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Lessons from East Asia: Comparing Ethiopia and Vietnam's Early-Stage Special Economic Zone Development

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ABSTRACT

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THIS PAPER COMPARES HOW ETHIOPIA AND VIETNAM, two rising stars actively employing industrial policies as catalysts of structural change, have learned from East Asian countries' experiences in developing their own special economic zones (SEZs). Based on an extensive literature review, a comparative case study of four SEZs, and interviews with key stakeholders involved in early SEZ development in the two countries, I found that SEZ policy learning was largely driven by each nation's domestic economic reform. Policymakers in Ethiopia and Vietnam actively visited successful SEZs around the world, particularly those in East Asia. A Chinese and a Taiwanese overseas SEZ were the first SEZs developed respectively in Ethiopia and in Vietnam, which provided eye-opening lessons for domestic policymakers on how to better improve the legal and institutional framework, infrastructure, and administrative services needed for SEZ development. Overall, however, one of the biggest obstacles facing Ethiopia and Vietnam in learning from China's experiences is the lack of local autonomy given to SEZs in their own administration.

INTRODUCTION

ALTHOUGH LOW-INCOME COUNTRIES ARE EAGER to catch up with the developed world, few have succeeded in climbing the economic ladder. In recent history, a significant catch up in industrialization for the developing world began in the 1970s. Characterized by an increase in industry and services and a decrease in agriculture as a share of gross domestic product (GDP), structural change allowed developing countries as a whole to account for 40 percent of the world's manufacturing exports in 2010, in comparison with only 8.3 percent in the 1970s.[1] However, this change in global manufacturing was mainly led by Asia, particularly Japan, South Korea, Singapore, Taiwan, China, and Indonesia, while sub-Saharan Africa (SSA) witnessed almost no change in the share of manufacturing value added in GDP.[2]

The relative success of some East Asian countries in structural transformation generated fierce debates over whether their developmental path, known as the "developmental state" model, was replicable for the industrialization of other developing countries in SSA or Southeast Asia. While some find that industrial policies and government intervention may weaken market efficiency, others believe that a SSA country can also succeed through export-led growth by allowing an "ideologically hegemonic" state to unleash a strong commitment to institutional, legal, administrative, and political reform.[3]

Despite debates over the theoretical feasibility, policymakers have started learning to apply industrial policies to create an investment climate that attracts foreign direct investment (FDI). Establishing special economic zones (SEZs) has successfully served as an industrial "big push" strategy in Taiwan, China, Singapore, and India, so much so that nations beginning industrialization like Cambodia, Vietnam, Ethiopia, Ghana, Kenya, Mauritius, and Nigeria have also adopted SEZs as a popular policy.[4] Taking initiatives to improve the investment climate are not only reserved for countries in the early stages of industrialization, China and other Eastern Asian countries are also actively setting up overseas industrial clusters, seeking new markets and lower labor costs. Studies have shown that these overseas industrial zones might have positive impacts on technology spillover, employment generation, and policy experimentation for local policymakers.[5] However, it still remains a question whether these pioneering overseas SEZs developed in the new wave of industrialization will be able to replicate East Asia's success in SSA and Southeast Asia, just as Singapore, Taiwan and Japan were able to in China decades before.

Although long-term data may be needed to conduct an impact evaluation on overseas Chinese SEZs, we can still ask the following, more fundamental questions: Why did overseas Chinese SEZs go to these specific countries? What incentives drove newly industrializing nations to choose to learn from some certain countries' examples? How did policymakers from emerging markets interact with investors from overseas SEZs to improve the investment climate? Are there any differences in learning patterns between countries from different regions?

In this paper, I attempt to answer these questions by focusing on Ethiopia and Vietnam's early-stage industrialization. I trace back how each country respectively derived lessons from China, in the case of Ethiopia, and Taiwan, in the case of

Vietnam, in developing SEZs to facilitate export-led manufacturing. I chose Ethiopia and Vietnam as case studies because they were both former centrally planned economies experiencing both a political and economic reform. Ethiopia had been predicted to be the fastest growing economy in SSA in 2018 while the average GDP growth rate of Vietnam between 1991 and 2014 ranks the second highest in the world, clearly they are both rising starts of their respective regions growth turnaround.[6] Both countries have a similar population, roughly about 100 million inhabitants, and they have similar political systems - a *de facto* one-party state. The Ethiopian People's Revolutionary Democratic Front (EPRDF) leads Ethiopia's government, while the Communist Party of Vietnam maintains absolute control of Vietnam. Ethiopia's SEZ development model is predominantly led by the central government, as many of the developmental states in East Asia have followed.

The methodology of this paper is based on an extensive literature review, 35 days of field research in Ethiopia and Vietnam, a comparative case study of four SEZs, and interviews with 53 stakeholders. In Ethiopia, I focused on the Eastern Industrial Zone (EIZ) and the Hawassa Industrial Park (HIP). In Vietnam, my case studies were the Tan Thuan Export Processing Zone (EPZ) and the Chu Lai Open Economic Zone (OEZ). Through process tracing and four comparative case studies of SEZs from two emerging markets in Africa and Southeast Asia, this research will shed light on how Ethiopia and Vietnam learned to compete based on their different geographic locations and preconditions for development. As Vietnam started SEZ development roughly 20 years prior to Ethiopia, and has hence accumulated more experience, I make policy recommendations for Ethiopia based on Vietnam's lessons in SEZ development.

