

The Political Economy of Special Economic Zones

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Abstract. This paper is a first attempt to apply a robust political economy framework to explain when Special Economic Zones (SEZs) can contribute to economic development. A robust political economy is one that channels the actions of self-interested individuals with limited information to promote economic progress. In the right institutional context, SEZs tend to promote economic growth. In the wrong institutional context, they can cause resource misallocation and rent-seeking. Policy makers introducing SEZs must overcome the knowledge problem to avoid misdirected economic planning. Yet, the scheme can only fulfill its purpose if it also prevents destructive rent-seeking behavior, both from businesses and from government authorities. The political economy framework of SEZs can be applied to judge their potential efficacy, something that orthodox studies of country features such as natural resources, infrastructure and zone location fail to do. The Indian and Chinese experiences with SEZs illustrate these points.

1 Introduction

Special economic zones (SEZs) have contributed to economic development in several countries, while being utterly unsuccessful in others. This paper is an attempt to understand why some zone schemes succeed and others fail in promoting economic growth. Many SEZs offer a liberalized business climate and lower taxes and tariffs. This encourages investments and creates a flourishing business community. Foreign investors cluster in SEZs, partly thanks to their safer and more well-known business climate (He, 2002). They then spread their know-how about technology and quality upgrading to domestic firms, which can then upgrade and become exporters (Romer, 1993; Johansson and Nilsson, 1997). SEZs can thus pull the rest of the country on a path of faster economic development (Basile and Germidis, 1984; Litwack, 1998; Schrank, 2001). They may even contribute to countrywide political reforms (Auty 2010; Crane, 1990; Weingast, Weingast, Montinola and Qian, 1995: 62).

Despite their potential, some SEZs have not seemed to make much difference, and in some countries even become drags on the economy. For instance, the Philippine authorities made significant investment in infrastructure for their zone in Bataan. They upgraded the port, constructed a new dam for energy supply and erected new fancy office buildings. Still, the zone failed for a long time to attract much business, rendering the project a very expensive failure for the government (Warr, 1987; FAB, 2013).

Explanations of SEZ success or failure often concern the quality of the infrastructure, location and zones size (Farole and Akinci, 2011: 221; Pradeep and Pradeep, 2008). Bad roads and unreliable power supplies deter foreign investors. Inappropriately designed facilities in zones cause congestion or social problems. Other issues include inadequate maintenance, zone promotion, policy coordination and tax incentives, as well as disproportionate performance requirements (FIAS, 2008: 5, 50). The export processing zone in Dakar, the capital of Senegal, allegedly failed due to an excessive bureaucracy, high electricity costs and a lack of sufficiently cheap labor. In addition, the zone was located far away from the port of Dakar and isolated from major trading routes (Cling and Letilly, 2001: 22).

Successful zones on the other hand, are described as having linkages to the domestic market, so that their investors buy production factors from domestic sources (Farole and Akinci, 2011: 217). Locations near urban areas, national borders and skilled labor as well as good timing are other cited recipes for success (Yuan and Eden, 1992). Sometimes, SEZ success is simply attributed to policy makers targeting “the right industry”. High-technology production has been a winning concept in many countries. However, when the authorities in Bangladesh targeted high-technology firms their SEZs failed. The zones started attracting significant investment only when the authorities allowed garment producers to invest in them (Farole and Akinci, 2011: 41). There may be as many explanations of SEZ success or failure as there are zones. Different SEZ models may simply be relevant in different contexts and at different levels of development (Farole, 2011a: 2).

Much of the perplexity in explaining SEZ success is due to how SEZ success is defined. Studies measuring SEZ success look at employment, FDI, export and production growth in the zones as indicators. They compare such aggregate statistics to previous trends and to the rest of the country (*e.g.* FIAS, 2008: 35; Aggarwal, 2007: 18). However, the existence of economic activity in an SEZ does not make it a net positive to the economy. A zone may be able to attract businesses because it receives an abundance of government subsidies. If a government transfers resources to a zone, that does not make it a successful growth strategy. SEZs have for example been criticized as a vehicle for destroying agricultural land in the government’s pursuit of industrialization (Chaudhuri and Yabuuchi, 2010). A growing SEZ may also simply be located in an area naturally disposed for high growth. Even when a country hosting SEZs shows positive growth, that may happen for reasons unrelated to their zones. And although SEZs can alleviate unemployment and raise workers’ wages (Kusago and Tzannatos, 1998; Madani, 1999), jobs in SEZs may be relatively insecure, since multinationals may be more prone than others to relocate from an SEZ or restructure when their costs rise (Lee, 1999).

The welfare effects of duty-free zones have been analyzed in theoretical models by Hamada (1974), and later by Hamilton and Svensson (1982). Using a Heckscher-Ohlin type of framework, they breathe skepticism over the value of foreign capital that duty-free zones attract. Miyagiwa (1986) on the other hand, shows that zones do

promote welfare and also mitigate some of the distortions in an economy that import tariffs cause. Warr (1989: 66) applies a cost-benefit analysis of SEZs, to account for their cost as well as their benefits. Applying this method, Jayanthakumaran (2003: 63) argues that the zone programs in South Korea, Malaysia, Sri Lanka, China and Indonesia are “economically efficient and generate returns well above the estimated opportunity cost”.

