distributed in more than 270 Chinese cities, with 9949 square kilometers in total. Although these parks only occupy around 0.1% of China's total land, they contribute to about 10% China's GDP and one-third of FDI" (Zheng, 2017). This denotes that these rapidly planned and constructed industrial clusters, many of which include urban dwellings as well, operate like a growth machine. Facilitated by political competition, the drive for economic growth, and a need to modernize an obsolete way of life, this process has dramatically altered China's industry and population geography.

3 Jan. 2018, Bazhong Municipal Government. <http://www.cnbz.gov.cn/wlwz/11/2018/01/1517363960104975.shtml>

As a prominent place-based policy (PBP) in China, special economic zones (SEZ) contribute a substantial portion of GDP using very little land. Similar practice such as enterprise zones, industrial parks, and business districts widely exist in other part of the world. However, the studies of such PBP's effect in U.S. and Europe are quite mixed. Unlike the U.S. and European practices, developing countries like China typically focus on creating new urban clusters because they have a growing market and are far from complete modernization. Starting from the Economic Reform in 1978, the country has focused on economic development, with industrialization and urbanization as the two main driving forces of GDP growth since then. We can take Shenzhen as an example. China has been not only seeing Shenzhen as a piece of the growth machine, but also the process of urbanizing Shenzhen was an experiment that generated knowledge value to better inform future policymaking. Today, the urban population makes up for 50% of the total population in China, and the urban population projected to be 80% in 2050 (United Nation, 2018). China's continued rural-to-urban migration indicates more population urbanization in the future, accompanied with intense land urbanization in the form of numerous industrial parks and special economic zones in many Chinese cities. More planned industrial towns are emerging in places previous political decisions did not favor. Recent studies on China's SEZs and industrial parks are showing a positive agglomeration and spillover effect, which indicates an effective coordination through the visible hand—policy intervention. Using a panel dataset from 321 Chinese prefecture-level municipalities with Special Economic Zones, a study found that these SEZs in China successfully increase foreign direct investment without sacrificing domestic investment. Moreover, an agglomeration effect was observed through wages that increased more than living cost did. This increase in wages is larger in municipalities with more SEZs, implying an extra knowledge value generated by the experimentation (Wang, 2012). Furthermore, a spillover effect on many indicators such as productivity, manufacturing employment, real estate pricing, etc. are observed among 110 industrial parks in eight major Chinese cities. Through separate analysis on production and consumption, the study further reveals a consumption sub-center induced by the production sub-center (Zheng, 2017). However, empirical studies also show a problem of over-investment and spatial misallocation in China's SEZs (Zheng & Khan, 2018). A nuanced examination of specific SEZs can complement the perspective given by empirical evidence demonstrated by the above studies.

1.3 Theories On Placed-Based Policy

A certain locality, connected with resources and land owners, is utilized by the coalition of the locality's elites as a growth machine to compete with other locations for maximized return on their areas of interest (Molotch, 1976). Based on this notion, local governments carry out policies aiming for optimal growth by collaborating with private corporations in their jurisdiction.

Competing for investment and returns, local governments are incentivized to coordinate all possible resources, including natural, political and even public goods, on facilitating a business ecosystem to profit local elites. Such policies represent the elites' growing interests, commonly prioritized over the needs of the public. This phenomenon appears to exist beyond the U.S., as it is quite common in today's China.

To promote economic growth and resolve market inefficiency, a specific geographic area could receive a bundle of government policies to enhance the area's existing infrastructure, labor market, and institutional design, in the hopes that such policies could improve economic performance and produce net social value in the long run. This bundle of government interventions is a form of placed-base policy (PBP), which could be used both to boost a lagging region or further improve a well-developed area. Theoretical considerations of PBPs imply a positive externality through clustering and the creation of knowledge spillover economies. The localization of certain industries amplifies sharing and learning, mitigating the spatial mismatch of disadvantaged minorities. And the network effect facilitates information flows, reducing market frictions (Neumark, 2015). Such effects usually have direct and indirect components. The goal of the PBP is to correct market failure through direct effects such as transport improvement and utilities enhancement, as well as indirect effects like induced private investment.

Nevertheless, the outcome is not always satisfactory due to several reasons. The first one is that the outcome is often dependent on spatial context. If a unique geographic location entails proximity to condensed resources and infrastructure, it will create efficiency for those reasons as well as additional costs like congestion. This makes the final outcome hard to predict. This inherently raises a question of the location choice, on which future expectations usually dominate. Development can be trapped in a dilemma of "first mover problem," where PBPs are provided but no sector wants to move in until others do so. Even though strong coordination can facilitate the transition, there is a risk of coordination failure; a well-designed path must be

present in order to lead the current condition to the perfect final model. The specificity of locational contexts eventually results in a highly uneven geographical distribution of clusters and difficulty in creating new ones. The second reason for potential failure is the policy environment, which involves multiple national variables including infrastructure provision, tax subsidy, supportive labor policy, and institutional design. These give potential investors faith to invest, allowing for thorough implementation. The last reason is the business ecosystem, which includes the availability of related firms, skilled workers, the land and capital, as well as the selected area's market size. (Duranton & Venables, 2018)

The embodiment of PBP can take many forms, such as enterprise zones, business development attraction and retention, cluster promotion, infrastructure investment, discretionary grants, and community development and locally led initiatives (Neumark, 2015). In many developed countries, urban PBP are utilized to revitalize deteriorating downtown business districts in post-industrial cities. Meanwhile, developing countries are more active in establishing new industrial parks to expand industrialization and urbanization. A more fundamental, vigorous framework for PBPs classifies these policies into three main categories (Duranton & Venables, 2018): economic corridors, special zones and regions, and urban treatment. Economic corridors usually entail cross regional planning and strategic improvements in long-distance transport. Special zones and regions are often established to induce agglomeration and industrial clusters. Urban policy intervenes in the existing urban settings. Among these types of PBPs, special economic zones (SEZs) are the dominant form of urbanization in China (Wang, 2013). Though SEZs centralize a huge amount of resources in a selected geographic location, the creation of a new active urban cluster is never easy. Coordination failure is not rare, as “ghost towns” have appeared in multiple places in China. The cost of PBPs is typically very high, yet the outcomes are quite mixed given the disparate natural locations, policy and industrial bases. But the enthusiasm of building new urban cluster does not stop.

1.4 PBP Practices & Effects

Many practices of PBP exist across the globe, but the measured effects are not homogeneous. The incentives to provide PBP are from nations, regions and cities seeking economic growth, and

social equality under a market failure. Yet sometimes the PBP can result in more development failure and further inequality.

1.4.1 U.S. Practices

Glaeser (2008) asked a question of whether there is solid rationale to move resources from a rich place to subsidize a poor cluster. In this study, given the goal of urban PBP—agglomeration economies—the actual outcomes using U.S. historical data are not statistically significant dependent on any location attribute such as density, the size of the area, etc. This result yields no specific evidence of the effectiveness of PBP in subsidizing one region instead of another. Glaeser also discusses how although improving transportation technology can reduce the cost of moving people from place to place, whether enhancing transport improves the formation of new clusters is not clear.

Based on the empirical study mentioned above, PBPs can be, in a sense, less effective than we tend to believe. During the policy making process, the location decisions are hard to evaluate, and it is difficult to find any informing guidance. Later, a study was conducted on a similar question of whether spatial economic disparities from substantial unemployment in America's Midwest can be mitigated by place-based policy (Glaeser, 2018). The result shows that it is difficult to redistribute agglomeration effect spatially due to little knowledge of the actual mechanism. It is difficult to deliver the benefits exactly to the group that the PBP meant to help, due to high heterogeneity within the treated region. But the overall effect can be maximized if PBP is deployed into the region with higher unemployment rate. This study provides a further proof of the unclear and complex real effects of a given PBP deployed in the U.S.

Studies were also conducted on whether using business incentives like tax subsidy to attract corporations would help promote business start-ups, using county-level data (Partridge, et. al 2019). The results show a negative effect of incentives on the number of start-ups, indicating a decrease in long-term good and net job creation if business incentives are provided. This raises another concern over the effectiveness of PBP as a method to solve market failure; on the contrary, it may accomplish the opposite by creating more market inefficiency.

In the early 1990s, rural America was faced with challenges of insufficient job growth and deteriorating natural environment. High-tech industries were seen as a potential solution to promote long-term good and economic stability. The driving force behind high-tech industries was decentralization of demand-driven manufacturing. At that time, many states were promoting bundles of policies to attract high-tech industry to settle in their regions. However, such policies were of little use in helping rural areas to compete with urban areas. But the proximity of some rural areas to metropolitan areas may allow them to enjoy a spillover effect from the high-tech industries located in urban clusters (Glasmeier, 1991).

1.4.2 European & Other Practices

Even though many empirical studies have demonstrated the potential pitfalls and the lack of clarity on the effectiveness of PBPs, PBP can still be a powerful tool to intervene in market failure and enhance overall good, as some cases implied. In Europe, England carried out a New Deal for Communities with local autonomy with the goal of enhancing the country's most deteriorated neighborhoods. Gutie'rrrez Romero's study (2009) found a positive effect on pulling the treated neighborhood out of unemployment.

In Ethiopia, an agreement was made between the government and PVH Corporation in Hawassa Industrial Park, which was established in 2016 by the nation. This collaboration led to a mutually beneficial result, where PHV, the world's second largest garment company, brought a complete and integrated garment-related industry chain to local Hawassa, removing obstacles from uncertain market expectations. In return, PVH had the chance to get access to a sufficient labor supply, international port, and cheap utilities like the most important one in garment industry—electricity (Mihretu, 2017).

1.5 Upside & Downside of China's SEZ

The studies of the PBP's effect in U.S. and Europe are quite mixed. Studies on China's SEZs and industrial parks are showing a positive agglomeration and spillover effect, which indicates an effective coordination through the visible hand. By signaling the market, the coordination mechanism can remove the "first-mover problem" and create a successful urban cluster. On the other hand, the problems of over-investment and spatial misallocation in China's SEZs are also observed. Urban sprawl wastes a lot of public resources and can offset the benefits of population urbanization, resulting in the creation of ghost towns. Moreover, the centralized power within the decision-making process entails political misconduct and hamper the government's credibility. Also the process of urbanization usually involves land expropriation, which can violate farmers' right and incite social confrontation.

A conceptual framework to help understand this development model and detailed studies on specific cases can provide a more holistic perspective on SEZs and their unique characteristics as frontiers of urbanization. This thesis borrows from previous theories and research studies while supposing that the outcome of a newly planned-and-constructed SEZ can be measured through a conceptual framework. The framework and case studies presented in this thesis can hopefully provide further guidance in the decision making and implementation of future SEZs.

CHAPTER 2

Institutional Context & Conceptual Framework

2.1 The General Role of Local Government in Urbanization

In the economic reforms of 1978, local governments in China were transferred a great amount of power on many affairs such as local resources and business. This decentralization of authority gave local governments high levels of autonomy under a centralized top-down political system. The interplay between the central government of China and its local governments form a relationship that has been coined “directed improvisation” (Ang, 2016). The reform highly incentivized local governments to be focused on economic growth, to industrialize their jurisdictions for more fiscal capacity. Responding to the changes after 1978, China’s economy started to boom and was accompanied by intense urbanization and industrialization.

However, after 1994, a tax-sharing system was introduced, causing a fiscal gap between revenue and public spending at the local government level (Tsai, 2004). While this weakened fiscal capacity for local governments, the right of land expropriation was granted to the them in 1992, providing alternatives modes of gaining fiscal revenue (Su & Chen, 2005).

Moreover, local cadres are motivated to compete with their colleagues of the same level within a region on the political evaluation system. In this system, local economic growth is crucial and it may lead to a promotion. This further drives the local government to capitalize as much land as they can, resulting in unrealistic development (Qiu, 2016). With the tax system changing from policies of “decentralization” to “recentralization,” and with authority of land management further “decentralized,” local cadres are more likely to lead urban development into an urban sprawl.

2.1.1 Local’s Fiscal Burden

In the 1990s, the central government carried out a new “tax-sharing system” (*fenshuizhi*), responding to a substantial decline in national budget revenue share (Tsai, 2004, Luo, 2010). This reform created a big shock to local governments’ fiscal capacities, since the new system requires local governments to pay proportionally, instead of a fixed lump-sum to central

government (Lin & Yi, 2011). Local government can keep business tax but are asked to share several tax categories, including Sales Tax, Income Tax (60%) and Value-added Tax (VAT, 75%) to the central government (2011). This tax reform greatly lowered the motivation for local governments to generate as much tax as they can, especially on the tax that comes from production, namely VAT, from local industries. However, the local government can still keep business tax, which is mainly made up of from construction and real estate (Kung, Xu, Zhou, 2013). Depending on business tax alone is not enough to fix the fiscal revenue, and it is the substantial volume and accessibility of land leasing, the income that can be fully captured by local government (Lichtenberg & Ding, 2009), that closes the fiscal gap.

Arising from the tax system reform, the fiscal constraints lessened the motivation for industrial production. The potential “fix” from land capitalization motivated local governments to shift from land industrialization to land urbanization. To collect enough revenue for public services, local governments started to focus on expanding urbanization instead of upgrading their industrial bases. This fiscal pressure eventually opened up another revenue channel, diverting the local government’s attention from industry development to construction and real estate development. From then on, local land finance (*tudi caizheng*) became a substantial contributor to the local government’s fiscal source (Lin G. C., 2014, Qiu, 2016).

2.1.2 Land Management

The local government was granted the authority to expropriate land in 1992 (Su & Chen, 2005), further allowing the local government to fully utilize the channel of land finance. To capitalize rural land in China, local governments need to convert the collectively-owned land to national land before it can be used for non-agricultural use (Qiu, 2016).

Even though the local government can exercise the right to expropriate collective land, then convert and lease it for development purpose, how much can be expropriated is planned by the central government and granted to local governments as land quotas (*zhi biao*). Local governments then study and plan the land quota, adding a component of “the planning economy” to the land market (Li, Xu, & Li, 2010). However, there is a method that can help local governments expropriate more land than the allotted quotas. To protect farmland from over

urbanization, the central government created the regulation of “1.8 billion *mu* farmlands redline” (15 *mu* = 1 Hectare) in 2006.⁴ Originally used as a way to protect farmland, this regulation has, in practice, caused more intensive use of non-agricultural land because of another policy, “balancing construction land between urban and rural” (*zengjian guagou*). This policy implies that rural land used for construction can be reduced by also modernizing rural living conditions, which increases farmland. And the amount of farmland increased can be used as “extra quota” to expropriate more collective land. Such complementary policy, illustrated in Figure 2, eventually allows local governments bigger land quotas.

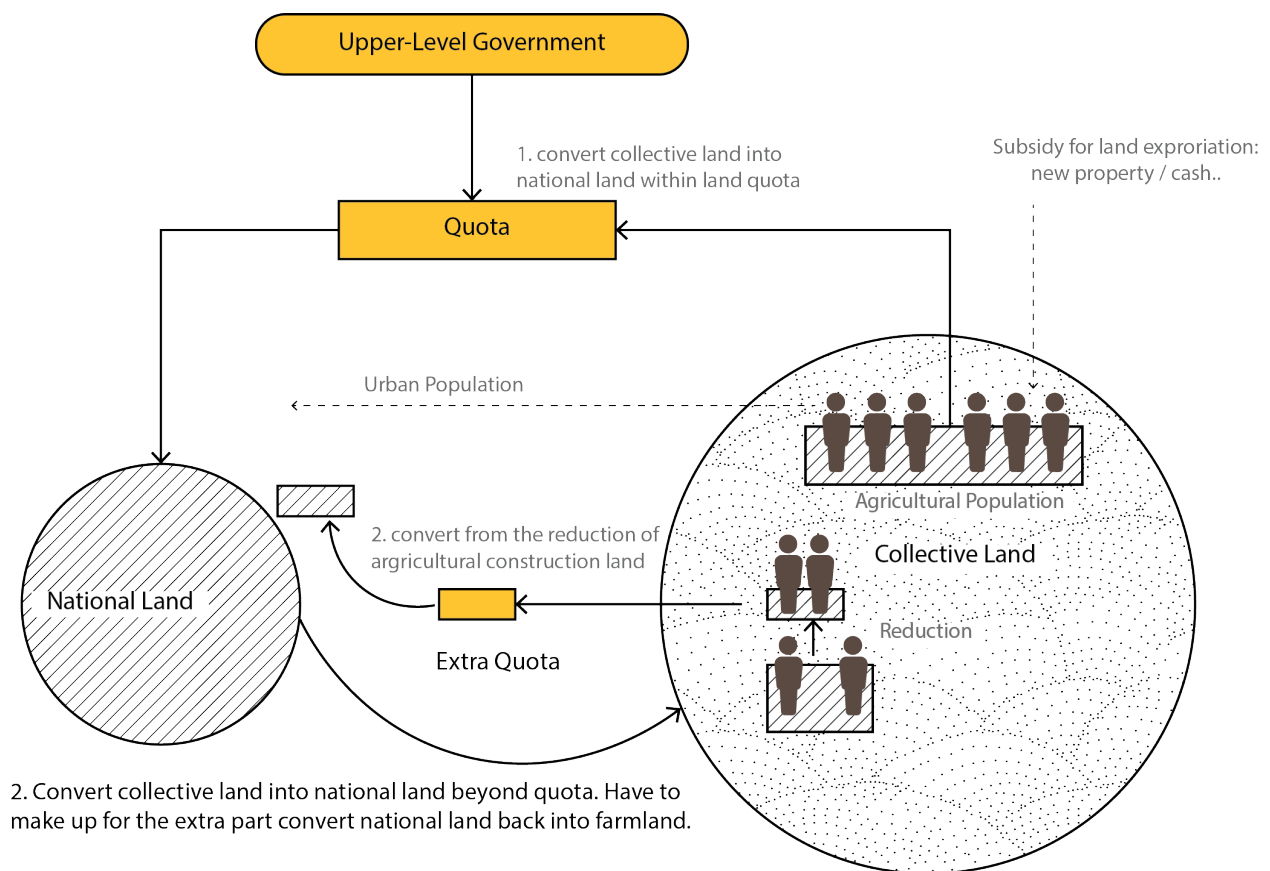


Figure 2. Land Expropriation Process in China

2.1.3 Political Incentives

Within China’s centralized top-down political system, central government retains the power to appoint local officials, subjecting local cadres to central control (Zhou W, 2014). On the other

⁴ <https://baike.baidu.com/item/18%E4%BA%BF%E4%BA%A9%E7%BA%A2%E7%BA%BF>

hand, however, even local cadres are able to centralize their own power. This becomes an issue when individuals within those administrations focus on their own careers, which depend on favor from the central government. Ultimately, when cadres are evaluated in this top-down fashion, these political incentives for career-focused individuals become the third driving force for local development (Qiu, 2016). Local cadres must show strong political performance and achieve top ranks in their regions during their terms in order to get promoted. 60% of their performance is judged according to economic indicators, factors more comparable than qualitative indicators such as the local's happiness (Kung, Xu, & Zhou, 2013). Urbanizing additional land allows local governments to close their fiscal gaps, as land finance is usually accompanied by GDP growth through construction and private investment. This mechanism distorts real market conditions and can hamper long-term economic good.

2.2 A Conceptual Framework

As examples of important place-based policy, special economic zones contribute a large portion to China's total GDP by taking small portions of land (Zheng, 2017). Understanding the actual performance of the special economic zone at the case-level can complement previous empirical studies. Here, a conceptual framework is proposed to elucidate the detailed mechanisms and outcome of China's SEZs.

In this framework, I proposed to study the SEZ from three perspectives, including the formation of a central coordinator, the mechanism, by which an industry is selected, and the results of these processes (including a cash flow analysis) (see figure 3 below). Before analyzing a conceptual framework for understanding SEZs, the current situation, the history of how it developed, and what potential existed before any work was even done must also be explicated. Examples of this kind of information include spatial context, natural resources and market expectations. This framework will provide a conceptual cash flow model to further explain the outcome and may project future cash flow based on the previous analysis. The framework is illustrated in Figure 3.