BACKGROUND

ETHIOPIA'S SEZ POLICY

FROM 1974 TO 1991 ETHIOPIA WAS RULED BY THE DERG, a totalitarian military junta. The Derg adopted a Soviet Union-model planned economy, which indirectly led to the 1983-1985 famine that caused more than 400,000 deaths.[7] In 1991 the EPRDF came to power and has been targeting policies to promote structural change and industrialization ever since. After the end of the Derg regime, EPRDF-led reform has been focusing on rebuilding the state, sustaining growth, and industrialization.[8] This objective has been crystalized in Ethiopia's Growth and Transformation Plan (GTP), which has a long-term goal to make Ethiopia a lower middle-income country by 2025. In the GTP, industrial park (IP) development is listed as a national strategy for structural transformation. The Ethiopian government further aims to provide efficient "infrastructure, streamlined public procedures, as well as fiscal and trade policy" to attract export-oriented FDI agglomerates within these zones.[9]

In addition to the GTP's general objectives, leaders within the Ethiopian government have paid a great deal of attention to East Asian, especially Chinese, experiences with SEZs. Arkebe Oqubay, a key advisor to the Ethiopian prime minister,

has drawn agglomerated quantitative evidence from Cambodia, China, and Vietnam. From that data he has concluded that industrial clusters can greatly enhance firm-level productivity in low-income countries.[10] Additionally, a government-affiliated think tank, the Ethiopian Development Research Institute (EDRI), has conducted many comparative case studies on China's experiences with SEZs through field visits to the most successful SEZs in China, including Shenzhen, Guangzhou, Qian Hai, Suzhou, and Kunshan, as well as China's EIZ in Ethiopia. The EDRI team found that key factors of a successful SEZ include land resources, labor resources, ports, initial physical location, and legal system. Although other successful SEZ cases in Singapore and South Korea were also reviewed, the EDRI team used China as a benchmark for their learning objectives. The EDRI report argues that China's success should be attributed to the Chinese government's leadership and full commitment to local autonomy, providing a clear plan for technology transfer, setting measurable investment targets, and investing in innovation.[11] These findings were presented to key Ethiopian decision makers in charge of IP development.

VIETNAM'S SEZ POLICY

ALTHOUGH ETHIOPIA HAS BEEN STUDYING CHINA'S experiences with industrialization and SEZs over the last two decades, Vietnam has been learning from China's example for nearly double the time, since the 1980s. Before the launch of Vietnam's market-oriented reform *Doi Moi* (economic renovation) in 1986, Vietnam had a closed, centrally planned economy and was among the world's poorest nations. China's opening up and reform post 1976 showed its neighbor how much potential market reform could unleash. Following China's 10-year economic transition playbook, Vietnam learned from China's experiences with economic reform, including price liberalization and agriculture liberalization. Vietnam also imitated China's path towards structural transformation by transferring labor from the less productive agricultural sector to the manufacturing sector instead.

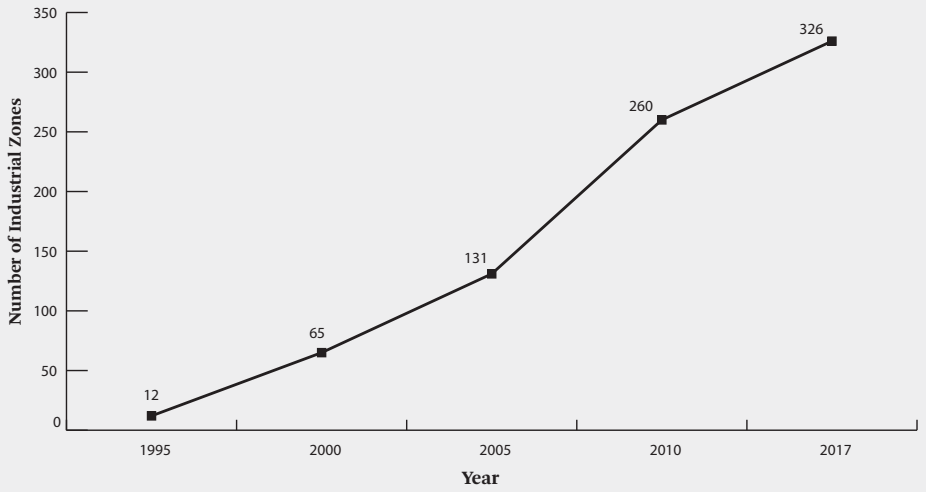
Although Vietnam followed China's cues in terms of many market reform policies, when it came to SEZ development, Vietnam did not learn as much from China. My interviews with many local economists showed that in the early 1990s Vietnam learned its earliest SEZ development lessons from Taiwan, instead. Although later on in the early 2000s, Vietnam tried to model the Chu Lai OEZ based off of China's Shenzhen model, its replication of the Shenzhen model was not successful. In addition to Taiwanese and Chinese influences, Vietnam continues to learn from many countries around the world, not only those in East Asia.

There are two predominant factors that contributed to Vietnam turning to countries other than China for guidance in its early SEZ development. First, Vietnam and China's diplomatic relationship was not normalized until 1991 and learning from China could have represented a politically sensitive issue for the Vietnamese government. Second, in the 1990s, China was itself in the early stages of economic reform. Chinese companies could not accumulate enough capital to invest overseas,

whereas investors from more developed Asian countries, such as Taiwan, Japan, and Singapore were already moving up the value chain and looking for places with lower production costs.[12] Since the very beginning of Vietnam's reforms, these countries seeking lower production costs contributed to Vietnam's infrastructure construction and FDI attraction. It was this relationship that yielded more connections and local markets, which prevailed over the influence of Chinese investors that arrived later in the game.