All these methods to analyze SEZs fail to account for their dynamic effects. They obscure the spread of knowledge from foreign corporations to domestic business, as well as the zones’ ability to lead to countrywide economic reform. In the context of political decentralization, SEZs can encourage competition between regions for capital, spurring reforms on the local level (Weingast, Montinola and Qian, 1995: 77). Whenever zones are given some political autonomy, they can move faster with reform than the rest of the country (Id.: 62). Since many SEZs tend to change, adjust and expand, they are better described as processes than fixed policy packages. As such, *SEZs must be considered successful when they have a positive effect on the economy in the long-run.*

Conventional explanations for SEZ success fail to address its underlying causes, and are rather depictions of the result of successful or failed SEZ schemes. If the “right” industries should invest in SEZs, the question remains who is to determine what those industries are. Good infrastructure helps attract businesses, but one must ask who decides where to locate the new roads, bridges and buildings. Decision makers need both be able to find the proper policies for the zones and have the incentive to implement them. They must in other words both overcome a problem of knowledge and one of incentives.

A robust political economy analysis deals with these two problems of policymaking. In an ideal world, policy-makers are both omniscient and benevolent social wealth maximizers. They find the optimal economic policies and do not hesitate to pursue them. In this world, policy makers will only introduce SEZs when they are the country’s best option among development policies.

A political economy analysis relaxes assumptions about perfect knowledge and benevolence (Boettke and Leeson, 2004: 101; Pennington, 2011: 3). When market

actors and public officials have imperfect knowledge and motivations, wealth creation relies on the right institutional context (Pennington, 2011: 2). A robust political economy is an institutional set-up that yields beneficial outcomes despite the flaws of policy makers and people in business. Institutions can channel the actions of self-interested and badly informed people into activities that increase social welfare. In a market, a robust political economy drives people to enrich themselves by serving one another (Hayek, 1960: 76). In politics likewise, the right institutions drive policy makers to pursue policies that increase welfare.

All policies introduced under non-robustness are not economically damaging. Sometimes, policy-makers are lucky and get it right. Some policy makers do have benevolent motives. Yet, under non-robust institutions, imperfect knowledge and policy makers' self-interests bias policies towards other ends than economic prosperity.

After an overview of the SEZ concept in Section 2, Section 3 explores the robust political economy framework for SEZs. Section 4 further illustrates the political economy implications by studying the Chinese and Indian experience with SEZs, and Section 5 concludes.

2 The SEZ concept

The concept of areas with special privileges has been around at least since the 16th century but the first modern SEZ was founded in Ireland in 1959 (Guangwen, 2003). In 1975, there were still only 79 SEZs in the world (ILO, 2007). After China's economic reforms in the 1980s, SEZs gained international popularity and by 1995, there were around 500 SEZs worldwide. Only a decade later, this number was estimated to be between 3,000 and 5,000 zones. The majority of SEZs are located in developing countries (Carter and Harding, 2011: 8). Some noteworthy SEZs making the news lately are projects in Tanzania, Belarus, Myanmar, Laos and Japan.¹

¹News articles are available from <http://www.ippmedia.com/frontend/index.php?l=67168>; <http://news.belta.by/en/news/econom?id=701579>; http://www.elevenmyanmar.com/index.php?option=com_content&view=article&id=5864:thilawa-sez-shares-oversubscribed&catid=33:business&Itemid=356; <http://www.nationmultimedia.com/aec/Laos-special-economic-zone-attracts-investors-30215777.html>; <http://www.economist.com/news/finance-and-economics/21600145-shinzo-abes-fancy-economic-areas-are-big-enough-not-bold-enough-out-zone> [26 April 2014].

SEZ businesses usually enjoy benefits such as lower tariffs and taxes. Many zones also offer lower environmental requirements, looser labor regulations and other policies that lower the cost of doing business. Some SEZ authorities even have the autonomy to determine their own tax and regulatory policies or have their own judicial system. In other countries in contrast, national governments set the rules and can impose requirements on SEZ firms regarding their type of production, export performance and how many domestic workers they employ. Such requirements make SEZs resemble state planned industrial clusters, rather than liberalized free zones. SEZs can thus both be spaces under more and less government control than the rest of the country (Haywood, 2000). Yet another paradox is that while SEZs are symbols of free trade, they are regularly in breach of World Trade Organization agreements, as a form of harmful export subsidies (Creskoff and Walkenhorst, 2009).

SEZs take on many different names and functions. Free trade zones may offer facilities for storage, transshipment and redistribution. Export processing zones (EPZs) are mainly for manufacturing and other exporting industries. Single enterprises can constitute so called “single factory zones”, while free ports in contrast are often large and diversified (FIAS, 2008: 3, 10; Costachie, 2008; Farole and Akinci, 2011: 2). While this way of differentiating between zones may be useful when studying certain industries or trade policies, conventional labels offer little guidance for an analysis of the political economy of SEZs and their institutional context. In this paper therefore, “Special economic zones” (SEZs) will serve as a general term.

SEZs can spur economic growth through different mechanisms. They both attract FDI and help domestic businesses grow, as they relocate to zones with more liberal policies than the rest of the country. Firms can form clusters in zones and benefit from network effects and economies of scale (Porter, 1998, 2000; Harrison, 1992: 27). Zones are said to create employment opportunities both directly and indirectly by increasing the demand for domestic production factors. In addition, new international enterprises investing there may spread technological expertise outside zone boundaries (FIAS, 2008: 32).