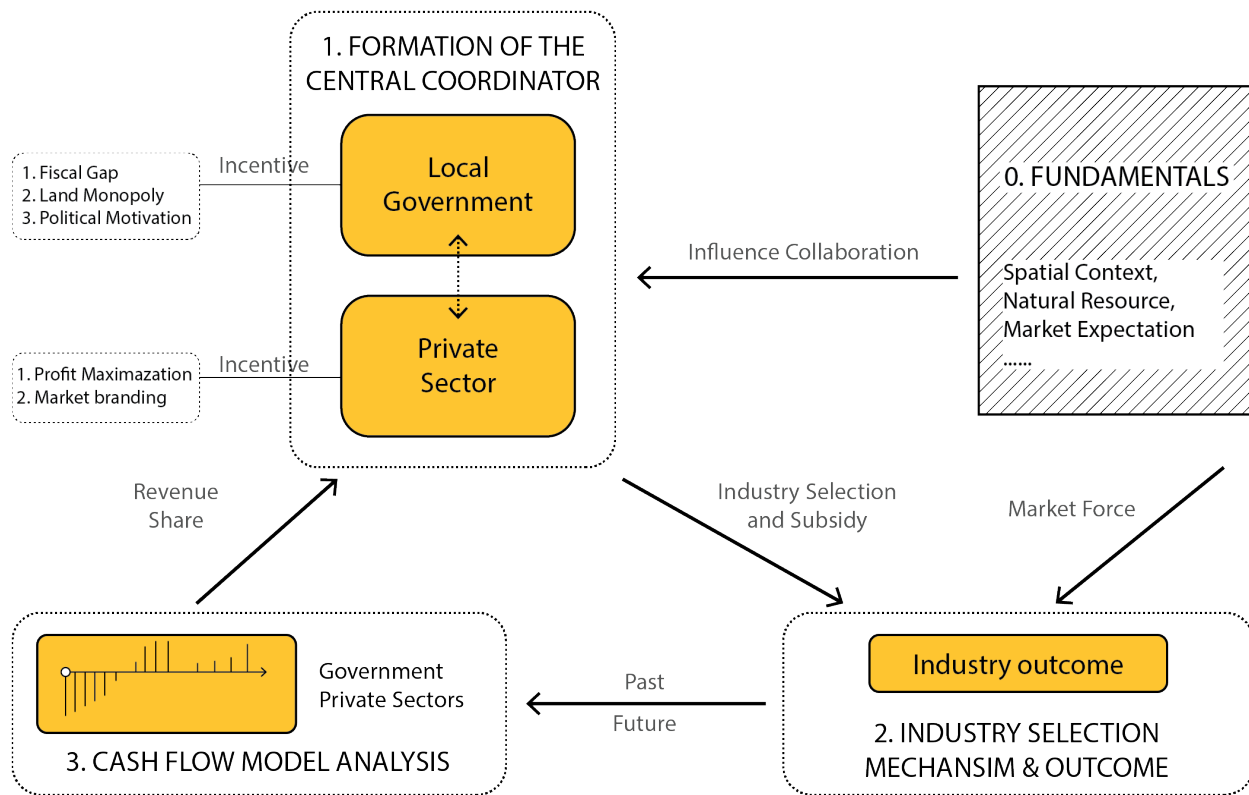


Figure 3. A Conceptual Framework for China's SEZ

2.2.1 Fundamentals

Every city has a different spatial context, and though it is difficult to directly evaluate the implications of each city's geography, there are important factors, including transportation, unique natural resources, etc., which can be examined and analyzed. As mentioned above, local governments in China are faced with three driving forces to urbanize their jurisdictions. It is also important to point out that market forces can and will penetrate political environments, especially in locations where expected returns are high. Thus, collaboration between the private sectors and the government can be an important factor in the SEZ formation. Therefore, there are several indicators we can use to understand an existing city's potential to become an industrial cluster: proximity to other extant urban clusters, availability of transport, and market expectations.

- Proximity to major existing urban clusters implies good potential for finding labor and a market interested in consuming the products produced there.
- Transport can measure the connectivity of the SEZ to these markets.
- The initial decision implies the early market expectation on the development of the SEZ.

2.2.2 Formation of Central Coordinator

This section examines potential collaborations and agreements made between governments and the private sector in light of existing and basic development principles and goals. Since cities' fundamentals can vary widely, the goal of each SEZ's development might be different. When a public-private collaboration is made, each side has different motivations. When that collaboration is initiated by the private sector, goals might include profit optimization and self-branding. When that collaboration is initiated by a local government, political concerns, like the ones explained above, are likely the motivating factors. Furthermore, the professional private sector differs from local government in it can be highly mobile and rich in industry resources even while the government dominates land market. Thus, we must consider both legal frameworks and development goals. The legal framework – collaboration or monopoly – of a particular development explains who is likely to lead the formation of an SEZ.

2.2.3 Industry Selection Mechanism & Outcome

Attracting private industries is the primary function of SEZ, whether the SEZ is led by local governments or private sectors. Usually, an industry selection plan—industry positioning—would be proposed to the SEZ and can partially reveal in part the leading entity's incentives. However, industry positioning can be unrealistic due to overly optimistic or other hidden considerations. Second, the investment attraction strategy and mechanism should be examined. Finally, the investment outcome can be analyzed according to past performance.

- Industry Selection Goal and Incentives provide the initial plan for the SEZ from the leading party whether goals are realistic or not.
- Investment Attraction Mechanism shows how decisions are made throughout the chain.
- Industry Outcome gives a brief summary of attracted investment, its type and quality

2.2.4 Economic Performance: Conceptual Cash Flow Model

It is now possible to create a general understanding of a given SEZ. To further observe its performance, we can utilize the cash flow model by performing a cost-benefit analysis of both the public and private sector actors. This method is useful for three reasons: it allows for an understanding of past performance, it identifies any development loopholes, and projects the near future based on the current situation.

CHAPTER 3

Two Cases: Gu'an SEZ & Bazhong SEZ

3.1 Background

3.1.1 Background of Gu'an

Gu'an is a county in Langfang City, Hebei Province. Situated in the North China Plain, south of Beijing, Gu'an is adjacent to Yongqing County on its east, to Gaobeidian County on its west, to Xiong'an New District on its South, and to Beijing Daxing District on its north. The distance between Gu'an and Ti'an Men Square is 50 kilometers as the crow flies, and a two-hour drive from the county to Beijing International Airport. Figure 4 shows the location of Gu'an County in relation to Ti'an men Square and BJ Capital Intl Airport.

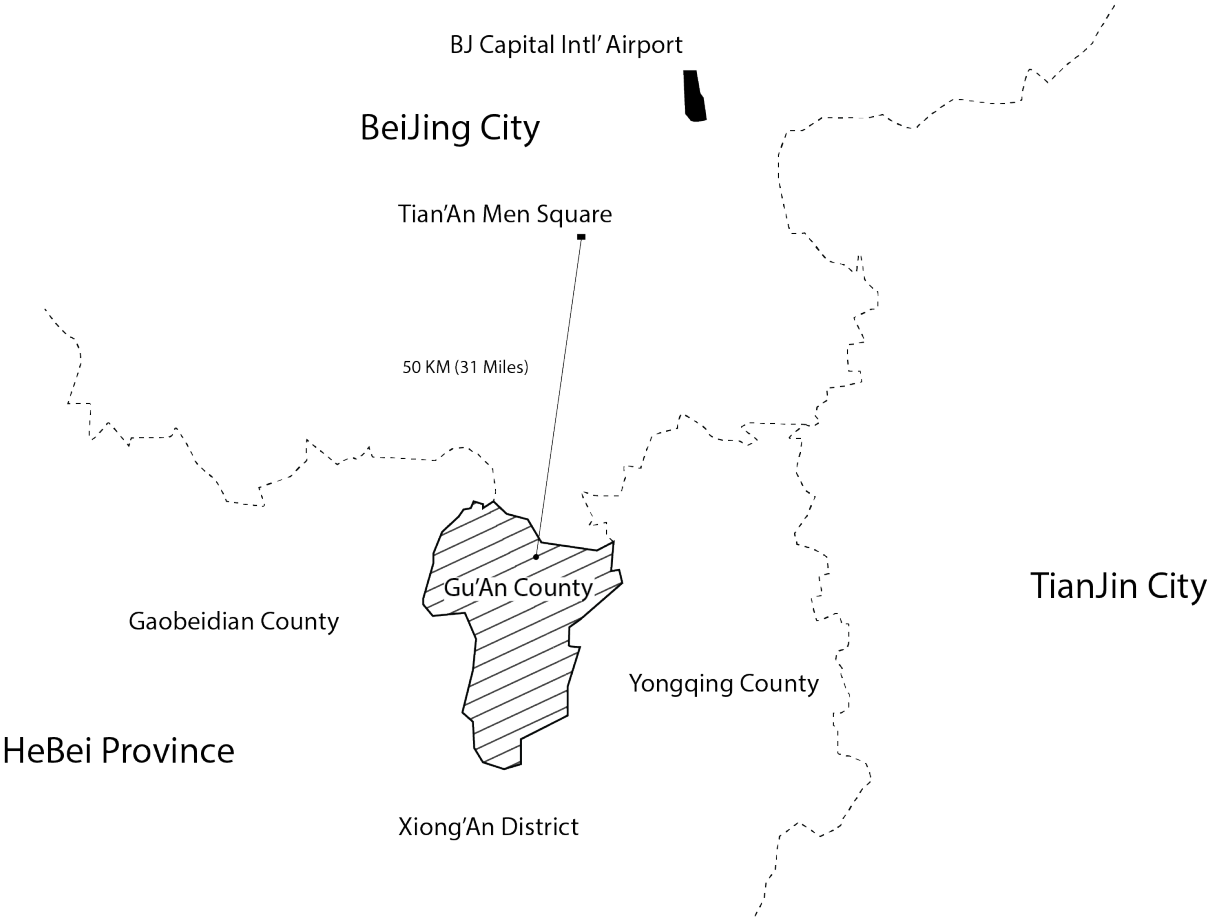


Figure 4. Gu'an County's Location

Given the advantageous geographical location, Figure 5 shows a famous Gu'an real estate commercial saying "I love Tian'an Men Square, Beijing, directly south by 50 km." This slogan perfectly depicts the land value and the market expectations of this county in 2016.⁵ Since the new industrial town's development is quite successful, Gu'an was ranked as one of the top one hundred counties most worthy of investment in China.⁶ Furthermore, in 2018, the UN selected Gu'an New Industry City as one of its sustainable development PPP cases.⁷ This success attracted world-wide attention and brought more researchers to the case.



Figure 5. Real Estate Commercial in Gu'an

⁵ Dec. 30, 2016. Sina Finance, <http://finance.sina.com.cn/china/gncj/2016-12-30/doc-ifxzczff3434495.shtml>

⁶ Nov. 23, 2017. China Times, Top 100 worth-investing counties in China. <http://www.chinatimes.net.cn/article/72537>

⁷ May. 16, 2018. Cision, UN selects Gu'an New Industry City as one of sustainable development PPP cases. <https://www.prnewswire.com/news-releases/un-selects-guan-new-industry-city-as-one-of-sustainable-development-ppp-cases-300649620.html>

3.1.2 Background of Bazhong

Bazhong is located in southwestern China's Sichuan Province, where it is adjacent to Dazhou city on its east, Nanchong City on its south, Guanyuan City on its west, and Hanzhong City (Shaanxi Province) to its north. Figure 6 shows the location of Bazhong City, and Bazhong's urban area appears to be a narrow linear shape due to the constraints of its mountainous geography. China's inland cities, though having lagged for decades of urbanization, have wanted to catch up to their coastal peers.⁸ It is important to note that such inland cities usually don't have strong existing markets, but are often constrained by extremely weak transportation network. Bazhong falls into this category.



Figure 6. Bazhong City's Location

From the map, one might be confused and believe that Bazhong is surrounded by clusters of large cities: Chengdu, Chongqing, and Xi'an. Interestingly, this is what the local government

⁸ On the one hand, Chinese local politician's promotion is almost directly related to the administrative area's GDP growth after the Economic Reform 1978. On the other hand, central government policies after 1990s, such as China's Western Development Policy, tried to address regional inequality and promote inland urban development in western China.

showed in the planning booklet in an attempt to convey a positive message regarding its location to potential investors. However, the fact is that given the mild straight line distance: 295 km from Chengdu, 250 km from Chongqing, and 400 km from Xi'an. Figure 7 shows the geographical conditions of Bazhong and its surroundings. Bazhong lacked any expressway connecting the surrounding cities until 2010, when the Bazhong-Guangyuan expressway reduced driving time from Bazhong to Chengdu down to 4 hours. Compared to the expansion of the expressway system, railroads have not been well-connected, and the only passenger railway station in Bazhong was opened at the end of 2011; historically, there was only one freight railroad passing through Bazhong. In a word, Bazhong is located in a mountainous area and the connection with other regions was highly limited until the 2010s. In the future, Bazhong will be much more connected to the rest of the country. Due to its relative isolation, it has historically been a population outflow city, as stated by a city planning department official from the Bazhong management committee.

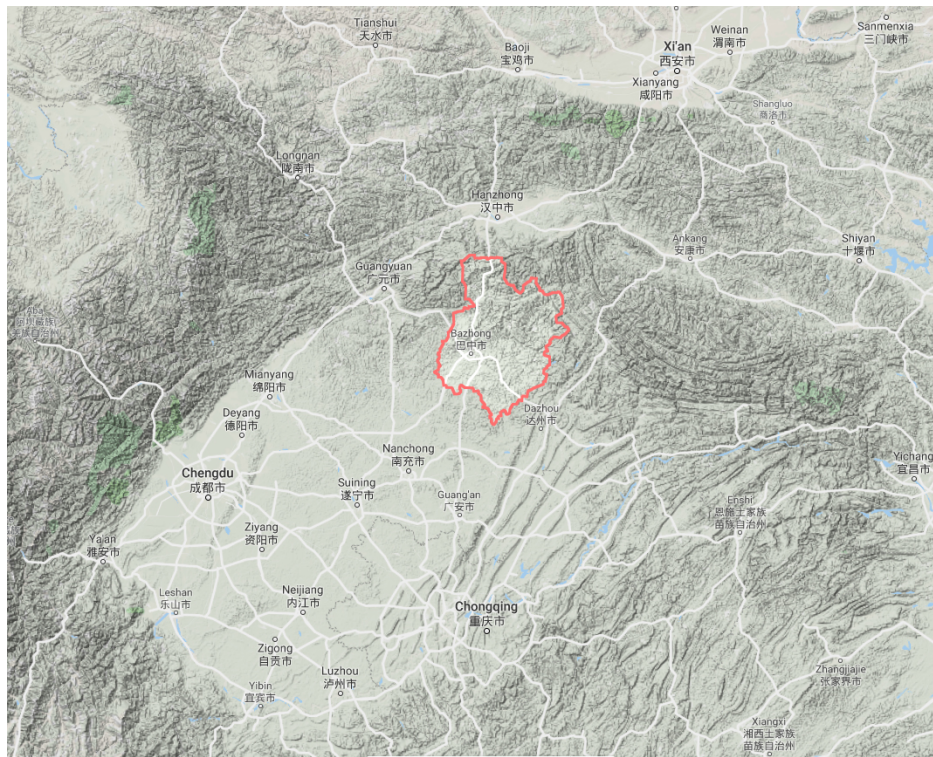


Figure 7. Geographical Condition of Bazhong

Bazhong City consists of two districts and three counties: Bazhou District, Enyang District, Nanjiang County, Tongjiang County, and Pingchang County. The municipal government is located in Bazhou District. In Figure 8, the black shading indicates the urbanized area as

planned, while the slashed area represents the municipality's district.⁹ The urban area is concentrated in Bazhou and Enyang District. In the city's masterplan, the planned urban area is 1,340 square kilometers. The projected total urban population in Bazhong will reach 1.3 million, of which the New Economic Zone will have an urban populations of 0.3 million in the masterplan.¹⁰ The remaining land in Bazhong, depicted in white, is rural.¹⁰

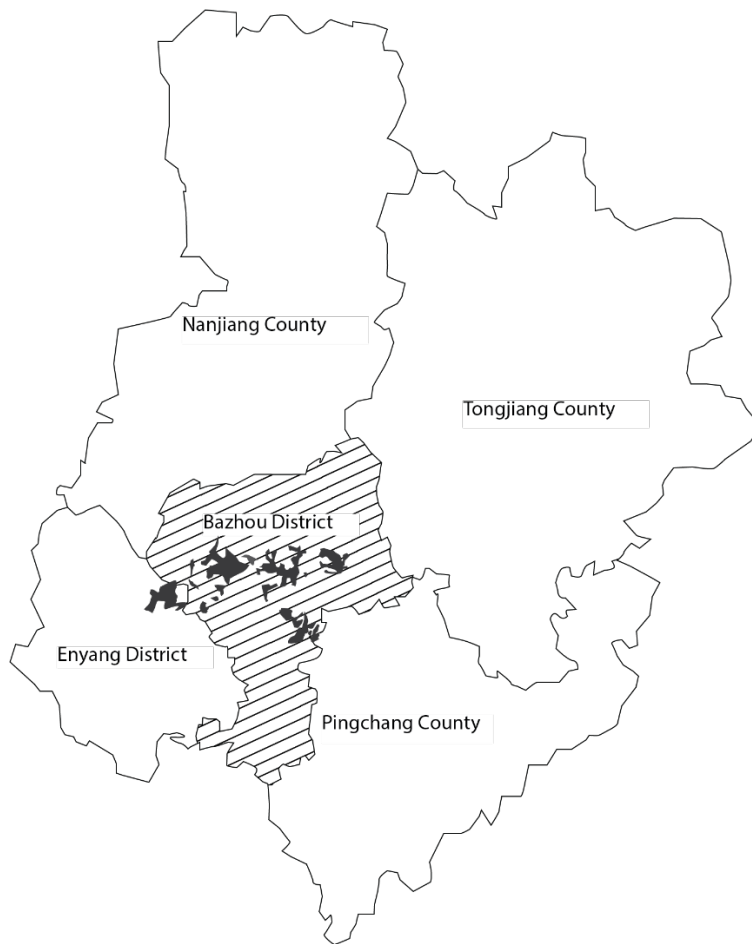


Figure 8. Bazhong City and Its Urban area

With a location that has historically been isolated and primarily an agricultural economy, Bazhong's GDP has been ranked particularly low within the context of Sichuan Province. In 2017, Bazhong's GDP ranked third to last among all cities in Sichuan Province¹¹, and the last two are both autonomous prefectures whose economies are mainly agricultural. The total GDP of

⁹ Bazhong City Master Planning Report. Redrawn by Kun Cheng.

¹⁰ Bazhong Urban Planning Bureau, 04/17/2018, <http://ghj.cnbz.gov.cn/Compilation/2018/04-17/4860.html>

¹¹ The people's Government of Sichuan Province, <http://www.sc.gov.cn/10462/12771/2018/1/31/10444117.shtml>

Sichuan Province ranked sixth in China among all the provinces¹². However, economic disparity within Sichuan is extreme. Chengdu, as Sichuan's capital city, consists of almost 40% of Sichuan's GDP, and is 23 times of Bazhong.¹³ Although it is normal for mega cities to agglomerate and absorb the surrounding population and resources, for local government officials, how to boost GDP in the local basket is still the first priority in most cases.

3.2 Formation of Central Coordinator

3.2.1 Central Coordinator in Gu'an

In fact, Gu'an was not meant to be successful from the beginning of the story. In 2002, the county consisted of primarily agricultural land and no industry, and its fiscal revenue was ranked the last among the ten counties within Langfang City.¹⁴ Things started to change in 2002 when China Fortune Land Development (CFLD) formed a public-and-private partnership with the Gu'an government. By 2017, Gu'an had built 15 plants, more than 150 kilometers of city roads, and accumulated investments of 20 billion yuan on public infrastructure and amenities. More striking is the county's fiscal revenue, which reached 2.91 billion yuan at the end of 2013, about 42 times the figure from 2002.¹⁵ This stark contrast was made possible through the PPP model between the CFLD and Gu'an Government, and PPP was becoming an increasingly popular method to develop new industrial towns in China. Though Gu'an started from a weak base, the county's success was destined to increase.

Gu'an can be seen as a satellite town of Beijing, with its situation dictated by several key factors that are driving this process. First of all, infrastructure and municipal services are planned according to the *hukou* system (household registration) in China's cities. Due to the intense and rapid migration from rural to urban, not all urban residents hold urban *hukou* in the cities where they live and work; this gap between the actual urban population figures and the city's capacity leads to severe burdens for the destination cities, namely megacities like Beijing.¹⁶ The solution

¹² GDP of Cities in Sichuan Province, 2017, <http://www.sc.gov.cn/10462/12771/2017/2/21/10414741.shtml>

¹³ The people's Government of Sichuan Province, <http://www.sc.gov.cn/10462/12771/2018/1/31/10444117.shtml>

¹⁴ Huang Wei, Southwest Jiaotong university, a case study of the apply of Public-private Partnership (PPP) into the industrial town development, 2017, page 13

¹⁵ Huang Wei, 2017, page 13-24

¹⁶ E-House China, CFLD's Gu'an New Industrial City: A New Kind of Public-Private Partnership. Wharton Case. <https://knowledge.wharton.upenn.edu/article/cflds-guan-new-industry-city-new-kind-public-private-partnership/>

the central government proposed for the overloaded capital was to create multiple smaller centers, which are very similar to satellite towns and share the urbanization burden of the capital.¹⁷ These political and socioeconomic conditions gave Gu'an—a small county nearby—a supportive environment to be developed as one of Beijing's satellite towns. In addition, China's local governments' fiscal revenues have been relying heavily on "land financing" in the past few decades, as discussed before. Land financing became a common fiscal solution for many local governments beginning in 2000s. A random sampling survey conducted by the National Audit Office showed that the percentage of local governments repaying their debt by land financing raised from 40% to more than half, and some local governments relied as much as 95% on land proceedings to repay the debt.¹⁸ The local government's high leverage ratio and heavy reliance on land financing became a concern of the central government, who placed restrictions on some local governments to repay debt by capitalizing the land. What happened simultaneously on the developers' side was that the stricter regulations on purchasing houses caused the real estate market to become unstable, with land undersupplied and increasing development risk. Development then inevitably would enter a new age that can be termed "volume growing to volume managing" (*zengliang dao cunliang*).¹⁹ Developers are thus actively seeking a new path of development.