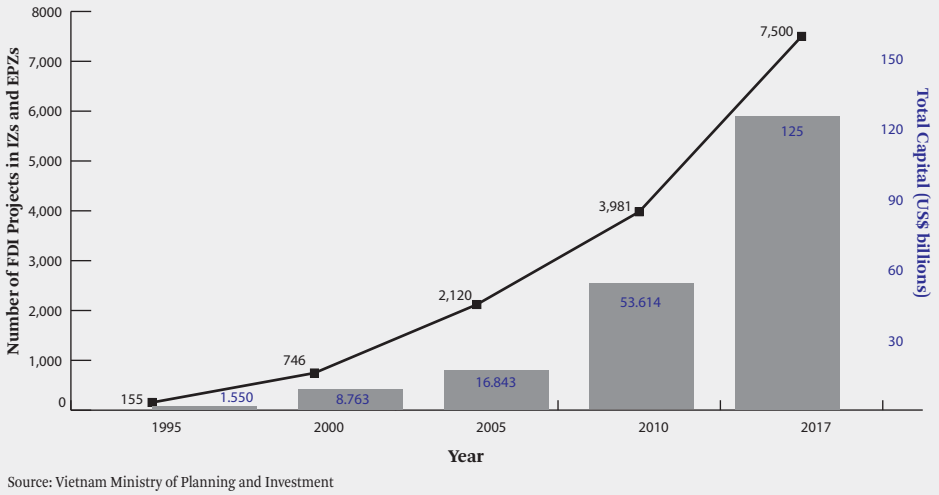
Vietnam's efforts to develop SEZs have borne fruit. As Figures 1 and 2 show, in 2017, Vietnam had a total 326 industrial zones (IZs) and EPZs, where 7,500 foreign-invested projects contributed to a total FDI of US$ 125 billion. IZs and EPZs' contribution to trade increased sharply, especially between 2010 and 2017. As Figure 3 shows, Vietnam's exports rose from US$ 18.899 billion in 2010 to US$ 119 billion in 2017, while imports also increased from US$ 18.387 billion to US$ 104 billion within seven years.[13]

Figure 1: Number of Industrial Zones in Vietnam (1995-2017)



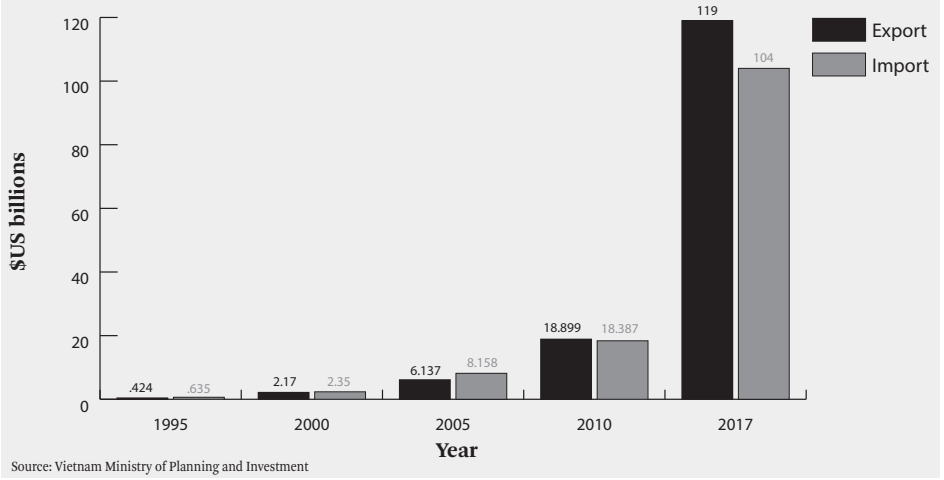
Source: Vietnam Ministry of Planning and Investment

Figure 2: FDI Projects in Vietnam's Industrial Zones & Export Processing Zones (1995-2017)



Source: Vietnam Ministry of Planning and Investment

Figure 3: Vietnam's Industrial Zones & Export Processing Zones Trade Contribution



Source: Vietnam Ministry of Planning and Investment

ETHIOPIA'S SEZ DEVELOPMENT & CHINESE LESSONS

WHY CHINA?

CHINESE PRIVATE INVESTORS ARE TRAILBLAZERS in Ethiopia's SEZ development, as they built the first IP in the country – the EIZ. Ethiopia's experience with IPs began when the Chinese Jiangsu Qiyuan Group first planned to invest in establishing the EIZ in 2007. From their interaction with the EIZ, the first modern IP in Ethiopia, the Ethiopian government was able to gain access to key SEZ management concepts and observe first-hand the services Chinese zone developers provided. Not only is the first IP in Ethiopia set up by a Chinese investor, but there is also an increasing number of privately developed IPs owned and operated by Chinese investors. As Table 1 shows, half of all either existing or under-construction private IPs were invested in by Chinese companies. Furthermore, as Chinese SEZs tend to attract more Chinese investors, the increase of Chinese IPs in Ethiopia will bring further Chinese manufacturing investment.

China's examples are benchmarked as the learning models more often than some of the other East Asian countries, such as Singapore and Taiwan, because China's rapid speed of growth is appealing to Ethiopia.[14] Many Ethiopian officials also generally believe that as China is still a developing country its lessons are relatively achievable and more within Ethiopia's reach than lessons gleamed from a developed country, like Singapore for example. After visiting SEZs in Singapore, some Ethiopian officials thought that while China's SEZs provide a one-stop-shop services (OSS), Singapore provides "non-stop" service where everything is automatic. Ethiopia's take-away was that Singapore's lessons were too advanced for Ethiopia to learn.[15]

In addition to the private sector, Chinese state-owned enterprises also played an important role in technology and administrative experience transfers to Ethiopia during the construction of Ethiopia's federally developed IPs. Chinese construction companies are the most active contractors of Ethiopia's state-owned IPs. As Table 2 shows, Chinese state-owned construction companies won ten of the twelve existing or under-construction federal IPs. Top players include the China Civil Engineering

Construction Corporation (CCECC), the China Communications Construction Company (CCCC), the CGC Overseas Construction Group Co. (CGCOC), Ltd, and the China Tiesiju Civil Engineering Group Co. (CTCE), Ltd. Chinese construction companies won many of these bids mostly because of their low cost and high efficiency.[16]

Finally, the Chinese government also promotes China's models abroad. China's Ministry of Commerce (MOFCOM) regularly invites high-level Ethiopian government officials to Chinese SEZs to introduce China's experiences. For instance, MOFCOM organized two training trips for Ethiopian IP managers in 2017, one in September, and another from April to May. The latter trip consisted of 23 officials, many of which mentioned that they learned a lot from China's IP design, especially how China integrated its SEZs with urban areas, which facilitated urbanization, consumption, and market growth in the process of industrialization.[17] However, it is difficult to claim that Ethiopian officials gained immensely from the training, as it is impossible to quantify their learning outcomes.