It may seem strange that governments do not implement beneficial policies nationwide rather than the second-best option of confining them to certain areas

(World Bank, 1992). Three explanations for this are worth considering. One is that zones form clusters that would not come about otherwise, due to the inability of businesses to coordinate their locations as effectively (Farole and Akinci, 2011: 147-8).² Second, governments do not know the effects of certain policies, and SEZs provide test grounds to try them out (Sit, 1985: 84). Third, nationwide reforms are infeasible due to resistance from the political elite or from the public. SEZs may then be a politically realistic second-best policy option. The robust political economy analysis in this paper tests the validity of these arguments.

3 Robust political economy

The problems of inadequate knowledge and adverse incentives form the core of a robust political economy analysis. I address these problems in turn to examine how SEZs can be introduced in an institutionally robust context.

The knowledge problem

Picture for a moment a group of central government officials scratching their heads over the task of finding the best model for a new SEZ. In a politically centralized system, they have both the power and the obligation to design the policies for the country's SEZs. In planning the SEZ, they are trying to determine what the most efficient structure of production is. They are thus essentially planning the organization of cooperative creation.

Alas, even if the officials are benevolent social welfare maximizers, they lack sufficient knowledge to fulfill this task. Such knowledge is dispersed throughout the society. It is also the kind of knowledge that entrepreneurs and investors accrue through years of practice and that cannot be communicated to others in a useful way (Hayek, 1945). The distance between decision makers and those with market knowledge is the root cause of the knowledge problem in policymaking. Therefore, the more politically centralized a system is, the more severe it is the knowledge problem. The knowledge problem prevents governments from promoting technological progress by planning economic production and resource allocation (Lavoie, 1985: 52-54). Central government officials cannot possibly study in detail

² This coordination problem is the classical argument for state involvement in industrialization (Rosenstein-Rodan, 1943).

the fluctuations and progresses of the country's local economies the way that businesses do. In the institutional context of a politically centralized system therefore, SEZs tend to be badly designed and misplaced.

The SEZ planners may realize their limited ability to determine a good zone location. Any site is unlikely to be profitable for investment if market entrepreneurs have not found it a good location for investment already. Lower taxes that bring businesses to the zone are also likely to cause an inefficient allocation of economic activity in the country. This is a general dilemma in industrial policy. To benefit the economy, government officials need to have better insights than private actors do about how best to allocate resources and where to pursue investments. Since this is seldom the case, governments that intervene in the economy with public resources experience unintended and possibly damaging consequences but little economic growth (Ikeda, 2005; Kirzner, 1985: 123; Mises, 1977: 25).

One argument for government interventions in business location is that they can form industrial clusters. However, cluster policies are prone to the same failure as other government interventions (Desrochers and Sautet, 2004). The knowledge necessary to coordinate clusters that add value is not in the hands of policy makers but of market actors. Governments tend therefore to promote more high tech clusters than is compatible with their countries' comparative advantage (Davies and Ellis, 2000). Clusters are also unlikely to be the cause economic growth, but rather form as a result of a sector's progress (Martin, 2001; Seshadri and Storr, 2010: 362). No one can really predict where the industrial centers of the future will locate or what they will produce, since clusters tend to form spontaneously from private market coordination (Miller and Côté, 1985).

The claim that governments promote growth by using SEZs to facilitate cluster coordination is therefore not convincing. To solve the knowledge problem, central government officials need to move the decision making about SEZs closer to the people with the right knowledge. Unable to choose proper SEZ locations and industries, they can delegate such crucial decisions to people who can. There are two main ways to accomplish such decentralization of decision making: Private decision making and political decentralized decision making.

Private decision making

The knowledge problem emerges when decision making is trusted to policy makers who are too far away from market to adequately understand it. They can however overcome the problem by trusting crucial decisions to market actors. One way is for SEZ planners who want to target specific industries to avoid specifying the location of zone investors. Several countries, including Mauritius, Fiji, Togo, Senegal, Cameroon, Nigeria Kenya and Honduras, even allow “zone status”, with all the privileges that entails, to single firms or factories which can be located anywhere (Costachie, 2008: 145; Carter, Harding, 2011: 3; Farole, 2011b: 42; Engman, 2011: 49). Since the single-firm zone deviates from the traditional notion of a zone, it may fall outside the definition of an SEZ. Still, the strength of such schemes is that private investors in a particular industry are allowed to find proper locations for their production.

Government officials can also avoid the knowledge problem by choosing zone location while allowing private investors to decide which industries to locate there. Governments do not need to pick market winners and losers to create growth promoting economic zones (Auty, 2011: 213). Yet, as long as the government is financing zone development, even the delegation of both location and production decisions does not insure against the waste of public funds. If the government spends lavishly on infrastructure such as roads, energy supply and telephone lines, it can still misallocate resources. While an SEZ appears successful if it attracts business, the benefits they bring may therefore not outweigh the costs.