A study was made to project the potential debt level and financial risk the Gu'an Government would have to take if the new industrial town was entirely developed by the local government. In China, a typical investment intensity is 300 to 500 million yuan per square kilometer.²⁰ Given Gu'an New Industrial Town, with an area of 34.68 square kilometers, the minimum investment needed for development is 20.4 billion yuan. This was an unimaginable amount of expenditure for the Gu'an government in 2002. Assuming that the Gu'an government only needed to build up a pilot area, which required 350 million yuan and could be borrowed from the central bank on a five-year term, the average payback per year would be 82 million yuan. This number nearly

¹⁷ Beijing City Mater Plan (2016-2035). central people's government of the people's republic of china. central people's government of the people's republic of china

¹⁸ People.cn, finance, 06/25/2013, <http://finance.people.com.cn/n/2013/0625/c1004-21958116.html>

¹⁹ China Real Estate Finance, 05/28/2018, <http://www.cbngold.com/newsdetail.aspx?id=9320>

²⁰ Huang, 2017, page 14.

exhausted a year's fiscal revenue of Gu'an government at that time. Table 1 shows the repayment schedule.²¹

Table 1. Gu'an Government's Hypothetical Debt Schedule. Source: Summarized from (Huang, 2017)

Year	principle at year start (10,000 yuan)	principle at year end (10,000 yuan)	real interest rate (%)	interest paid (10,000 yuan)	principle paid	total repaid
2002	35000.00	35000.00	0.0363	1269.45	0	1269.45
2003	35000.00	35000.00	0.0363	1269.45	0	1269.45
2004	35000.00	35000.00	0.0468	1638	11666.67	13304.67
2005	23333.33	11666.67	0.0468	1092	11666.67	12758.67
2005	1666.67	0.00	0.0538	627.9	11666.67	12294.57
Total				5896.8	35000	40896.8

Fueled by high projections of value growth, relatively small municipal capacity, and seeking new models by developers, Gu'an became an experimental field early on to test public-and-private partnerships from scratch in 2002. From the private sector came China Fortune Land Development (CFLD), a private developer specialized in building high quality industrial cities, as well as orchestrating city operations and maintenance. CFLD not only provided professional construction skills, but more importantly, investment solicitation to attract private investment, which remains their core business strategy. The settled private investment would later become one of the most powerful engines to make a city self-sustained. What makes this PPP model work in Gu'an is the mutual understanding and benefit shared between the two parties.

Started in 2002, CFLD made an agreement with the Gu'an government. Since the founder of CFLD, Wang Wenxue, located the headquarters in Langfang City and had real estate developing experience around Beijing and Tianjin before, the collaboration started naturally through the founder's exclusive relationship with the local government. The agreement formed between the two parties defined the developer's job as being responsible for the design, construction, operation, services, and ultimately a handover to the local government when the current contract ends. In Gu'an new industrial city, CFLD took the responsibility of planning the city, building infrastructure and public amenities, charging the administration of city operations, and most crucially, investment solicitation.²² As a real estate developer, CFLD is famous for its investment

²¹ Huang, 2017, page 15.

²² E-House China, CFLD's Gu'an New Industrial City

solicitation. CFLD differentiates itself both as a consultancy as well as a developer. Because of wide-spread development within China, CFLD, as a multi-regional developer, has the tendency to integrate cross-regional resources and build multi-industry platforms. CFLD's strength makes up for the local government's weakness in attracting private investment.

Furthermore, how this PPP model truly works is because of the clear definition of each sector's rights and obligations, upon which mutual benefits are generated during the collaboration. According to the PPP agreement, a special purpose vehicle (SPV) was created and completely owned by CFLD. Meanwhile, a Management Committee, which is a very common group entity created in newly developing towns, was established by the Gu'an Government. Later, the collaboration and decision-making process began between these two organizations. Except for the traditional city development projects, such as infrastructure construction, real estate development, and city operations, CFLD's main profit comes from investment solicitation.²³ This practice is realized via a specified agreement that tax revenue generated in the industrial town would be shared with CFLD. It is interesting to note that the Chinese government is not allowed to transfer tax to a private company, so the payment must be made through the form of a consultancy fee. The newly constructed property is owned by CFLD until the current contract ends, which gives CFLD enough incentives to seek high quality industries and generate as much tax revenue as possible. This created a synergy between the two parties, producing mutual benefits and sharing risks with each other. Figure 9 shows the framework and cash flow of this PPP model.

²³ E-House China

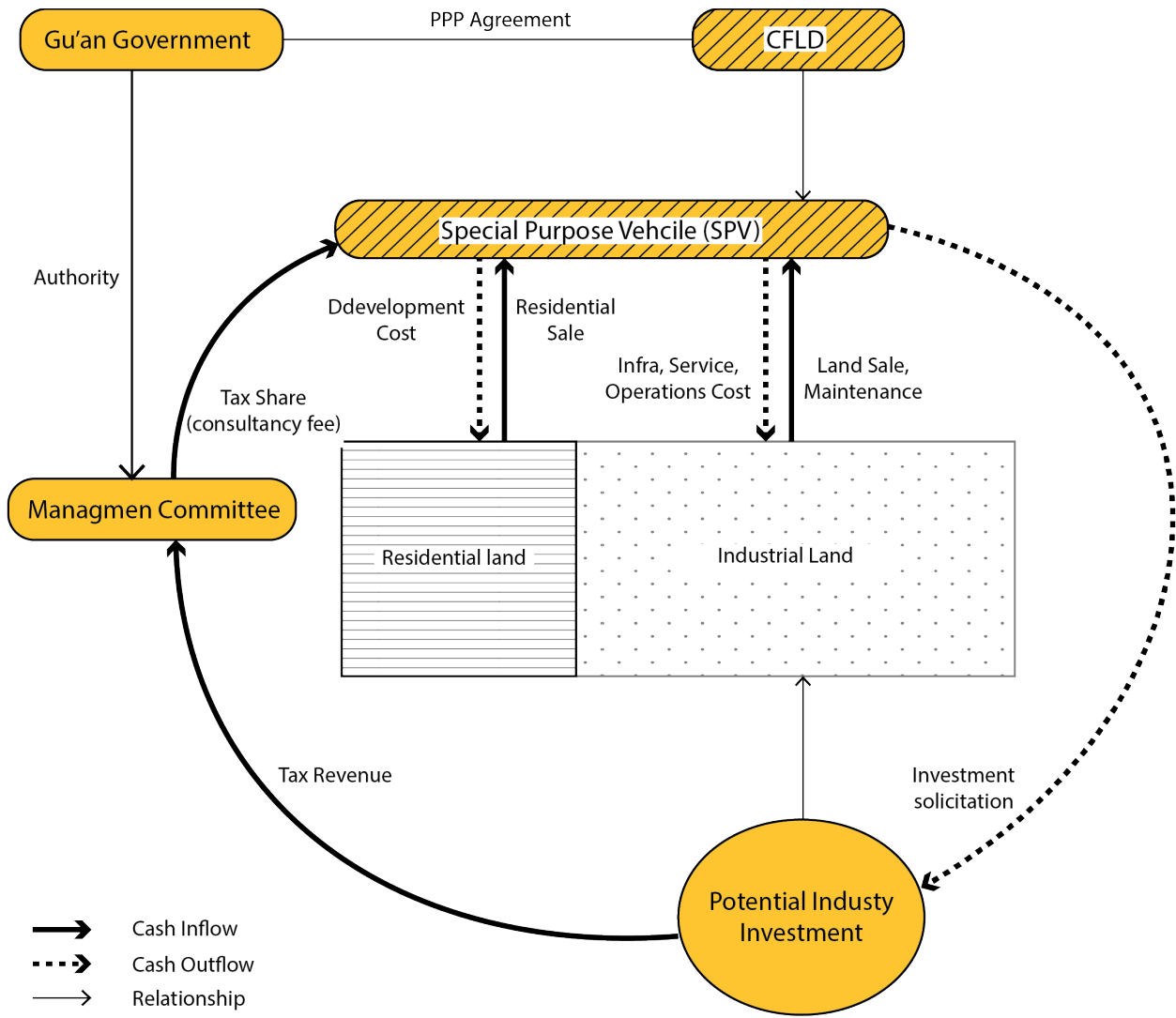


Figure 9. PPP Framework in Gu'an Development

It is fair to say that none of the success could happen without the contribution of the PPP model. With the high-tech agglomerates in Gu'an, this new town is constantly producing a substantial tax revenue for the government and CFLD, which is a very positive signal to the government, developers, and the market. Led by this notion, the development of Gu'an demonstrated a success facilitated by strong market forces and a very supportive political background; together, they made Gu'an New Industrial Town thrive and become a success. Figure 10 shows the mutual benefits the two parties shared in Gu'an development.

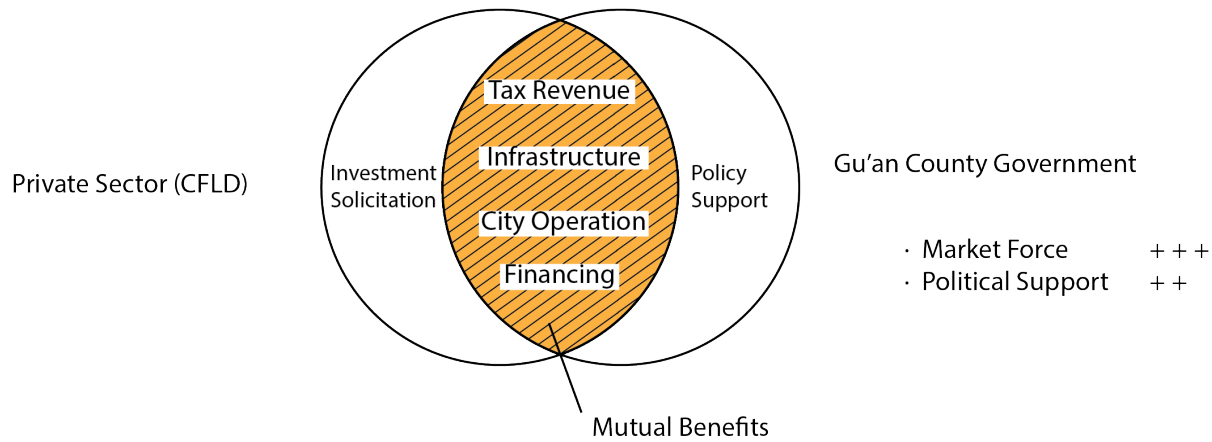


Figure 10. Mutual Benefits in Gu'an SEZ Development

3.2.2 Central Coordinator in Bazhong

1. Brief History of Bazhong New Economic Zone

Bazhong possesses many types of mineral resources, and on top of that, its geographical location provides a unique gift: Chinese herbs. At the time of 2002, the urban area in Bazhong only existed in the old city, and the municipal government was faced with an increasing pressure on housing and all infrastructure. Shown in Figure 11, old Bazhong city was built on the Ba River and its name comes from the body of water. The east and west of the old city are bounded by hills with challenging terrain for development. Before 2002, the city remained on the south side of the water and the rest was all rural, vacant land. Back then, the old city was quite dense and still absorbing incoming rural-to-urban populations, who came mainly from Bazhong's counties. To address this stress on the old city and meanwhile promote GDP, Bazhong municipal government filed a proposal, planning to establish an economic zone to the north of Ba River.

The proposal was made and delivered to the province in 2002, and granted approval during the second year. In the proposal, the municipality wanted to develop an industry cluster with bio-pharmaceuticals, as well as light manufacturing, food products, and electronics manufacturing; they planned to organize these industries into an industrial park in the future. However, in the end, except from the North River Trade Center, this area was filled with real estate development, not industries.²⁴ Starting from pressure on infrastructure and the desire to promote more

²⁴ Interviews with the Director of the Economic Development Department, Management Committee

development, the original plan in 2002 was on the north side of the old town across river, a location completely different from today's economic zone.²⁵

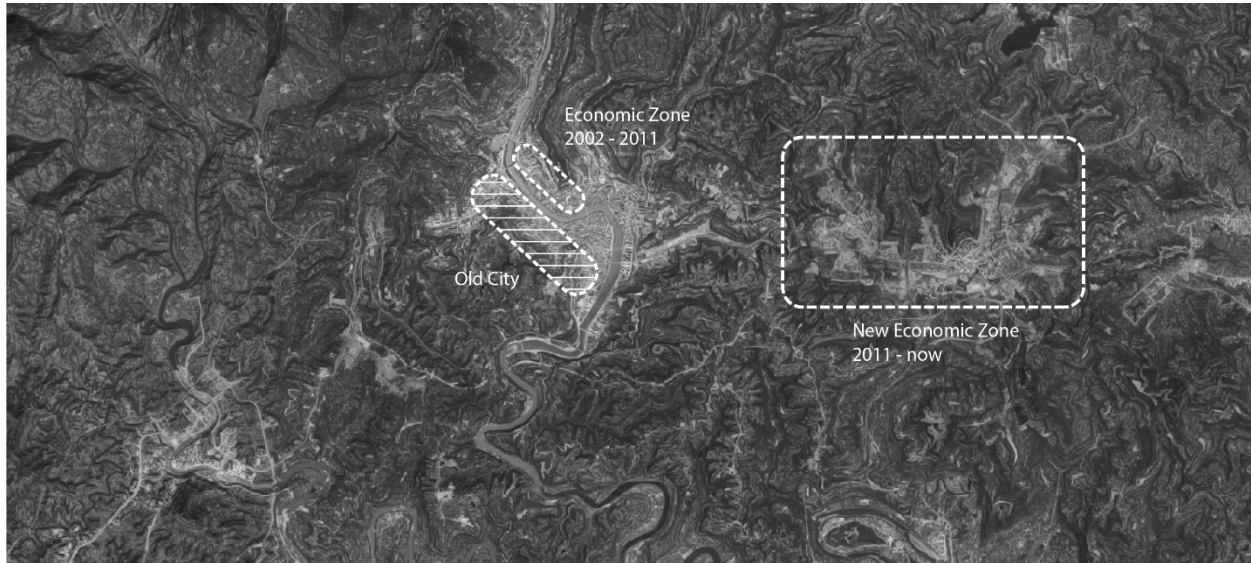


Figure 11. Special Economic Zone Planning in Bazhong

After the development in the North River Economic Zone was completed, the Management Committee of the zone was not dismissed. In 2011, Li Gang became the new Communist Party Secretary of Bazhong City. He soon proposed a plan to build a new industrial park in Bazhong. Only this time, instead of building near the city, the proposal planned to escape from the existing geographic constraints. Later, the original Management Committee from North River Economic Zone was reassigned to the location of the new development, just beside the old town and connected by highways and tunnels through small hills. “The original North River Economic Zone Management Committee accomplished its historical commission, and will keep contributing to the New Economic Zone”, according to Bazhong Municipal Government.²⁶ This operation is documented in what the Government filed as “Extension and Relocation of the Economic Zone” (*jingkaiqu kuo qu yiwei*).²⁷ Due to the reassignment, many senior officials in the Management Committee are quite familiar with the planning history and the political concerns behind this proposal. To take a closer look at the city planning, Figure 12 shows the

²⁵ Source: Bazhong Municipal Government Announcements and Interviews

²⁶ Bazhong Municipal Government Announcement, 2011

²⁷ Bazhong Municipal Government Announcement, 2011

city's masterplan.²⁸ The red-dashed area is where the new planning is taking place, and forms this thesis's study boundary.

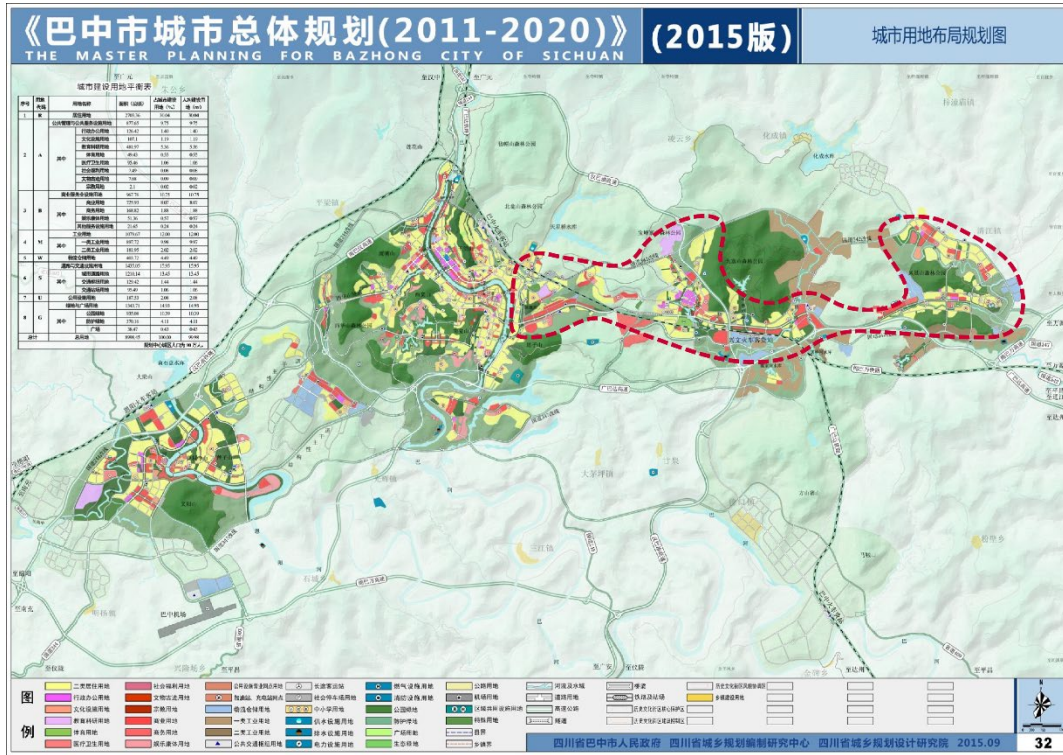


Figure 12. Bazhong City Master Planning 2011-2020 (2015 version)

²⁸ Bazhong City Master Planning Report 2011-2020, Tongji University Planning Institute, Nov. 2011

2. Political Incentives

As the leading government organization in the New Economic Zone, however, due to the centralized political system, the management committee does not have a say in whether or not a new industrial town should be created. The actual decision-making is held, mostly and solely, in the hand of the communist party secretary of Bazhong City, not even the mayor. In Bazhong, the relationship between the timing of the development and the party secretary's incumbents is revealing.²⁹ Table 2 shows the successive communist party secretaries in Bazhong.

Table 2. Communist Party Secretaries in Bazhong from 1997-Now. Source: Yearbook of Bazhong Municipality

2017.06 - Now	Luo Zengbin
2016.04 - 2017.06	Feng Jian
2011.03 - 2016.04	Li Gang
2006.08 - 2011.02	Li Zhongbin
2005.08 - 2006.08	Xiong Guanglin
2001.11 - 2005.08	Yang Anming
1997.07 - 2001.11	Zhou Dengquan

Further, Figure 13 shows the successive party secretaries referenced alongside the economic zone development timeline. It is clear that after Li Gang became the party secretary in the Bazhong Government on March, 2011, the new economic zone far from the city started to move forward in the end of the same year. There are two reasons for the “Extension & Relocation of Economic Zone”. The first factor is the economic need created by the limitation of the city’s land: North River Economic Zone was too crowded and fully urbanized, containing little industry, but mainly real state, and building a new industrial town to provide more living space, promote economic growth, and boost local employment to alleviate the old town’s difficulty in accommodating waves of recent migrant workers. Secondly, as discussed above, the communist party secretary’s political career is determined by the accomplishments of Bazhong’s GDP growth. This record of accolades might eventually lead to a promotion. In 2011, Li addressed a speech in the party executive meeting, where he proposed the development goal as “See new town’s effect in three years, see new town’s scale in five years” (*sannian chu xiaoguo, wunian*

²⁹ From the informal chat with local officials

chu guimo).³⁰ On April 2016, after being Bazhong’s party secretary for five years, Li Gang was appointed to be the party secretary in Zigong City, Sichuan Province, where the economic and industry base is much more established.³¹

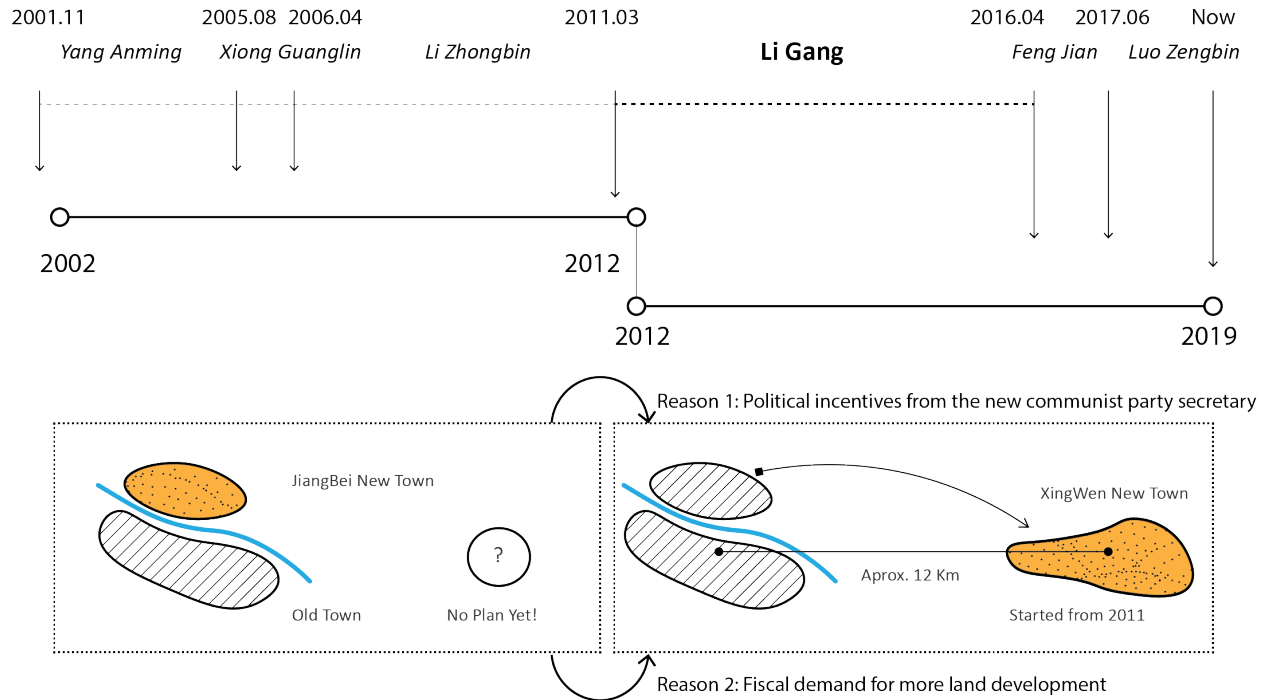


Figure 13. Bazhong Special Economic Zone Planning and the Successive Communist Party Secretaries

3. Government-Led Development

Given the information and analysis discussed above, the initial decision to develop a new economic zone in Bazhong was arduous. Due to limited bargaining power when inviting a private partnership, the PPP agreement was only project-based and did not take advantage of PPP on city-wide operations and risk sharing. The driving forces and outcome of the initial PPP behind Bazhong’s development is shown in Figure 14.