Table 1: Ethiopia's Privately-Invested Industrial Parks (IP)

Private IP	IP Developer	Country of Origin	Main Industry	Progress	Size (hectares)
Arerti	CCCC	China	Construction materials & household appliance manufacturing	Under construction	100
EIZ	Jiangsu Qiyuan Group	China	Mixed	Operational	400
Modjo	George Shoes PLC	Taiwan	Footwear	Operational	100
Lebu	Huajian Group	China	Footwear	Operational	184
Vogue	Vogue/Velocity Company Group	India	Apparel	Under construction	100
Turkish IP in Mekelle region	Turkish Holding AS	Turkey	Ceramic production, steel manufacturing, and pulp products	Under construction	484

Source: Based on EIC and author's research [18]

Almost all Ethiopian scholars, government officials, engineers, and workers interviewed for this paper claimed that they had more or less taken lessons from Malaysia, Singapore, Taiwan, and particularly, China. Lessons included macro-level planning, like government officials and think tank scholars learning from China's industrial park design and planning. On the micro-level, lessons also included things like technology and skill transfers between Chinese and Ethiopian engineers and workers during IP construction.

Table 2: Ethiopia's State-Owned Industrial Parks

Federal IP	Contractor	Country of Origin	Main Industry	Progress	Size (hectares)	Cost (US$ millions)
Addis Industrial Village	Local contractor	Ethiopia	Apparel	Operational	8.7	-
Bole Lemi I	Local contractor	Ethiopia	Apparel, textiles, and leather	Operational	156	102
Bole Lemi II	CGCOC	China	Textiles and garments	Detail design phase	186	127.5
Hawassa (HIP)	CCECC	China	Garments	Operational	300	250
Mekelle	CCCC	China	Garments	Under construction	1,000	100
Kombolcha	CCECC	China	Garments	Under construction	700	90
Adama	CCECC	China	General assembly, garments, food, and vehicle assembly	Under construction	2,000	125
Jimma	CCCC	China	Garments	Contractor selected	500	54
Kilinto	CTCE	China	Food processing, pharma-ceuticals, household appliances, and electronics	Detail design phase	337	200
Dire Dawa	CCECC	China	Textiles, garments, vehicle assembly, and food processing	Under construction	159	190
Bahir Dar	CCECC	China	Textiles, apparel, and food processing	Under construction	75	60
Adama-Hunan Province	CGCOC	China	Auto, power, construction machinery, textile processing	Under construction	122	250 loan from China EXIM bank
Debre Birhan	-	-	-	Planning	-	-
Modjo Leather City	-	-	Leather	Planning	-	-
Aysha	-	-	-	Planning	-	-
Air Lines and Logistics	-	-	Logistics services	Planning	200	-

Source: Based on EIC and author's research [19]

EASTERN INDUSTRIAL ZONE (EIZ)

IN 2006, MOFCOM INITIATED A PLAN TO SET UP 19 OVERSEAS economic and trade cooperation zones in developing regions in Africa and Asia in countries like Ethiopia, Zambia, Cambodia, Malaysia, Thailand, and Russia. MOFCOM called for bids from private enterprises, and approved the first eight zones in 2006 and the remaining 11 at the end of 2007.[20] In November 2007 the Jiangsu Qiyuan Group submitted a proposal to MOFCOM's newly launched Overseas Economic and Trade Cooperation Zones Program and won the bid as one of the remaining 11 zones.[21]

According to MOFCOM's initial plan, the Chinese government would support zone development enterprises with concessional loans. The plan raised awareness among domestic enterprises and motivated them to seek investment opportunities overseas, but no evidence could show that MOFCOM ended up providing any substantial financial support. At the beginning, bid winners were told that the Chinese Ministry of Finance (MOF) would finance 30 percent of the total infrastructure cost in these zones, yet this financial support was never fulfilled.[22] The vice president of Qiyuan confirmed in an interview that due to the change in government policy, the 300 million RMB (US$ 44.04 million) in financial support originally promised by MOFCOM and the MOF was in fact cancelled. The municipal and provincial government from Suzhou, Jiangsu province, where Qiyuan's headquarter is located, only supported the EIZ with US$ 5.65 million, although they promised to award the project more than US$ 14.67 million as a winner of MOFCOM's bid.[23]

Although the idea of setting up the EIZ was born largely because Qiyuan won the bid from MOFCOM's Overseas Economic and Trade Cooperation Zone Program, another incentive for investing in the EIZ was Qiyuan's previous investment experiences in Ethiopia. In 2006, Qiyuan invested in an Ethiopian cement plant. This investment helped them develop connections with the Ethiopian government. After obtaining a 200 million Ethiopian Birr (US$ 7.23 million) loan from a local bank, Qiyuan started its investment in the cement sector with the Ethiopian government's encouragement. The Ethiopian government believed that their local cement supply could not meet all the development needs for Ethiopia's industrialization and urbanization.[24] In addition to taking lessons from its previous investment experience in Ethiopia, Qiyuan also hired a Chinese vice general manager with more than ten years of business experience in Ethiopia to prepare for the establishment of the EIZ.

With little financial or diplomatic support from the Chinese government, Qiyuan coordinated with the Ethiopian government to establish the EIZ. It was much harder for Qiyuan to develop an IP than it was the cement plant, however. At the time Ethiopia was still very new to the entire IP concept and there was no legal or institutional framework in place for the development and management of IPs. Before the EIZ was built, most government officials had no idea what an IP was, how it worked, and what services the government should provide in order for one to operate efficiently. Without prior IP experience, most decisions had to be made directly by the Ethiopian prime minister. To get anything done, Qiyuan had to first obtain a special approval letter

from the prime minister and then visit different functional departments individually for administrative support. Additional problems arose due to the lack of a IP law detailing rights and responsibilities for IP developers, enterprises within IPs, and the Ethiopian government.