The planners thus need to further exploit the knowledge of private investors, who better understand the business opportunities of the zone. By demanding that the private sector pays for infrastructure and facilities, its investments will be a reflection of a zone’s potential. This is the model of “private” SEZs, which are becoming increasingly popular. Compared to government developed SEZs, private zones have a record of better performance (FIAS, 2008: 4, 7). The Philippines saw their first private SEZs in 1991. Since then, the number of private zones in the country grew rapidly, to 76 zones in 2008 compared to only seven public ones (Id: 64). Many of the successful SEZs in Central America and the Caribbean’s in the 1980s

and in Southeast Asia in the 1990s enjoyed little government planning and support (Id: 26). When the Honduran government granted SEZ access to more foreign investors, private zone investments increased to overtake the publicly operated zones. In 2011, only one public zone remained, hosting a mere 11 companies (Engman, 2011: 59).

The self-interest of market entrepreneurs drives them to limit their investments to wealth increasing projects. Voluntary entrepreneurial projects are therefore more likely to succeed than similar political schemes (Pennington, 2011: 205). Private zone development is not a guarantee that investors will in fact invest in the SEZs. Natural resources, stable environment and good institutions are more important than low tariffs and taxes for a location's business attractiveness (Morriss and Moberg, 2012: 12, 57).

An SEZ that lacks resources will not be profitable if developed, and thus tend not to attract developers. An empty SEZ is a signal that it is badly located or unattractive for investors for other reasons. This allows policymakers to change their plans without causing a loss of tax payers' money on lavish infrastructure. The private zone model is therefore economically sound, albeit politically unappealing. Minimally developed private SEZs are not inferior to more developed but much more expensive zones. For instance, Sri Lanka's small zones have received very little public investment in warehousing, transport infrastructure and standard factories (Aggarwal, 2005: 37). They may therefore look like a failed project (Prihodko *et al.*, 2007: 149; Madani, 1999: 106). Yet, Jayanthakumaran (2003: 63) makes the claim that in a crude cost-benefit sense, they did generate returns above their opportunity costs. If private investors do make bad investments, then they, not the country's taxpayers, pay for the mistake.

Decentralized political decision making

The SEZ planner may be reluctant to rely on the private sector for zone development, knowing how bad empty or undeveloped zones look in photographs. They may, however, also avoid the knowledge problem through a less radical form of decentralization, where decision making remains in the hands of political institutions but is delegated to the local level. Local governments, which are often well oriented

in local conditions, can have a sufficiently good understanding about a zone's potentials to avoid lavishly spending on failed projects. Local bureaucrats can also observe how conditions change on the ground and decide on policy changes more rapidly than officials at the national level. They may therefore sufficiently mimic the reactions of private investors to market dynamics.

Local zone regulators can more easily see the opportunities of more entrepreneurial and radical policy changes when designing and implementing policies (Farole and Kweka, 2011: 5). For instance, the decentralized system of the United Arab Emirates allowed the ruler of Dubai to determine that their financial center would have British common law, rather than the Shari'ah law that prevails in the rest of the country. This allowed the center to attract multiple businesses that would have been reluctant to work within the restrictions of Islamic finance (Strong and Himber, 2009).

In a politically decentralized system, zone authorities are more likely to try out very different models. They can then observe and copy policies that work elsewhere. Also, if one SEZ regulator adopts bad policies, this affects only one SEZ, rather than all zones, as in the case with national SEZ policies. Local policy makers can act like market entrepreneurs and introduce policies in a trial-and-error fashion, making SEZs into test-beds for policymaking. As will be discussed later, this dynamic was a driving force behind China's gradual reform. Malaysia, Jamaica, Kuwait, and Jordan have also used their SEZs as test-beds to demonstrate the impact of different policies (FIAS, 2008: 50).

Introducing SEZs in a politically decentralized system can ultimately lead to national policy reforms, as the success of one SEZ encourages the introduction of additional zones. Cling and Letilly (2001: 24) observe how several Asian countries ultimately abandoned the model of low-tariff SEZs when they opened up to trade. When SEZ policies multiply countrywide, zones become decreasingly "special". In Central America, Honduras expanded its SEZ program several times since its launch in the 1970s, until the government in 1998 declared the whole country a "free zone area" (Farole and Akinci, 2011: 49).

The diminishing importance SEZs can therefore indicate that they are reshaping national policy. South Korea's manufacturing zones became increasingly irrelevant

because of national reforms. By 1985, they contributed only 2.9% to national manufacture exports (Burman, 2006: 11). In Taiwan, new SEZ investments had virtually dried up by 1980, as infrastructure and duty-free arrangements improved throughout the country (Id.: 10). Two of the arguments suggested in Section 2 for why governments introduce SEZs rather than take on nationwide economic reforms have merit. First, it is possible that policy makers do not know the effects of economic reforms, and therefore use SEZs to test them on a smaller scale. However, for SEZs to vary according to local conditions, central governments are best to allow local policy makers to find each location's suitable SEZ policies. Second, a piecemeal approach to reform can overcome political resistance to change from the political elite or the people at large. As showcases for economic liberalization, SEZs may convince people in power about the benefits of such reforms.

While decentralization, whether political or through private SEZ development, promotes SEZ performance, better performance can in turn improve the institutional context of SEZs. When central government officials see that local policy-makers are better at instituting good SEZ policies, they are less likely to recentralize the decision process. Also, when privately developed SEZs succeed, this model can become "best practice" of SEZ governance (Farole, 2010: 15).