³⁰ Communist Party Secretary’s Speech in 2011, party executive meeting. Source: Party and Government Office

³¹ http://district.ce.cn/newarea/sddy/201604/25/t20160425_10824547.shtml

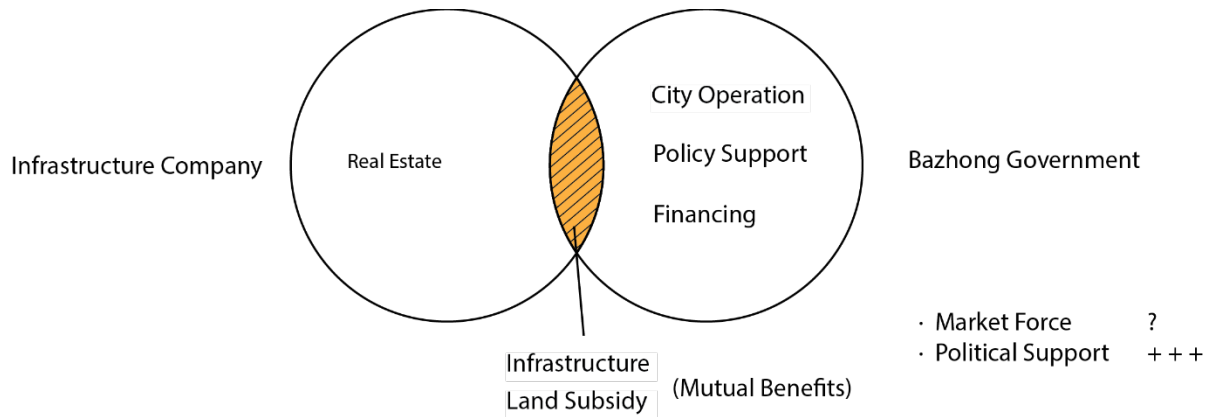


Figure 14. Mutual benefits in Bazhong SEZ’s Development

4. Land Finance in Bazhong

As discussed in Chapter 2, government-led development is usually based on land finance, which was also the case in Bazhong. Since the new economic zone is still 12 kilometers from the old town, the first priority is to build tunnels and highways to connect the two places. This became the initial capitalization of the land in the new economic zone. The management committee invited an infrastructure developer to build the highway; in return, the management committee would compensate the developer with another piece of land for commercial development (usually housing). This mechanism is shown in Figure 15. Infrastructure developers would like to proceed with such collaborations simply because the return from the real estate development (+F) is so high that the infrastructure cost (-C), land acquisition price (-D)³², and real estate development cost (-E) can be offset in the process. In fact, this is what the management committee did at the end of 2011 for the first highway linkage with the old city, and it provided a ground for all subsequent development.

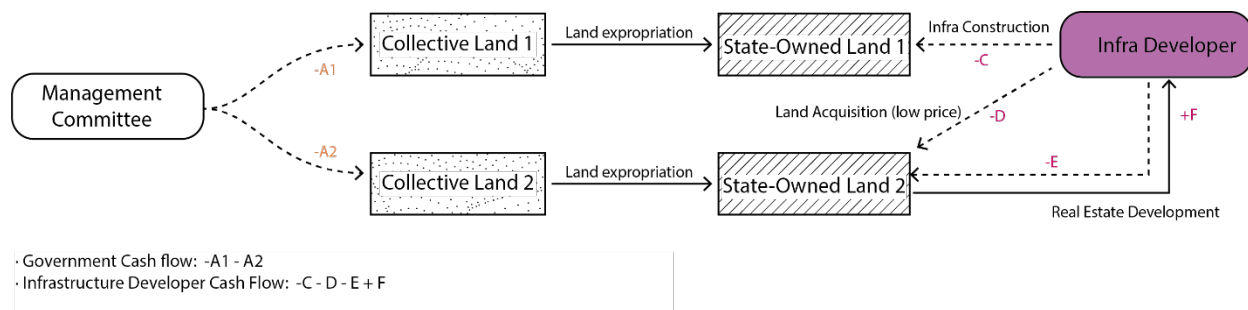


Figure 15. Land Capitalization Under Project-based PPP

³² Usually very low based on the PPP agreement

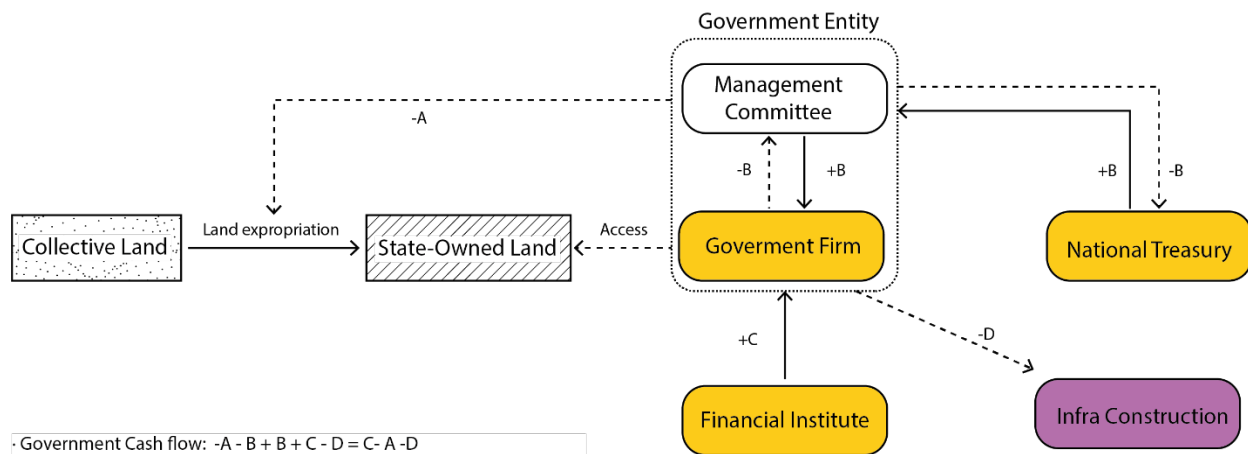


Figure 16. Government-led Land Capitalization

In fact, another development model is commonly used in local government-led development. It does not require any public-private partnership, nevertheless, it imposes heavy financial and political risks on the local government. Figure 16 shows this mechanism. It is important to note that the People's government in China cannot raise funds or transfer tax to the private sector, so the common practice is for the management committee to establish a government firm (*ping tai gong si*), and this government firm acquires the legal authority to borrow and pay on behalf of the government, hence becoming a platform for the government's capital operation. This government firm is independent, yet works with the management committee as a municipal entity to expropriate land (at cost: -A) and borrow money (+C) from the financial institutions. It is interesting to note that government firms must acquire land from the management committee after expropriation, but the land acquisition cost (-B) provided by government firms to the management committee, will be handed over to the national treasury and later go back to the management committee in the form of the central government's transfer payment³³. And it will eventually return to the government firm's hand. This is the legal procedure for land expropriation and acquisition, where the entire cost is only the expropriation fee (-A). Later, using this capital, the local government can hire contractors to develop infrastructure (-D). However, the debt and regulation risk of using this model are hard to avert and tend to accumulate over time.

³³ It is granted by the central government to support lagging region's development.

3.3 Industry Selection Mechanism & Outcome

3.3.1 Coordinator's Strategy in Industry Attraction

Generally, the central coordinator of a SEZ always wants to attract private firms with more tax contributions and less environmental impact. Nevertheless, private firms choose between cities and pick the best offer. Because the SEZ is in a fixed geographical area, while firms are actually highly mobile as long as there is labor or a market. Figure 17 illustrates the realities of distinctive cities with disparate fundamentals as they look for high-quality firms. A SEZ located in a city with poor fundamentals such as weak transport and less-skilled labor market has to compensate the firms with more subsidy to compete with other cities. This competition eventually leads to cities sacrificing as much as they can to attract high-quality firms, resulting in a situation where a very weak city can never attract high-quality firms even if they give up everything. For instance, Bazhong SEZ is not competitive in terms of transportation and labor, even when compared to its provincial neighbors like Guangyuan and Dazhou. On the contrary, the central coordinator in a strong city does not need to offer many subsidies to attract top firms, and these firms will later enhance the city's fundamentals further.

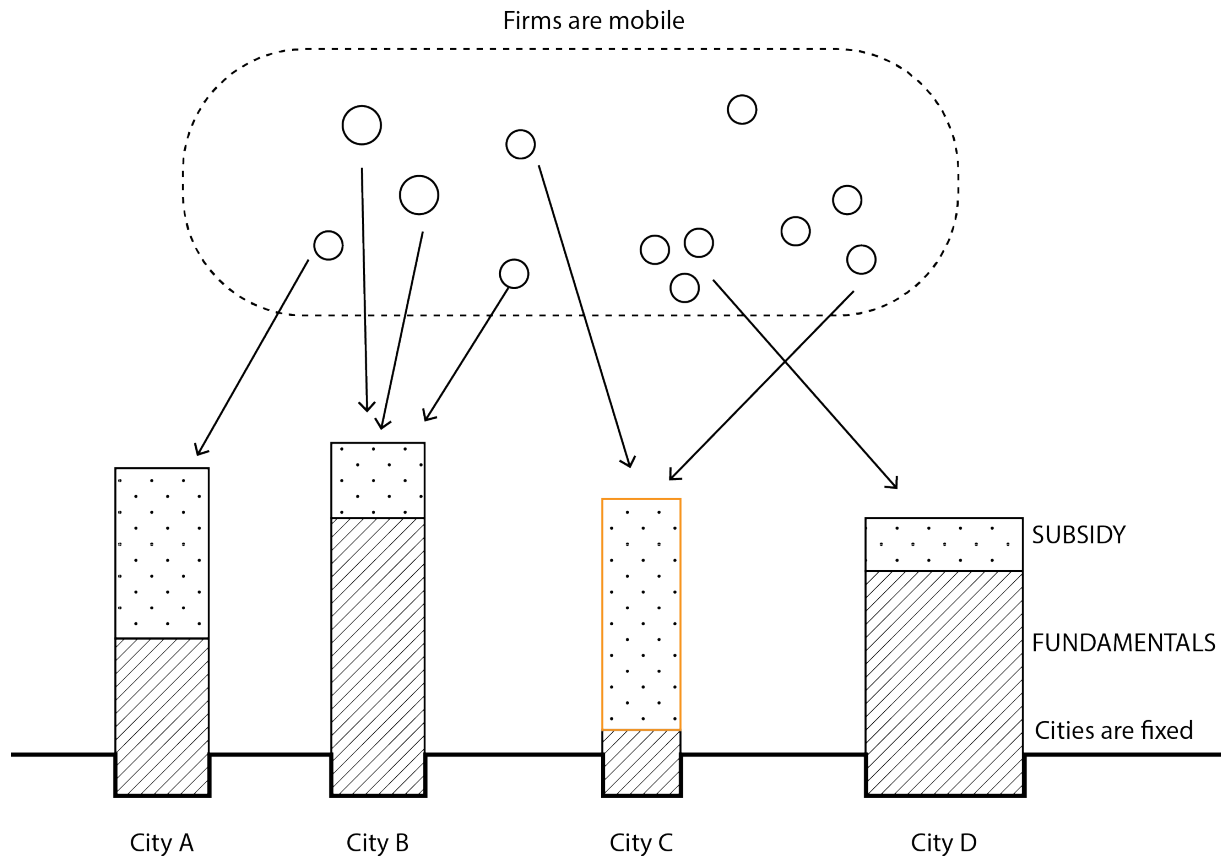


Figure 17. Cities Competing for Private Firms Using Subsidy

3.3.2 Brief Analysis of Industry Selection in Gu'an SEZ

As a leading investment solicitation service provider among developers, CFLD has a team of 1000 employees working on investment solicitation and providing three core services to attract private firms: administration, policy, and add-on services. The first offers basic business assistance such as patent application, legal support, and so on. The second is that CFLD works as a middle man to help private firms negotiate with the government on firms' needs and advice firms to maximize the mutual benefit with local government. Third, CFLD can provide additional services within the SEZ such as supply chain management, incubators, and financial support.³⁴

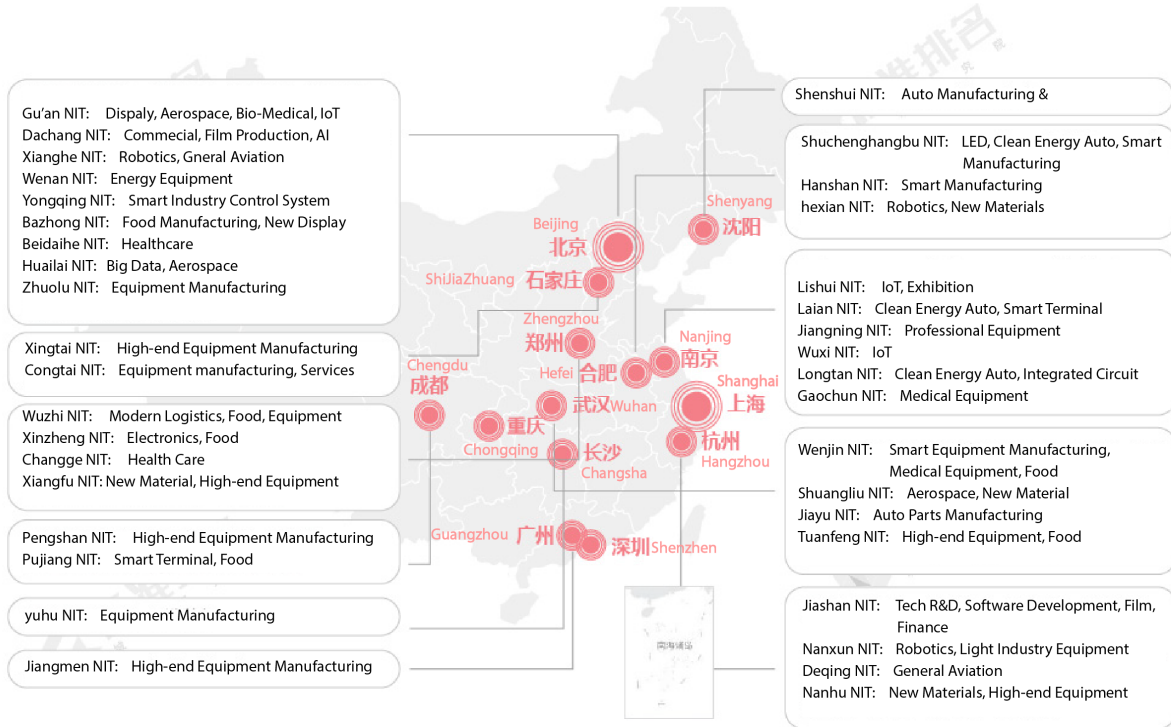
Similar to Hawassa Industrial Park in Ethiopia, which brought the world's second largest garment company PVH to the park and created an integrated industry cluster, Gu'an SEZ is

³⁴ E-House China

supported by its anchor industry, BOE Technology Group, which is a leader in panel display manufacturing. CFLD initiated its industry planning through its anchored company, which removed market uncertainty, and then vertically integrated small- to medium-sized firms around this anchor. A huge incentive can be delivered by CFLD to firms when the firm's industry is related to CFLD's clients. For instance, Eternal Material Technology, a large OLED manufacturer came to Gu'an because CFLD can provide EMT the required cleanroom for its production via CFLD's existing aerospace clients, even though other SEZs offer more land and tax subsidies. Later, CFLD also founded incubators and collaborated with big research institutions to foster new start-ups and technologies. This further supported the Gu'an SEZ to be robust and diversified.

Mapped in Figure 18, many PPP agreements were formed between local governments and CFLD across China. We can see that such development is highly concentrated around the major urban lusters in China, resembling the Gu'an case. Also, it is quite typical that such jointly developed SEZs have a leading industry or "theme" such as health care, robotics, aerospace, high-end equipment manufacturing, and so on. This represents the industry selection logic of this central coordinator: to negotiate with and successfully invite an anchor company into the SEZ. The goal then is to attract related industries and facilitate industry integration, and finally create incubators and research centers to induce technological innovations. This mechanism of industry selection is illustrated in Figure 19.

The Distribution of CFLD New Industrial Towns (NIT) and Villages



数据来源：标准排名城市研究院 图表制作：张亚仙

Figure 18. The Distribution of CFLD Invested Industrial Towns and Industries. Source: Biaozhunpaiming City Research

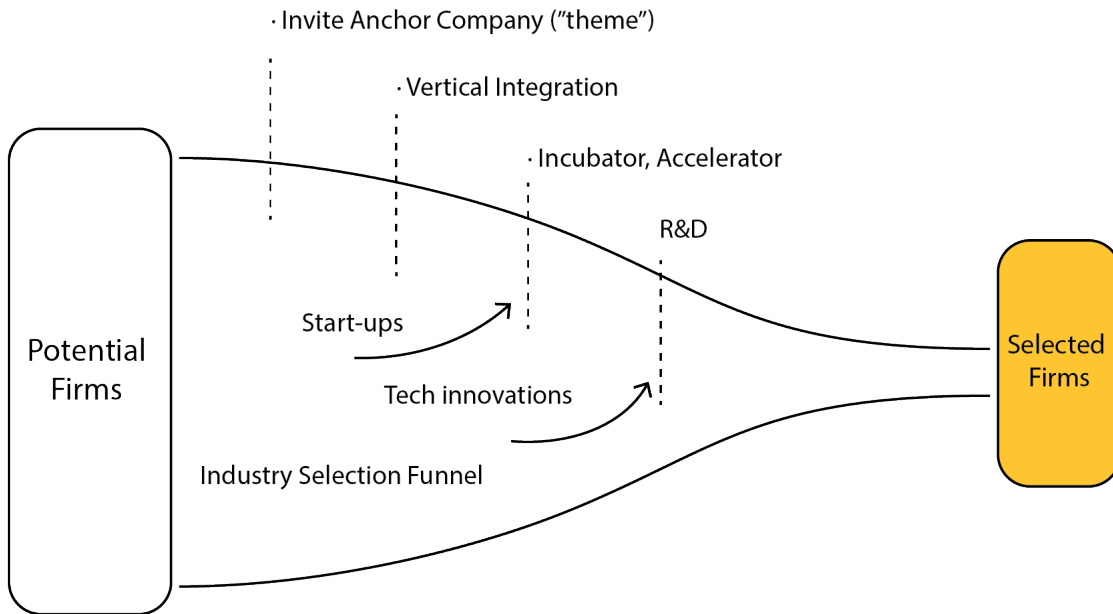


Figure 19. Industry Selection Funnel in Gu'an SEZ

3.3.2 Brief Analysis of Industry Selection in Bazhong SEZ

Compared to the Gu'an SEZ, the Bazhong SEZ has to face the challenge of poor market expectations and limited industry connections. Based on the contracts collected from the site visit, a summary of each year's arriving firms and the entire industry composition is documented in Appendix 3. It is clear that the industry variety was increasing over time, and there was only a manufacturing industry in 2011. However, other types of industry started to emerge in the following years. Pharmaceutical and medical care started to show up in 2013, and technology and other government-promoted industries also appeared. Yet it is also obvious that manufacturing was still the biggest share, and the second largest industry is logistics, taking 12% of the market share. Even still, the most prominent type of manufacturing is almost always furniture production, clothing, construction materials, and low-tech equipment. The most high-tech firm which entered is a manufacturer from Shenzhen of basic electronic components. In addition, there is a large portion of newly arrived firms that are polluting industries with non-differentiated products, such as printing, steel and concrete products. However, there are a few firms with high value-added product, such as pharmaceutical, which have settled in the SEZ since Bazhong offers plenty of Chinese herbs as raw materials.

From the interviews, the selection logic of what industries are favored was discussed. The director of the investment solicitation department mentioned that four factors were considered: the amount of fixed investment, the contribution to tax revenue, the potential to survive, and the industrial positioning policy from the upper government. What the investment solicitation department does is to negotiate with private firms, and facilitate and mediate within the legal framework; eventually, they can sign detailed contracts with the firm if the firm's entry is approved through the administrative process. The industry selection funnel in Bazhong SEZ, stated in the interviews, is illustrated in Figure 20.