ETHIOPIA'S LESSONS LEARNED

THE ESTABLISHMENT OF THE EIZ WAS AN EYE-OPENING lesson for both investors and the government. Although the EPRDF government formulated a comprehensive industrial plan promoting exports of labor-intensive manufacturing products in 2002, progress did not truly begin until the EIZ was established.[25] The EIZ's success showed that an IP could improve production efficiency by supplying water, sewage treatment, telecommunication services, and other infrastructure on a large scale.[26] Investors gained easier access to infrastructure necessary for industrial production and the government was also able to better monitor industrial production by collecting data on an IP-sized scale, instead of by individual companies.[27]

In addition to improving infrastructure, the EIZ also taught Ethiopia that an IP could help address bureaucratic inefficiencies and corruption issues. Before the EIZ's establishment, it took a company up to eight years to obtain a land lease certificate, with lots of rent seeking occurring during the process. However, an IP allowed the government to negotiate over a large piece of land with the IP developer through a transparent negotiation process, after which the IP developer could sub-lease each shed to investors at a fixed price. This process saved time for investors while streamlining redundant administrative measures for all parties involved.[28]

The EIZ's establishment paved the way for Ethiopia to enact its first IP law. With an increasing need for legislation to govern IP development, operation, management, and regulation, Ethiopia's first IP Proclamation was enacted in 2015. The IP Proclamation stipulated the rights and obligations of IP developers and enterprises; requirements for work permits and residence; guarantees and protections from the Ethiopian government; and regulation on land access and environmental protection. Although it is hard to track the legislation's original process, the EIZ administrator mentioned that two articles in the Proclamation were largely the result of their continuous negotiation with the Ethiopian government. One article allowed IP developers to sublease land to other enterprises and issue them a sublease land certificate on behalf of the government. The other mandated the Ethiopian Investment Commission (EIC) guarantee delivery of OSS services and brought other functional departments together to coordinate and streamline administrative services for each IP.

The Industrial Park Development Corporation (IPDC) was established in 2014 to mandate the development and administration of state-owned IPs. IPDC's structure and establishment was modeled after Singapore's JTC Corporation, hence the IPDC does not seem to have not taken much instruction from China in this regard.[29] However, as Chinese construction companies have won the majority of the bids to build state-run IPs, IPDC has learned a great deal about zone construction and

operation management from collaborating with Chinese contractors. This will be further discussed in the HIP case study.

The Ethiopian government also restructured the EIC. Formerly managed by the Ministry of Industry, the EIC now answers directly to the prime minister's office and has become an independent department responsible for the attraction of foreign investment.[30] Although the EIC was set up before the EIZ was built, it is possible to argue that the EIC's restructuring was related to Ethiopia's exchanges with China and the EIZ. The newly established OSS directorate, within the EIC, may have taken lessons from its early-stage interactions with the EIZ, which pushed the Ethiopian government to provide enterprises with streamlined custom clearance, visa, and tax services.[31] Beside OSS's headquarters in Addis Ababa, each IP now has an OSS office, which delegates other state ministries to provide desk services.[32]

ETHIOPIAN STATE-OWNED IPS

ALTHOUGH EARLY-STAGE PRIVATE IPS, SUCH AS THE EIZ, introduced Ethiopia to IP practices, the Ethiopian government believed state-owned IPs should be developed to further facilitate the country's industrialization. Some Ethiopian scholars think private IPs leave the central government with little control over IP development and planning. A research team at the Ethiopian government-run think tank, EDRI, concluded that one of the key lessons from China's successful SEZs was that the government was taking a lead in IP development. They believed that private IPs only pursued short-run profits, failing to wait for long-term benefits. Although they also acknowledged that IP development does involve a large initial investment and usually requires a longer time horizon to become profitable.[33]

Adding to the evidence policy makers saw to support the need for state-owned IPs was a strongly held view by Ethiopian decision makers that the EIZ developed too slowly and was priced too highly for enterprises within the zone.[34] They mentioned that the EIZ was too "greedy." Although the EIZ rented land from the Oromian government at a yearly US$ 0.05 per square meter rate, they charged each enterprise an extra US$ 17,460-21,830 per mu (around 666.67 square meters) development fee, in addition to a yearly US$ 1.50 per square meter property management fee, and a monthly US$ 36.39 per square meter for shed rental.[35] Other private IPs were also accused of growing slowly and requiring expensive rent.

With the IPDC established, the Ethiopian government started to develop state-owned IPs. The first state-owned IP, Bole Lemi 1, went into operation in 2014. During the construction phase for Bole Lemi 1, the IPDC team visited the EIZ several times to ask questions about their waste treatment plant and other technical issues.[36] To distinguish itself from the profit-driven EIZ, Bole Lemi 1 set its shed rental price as low as US$ 1 per square meter per month.[37] However, the park administration soon found it difficult to sustain operations with below-market rental prices.[38] As a result, Bole Lemi 1 had to adjust their price to the same level as the EIZ. Furthermore, Bole Lemi 1 used several different local contractors, which complicated construction coordination. In