The incentive problem

Solving the knowledge problem is only one step toward a well functioning SEZ program. Like other policies that offer special privileges, SEZs create opportunities for rent-seeking and hence the incentives for policy makers to use them for personal gains. To explore the incentive problem, we can no longer assume that the SEZ planners are benevolent. Government officials pursue higher salaries, benefits and social status. Democratically elected politicians want public support and votes in the next election. Bureaucrats seek prestigious titles, larger offices, bigger staff, more leisure and the occasional trips to a pleasant resort on behalf of their agency.

In the right institutional context, the self-interest of politicians and bureaucrats leads them to pursue growth promoting policies. The wrong institutions will lead officials to pursue their personal goals by means of rent-seeking and corruption. In addition to the opportunistic profiteering from rent-seeking businesses and bureaucrats,

policy makers may introduce policies like SEZs to create opportunities for businesses to rent-sseek (Wallis, 2006: 25). Regulators may allow procurement contracts to those offering the highest bribes, or demand bribes from the companies investing in the zone. Government policy makers may also extract bribes and favors from local officials who are eager to host an SEZ. They can even use SEZs to alleviate pressure for broader economic reform that would threaten their rent-seeking revenues.

Decentralizing political decision making is not the solution for the incentive problem that it is for the knowledge problem. Rather, the institutions needed are those that give SEZ decision makers a stake in the SEZ success. If central government officials transfer power and control to lower levels of their bureaucracy, zone schemes may instead become hostage to rent-seeking by executing bureaucrats. These may claim higher expenses than necessary for zone projects, in order to expand their agencies (Niskanen, 1971). They may waste public funds by shirking on the job (Tullock, 1965). If zones entail massive governmental infrastructure investment schemes that demand large amounts of resources, they are prone to attract corruption at some level (Beaulier and Subrick, 2006). Bureaucrats can demand bribes from the SEZ businesses or give infrastructure contracts to people who pay them for the privilege. Infrastructure obtained in this way will not meet the market test. It may end up costing more to maintain than the economic benefits it brings, or even remain idle (Farole, Akinci, 2011: 4).

The more layers of corrupt agencies that a firm must pass to obtain various permits, the higher is the risk that it must pay more in bribes than it makes in profits (Shleifer and Vishny, 1993). If each bureau extracts as much as it can from a business, SEZs can become common pools of graft for bureaucrats, making the system unpredictable and opaque for investors (Easterly, 2002: 247). Such disbursed and anarchic corruption can kill economic growth (Frye and Shleifer, 1997).

If the SEZs are designed to serve as vehicles for corruption, they will be inherently difficult to reform and made successful. The experience with SEZs in Russia in the 1990s exemplifies what happens when zones are at the center of corruption and criminal activity. The legal environment in their SEZs ended up even more insecure for investors than the rest of the country. A reform in 2005 aiming to discourage corruption saw the Russian government introducing SEZs with more federal

regulation and less tax benefits. While the corruption seems to have diminished, little productive economic activity has appeared in its place. The reforms also did not change the public perception of the zones in Russia as centers of corruption (Tuominen and Lamminen, 2008: 11-12).

Robust rent-seeking

Any amount of rent-seeking will not doom SEZs to failure. An SEZ will on net be beneficial for the economy under very moderate rates of rent-seeking. To achieve this, it seems possible that policy-makers could strike rent-seeking agreements with zone investors. Similar to distributing exports quotas to firms in exchange for rents (Krueger, 1993), policy-makers can guarantee businesses SEZ status on a continual basis in exchange for bribes or favors. SEZ permits must then be attractive enough to be of value to businesses. Policy-makers thus align their interest in extracting rents with promoting attractive and functioning SEZs.

Corruption has previously been claimed to help rather than hinder economic development. Leff (1964) argued that corruption can lead to efficient outcomes, as the most efficient firm is able to offer the highest bribe and can thus win the production rights. Lui (1985) and Beck and Maher (1986) have shown theoretically how bribes can help bring about socially optimal outcomes. If illicit rent-seeking is the motive for SEZ creation, and the zones attract investments, then rent-seeking may also in the case of an SEZ benefit the economy as a whole.

Firms would benefit from investing in an SEZ as long as they pay less to government officials than what they gain from the SEZ status. They can count under-the-table payments as just another tax of doing business. The SEZ business community can flourish as long as rent-seeking does not dissipate all the extra profits that the SEZ status brings. International firms may shun investing in a corrupt environment, but domestic firms are more likely to endure, due to the lack of better domestic alternatives and higher costs of venturing abroad.

Rent-seeking agreements are however only a temporary solution to the incentive problem. The SEZ planners need to make a credible long-term commitment to companies that they will not increase the bribes that they demand from SEZ companies. Such a commitment is only viable if they can promise that both their own

and future government administrations will adhere to it (Haber, 2002: xv). Any rent-seeking arrangement is therefore highly unstable in the long-run.

It is also unlikely that SEZs built on rent-seeking agreement will benefit the economy if it relies on government investments. Since publicly funded infrastructure lowers the companies' costs, more such spending will allow for higher bribes. The officials therefore have the incentive to invest more in the zone at tax payers' expense. In the long run, the policy will not align their self-interests with economic progress and will therefore not be robust.

Even firms that do not rely on public infrastructure are unlikely to contribute more to the economy if given SEZ status in exchange for bribes. Single factory SEZs, where a firm can choose its location, illustrate this point. Governments can grant "zone status" to single firms regardless of their location. They can exchange tax-funded benefits in exchange for rents in the form of bribes and favors that go straight into the officials' pockets. That arrangement may be stable, but it is unlikely to benefit the economy.