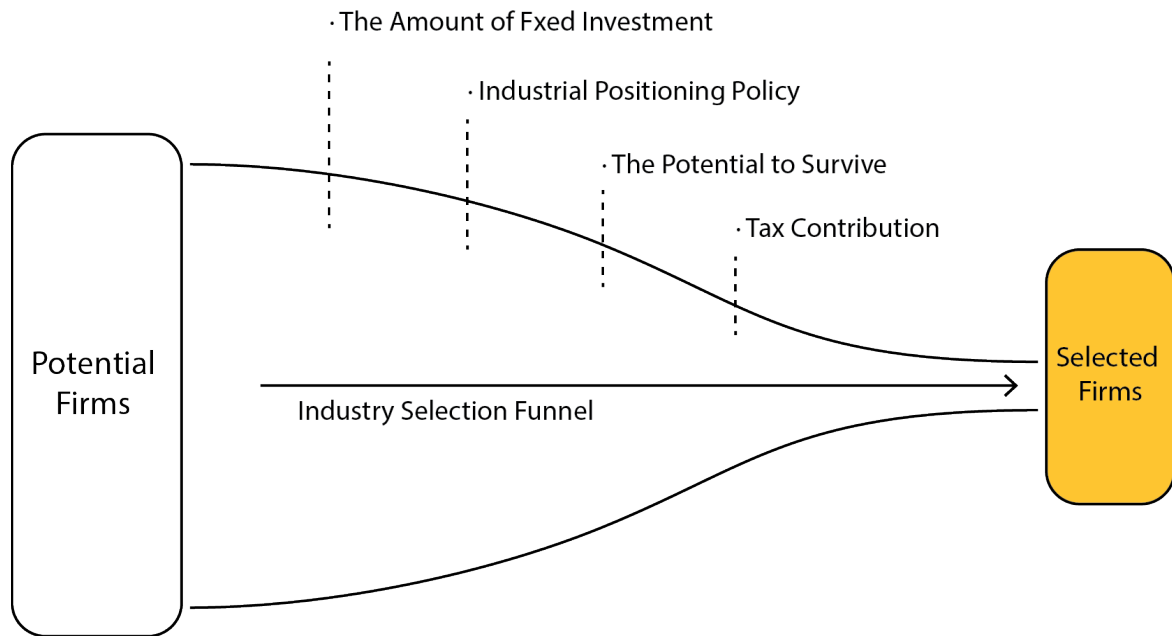


Figure 20. Industry Selection Funnel in Bazhong SEZ (From Interviews)

3.3.3 Detailed Analysis of Industry Selection in Bazhong SEZ

1. The Organization of Management Committee

In August of 2018 and February of 2019, multiple interviews were conducted with local officials in the Management Committee, including the Investment Solicitation Department, the Economic Development Department, the National Land Department, and the Party Affairs Office. The management committee consists of 17 divisions (*zhi neng bu men*). Figure 21 illustrates the organization of Bazhong SEZ management committee. The National Land Department provided me with many insights on local land finance. In addition, the Investment Solicitation Department provided a complete set of contracts with private firms spanning the entire history of the SEZ, from 2011 to the end of 2018. Apart from the data, the director and the vice director of the Investment Solicitation Department were both engaged in several interviews and offered many insights into the administrative process and the nature of their work.

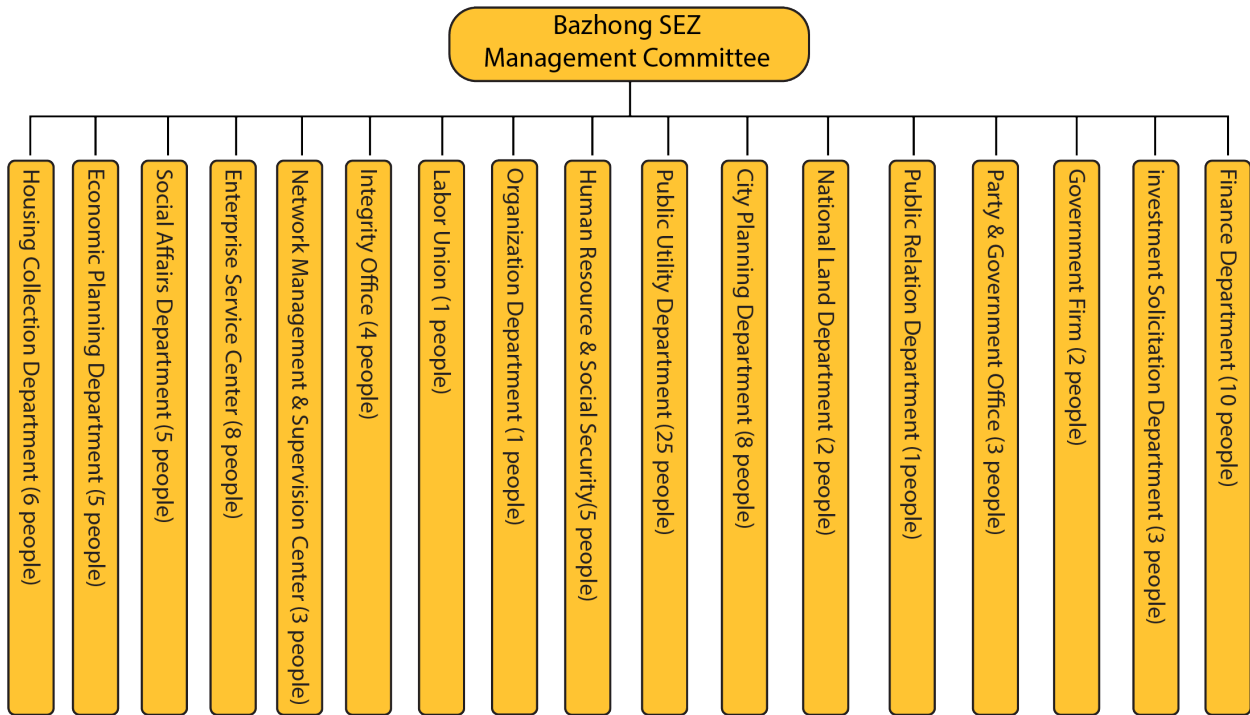


Figure 21. The Organization of the Management Committee in Bazhong SEZ

2. Investment Solicitation Department

To promote the development of industry, the management committee established an investment solicitation department for this mission. There are three people in this department. Since the Bazhong SEZ is not as competitive as Gu'an, no private sector was initially involved in the development. Thus, the full risk and responsibility of populating this new industrial town fell on the local government's shoulder. The investment solicitation service, which was provided by CFLD in the Gu'an SEZ with a team of experts and former industry executives, must be completed by the three officials in investment solicitation department.

From the interview, it was noted that the importance of this department ranked at the top of all the other divisions. The vice director added that this department made up for 10 points out of 100 points for the entire management committee in the performance evaluation. Furthermore, he mentioned that the workload was extremely heavy and the risk was high as well.³⁵ In 2011, the management committee was reassigned from the North River SEZ and granted 60 million yuan to initiate the new SEZ. The grant was far below the infrastructure cost, which could easily reach

³⁵ Risk lies in the politics and social influence.

the level of billions since several tunnels needed to be built. Formed as a PPP project, the infrastructure company collaborated with the local government in exchange for a land acquisition for real estate development, as mentioned above.

Later, real estate development started to boom because of the accessibility. Land values rose, which led to a higher land capitalization for the local government. Unlike the real estate market, industry was far more difficult to attract and foster. Before industries came, the department managed to found an institution of higher education (*Bazhong Professional Technology College*) and an elementary school (*Tang Hu Elementary School*) in the SEZ. These projects provided a stronger base for subsequent development, since Bazhong lacked any institutions of higher education until 2012. In 2018 and early 2019, targeted industries were biomedical and pharmaceuticals, electronic and information industries, food and beverage manufacturing, and new energy and new materials, which are not far from the initial proposal.

The director stated conclusions regarding three major works the department did before industry solicitation: constructing infrastructure (*Qin Ba Road*), establishing educational institutions, and settling down the compensation for land expropriation. Entering into investment solicitation work, the majority of the challenges he faced were “talents” and “money”, by which he meant the “network” and “subsidy capacity”. As a result, many firms which signed the contracts in the early years of the SEZ were not the “targets” at all. On the contrary, the principle this department pursued then was “going all in”, which happened mainly from 2011 to 2016. Later, when the economic zone started to acquire industries, this department planned to select among the arriving firms by reducing policy support to untargeted firms, said the director. The director also claimed that the goal had become to “improve quality and efficiency” (*ti zhi zeng xiao*) since 2017. The local government’s goal is to promote Bazhong SEZ to the national level.

3. Administrative Process of Government-Led Investment Attraction

An important thing to note is the administrative workflow of investment solicitation. The authority to decide what types of firms to consider and which firms can enter is held by the upper level government, not the SEZ management committee. Figure 22 illustrates a general workflow for industry positioning. This process has a command chain built into it, but with local

improvisation. For instance, the People’s Government in Sichuan Province carries out a planning goal for each area, based on the central government’s positioning for Sichuan. Bazhong municipal government will receive a brief regional development plan from the provincial government, northeastern Sichuan regional Pplan for instance. Then, the Bazhong municipal government will consider market information and the political environment using different channels and resources, such as think tanks, discussions among experts, and so on. Next, the final decision, for example, to “target four types of industries: Bio-pharmaceutical, food-drink manufacturing....”³⁶, is passed on to the SEZ management committee to implement. After receiving the upper government’s target, the investment solicitation department will work according to this instruction.

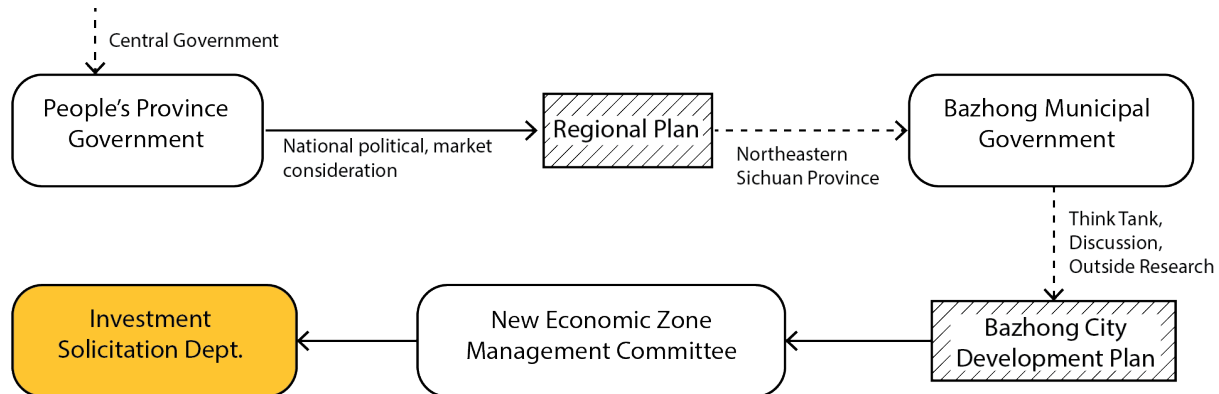


Figure 22. The Administrative Process of Industry Positioning.

At the SEZ, there is another administrative procedure for the investment solicitation department to follow before signing the contract with private firms. Figure 23 demonstrates this process. First, a firm can get in touch with the solicitation department or vice-versa, and in reality the department has to reach out to qualified firms. Second, a first round of negotiation will produce a preliminary agreement on the local subsidy and investment requirements. Third, a discussion will take place within the management committee to produce a result on whether to proceed; this stage will then generate a preliminary contract—intention of investment—with the private firm. Fourth, this preliminary contract will be handed over to the Bazhong municipal government and be discussed on the government’s executive meeting, which later will give an approval or denial

³⁶ Party secretary’s 2018 New Year Speech, Source: Party and Government Office

of the contract. Finally, if approved by the municipality, the contract will be handed over to the Bazhong party committee and the final decision will be made in the party's executive meeting.

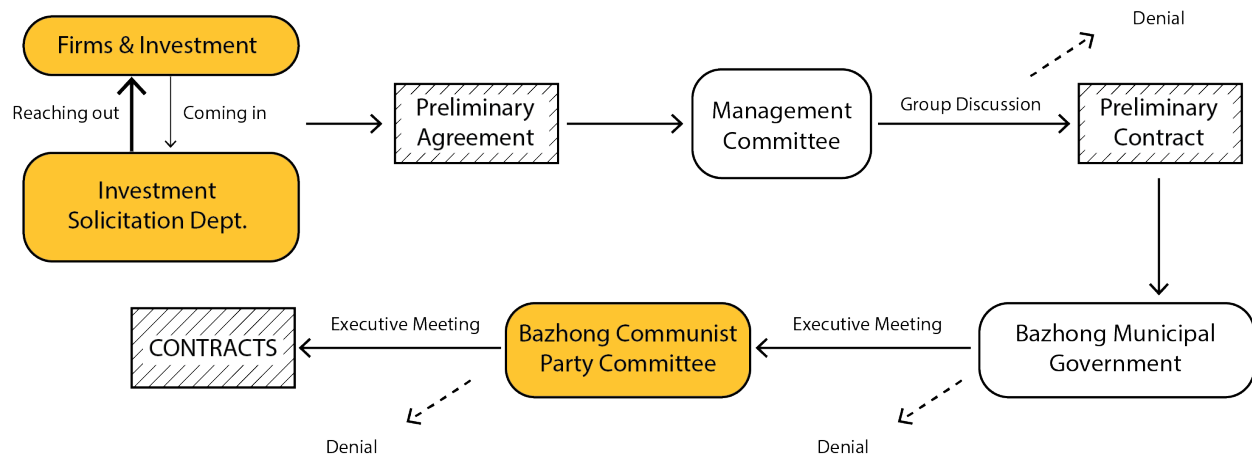


Figure 23. The Decision-Making of Investment Solicitation

Due to this long administrative process and centralized power of the communist party committee, there is a fitting analogy for the duty of the investment solicitation department, which was described by the vice director of the department in terms of a “matchmaker” (*Hong Niang*). Figure 24 explains this relationship. As an ancient occupation in China, suitably matching men and women required an agent to understand both the needs of both parties: the local government and the private firms. In some cases, if the firm’s profile is very high, the department needs to send a note to the communist party secretary directly to ask for help. If agreed upon, the party secretary will personally communicate with the firm to show signs of welcome and faith in working together. The vice director then further analogized the relationship of the local government by signing a contract with a firm to “marry”. While there will always be challenges and conflicts, the goal is always to compromise and proceed, according to the vice director. This analogy perfectly depicts the position of the investment solicitation department and how the mechanism of local administration can significantly intervene in the industry selection process and the outcome.

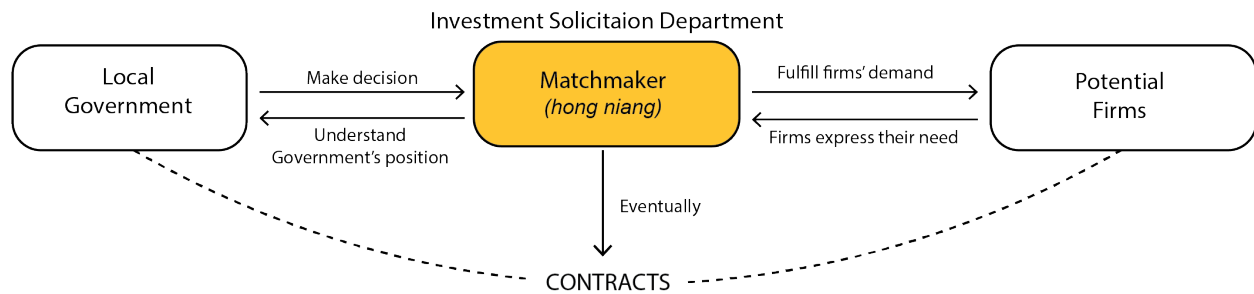


Figure 24. The Role of the Investment Solicitation Department

Given the pushback from the system, it is important to ask about how to assess the performance of the investment solicitation department, as well as the incentives for the cadres to work hard at their jobs. In Figure 25, a feedback system is demonstrated. First, the department will turn in a fiscal-year work plan to the upper-level government at the beginning of the year. This plan should present a fair goal to promote the department officials to work; meanwhile, it should not be too unrealistic to finish. This plan will be reviewed, commented on, and finally approved (after proper revision) by the Bazhong municipality at the beginning of the year. Based on this plan, the municipality will evaluate the department's performance at the year's end. According to the vice director, multiple measurements are taken into consideration: the number of projects attracted, the total amount of investment introduced, the amount of investment settled, the number of times the department went out for investment solicitation, and so on. These matrices enter political record, and will be linked to the promotion of officials. Even so, the vice director also describes this assessment as "*important and not important*", which may be because political networking can remove a bad record. Similar assessment methods are used on other management committees' divisions. Also, it is worth mentioning that because a large portion of the management committee staff are born and brought up in Bazhong, there is a chance that officials are working with discretion due to a sense of ownership. Apart from these two factors, there can be other hidden incentives which are not revealed in the interviews or study.

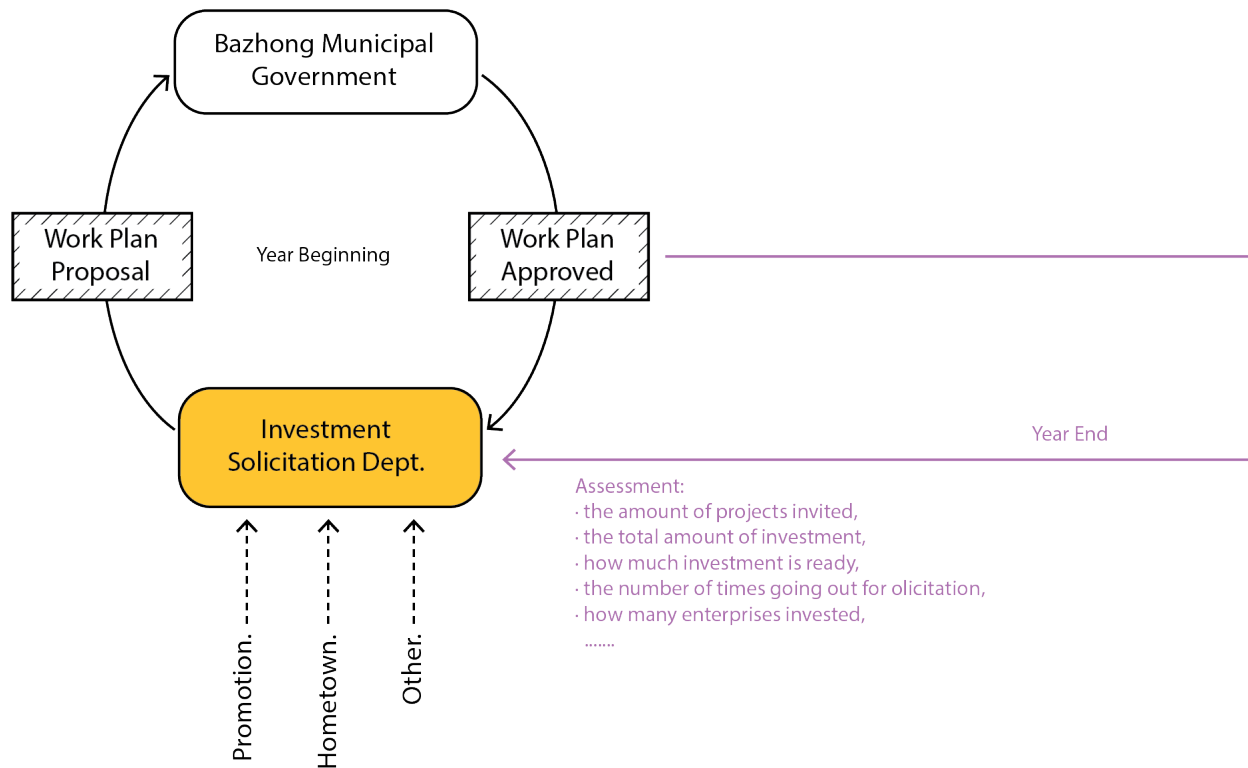


Figure 25. Performance Assessment of the Investment Solicitation Department and Its Incentives.

4. Contracts & Data Specification

During the site visit, I collected a full set of 110 contracts that Bazhong SEZ signed with every firm from 2011 to 2018. This data is key to understanding the local governments' selection of industries during the past 8 years. These contracts consist of detailed information including the name of the project, the signing date, the type of industry, the investor, the area of land occupied, the strike price of the land parcel, the detailed subsidy provided, etc. A typical contract composition is exhibited in Figure 26. First, the involved entities are specified. These are usually the management committee and the firm. Occasionally multiple firms are involved. Second, the nature of the project is briefed, with the amount of total investment, the minimum fixed investment, the projected quantity of the products output per year, the projected revenue per year, the projected tax contribution per year, etc. Third, the government's support is outlined, defining the method, time scope and amount of subsidy given to the firms. Fourth, the amount of security deposit the firm will hand to the management committee is stated, along with when it will be given and returned. Fifth, the right and duty of each entity is clarified, which usually defines the amenities and services the local government will provide to the firm when the firm

enters the zone (water, electricity, site construction, municipal service, etc.). Finally, the consequences of default by each entity is specified. If the local government defaults, the local government will compensate the firm's loss by arbitration. The firm's subsidy will be claimed back if the firm stays in Bazhong SEZ for less than the required number of years or if investment is insufficient within the term specified. (see Appendix 1)

Entities	Project Intro	Subsidy	Deposit	Right & Duty	Default
· Management Committee	· Industrial Type	· Rent Subsidy	· Amount	· Municipal service	· Investment Requirement
· Firm 1	· Investment	· Tax Deduction	· Return	· Water	· Time Schedule
· Firm 2	· Production	· Cash Subsidy		· Electricity	· Subsidy Claim
· ...	· Revenue				· Arbitration
	· Tax				

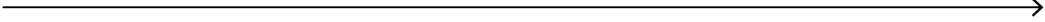


Figure 26. The Composition of Contracts

In total, there are around 110 contracts signed between 2011 and 2018. This covers the entire history from the beginning of the special economic zone to the end of 2018. Reading through this full set of contracts, I categorized the basic characteristics of each entering firm and turned it into a numeric value. Each firm's attributes are considered based on my data from my interviews and the aforementioned contracts. The attributes include:

1. Tax contribution projected to local government (tax_level). The Categories are divided according to following criteria:

value = 1: $0 < \text{tax} < 10$ million yuan

value = 2: $10 \text{ million yuan} \leq \text{tax} < 50 \text{ million yuan}$

value = 3: $\text{tax} \geq 50$ million yuan

2. Relatedness to the industry positioning Bazhong government defined (relatedness). The value is a binary:

value = 0: not related.