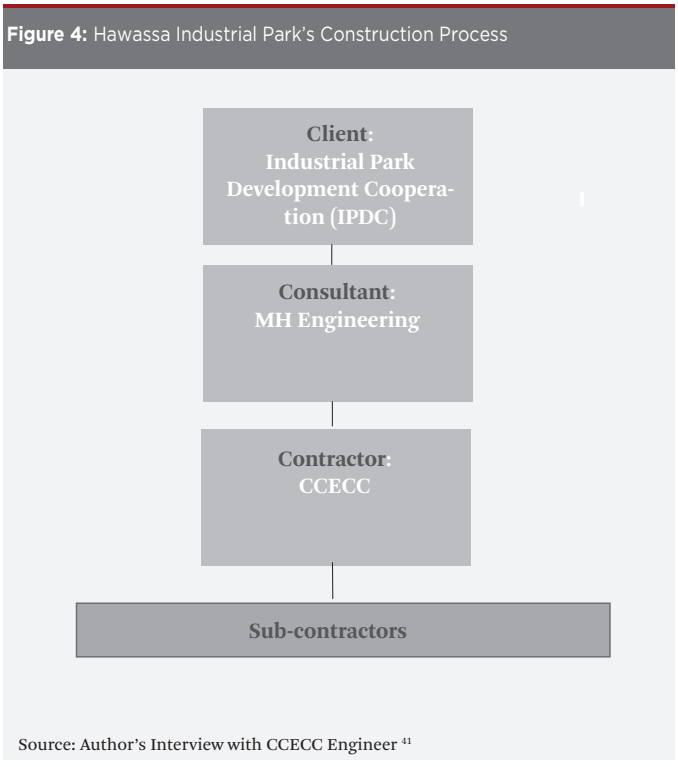
the end, as Bole Lemi 1 was finished neither at an efficient speed nor at a reasonable cost, the first state-run IP turned out to not be very successful.

THE HAWASSA INDUSTRIAL PARK (HIP)

AFTER BOLE LEMI 1'S LESS THAN SUCCESSFUL LAUNCH, Ethiopia instead decided to follow a state-led IP development model. They adjusted their tactics by combining the government's micro-management with hard marketing, listening to customer needs, and assigning the construction of the project to a single Chinese contractor.[39] A flagship program, the $250-million HIP, was proposed as a project to attract famous international investors and show them the government's commitment to constructing high-quality IPs.[40] The construction of the HIP was finished within nine months and involved three stakeholders: the contractor - CCECC, the third-party consultant - MH Engineering, and the client - IPDC.

As Figure 4 shows, CCECC was responsible for the design, construction, and after-care operation of the HIP. As the main contractor, CCECC hired many local sub-contractors with the different specialties required to complete the project. MH Engineering, a local Ethiopian company that served as a third-party consultant, oversaw CCECC's design and construction process. MH Engineering also served as the representative of the IPDC, and as such MH Enginerring was responsible for approving CCECC's work. The last piece of the chain was the Ethiopian government, represented by IPDC. The IPDC made the project's master plans and sat at the top of the hierarchy, supervising reports from both CCECC and MH Engineering. The HIP's construction involved constant communication and coordination between Chinese and Ethiopian

Figure 4: Hawassa Industrial Park's Construction Process



Source: Author's Interview with CCECC Engineer [41]

counterparts and can be roughly divided into three stages: design, construction, and after-care operation.

DESIGN

IN ORDER FOR THE HIP TO SATISFY INTERNATIONAL investors' needs, Ethiopia applied IP design experiences learned from around the world. When there were differences between standards in different countries, Ethiopia chose the highest standard by crosschecking between the Chinese, American, and European IP design standard, allowing the HIP to keep to the highest quality worldwide.[42] As the client, Ethiopia kept strict watch over the Chinese contractor, CCECC, and constantly challenged CCECC to use higher standards. For example, the quality control consultant, MH Engineering, believed CCECC tended to choose cheaper construction materials.[43] However, my interviews with Chinese engineers also showed that Ethiopians' calls for high standards were sometimes excuses to solicit bribes.

In addition to learning from China's construction standards, thanks to two MOFCOM-hosted trips to Chinese SEZs in 2017, Ethiopia also learned from China's SEZ design. Interviewed participants said that they learned many important IP design lessons after visiting Chinese SEZs and comparing what they saw to the HIP.

1. China's SEZs are built within urban areas, while the HIP is isolated and fenced in. Many government officials appreciated how the Chinese model integrated SEZs with cities to boost urbanization and the development of corresponding industries, such as housing and restaurants. Urban placement also decreases a parks maintenance cost because it can share infrastructure with the city, such as the fire department.
2. Chinese SEZs are equipped with sound drainage systems, while the HIP did not prepare for proper drainage. The land HIP is built on was previously used for agriculture. Although the land hardened during construction no runoff system was designed to accommodate rainfall, which lead to a flood after heavy rains in 2017.
3. The coordination between all levels of Chinese government officials is effective. Chinese officials at different departments are aware of teamwork in developing SEZs. This gives officials and workers within different departments a sense of ownership of the program and allows them to coordinate together, while in Ethiopia, different functional departments might not be the on the same page, making the inter-departmental communication much harder.

CONSTRUCTION

STAKEHOLDERS FROM THE ETHIOPIAN GOVERNMENT commented on how impressed they were by CCECC's management ability during the HIP's construction. Some of their lessons taken from the Chinese contractor included: disciplined work

ethic, efficient construction teams, highly efficient project management ability, great communication skills with local labor, and systematic technology transfers within the Chinese team.[44]

Although it is hard to quantify how much Ethiopian HIP managers and engineers learned from China during the construction period, the Ethiopian engineers and project managers I interviewed were confident that the Ethiopian construction industry had benefited tremendously from working with a Chinese contractor. With a total of 4,000 laborers, around 1,000 Chinese and 3,000 Ethiopian, working onsite during construction IPDC officials believed the HIP's construction brought many employment opportunities for local laborers and contributed to advancements in the local construction sector's productivity.[45]

AFTER-CARE OPERATIONS

AS PART OF THE CONTRACT BETWEEN CCECC AND THE Ethiopian government, CCECC was responsible for providing the HIP with after-care engineering and administrative operations for three years after its inauguration. The engineering team was comprised of Chinese CCECC engineers with expertise in IP facility maintenance. The administrative team was staffed by SEZ management experts from China's Suzhou based Kunshan Economic and Technological Development Zone (KETD).[46] In order to facilitate further skill transfer, Ethiopian engineers and IP managers were paired with these Chinese experts.