The democratic solution

A functioning democratic and transparent system is one institution with the potential to solve the incentive problem. Public accountability means that officials can gain personally from growth promoting SEZ schemes. Politicians enjoy public support and thus electoral votes if they can take credit for good SEZ policies. If the link between politics and economic outcomes is clear, they have a stake in designing good policies, including growth promoting SEZs. A democratic system is therefore more likely to solve the incentive problem if it is sufficiently decentralized, as this links a politician's policy judgments closely to the chance of reelection.

The combination of democracy and decentralization does not only imply less high-level corruption. It also gives local officials both the incentive and the ability to make sure that their bureaucracies do not engage in low-level corruption. In contrast to a central government, they are better able to understand what incentive scheme can work for their agencies to create a clean bureaucracy. SEZs can thus be tools for policing low-level corruption (Wei, 1999). This incentive of local officials to police

low-level corruption is present for any system that rewards low-level officials for good SEZ performance, even in a non-democratic context.

Private SEZs

Private zone development, previously found to be a solution to the knowledge problem, can also be a solution to problems of adverse incentives. Private SEZs align incentives of private developers trying to maximize their profits with providing the best possible business climate at the lowest cost. They therefore tie economic progress in a zone directly with the rewards to its developers. Private zones are less likely to end up as vehicles for rent-seeking. When government officials are not providing the infrastructure and other conveniences to SEZ firms, corrupt officials have fewer opportunities to extract rents from companies.

Compared to government officials, private companies also have different incentives when deciding how to make SEZs more attractive for companies. While governments compete for businesses by adjusting taxes, tariffs and subsidies, private developers are generally unable to change such policies. They must instead compete for investments by offering a more attractive business climate (FIAS, 2008: 21). Producers of goods attract different kinds of consumers when competing with quality rather than price (Hirschman, 1970: 47). Likewise, private SEZs have shown to attract fewer firms that are mere bargain hunters for tax breaks or that rely on cheap labor for their production, and more technology intensive businesses. Private zones are therefore more likely to generate longer-term investments as well as countrywide technology transfers. Studies also show that private zones have an overall better record than public zones on environmental and social indicators (FIAS, 2008: 21, 46).

Both private SEZ development and democratic system are ways to move decision making to actors with a long-term stake in SEZ performance. Political actors often do not have much to gain by investing in projects that add the highest social value (Moberg and Wagner, 2014). Democracy can mitigate this if the system is sufficiently decentralized. More radically, privatization moves decision making to people whose compensation is directly linked to SEZ performance.

Solving the incentive problem also yields its own dynamics towards institutions that promote SEZ success. When voters in a democratic system realize what benefits SEZs can bring, they will demand more say about SEZ policies and keep the spotlight on policy-makers working on SEZ policies. This further strengthens the connection between SEZ performance and the reward to policy-makers. Also, when privately developed zones succeed, more private actors have the incentive to lobby the government for further private SEZ development.

4 Two contrasting SEZ schemes

The experiences with SEZs in India and China illustrate many of the points made in this paper. While no SEZ case is black or white, I use the Indian SEZ scheme to show in what ways SEZs may not be robust. China, on the other hand, seems to have overcome the knowledge and incentive problems.

The Indian case

India introduced their first SEZ in 1965 but had by 2000 only established seven zones (Gopalakrishnan, 2011: 139). These first zones were small enclaves for export manufacturing. They formed very few linkages with the rest of the Indian economy, and had virtually no impact on the country (Palit and Bhattacharjee, 2008: 19; Engman, Onodera and Pinali, 2007: 18). They also did not help improve India's negative trade balance or even increase the country's exports (Seshadri, 2011a).

India introduced a new SEZ Act in 2005, modeled on the Chinese SEZ scheme. The goal was to further promote zone exports and develop zones of larger scale (Palit and Bhattacharjee, 2008: 88-9, 97; Seshadri, 2011a: 28). With the new law, the number of zones has increased. By the end of 2010, India had approved as many as 580 SEZs, 112 of which were actually exporting.³ Alas, many SEZs became grounds for real estate speculation (Mitra, 2007; Seshadri, 2011b). Meanwhile, there has been much controversy over the dispossession of farm land, with opposition to SEZ development resulting in violence (Roy, 2009: 79). The 2005 Act has also been criticized for pricing farmers out from their lands and causing "conversion of the fertile land into cement structures" (Mitra, 2007: 13; Levien, 2011; Kahn, 2008: 14). Many SEZ plans

³ Department of Commerce 2013 press releases:
http://commerce.nic.in/pressrelease/pressrelease_detail.asp?id=2704.

have been obstructed by unpredictable and burdensome government policies. The SEZs that currently operate are allegedly not very profitable (Govardan and Srivastav, 2012).

Let us start with India's possible knowledge problem. From the start, the Indian governmental authorities often determined both zone location and the nature of zone production. In several cases, they chose poor, backward and unattractive zone locations. As a result, SEZ investments did not match market conditions. The most successful zones were already high performing before becoming SEZs. In addition, SEZ regulations frequently posed obstacles for businesses in the zones to subcontract with firms outside the zones (Seshadri and Storr, 2010: 363).