Value = 1: related to the four promoted types of industries (biomedical and pharmaceutical, electronic and information industries, food and drinks manufacturing, new energy and new materials)

3. Environmental impact of the industry (*envir_impact*). The value is binary:
value = 0: no significant environmental impact
value = 1: the industry has a significant impact on the local environment

4. Intensity of investment (*inv_level*). Criteria of the categories:
value = 1: $0 < \text{total investment} < 10$ million yuan
value = 2: $10 \text{ million yuan} \leq \text{total investment} < 500$ million yuan
value = 3: $\text{total investment} \geq 500$ million yuan

5. High value-added industry or not (*value_add*). The value is binary:
value = 0: the industry has high value-added component, such as biomedical, pharmaceutical, information technology, patented technology, etc.
value = 1: the industry is low value-added, such as common concrete product, steel product, clothing manufacturing, etc.

6. Source of investment (*source*). The sources of investment come from all over the country, including Hong Kong. The value is binary:
Value = 0: the value comes locally, from Bazhong
Value = 1: the value comes from outside

The dependent variable, government's subsidy, is categorized into different levels and turned into numeric values as well. First, there is a cash support, directly given to some firms under four conditions: purchase of technological patents (the maximum amount does not exceed 1 million yuan), land acquisition return from 50% to 100% (100% means the land acquisition cost is 0 for the firm), construction reward if the construction schedule is within the time frame (amount varies), and fifty thousand yuan once the firm is upgraded to the required standard. The second is

tax subsidy, clearly specified as “first two years no tax, and following three years half tax” (*liang mian san jian ban*), many firms got five years’ tax deduction, while others have 3 years or none. Third, there are rent subsidies for firms which are renting constructed space in the SEZ, including rent discount and rent return. The rent discount varies, but rent return usually follows the principle of “100% return when tax contribution is greater than 150 yuan/square meter, 60% return when tax contribution is between 100 yuan/square meter and 150 yuan/square meter, and no return if tax contribution is below 100 yuan/square meter.” Figure 27 indicates the categorization of the synthesized subsidy, of which the value is from 1 to 3.

Value = 1: potential cash subsidy is very small, no tax deduction, no rent subsidy.

Value = 2: potential cash subsidy is less than one million yuan, tax deduction < 5 years, rent subsidy.

Value = 3: potential cash subsidy is million level, tax deduction, rent subsidy.

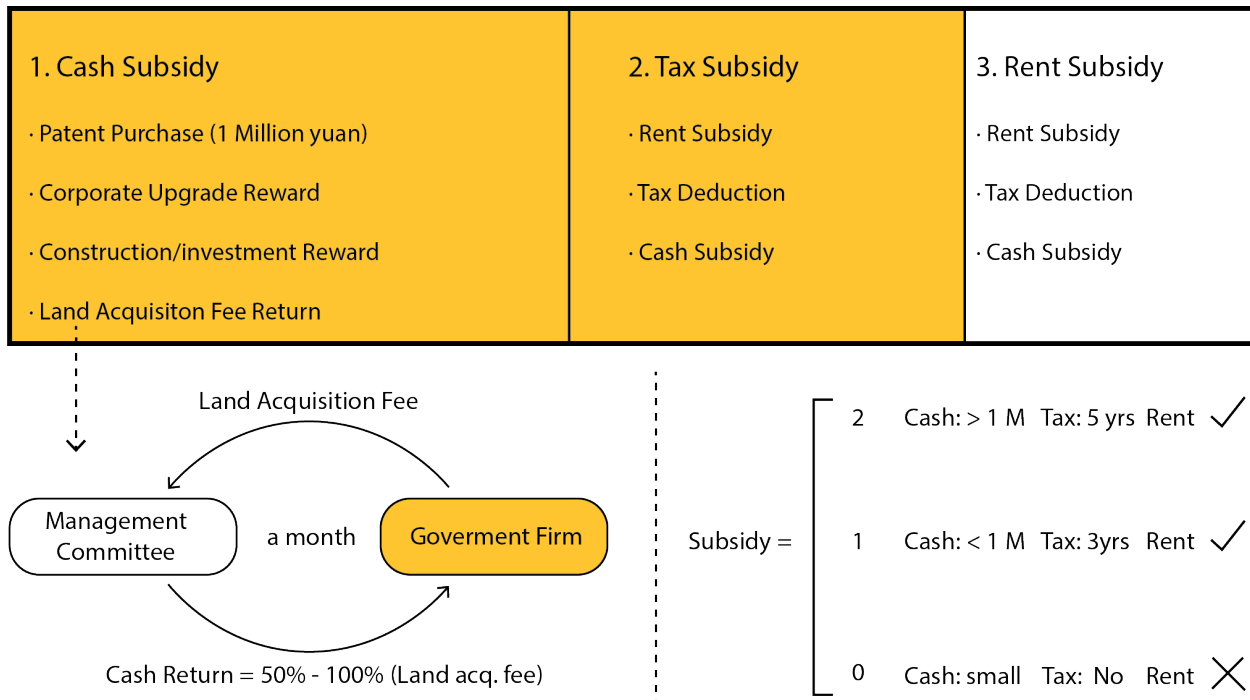


Figure 27. The Type and Categorization of Government’s Subsidies

Based on the criteria specified above, each firm’s subsidy is categorized into three ordered values. However, there are contracts that only indicate intentions of investment. These do not contain any detailed industry attributes or subsidy information. Such contracts are removed from the sample. Before analyzing the relationship between the firms’ attributes and government’s

subsidy, it is important to understand that there are real estate development contracts, which are quite different from industrial contracts. Specifically, the land price for real estate development can be 5 to 10 times of the price of industry land. Real estate projects are restricted, instead of subsidized, so these contracts are removed from the sample as well. After the processing the dataset, I was left with 93 industrial contracts observations (see Appendix 2).

6. Empirical Analysis

The contracts reveal the firms' projected performance and the amount of subsidy the government offered in response. This demonstrates which attributes the government valued at the time when the contract was signed. The actual subsidy the government paid later could be different. But the way the local governments valued varying firms through subsidy support reveals their real incentive. To illustrate the relationship between the firms' attributes and the level of support government offered to provide, a score is calculated using the average value of each independent variable. Also, to better visualize the level of subsidy offered by the government, a score of the *subsidy_level* is calculated using log function:

$$1. \text{ Score} = 1/6 * (\text{tax_level} + \text{relatedness} - \text{environmental_impact} + \text{inv_level} + \text{value_added_level} + \text{source})$$

$$2. \text{ Subsidy_level} = \log (\text{subsidy} + 1) * \text{subsidy}$$

Plotting the firms' score and subsidy level of each contract, Figure 29 exhibits an upward tendency, indicating there is a positive relationship between a firm's attributes and the government's willingness to subsidize the firm.

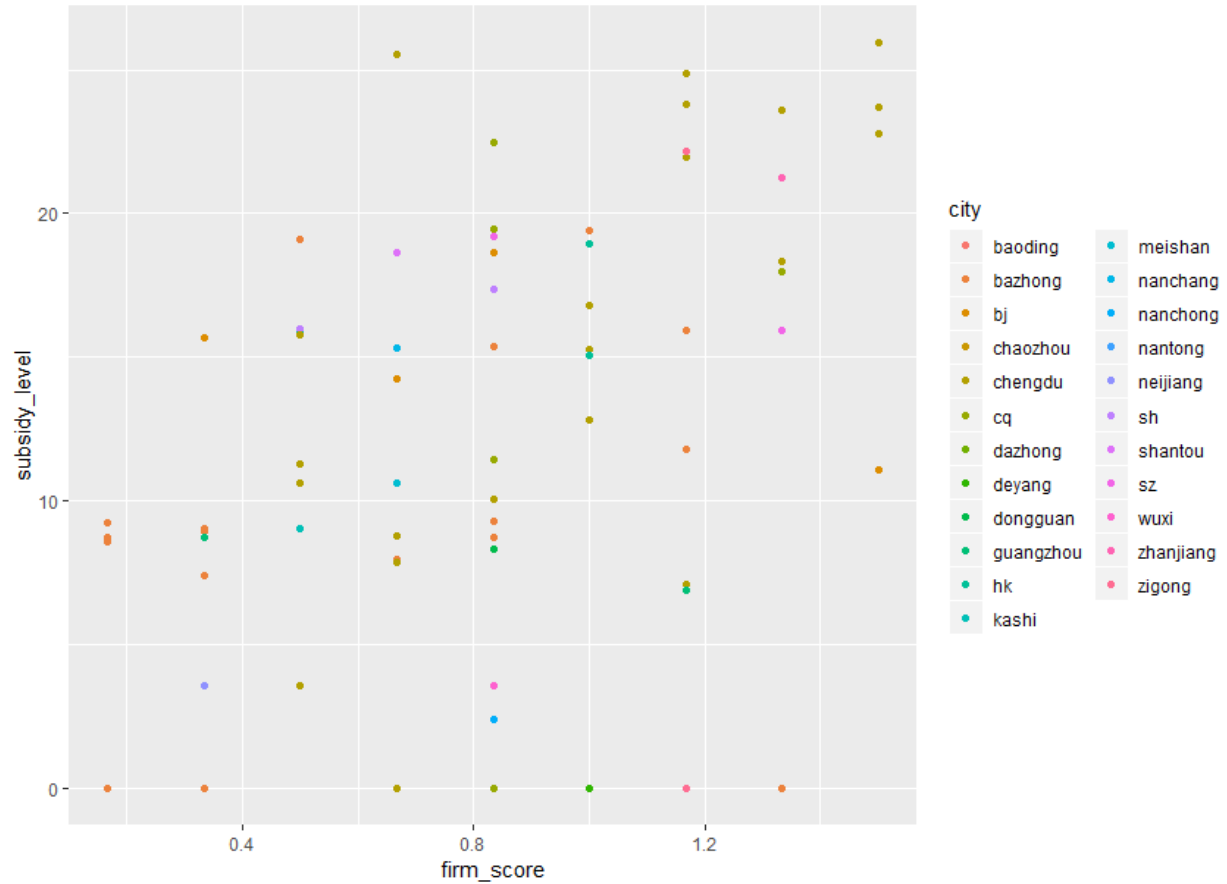


Figure 28. The Plot of the Firms' Scores with their Subsidies Granted

Before running the regression model, we can examine the correlation between each variable, to check the independence of the variables and to avoid collinearity. The correlation matrix is shown in Table 3. From the table we can see that investment levels are very positively correlated to tax contribution. It is easy to understand that higher input usually generates higher output. The level of relatedness is positively correlated to whether the industry is high value-added or not, which is also clear to interpret. The targeted industries in Bazhong are “biomedical and pharmaceutical, electronic and information industries, food and drinks manufacturing, new energy and new materials,” which are all high value-added industries. Moreover, there is a small positive correlation between source and tax level. Higher value in source means investments are from outside Bazhong. There is a chance that companies from outside Bazhong are big, high-quality businesses that can provide a higher tax contribution.

Table 3. Correlation Matrix Between Explanatory Variable (Firm's Attributes)

	tax_level	relatedness	environmental_impact	inv_level	value_added_level	source
tax_level	1.00000	0.18489	-0.06132	0.55889	0.13567	0.26132
relatedness	0.18489	1.00000	-0.41918	0.15785	0.50208	0.02450
environmental_impact	-0.06132	-0.41918	1.00000	-0.14786	-0.35322	0.07322
inv_level	0.55889	0.15785	-0.14786	1.00000	0.06877	0.14363
value_added_level	0.13567	0.50208	-0.35322	0.06877	1.00000	0.17366
source	0.26132	0.02450	0.07322	0.14363	0.17366	1.00000

Based on this analysis, four explanatory variables are selected: tax contribution, environmental impact, value-added level, and the source of the investment. Relatedness and investment level are dropped. Here is the hypothetical model for industry selection mechanism:

$$3. \textit{Subsidy} = \alpha * \textit{Tax} + \beta * \textit{Environment} + \gamma * \textit{Value} + \delta * \textit{Source} \\ + \textit{Year_FixedEffect} + \textit{Industry Type_FixedEffect} + \varepsilon$$

Here, I use an ordered logit model to estimate the effect of each firm's attribute on the final subsidy they can get from the government. To remove the effect from specific year and industry, the model includes year fixed effect and industry type fixed effect. Moreover, to understand the relationship in different time frames, the data is divided into two subsets: 2011-2016 and 2017-2018. The reason of choosing 2016 as the cut-off between the two subsets is because Li Gang was Bazhong's communist party secretary until April 2016. The comparison of two periods can possibly reveal the way a systematic change in government policy responds to a firm's desired attributes, if there are any. Table 4 shows the results of this regression. From the table, we can see that from 2011-2016 (column 2), tax contribution is the only source that matters to the government, while other attributes such as the environmental impact, high value-added or not, and the source of the investment did not impact the amount of subsidy the firms could receive. After Li Gang left Bazhong, the data collected during 2017-2018 (column 3) shows that the government was willing to give more subsidy to firms that have higher tax contribution and are from outside Bazhong. Overall, the full sample regression (column 1) implies that both tax contribution and source (outside money) were considered more valuable than other factors. Compared to tax contribution and source of the investment, environmental impact and industry type (high value-added or low-value added) seem to not interest the local government.

Table 4. Regression on Subsidy and Firm's Attributes

	<i>Dependent variable: Subsidy Level</i>		
	(1)	(2)	(3)
	Full Sample	2011-2016	2017-2018
subsidy >= 2	-3.804** (-1.531)	-3.342** (-1.57)	12.309 (-59.447)
subsidy >= 3	-5.930*** (-1.627)	-5.566*** (-1.693)	5.146 (-59.356)
tax_level	1.076*** (-0.392)	1.204*** (-0.447)	3.417** (-1.508)
environmental_impact	-0.642 (-0.768)	-0.488 -1.041	-0.855 (-2.1)
value_added_level	0.768 (-0.58)	0.985 (-0.775)	0.4 (-1.735)
source	1.455*** (-0.56)	0.711 (-0.675)	6.927* (-3.988)
Observations	93	67	26
R ²	0.494	0.508	0.892
chi ²	53.743*** (df = 23)	40.243*** (df = 20)	39.344*** (df = 12)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01. <i>Std. Er in parentheses</i>		

However, there are limitations of this analysis. First of all, there are only 100 observations in the sample, and 8 years is a relatively short time frame. Second, the value given to each observation is based on the criteria mentioned above. Even though the categorization is optimized to be fair across different categories, there are subjective specifications in the analysis. Third, due to the limitations of this study, unobserved factors can exist and influence the level of subsidy local governments could offer.

7. Discussion

Based on the analysis above, why did the Bazhong SEZ care so much about the tax contribution of firms and the source of investment? Before answering the question, one thing that can be seen is that the government did not care too much about the environmental impact or their announced

targeted industry types. Lots of incoming industries are polluting and low-tech based manufacturing. The reasons why they are focused on high tax output firms are discussed in the Chapter 2. These include the local government's fiscal gap, political incentives and land monopoly. But why did Bazhong SEZ prefer outside money instead of local firms? Why not use subsidies to support local industry? The logic behind this could be due to maximizing the chance of an industry's survival. If the money comes from outside Bazhong, there is a higher chance that the firm is going to survive. Even if the firm's base in Bazhong does not succeed, the corporation is not completely risking itself in one place. Compared to the firms starting locally, external firms are more likely to be much stronger and to have the resiliency and higher propensity to be active and to generate cash flow. Therefore, it is difficult for local firms to compete with mature firms coming from outside. On the other hand, Bazhong's industry base is weak. Local firms are very likely to be young and immobile. These firms have to start locally, so the government is not incentivized to spend more subsidy on attracting them. Figure 29 demonstrates the selection basis in government's mind.

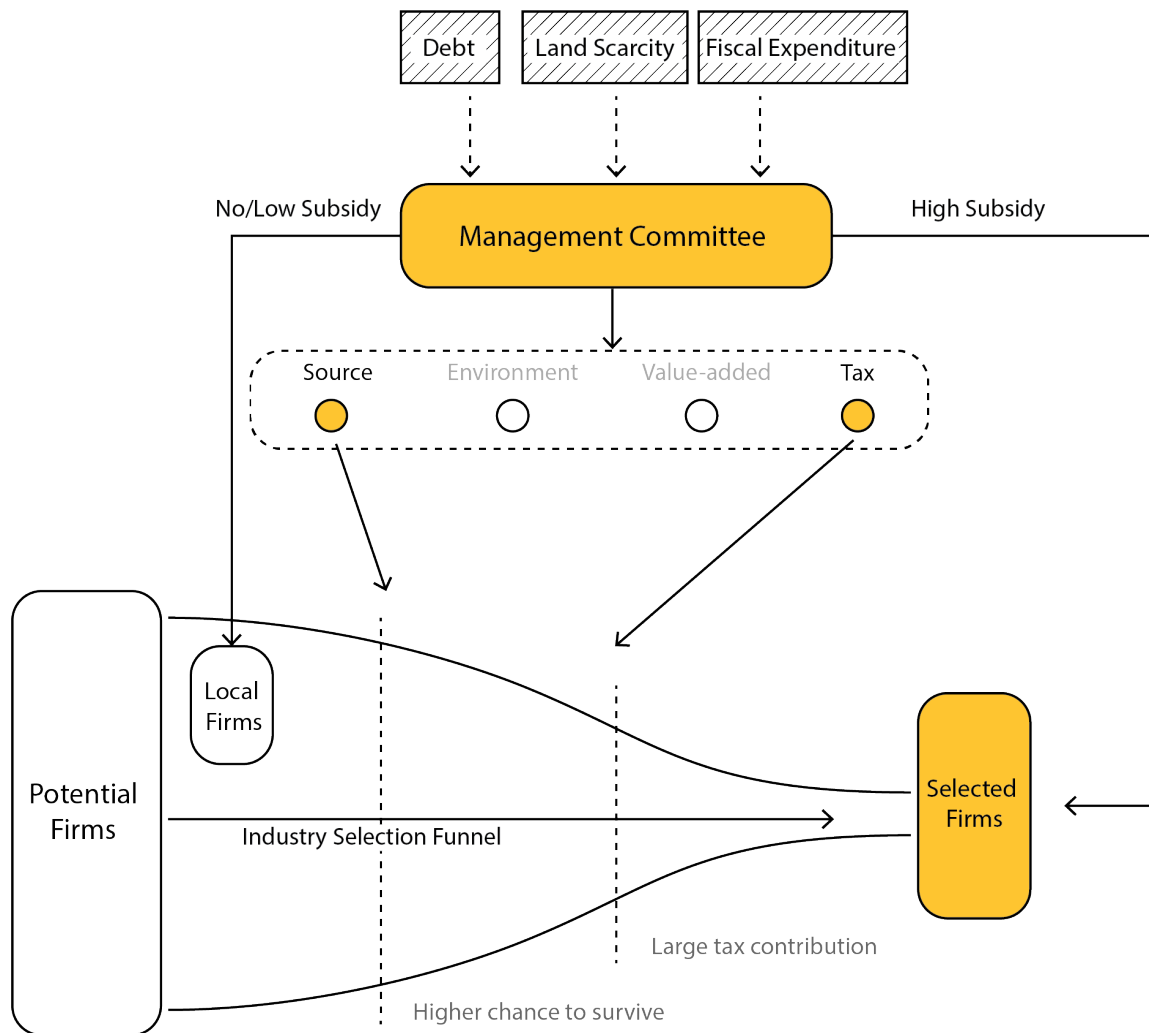


Figure 29. The Actual Industry Selection Preference of Bazhong SEZ

What is the incentive of private firms to come to Bazhong SEZ? After all, Bazhong does not have location advantage or thick labor market. However, with a subsidy, Bazhong SEZ can provide benefits to certain private firms. First, as mentioned before, Bazhong has abundant Chinese herbs. Pharmaceutical industry firms choose to come because the raw material is nearby. Second, manufacturing industry firms clustered in Pearl Delta are seeking cheaper land and labor. The land and labor costs in the Pearl Delta now are increasing and starting to counterbalance their profits. Firms involved in low-tech manufacturing such as clothing and basic electronics manufacturing, especially coming from Guangdong and Hong Kong, are driven by the cheap labor and land in Bazhong BZE. This is also evidenced by the signed manufacturing contracts. Lastly, there are firms which want to take advantage of government's fiscal stress and legal loopholes. Usually not qualified to be in the business, such firms will sign

the contract and occupy the land, and might later profit from releasing the land to others instead of creating value on it. However, this type of “land speculator” (*quan di*) will be hindered by stricter regulations and laws. Figure 30 illustrates the three type of coming firms.

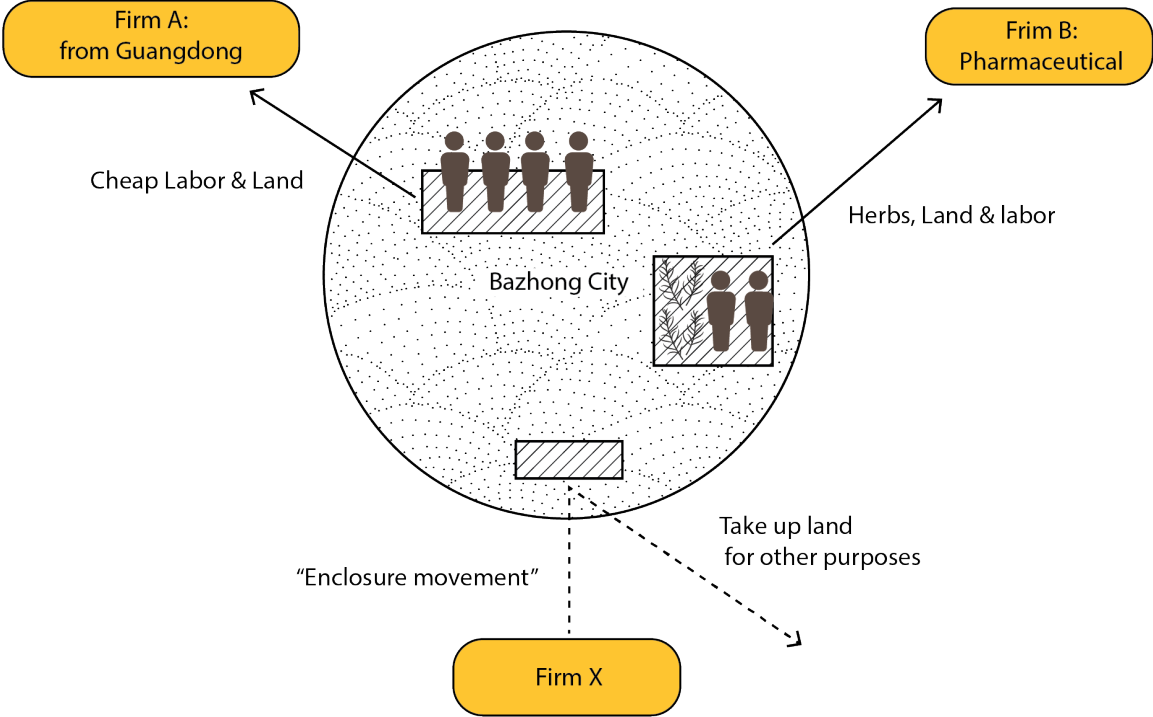


Figure 30. Incoming Firms’ Incentives

3.4 Economic Performance: Conceptual Cash Flow Analysis

3.4.1 Fiscal Status

In Gu’an, the fiscal revenue has been increasing since the PPP agreement formed in 2002. Local government’s fiscal revenue increased from 0.02 billion USD in 2002 to 1.24 billion USD in 2016³⁷, which was 62 times of that in 2002. In this process, Gu’an transformed from the poorest county in Langfang City to the second wealthiest county among the entire Hebei Province. From the fiscal revenue perspective, the local government only claimed a portion of the tax revenue from the PPP agreement, and the local government maintains great financial capacity, since it did not have to pay for the SEZ construction and operations.

³⁷ Source: Gu’an Government

On the contrary, Bazhong SEZ does not have a healthy fiscal condition. Bazhong is trapped in deep debt because of the heavy infrastructure costs in the beginning, and limited tax revenue from the industry. It was announced in April 2018³⁸, on the first quarter of 2019, that Bazhong SEZ collected tax revenue of 0.24 billion yuan (35 million USD). After remitting the required portion to upper level government, the local budgetary revenue was only 43 million yuan (6.2 million). Non-budgetary revenue from land leasing was 0.45 billion yuan (65 million USD). It can be seen that land leasing revenue is more than 10 times of the local budgetary revenue from tax, which indicates a heavy reliance on the land finance. Though SEZ's tax revenue is rising, land capitalization making up too high a percentage of local revenue implies a highly unstable future for Bazhong SEZ's financial health.

3.4.2 Conceptual Cash Flow Model

Departing from a similar fiscal status but distinctive development paths, Gu'an and Bazhong both decided to develop local SEZs. However, different central coordinators led the two developments into disparate development outcomes, with varied levels of private investment and of financial stress which the development path imposed. Two different conceptual cash flow models are illustrated in Figure 31.

In Gu'an, market forces intervened in an early stage because of Gu'an's proximity to Beijing. Specified by the PPP agreement, initial infrastructure was planned, designed, constructed and operated almost solely by the private sector on the basis of accessing land and capital at a low cost. Accompanied by the infrastructure completion, real estate development started to generate good returns to the private collaborator. An anchor company and integrated industry clusters were introduced because of the business service and location attributes Gu'an SEZ provided. Later, a substantial tax revenue was collected from this active industry cluster, and revenue was split between the local government and CFLD in the form of a consultancy fee. In this process, the private sector greatly shared financial risk with local government, though most returns went to the private collaborator. What the local government acquires eventually after the contract ended, is a fully-built and operating industrial town.

³⁸ <http://www.cnbz.gov.cn/xxgk/2/25/5/2019/04/1554772353128279.shtml>

In Bazhong SEZ, land is monopolized by the local government. Due to a lack of a private collaborator, land was used as a financing tool in its early development stage. Through the initial land capitalization process, core infrastructure could be brought in to open up a real estate market for further land capitalization. Later, with proceedings from real estate land leasing, the local government had the means to slowly repay the infrastructure cost and provide public services and subsidies to attract and even select industry. However, the return from developing industry is very low because of the poor market condition and the weak industry solicitation capacity. The tax revenue from industries will not likely see a substantial change in the near future unless SEZ's market condition or industry selection mechanism changes. But with a huge amount of debt to repay, the local government may turn to urbanizing more land again, stepping into a cycle. Eventually, the cash flow of this local government-led development is very likely to be highly stressful and dangerous.

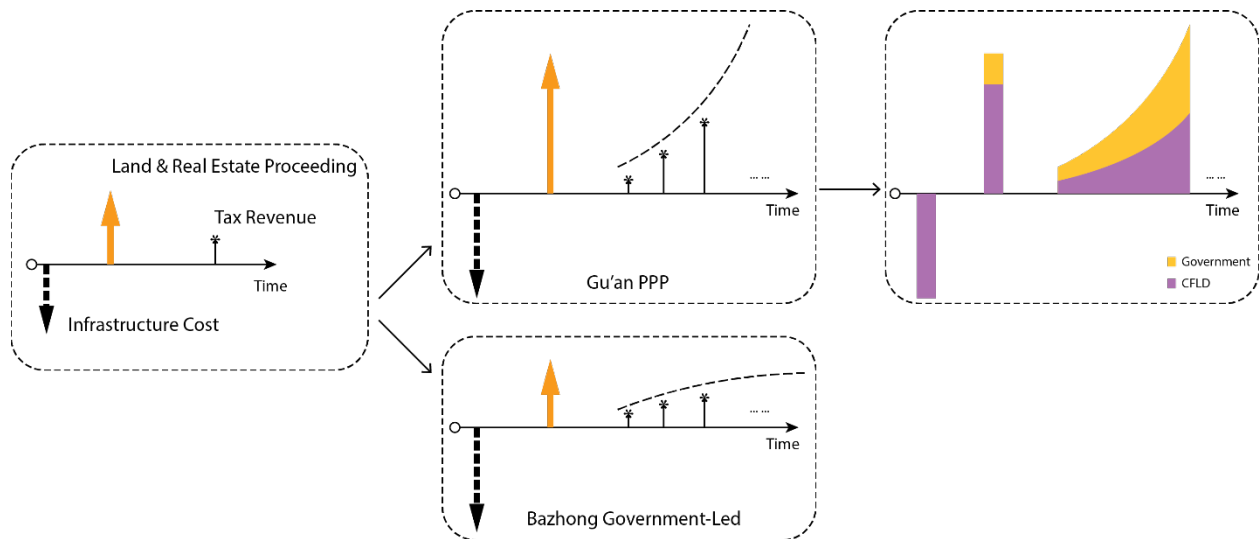


Figure 31. Conceptual Cash Flow Model in Two SEZs

CHAPTER 4

Conclusions & Implications

4.1 SEZs in China

Departing from the previous study of SEZs and industrial parks in China, as well as many other place-based policies here, the overall effect produced by SEZs is positive. Strong, effective, centralized coordination can provide a visible hand to intervene in the weak market and remove the first mover problem; in turn, this can eventually create new successful urban clusters, indicated by studies that provide empirical evidence of the existence of agglomeration and spillover effects in China's SEZs. On the other hand, over-investment and spatial misallocation due to poor location and investment decisions have also been observed in empirical studies.

By proposing a conceptual framework rather than empirical data analysis, this thesis contributes to scholarship on China's SEZs through an examination of specific SEZs in terms of three aspects related to location: the formation of the central coordinator, the industrial selection mechanism and outcome, and a conceptual cash flow analysis. Furthermore, through two similar but distinctive SEZ cases, this thesis tested this conceptual framework and proposed new findings based on an analysis of the key aspects of the two cases.

4.2 Key Aspects of China's SEZ

Findings on the three key aspects of the framework worked to produce conclusions through comparing the two cases. First, in the formation of a central coordinator in China's SEZs, two main forces emerge in such development projects: the local government, who represents political interests, and the private collaborator, which is induced by the market force. There are more market forces in certain areas—around big urban clusters—than others like the rural inland. Therefore, even when starting from similar positions, such distinctive urban settings determine the formation of the central coordinator based on a given location's fundamentals such as transportation, labor, and market expectations. Yet this does not mean that locations with weak market forces will not develop a SEZ; on the contrary, the local government in China has been pushed by fiscal gaps, equipped with land monopoly, and motivated by local officials' political

incentives to pursue such development. In doing so, local governments attempt to urbanize as much land as possible, regardless of the market conditions. This mechanism provokes a necessary examination of the outcomes of this urban sprawl.

Second, once the SEZ is established by the public-private coordinator or the local government alone, industry attraction and selection are the key factors to secure long-term economic performance. However, the government coordinator is less efficient in investment solicitation than the private coordinator, which can often be exacerbated because the government-led SEZ is more likely to be located in a poor market condition. Thus, the results are not only due to the coordinator's capacity, but also a reversed selection from the private firms who together create the SEZ's industry composition. Eventually, industry clusters in a collaborated coordinator's SEZ will likely be more successful and high-end, while the government-led SEZ will produce the opposite outcome.

Third, since the internal mechanism of the collaborated coordinator removes the financial risk and investment solicitation burden from the local government, industry clusters in such SEZs tend to be more successful. Separately, private collaborators share substantial profit, but bear more initial costs and responsibilities from the local government. The cash inflow offsets the initial cost and incentivizes the private collaborator to actively manage the city in its early stages. In addition, the increasing tax revenue generated from active industries will provide the government with more pronounced fiscal growth. In the end, the government can own the development and enjoy the entire cash inflow when the contract ends. In the government-led SEZ, no second party shares the financial or investment solicitation burden, as the local government is paying a substantial amount of money from the very beginning; it will likely be subject to high financial stress for a long time. Proceedings from land urbanization that will be used to repay the initial cost and industry development are constrained by the often weak market and limited capacity of the local government's investment solicitation team. It can be projected that this high stress, which is not driven by profits sought through more land urbanization, and the future cash flow, will not likely be positive unless the market condition changes or anchor investment is introduced.

4.3 Two Cases & Limitations

Gu'an is 50 km from Tian'an Men Square, affording it an unparalleled location. Bazhong, regardless of the number of circles drawn on planning materials to show its ostensible centrality, it is bounded by mountains and divided by rivers, and thus faced with tremendous geographical and transportation-related challenges. Consequently, Gu'an SEZ received a public-private partnership while Bazhong SEZ did not. Later, the industry formation and cash flow performance have been diverging ever since, as discussed above. Instead of discussing the differences, are there any alternatives for Bazhong SEZ and any city in a similar phase of urban sprawl to find a path, not a quick fix, to stabilize the current conditions and have a better future? Perhaps such projects could invest first in more locally relevant industries, and in hiring experts on investment solicitation? Yet maybe the fate has already been written by its geography. This further entails a remaining question of whether there is a case where PPP formed and the SEZ failed, or whether there is a case which is located under numerous fundamental constraints but succeeded.

The two case studies discussed in this thesis lie in the upper left and lower right corners of the box shown in the Figure 32, where the political and market mechanisms pull the cases in opposing directions, much like magnets. But if cases can be found in the remaining regions of the box—upper right and lower left—this outcome could be much more informative for future decision-making strategies.

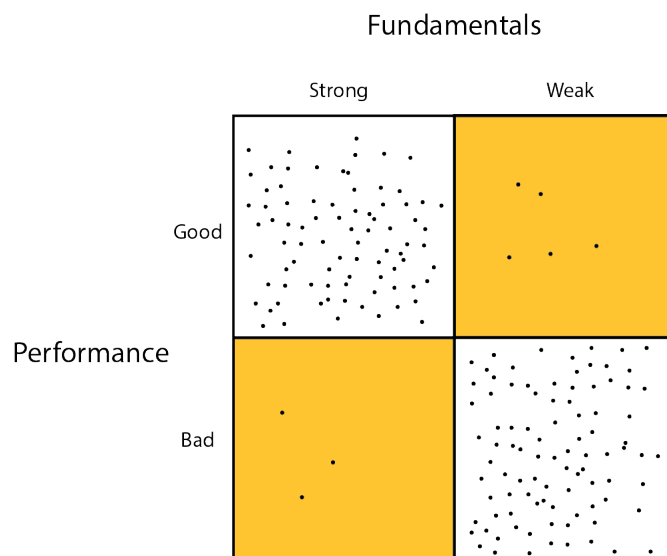


Figure 32. The Distribution of SEZ Cases and Study Challenges

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APPENDIX

Appendix 1 – Contract Sample

手机配件及防护用品生产项目投资协议

甲方：[REDACTED] (以下简称甲方)

乙方：[REDACTED] (以下简称乙方)

甲、乙双方本着真诚合作、共谋发展、互利共赢的宗旨，经友好协商，就乙方在甲方规划区域内投资建设手机配件及防护用品生产项目达成如下合作协议。

一、项目概况

项目总投资约 1000 万元人民币，其中固定资产投资 500 万元以上，使用经开区大众创业园标准化厂房 2000 平方米左右，建设手机配件及防护用品生产线，开展手机配件及安全头盔生产、销售业务，建成投运后将年产安全头盔 5 万个，智能穿戴设备及 VR 产品 2 万套，手机配件 20 万套，实现年产值 3000 万元以上，实现年税收 100 万元以上。在签订标准化厂房租赁合同后 15 个工作日内开工建设，建设期 3 个月。

二、政策支持

根据《巴中市人民政府关于进一步扩大开放促进投资若干政策措施的意见》（巴府发〔2017〕6号）和《四川巴中经济开发区管理委员会关于实施二次创业加快产业发展的意见》（巴开管发〔2016〕17号）等相关规定，乙方项目享受以下奖励扶持

政策。

(一) 在项目建成投产且固定资产投资达到协议约定值后，以实际租赁标准化厂房面积计算，甲方全额补贴第一个完整生产经营年度厂房租金；第二个、第三个完整生产经营年度税收贡献达到 150 元/平方米以上（不含 150 元/平方米），甲方全额补贴当年厂房租金；第二个、第三个完整生产经营年度税收贡献达到 100 元/平方米——150 元/平方米（含 100 元/平方米），甲方按当年厂房租金的 60% 给予补贴；第二个、第三个完整生产经营年度税收贡献在 100 元/平方米以下，不予补贴。

(二) 项目在约定期限内完成建设投资并投运，按其当年对地方财力贡献，由同级财政按以下比例安排资金予以奖励：第一年至第二年每年奖励 100%，第三年至第五年每年奖励 50%。

(三) 若乙方在甲方所在地成立的独立法人企业，在投产后第一个年度内升级成为规上工业企业（年主营业务收入达到 2000 万元人民币以上），甲方给予乙方投资企业 5 万元人民币的升规奖励。

(四) 对乙方购买国内外行业内拥有自主知识产权的先进生产设备，按照实际交易额的 2% 给予补助，最高不超过 100 万元。

(五) 为推动项目加快建设，在项目建成投产后，固定资

产投资达到协议约定值且环保、消防、安全验收合格，甲方对乙方实际租赁的标准化厂房（非生产性用房除外）按 120 元/平方米的标准给予乙方厂房装修补贴。

三、保证金

乙方在本协议签后 15 个工作日内向大众创业园运营主体缴纳保证金 5 万元人民币，该款在乙方项目迁出经开区大众创业园时，经双方验收确认租金、水、电、物业费结清，设施完好、房屋结构、二次装饰安装、玻璃门窗以及管网完好无损坏，拆除所有设备和移动物品及卫生清洁交还给大众创业园运营主体后，5 个工作日内全额无息退还给乙方。

四、权利和义务

（一）甲方权利和义务。

1.甲方有权依法或依约监督乙方该项目营运主体合法经营，要求乙方该项目营运主体按约定期限完成项目建设，达到上述约定目标。

2.甲方为乙方项目建设提供全程服务，积极协助乙方办理项目立项、工商注册、税务登记、环保、消防、安评会审等各类行政审批手续。

3.甲方满足乙方生产所需的水、电供应要求，甲方积极协调电力部门，乙方项目达到规定用电负荷后，享受大宗工业用电相



关优惠政策。

(二) 乙方权利和义务。

1.乙方须在甲方所在地成立独立法人企业作为该项目营运主体，其税收解缴关系须在甲方所在地，该独立法人企业负责建设经营本项目，并与乙方共同承担本协议项下所有义务。

2.乙方在项目建设、生产、经营中，做到合法经营、诚信经营、依法纳税，独立承担经济、民事、安全等法律责任。

3.在项目建设、生产、经营过程中或协议解除后，乙方或其成立的独立法人企业与第三方的纠纷应当自行解决，不得影响甲方权益。

4.若乙方因自身原因无法继续生产经营，经书面向甲方申请后，可自愿退出经开区大众创业园，由此造成的一切损失由乙方自行承担。

五、违约责任

(一) 甲方违约责任。

因甲方原因造成该项目不能履行前述的各项政策及保证措施（不可抗力因素除外），视为甲方违约，应在约定工作日内解决相关问题；若未在约定时间内解决相关问题，或因甲方原因致使本协议内容不能继续履行的，甲方应当赔偿乙方因本项目经双方确定或依法裁定的直接经济损失。

(二) 乙方违约责任。

1.乙方未按照约定在甲方所在地成立独立法人企业，其税收解缴关系不在甲方所在地，甲方可解除本协议，且不再退还乙方缴纳的保证金。

2.除不可抗力因素外，因乙方原因未按约定时限进场开工建设，或未按照协议约定的工期完成项目建设，经甲方书面催告后仍不能按期建成，乙方须自行退出经开区大众创业园，由此造成的一切损失由乙方自行承担。

3.乙方项目固定资产投资额未达到本协议约定值，甲方取消本协议第二条政策支持中的所有优惠政策。

4.自乙方享受本协议中给予的优惠政策起 10 年内，其在甲方所在地的独立法人企业不得迁离巴中经开区，否则须全额退回甲方给予乙方已享受的奖励扶持资金。

5.乙方项目连续 3 个月处于停产状态，甲方有权解除本协议，乙方须自行退出经开区大众创业园，由此造成的一切损失由乙方自行承担。

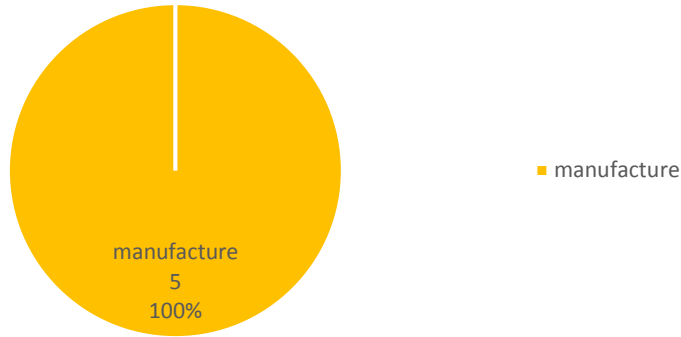
6.乙方在项目建设期和运营期，若因乙方拖欠职工工资或工人工资导致群访、集访事件发生，甲方不予兑现乙方应享有的优惠政策。