India has made some progress towards decentralization. Prior to 2005, the Indian zone authority was a government department office that lacked autonomy over SEZ approval clearances and zone development (Aggarwal, 2005: 16).⁴ With the 2005 SEZ Act, India moved towards more decentralized political decision making. State and central governments both have greater discretion to regulate the zones (Burman, 2006: 5). There is also more emphasis on private zone development (Palit and Bhattacharjee, 2008: 174).

Still, decentralization does not seem to have gone far enough. The central government has imposed significant limits on how the SEZs may operate. Even though the aim is to develop larger scale SEZs like those in China, the zones have been limited to 5,000 hectares (Mitra, 2007: 15). On the other hand, while the government designated many of the new zones in urban areas, they set a minimum size of 1,000 hectares for the zones. In areas where vacant land is scarce, such a requirement is an impediment to SEZ development (Patil, 2013).

Other regulations are likely to stem India's SEZ success. Prospective private developers must specify what facilities will be developed, how much investment they will attract and how many jobs they will create (Palit and Bhattacharjee 2008: 114). At least 35% of zone areal must host processing activities, and 60% of the new zones

⁴ Sri Lanka and Bangladesh offer a comparison to India. They both had more decentralized SEZ governance, with more autonomy given to SEZ authorities with, and their SEZ schemes seem to have outperformed those in India (Aggarwal, 2005: 16, 42-44).

are allegedly designated as technology zones (Harding, 2011: 166).⁵ In 2008, all SEZs in India except twelve were industry specific, which means that the government only allows for a particular form of production in them (Palit and Bhattacharjee 2008: 170). With all the government's regulations and restrictions, it seems unlikely that India is overcoming the knowledge problem.

Palit and Bhattacharjee (2008: 182) argue that the government needs to conduct more research and gather more information to make better decisions about SEZ policies. The Indian government is a frequent employer of think-tanks, which provide policy analyses and the necessary information to design the zones (Id.). However, no amount of government induced research will give policy-makers the market knowledge that they would need to improve on the economy. A solution to the knowledge problem should rather lie in more solid decentralization of decision-making.

India's incentive problem can also help explain the modest performance of the SEZs. Corruption in India makes it an unattractive place for investors (Keshava, 2008: 18), and has plagued much government planned infrastructure in the country (Mitra, 2007: 11). It is therefore worth noting that the Indian SEZ scheme to a large extent relies on single-factory zones. Introduced in 1980, by 1998, India had 1,210 such "zones" in production, compared to 525 regular zones (Seshadri, 2011a: 36). As previously discussed, single-factory zones facilitate rent-seeking. The fact that the country relies so much on them indicates their potential role as vehicles for graft.

Low-level corruption is pervasive in India (TI, 2011: 12), which contributes to the incentive problem with SEZs, as they offer officials additional opportunities to extract rents. Aggarwal (2005) finds that prior to 1991, the Indian Board of Approval granted companies SEZ status first, after which additional permission was needed from the Secretariat of Industrial Approvals, the Ministry of Commerce, and state and central government departments. A possible rationale behind such an arduous process is the creation of rent-seeking opportunities. As of 2005, most companies had to go through 15 authorities to enter an Indian zone. In a survey, over 60% of SEZ firms reported frequently making "irregular payments", both to custom

⁵ The IT sector has generally been one of the biggest beneficiaries of tax breaks in India (Mazumdar, 2008: 16).

clearance and zone authorities (Id.: 26). Since 2005, a “single-window” policy is meant to simplify the registration process. The 2005 law is however complicated and unclear, so the process may still be too opaque to enhance the adverse incentives surrounding the SEZs (Harding, 2011: 164).

India is allowing for more private development, which could be a way to alleviate the incentive problem. Private developers have the incentive to create good conditions for businesses, as they compete for investments with other zones. The developers should only invest in SEZs to the extent that they create value, because they must finance the development and still need to make profits (Mitra, 2007: 12). Harding (2011: 163) points out however, that the Indian government still has broad powers to direct resources to the new SEZs. Urban land is largely a state monopoly, which inevitably induces rent-seeking (Seshadri, 2011b: 9). Indian officials thus have the incentive to use the SEZs in corrupt and inefficient ways. As a blatant example of this, the government has allegedly used eminent domain to sell land to private developers at artificially low prices (Levien, 2011: 460).

While private investments have been modest, local governments have not had the incentive to contribute in their stead. Because many SEZs have not been successful, state governments are reluctant to support them or finance the infrastructure. Some states even discourage their creation (Govardan and Srivastav, 2012).

The Chinese case

If India is a country with both knowledge and incentive problems, China, while far from perfect, exemplifies some possible solutions. China introduced its SEZs as a part of economic reforms in the end of the 1970s. In their first years, the SEZs attracted barely enough foreign capital to offset infrastructure costs. Like in India, much of the investments went into real estate speculation. The Chinese zones were even used in corrupt deals to smuggle goods onto the mainland (Crane, 1990: 62-75, 105). Also like India, while China initially went some way to decentralize decision making, the central government remained heavily involved in much of the SEZ management (Id.: 55).

In the beginning of the 1980s, the SEZ program moved towards more decentralization. An expansion of the SEZs followed, with the development of the

country's 5th zone in Hainan in 1983, and rising SEZ performance overall (Crane, 1990: 78, 91-99). The SEZs have since multiplied, with 92% of China's municipalities hosting SEZs by 2008 (Wang, 2013: 136). They have been described as the engines of China's regional economy (Crane, 1994: 90; Fu and Gao, 2007: 22-23). Policies first introduced in the zones subsequently spread to other Chinese regions. While not all of China's SEZs have prospered, the scheme has generally been a success.