Appendix 2 – Processed Data of the Existing Industries in Bazhong SEZ

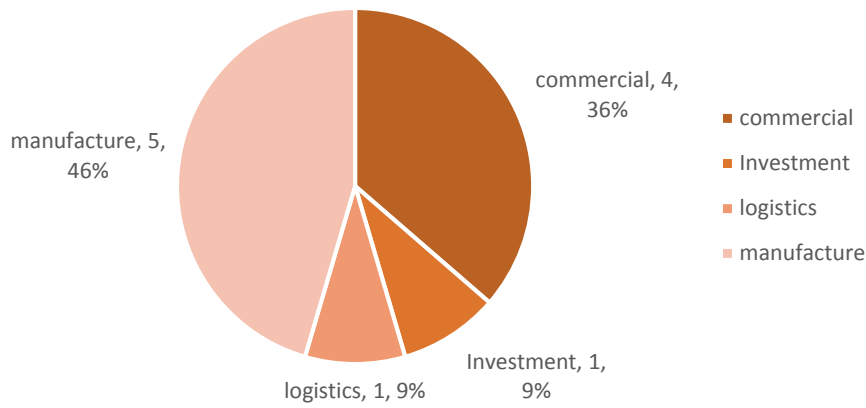
year	name	time	type	status	involve	province	city	source	relatedness	area	value_added_k_mv	level	total	investment	investment	expense	tax_output	tax_level	sub_s_jur	s_year	s_rent	sub	Detail
2018		20180615	man	0	sc	baizhong	1	0	1600	0	1	1	300				1	0	0	0	1	1	1
2018		20180929	tech	0	sc	chengdu	0	1	500	1	1	1	1000	1000			1	0	0	3	1	1	1
2018		20180927	man	1	js	yxwl	0	0	4950	1	2	2	3650	1500	5000	250	2	5	100	5	1	2	2
2018		20180926	log	0	sc	chengdu	0	0	600000	0	3	3	200000	110000	500000	10000	3	4000	0	5	1	3	3
2018		20180910	man	1	sc	neijiang	0	0	1500	0	1	1	2000	1000	1000	30	1	5	100	5	1	3	3
2018		20180807	man	1	bj	bj	0	1	8000	1	1	1	3500	3000	3500		2	500	0	5	1	2	2
2018		20180601	hour	0	bj	bj	0	0	1	320000	1	3	140000				3	250	0	0	0	2	2
2018		20180525	con	0	sc	baizhong	1	1	30000	1	3	3	150000	100000		1000	2	200	0	0	0	3	3
2018		20180427	con	0	sc	chengdu	0	1	1	1	3	3		100000			2	450	0	0	0	3	3
2018		20180413	man	0	sc	chengdu	0	0	2000	0	1	1	1000	500	3000	100	1	5	100	5	1	2	2
2018		20180315	man	1	sz	sz	0	1	30000	1	2	2	10000	3000	10000	120	1	600	100	5	1	3	3
2018		20180306	man	1	sc	baizhong	1	1	0	2000	0	1	1000				1	0	0	0	1	1	1
2018		20180105	man	0	sc	baizhong	1	0	2000	0	1	1	1000	600	3000	150	1	85	100	5	1	2	2
2017		20170921	man	1	gd	shenzhen	0	0	5000	1	2	2	12000	5500	15000	600	1	500	0	5	1	3	3
2017		20170000	food	0	hb	baoding	0	1	330000	1	2	2	40000				1	0	0	0	0	3	3
2017		20171215	man	1	sc	baizhong	1	1	0	30000	0	1	9000	5000	15000	400	1	100	0	5	1	2	2
2017		20171214	man	1	sc	baizhong	1	1	330000	1	3	3	65000	50000	300000	5000	3	50	1	5	1	3	3
2017		20171214	log	0	sc	chengdu	0	0	3000	0	1	1	2000		30000	500	1	90	0	5	0	2	2
2017		20171105	log	0	sc	baizhong	1	1	6500	1	1	1	5500	3500	6000	200	1	0	0	0	0	1	1
2017		20171103	inv	0	sc	baizhong	1	1	6000	1	1	1	6000	3500	8000	400	1	0	0	0	0	1	1
2017		20170802	man	1	hk	hk	0	0	2500	1	1	1	5000	3000	8000	200	1	200	100	5	1	3	3
2017		20170726	inv	1	sc	baizhong	1	1	5000	0	2	2	30000		30000	1000	2	0	0	0	0	1	1
2017		20170720	printing	1	sz	chaozhou	0	0	2000	0	1	1	1000	800	16000	60	1	185	100	5	1	3	3
2017		20170713	man	1	sh	sh	0	0	2000	0	1	1	3000	1000	6000	300	1	205	100	5	1	3	3
2017		20170611	man	1	bj	bj	0	0	2500	0	1	1	5000	3000	5000	200	1	185	100	5	1	3	3
2017		20170524	man	0	sc	chengdu	0	1	65000	1	2	2	15000	15000	30000	1000	2	1500	0	5	1	3	3
2017		20161230	man	0	sz	sz	0	1	2000	1	2	2	10000	3000	160000	3	200	0	0	0	1	3	3
2016		20161028	man	1	sc	baizhong	1	1	15000	0	3	3	60000	37000	16000	8000	3	2150	0	0	0	2	2
2016		20160922	log	0	sc	baizhong	1	1	26500	0	2	2	10000	7000	10000	100	1	0	0	0	0	1	1
2016		20160630	plaw	0	sc	baizhong	1	1	100000	1	2	2	30000	22500	300000	1500	2	640	0	5	1	3	3
2016		20160516	tech	0	cq	cq	0	1	3300	1	1	1	1000		5000	100	1	300	0	0	1	2	2
2016		20160509	food	0	sc	baizhong	1	1	26000	1	2	2	12000	7000	20000	400	1	102	0	5	1	2	2
2016		20160330	man	1	sc	baizhong	1	0	18500	0	1	1	6000	4500	7000	280	1	71	0	5	1	2	2
2016		20160307	hour	0	js	nanjing	0	1	350000	1	2	2	15000		9000	350	3	0	0	0	0	1	1
2016		20160302	man	1	sc	baizhong	1	1	23000	0	2	2	10000	6000	9000	350	1	90	0	5	1	2	2
2016		20160226	tech	0	sc	chengdu	0	1	93000	1	3	3	80000		1000000		3	5700	0	0	1	3	3
2016		20160119	man	1	sc	chengdu	0	1	21000	1	1	1	7000	5000	20000	310	1	80	0	5	1	2	2
2015		20151230	man	1	gd	guangzhou	0	0	20000	0	1	1	7000	5000	10000	240	1	78	0	5	1	2	2
2015		20151123	man	1	sc	baizhong	1	1	10300	0	2	2	10000	6000	12900	150	1	39	0	5	1	2	2
2015		20150807	man	1	sc	chengdu	0	0	48000	0	2	2	15000	12000	30000	720	1	280	0	0	1	2	2
2015		20150728	plaw	0	sc	baizhong	1	1	20000	1	2	2	11000	7000	11000	300	1	78	0	5	1	2	2
2015		20150603	plaw	0	sc	chengdu	0	1	30000	1	2	2	15000	5000	20000	450	1	270	0	5	1	3	3
2015		20150531	fm	0	sc	nanchong	0	1	650	1	1	1	700	200			1	10	0	0	0	1	1
2015		20150529	fm	0	hk	hk	0	0	7300	1	2	2	20000	10000		500	1	550	0	5	1	3	3
2015		20150529	log	0	sc	baizhong	1	1	13000	1	1	1	6000	5000	7000	140	1	0	0	5	1	1	1
2015		20150401	man	1	cx	nanchuan	0	0	20000	0	1	1	15000	10000	10000	240	1	185	0	5	1	3	3

Appendix 3 – Statistic Summary of the Existing Industries in Bazhong SEZ

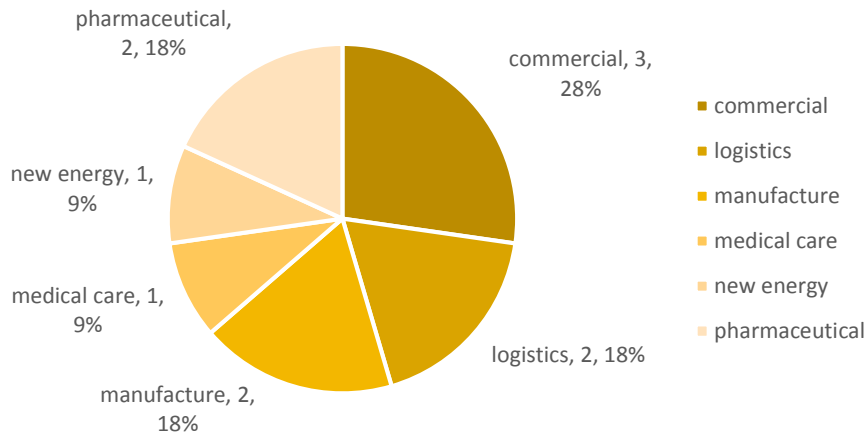
2011 Entered Firms

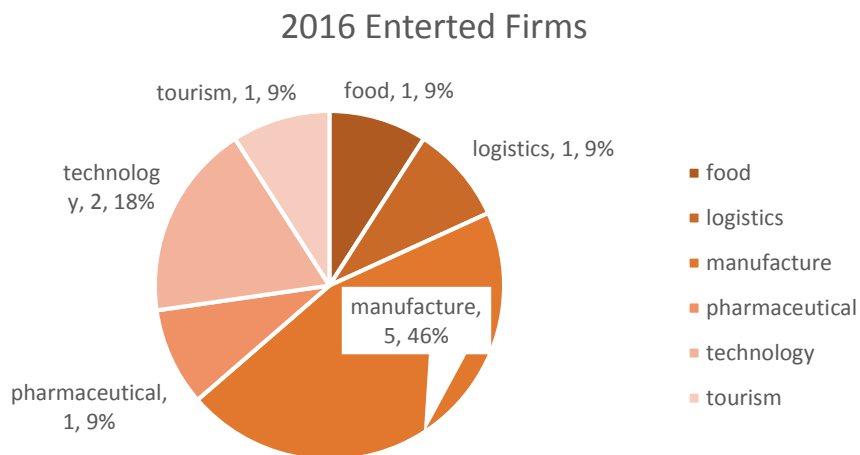
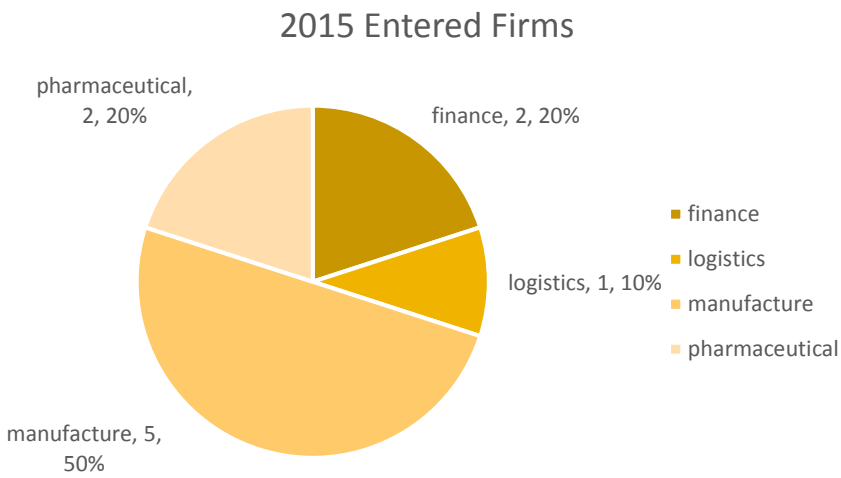
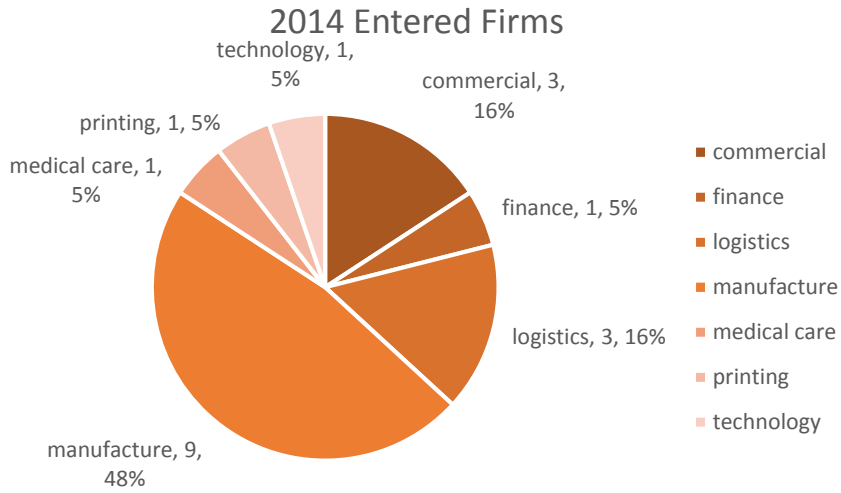


2012 Entered Firms

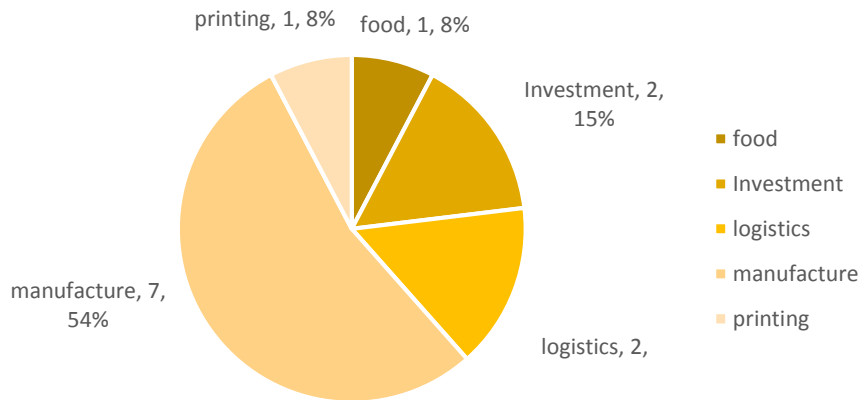


2013 Entered Firms

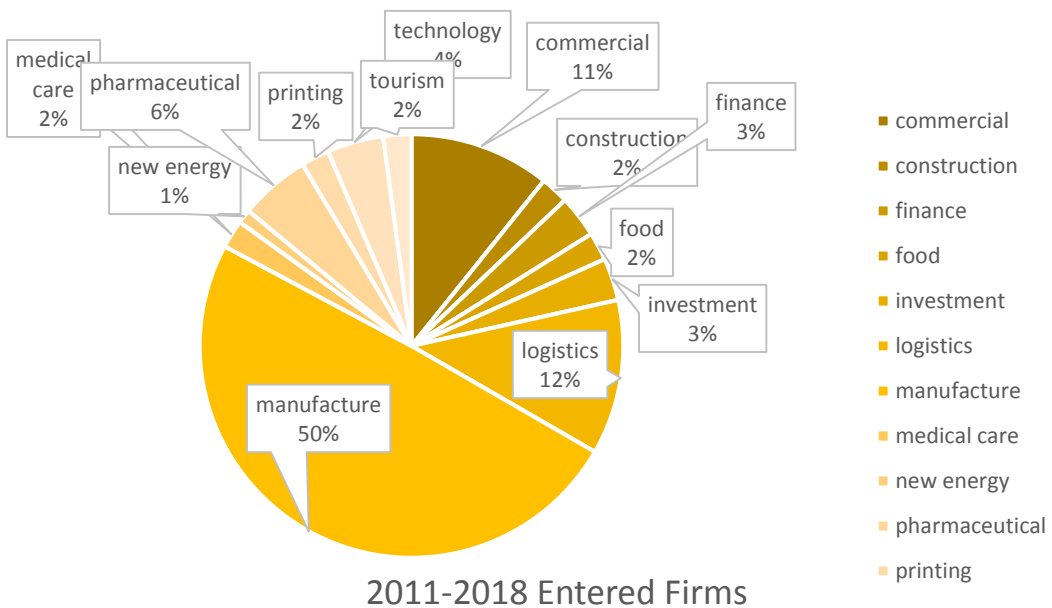
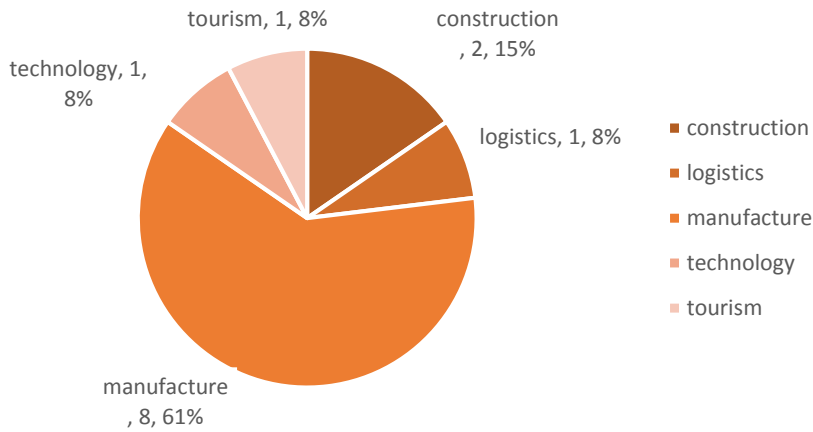




2017 Entered Firms



2018 Entered Firms



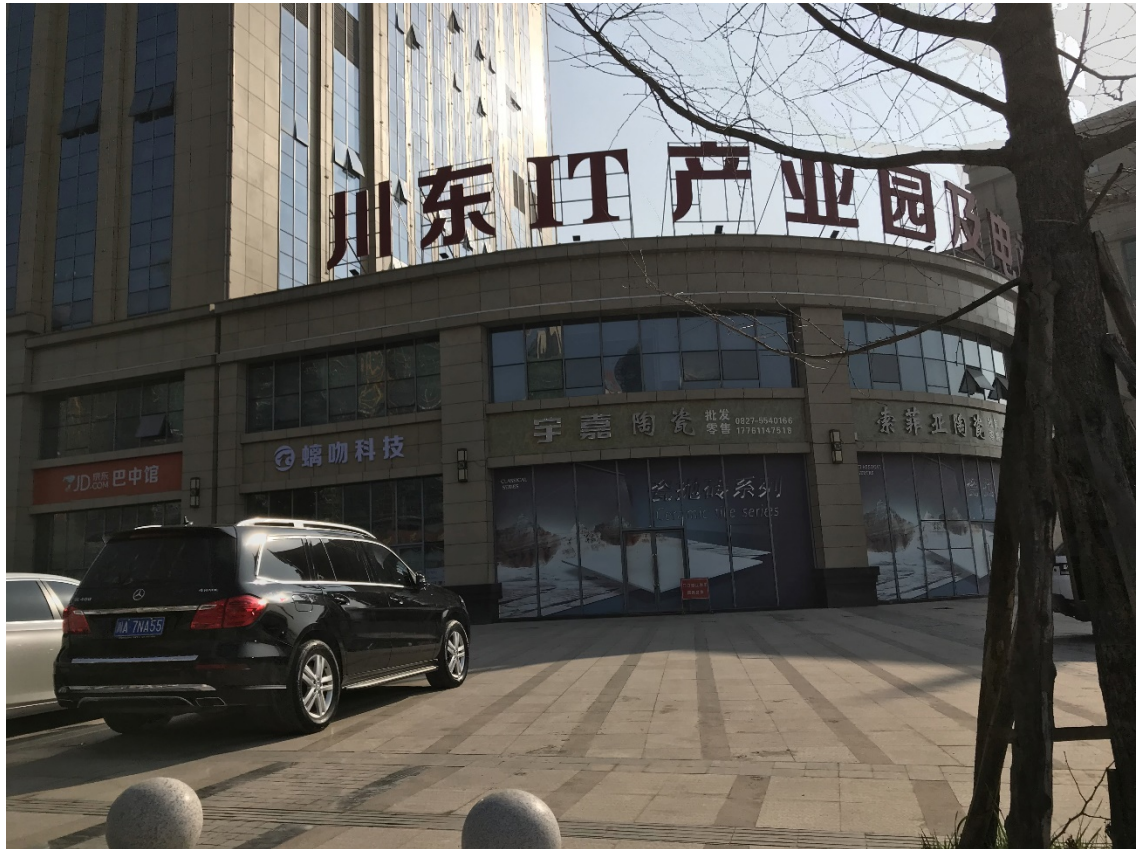
Appendix 4 – Photos of Bazhong SEZ

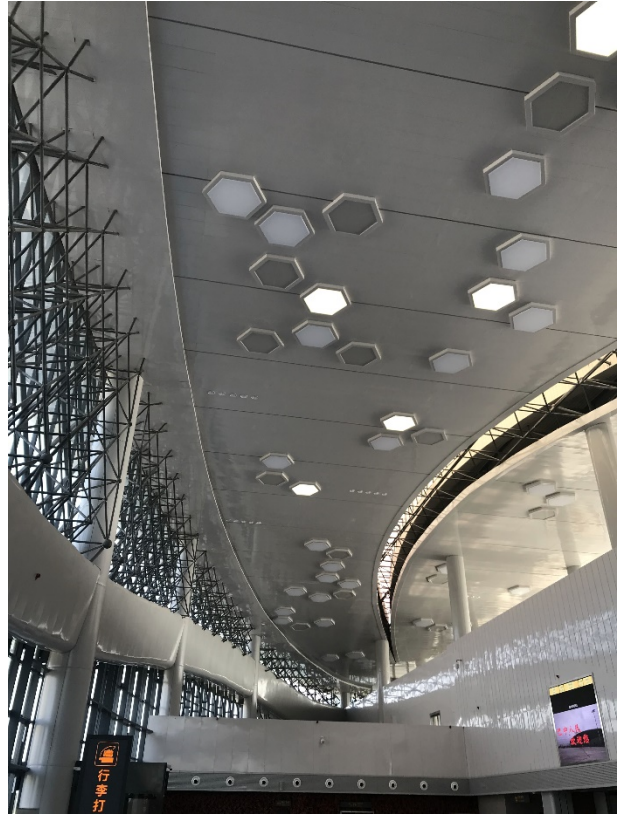












Appendix 5 – Photos of Gu'an SEZ