Decentralization was important in making China's SEZ scheme robust and hence a key component in its success. Xu (2011) describes the Chinese system as a "regionally decentralized authoritarian regime". The central government appoints and promotes local officials, but policymaking is to a large extent done at the lower levels of the bureaucracy.

Political decentralization, rather than SEZ privatization, alleviated China's knowledge problem. Committees appointed by the local governments make decisions about infrastructure improvements, land regulations and FDI approval (Wang, 2013: 136). Much of the SEZ regulation thus stem from local governments, with a better understanding of local conditions than the central government. Being close to the market, they can also adjust policies as market conditions changed and as the zones developed. Local governments helped the SEZs succeed by supplying much of the initial infrastructure. They also invested in a good business climate, with efficient regulations, proper administration and access to utilities (Zeng, 2011: 17).

Some Chinese zones were granted more autonomy than others. The SEZ in Shanghai, for instance, enjoyed much freedom in implementing its own regulations. As a result, the Shanghai stock exchange emerged as a self-regulated regional market, supervised by the municipal government (Xu, 2011). The Shenzhen SEZ near Hong Kong also illustrates the benefit of limited government zone planning. Initial guidelines for the Shenzhen zone stipulated that foreign direct investors had to be high-technology firms. This description was later changed to "some technology", which better matched the area's capacity, in particular the abundance of cheap labor (Farole and Akinci, 2011: 198).

China exemplifies how political decentralization drives SEZs to become test-beds for new policies. The Chinese SEZs worked as small confined laboratories for testing

economically liberal reforms on a small scale (Cling and Letilly, 2001; Li, Li and Zhang, 2000). Financial, legal labor and pricing policies could first be introduced in the zones (FIAS, 2008: 17). When proven successful, high-ranking officials in the Communist Party allowed the SEZs and their rules to be implemented more widely (Crane, 1990: 91-98; Xu, 2011).

China also overcame the incentive problem, although it did not institute democratization or much private zone development. Instead, the Chinese system of power awards local leaders with official positions and salaries based on the economic progress of their area (Xu, 2011). Local governments thus compete with each other for higher positions and other government benefits by introducing policies that improve local economic performance (Id.: 1099). The success of local leaders thus depend on the performance of their economies in a similar same way that they would in a democracy.

Increasing fiscal decentralization also incentivized local leaders to support the local economy. Starting in 1977, local governments entered revenue sharing contracts with the central government, which specified how much of the tax revenue that belonged to the central government (Chen, Hillman and Gu, 2002: 195). While a share of revenues was remitted to the central government, local governments were residual claimants of the rest of their revenues. The system created clear property rights among local governments, allowing them to act “as a conglomerate or as a holding company” (Li, Li and Zhang, 2000: 283).

The reward system in the government hierarchy, combined with fiscal decentralization, gave local government officials the incentive to promote their local businesses and foster economic growth, which in turn expanded their tax base (Chen *et al.*, 2002: 195; Xu, 2011). As they needed to fund this development locally, they had the incentive to be prudent and not invest in infrastructure in the SEZ wastefully. The Chinese hierarchical, yet decentralized, system thus worked similarly to a democracy to tie the interest of local policy makers to SEZ success.

In the Chinese case, SEZ success led to further institutional change. Thanks to fiscal decentralization, successful SEZs generated more wealth in the local economy. This had local officials pursuing further local autonomy, which strengthened political

decentralization (Weingast, Montinola and Qian, 1995: 69). Also, as local leaders competed for businesses, they were encouraged to pursue reforms such as increased privatization of state-owned enterprises (Li, Li and Zhang, 2000).

5 Final remarks

This paper is a first robust political economy analysis on special economic zones (SEZs). The goal has been to show that the underlying growth promoting potentials of an SEZ model become clearer when examining the institutions that channel information and incentives of officials and businesses.

This framework can be applied to other development policies to understand the underlying causes of their success or failure to promote prosperity. Further research on SEZs should also include case studies applying the robust political economy framework. This theoretical overview is necessarily brief in its empirical applications. The real strengths of the approach will become clearer when applied in more detailed policy analyses.

Further research on SEZ will surely reveal deficiencies in the rough criteria for robust policies that I have suggested. For instance, Weingast, Montinola and Qian (1995: 55) emphasize the durability of the Chinese decentralized system of governance. Mechanisms for sustainability may also be a necessary condition to prevent governments from centralizing a well functioning and decentralized SEZ scheme.

I have suggested that a robust political economy framework helps clarifying what institutions can make an SEZ program successful. In one way or another, the knowledge problem and the incentive problem must be solved for SEZs to promote economic progress and to avoid possibly becoming vehicles for corruption. Private zone development allows the decision making about zone investments to lie with the people with market knowledge. It also aligns the incentives of SEZ developers with SEZ success. Private development can thus avoid both the knowledge problem and the incentive problem. Limited zone planning and decentralization can alleviate the knowledge problem but also risks aggravating the incentive problem due to low-level corruption. Either democratic accountability or a Chinese style top-down reward system may therefore be needed to also address the incentive problem. Depending

on the institutional context, countries can take very different paths towards robust SEZs.

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