Although there were communication problems, both Chinese and Ethiopian sides generally recognized the after-care engineering team as a successful partnership. Three Chinese engineers were paired with ten Ethiopian apprentices. With one Chinese coach and three Ethiopians in training, the joint engineering team worked on electricity, satellite, and other onsite infrastructure maintenance. Ethiopian engineers praised CCECC experts on their efficiency, but also mentioned that language was a major barrier to technology transfer— although the Chinese engineers were experienced, none of them spoke English.[47] As a result, there were constant instances of miscommunication. The teaching-learning process was not systematic or based on theories, but instead was oftentimes conducted through gestures alone.[48] Moreover, Chinese engineers complained that their Ethiopian apprentices, although they were all college graduates, only had theoretical knowledge and were lacking practical experience as well as being unfamiliar with handy work. A Chinese engineer estimates that it takes at least five years to truly learn his techniques, but the Ethiopian engineers were only given three years to work alongside their Chinese counterparts. Furthermore, the HIP's local administration lacked the autonomy to purchase essential tools and equipment for IP maintenance, instead having to request a special permit by reporting directly to IPDC headquarters in Addis Ababa.[49]

Mostly due to a lack of local autonomy and a shortened training window for Chinese experts to share their full experiences with Ethiopian counterparts, the HIP after-care management team was not as successful as it could have been in transferring

China's SEZ operation experiences to Ethiopia. The Chinese managers in the HIP after-care team were from the KETD and the success of KETD and other Chinese SEZs was rooted in local autonomy. However, when the KETD team tried to make suggestions to their Ethiopian counterparts based on their experience in China, the HIP administration could not adopt the necessary policy reform because they were not granted sufficient autonomy to do so.[50] As senior KETD experts were either too busy or too expensive to send to Ethiopia more often, the KETD managers stationed in the HIP were entry-level officials, whom Ethiopians believed they could not learn much from.[51] As a result, although the KETD also signed a three-year contract with Ethiopia for IP management experience transfer, this partnership only lasted for one year of the contract.

ETHIOPIA'S POLICY LESSONS

THERE WERE MANY DIFFERENT SOURCES FROM WHICH ETHIOPIAN policymakers were able to pull IP development lessons from. Ethiopia sent officials to visit many successful IPs around the world as well as inviting foreign experts to Ethiopia to deliver their lessons in-person. Moreover, with China having developed the first IP in the country, that construction process helped show which kinds of macro-level legal and institutional services the government should provide for IP development. Drawing on these lessons, Ethiopia has established preliminary IP laws, management institutions, and OSS services. In developing its flagship state-owned IP, the HIP, Ethiopia also derived micro-level engineering, technology, and operational knowledge by coordinating with the Chinese contractor, CCECC.

However, there are potential problems facing Ethiopia's IP development, as revealed in some of its failures to learn from Chinese lessons. First, Ethiopia might need to further develop its legal framework, as it currently has only one IP law, the 2015 Industrial Park Proclamation. The 2015 Proclamation only specifies IP-related issues at the national level, while individual parks do not have the autonomy to stipulate their own laws based on their specific local context. In contrast, China's SEZ legal framework is a complex architecture weaving together central and local government's laws. At the national level, China has land, labor, and enterprise regulation laws, among others. On the local level, each SEZ has its own laws.[52] For example, the Shenzhen Special Economic Zone, China's most successful SEZ, was given much autonomy in making its own laws and investment incentive policies. The high degree of autonomy has helped Shenzhen find the best policies and regulations suitable for its own development.[53] Ethiopia may also benefit from granting more autonomy to local IP administrators with regard to Shenzhen's successful experiences.

Ethiopia has also not developed an institutional structure to acquire and adapt foreign experiences. The knowledge transfer failure between China's KETD and Ethiopia's HIP after-care operation team is a concrete example of what happens when the HIP has not established a systematic institution to learn and adapt foreign experiences. In contrast, when China's Suzhou Industrial Park (SIP) was established in

1994, acquiring and adapting Singapore's IP development experiences were defined as a strategic goal under the Singapore-Suzhou "Agreement on the Use of Singapore's Economic and Public Management Experience." The Suzhou government was granted the autonomy to establish a China-Singapore Joint Steering Council, a Bilateral Working group, and a SIP Office to focus on adapting Singapore's experiences. These institutions allowed China to put its policy learning plans into action. SIP's institutional framework for learning lessons may shed light on how Ethiopia can better apply foreign experiences to its own local context.

VIETNAM'S SEZ DEVELOPMENT

VIETNAM LARGELY FOLLOWED CHINA'S MODEL IN TERMS of market liberalization and political reform, although when it came to its early-stage SEZ development, Vietnam learned more from Taiwan than from China.[54] Multiple Vietnamese economists explained that Vietnam did not learn much from China's overseas SEZ because the political relationship between China and Vietnam had not normalized until the 1980s. Hence, it would have been an extremely politically sensitive matter for the Vietnamese government to openly claim that they were learning from China. Additionally, back in the 1980s and 1990s, China was still largely focusing on growing its own domestic market. Few Chinese investors had reached the capacity to invest abroad and establish overseas SEZs.[55]

LEARNING FROM TAIWAN: TAN THUAN EXPORT PROCESSING ZONE

ALTHOUGH VIETNAM STARTED ITS *DOI MOI* IN 1986 and enacted the Law on Foreign Investment in 1987, few investors came in the early years due to a lack of roads, electricity, and other infrastructure vital for industrial development.[56] Vietnam's macroeconomic performance during the initial period of reform was plagued by high inflation, high unemployment, and a lack of foreign reserves. The severe hyperinflation and shortage of US dollars exacerbated Vietnam's difficulties in buying raw materials for industrial production and developing its own industries. Meanwhile, while Vietnam was eager for foreign investment, Taiwan was also looking for investment opportunities among ASEAN member countries, like Vietnam. In the late 1980s and early 1990s, the Lee Teng-hui administration came up with the "Go South" policy, aiming to encourage Taiwanese investors to increase their engagement in Southeast Asia.[57] This policy was raised with some of the following geopolitical objectives:

- To seek acceptance of Taiwan's sovereignty and improve Taiwan's political and diplomatic position in Southeast Asia through strengthened economic ties.[58]
- To decrease Taiwan's dependence on China by encouraging Taiwanese investors to find investment opportunities in regions other than China.
- To expand Taiwan's global market and facilitate industrial upgrading.[59]

Central Trading & Development Group (CT&D), a Kuomintang (KMT)-led overseas investment company, was established under the "Go South" policy initiative in August 1989; KMT held 75% of CT&D's shares. Lawrence Ting, the general manager at the China Gulf Plastics Corporation, was recruited by the KMT Finance Committee Chairman, Hsu Li-The, and became the CEO of CT&D in charge of leading its investment and management operations; Ting also held 10% of CT&D's shares. After assessing multiple emerging markets across Eastern Europe, Africa, and Southeast Asia in the 1990s CT&D decided to consecutively invest in three major projects in Vietnam: the Tan Thuan EPZ, the Phu My Hung city, and the Hiep Phuoc Power Plant.[60]

1991 was a milestone year for Vietnam's SEZ development and FDI attraction. In 1991 Taiwanese investors established the first SEZ in Vietnam, the Tan Thuan EPZ. Established in 1991 in Ho Chi Minh City (HCMC), the Tan Thuan EPZ aimed to provide Taiwanese investors with a secure production base.[61] As Vietnam's first SEZ, CT&D and the HCMC municipal government jointly owned the Tan Thuan EPZ. HCMC's municipal government established the Tan Thuan Industrial Promotion Company (IPC) to serve as their representative for matters related to the Tan Thuan EPZ and selected the former Deputy Minister of the State Committee of Cooperation and Investment (SCCI) to chair the IPC. Tan Thuan's initial investment added up to US$ 242 million. CT&D held 70% of the joint-venture's shares and was responsible for constructing infrastructure and attracting investors, while HCMC held the remaining 30% and provided the land with a perfect location—only 4 kilometers away from the HCMC city center and right next to the port.[62]

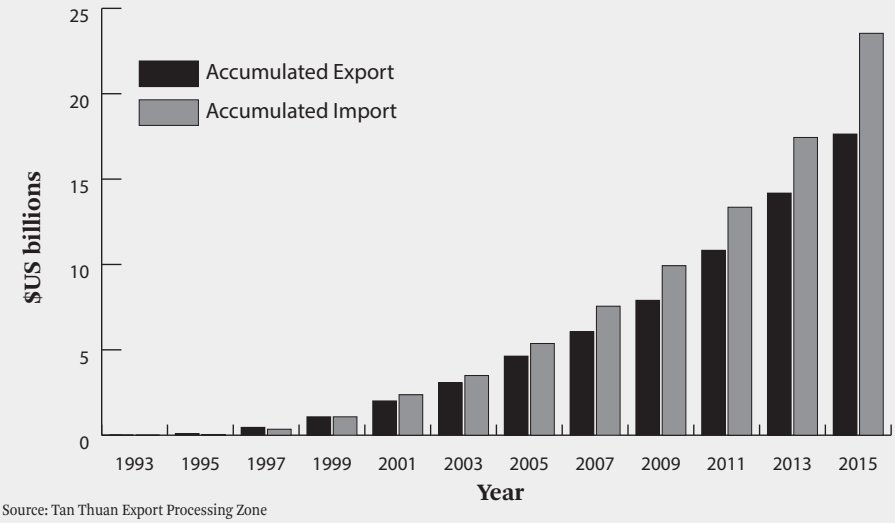
CT&D built Vietnam's first SEZ by mimicking the Kaohsiung EPZ model. Established in 1965, Taiwan's Kaohsiung EPZ was the world's first EPZ. In order to introduce Kaohsiung's OSS to the Vietnamese government, Kaohsiung first sent the following three Taiwanese experts to deliver their lessons: the secretary of the director for Kaohsiung, the director of the labor recruiting department, and the director of major business management. The Taiwanese experts wrote down all the regulations and administrative processes for the Vietnamese government officials at the Ho Chi Minh City Export Processing Zone Authority (HEPZA), showing them the steps Kaohsiung had followed to develop into the biggest and most successful EPZ in Taiwan. CT&D also recruited two retired Kaohsiung EPZ general managers (GMs) to be the GMs at the Tan Thuan EPZ to help further transfer Taiwan's EPZ managerial experiences to Vietnam. Aside from hiring Taiwanese managers to come work in Vietnam, on multiple occasions CT&D also invited Vietnamese officials to visit Kaohsiung so they could witness the custom clearance process first-hand.[63]

Despite all the training and skills transfer, the biggest obstacle facing Tan Thuan was insufficient infrastructure, especially the lack of electricity. There were around 500 monthly power outages, and CT&D could not purchase power generators as a result of the US trade embargo.[64] To solve the problem, in 1993 CT&D established the 375-MW Hiep Phuoc Power Plant, which not only ensured the electricity supply for Tan Thuan, but also supplied 45 percent of HCMC's electricity demand in the dry season.[65]

Securing a sufficient power supply was considered one of the most important factors underpinning Tan Thuan's success.[66]

Aside from constant infrastructure improvements, CT&D also developed the surrounding areas to better attract investors and advanced technology talent. The Phu My Hung Saigon South Urban Development Project was initiated in 1993. As a new urban area adjacent to Tan Thuan, Phu My Hung accommodated the first Taiwanese and the first Japanese elementary school in Vietnam along with hospitals and high-end shopping malls. A good location and careful design has made Phu My Hung one of the most expensive real estate markets in HCMC.[67] In 1998, Tan Thuan started turning a profit, and as Figure 5 shows, the accumulated export value has seen a sharp rise, repeatedly exceeding the import value since 1999, peaking at US$ 23.5 billion in 2015.

Figure 5: Tan Thuan's Import-Export Value 1993-2005 (in US$ billions)

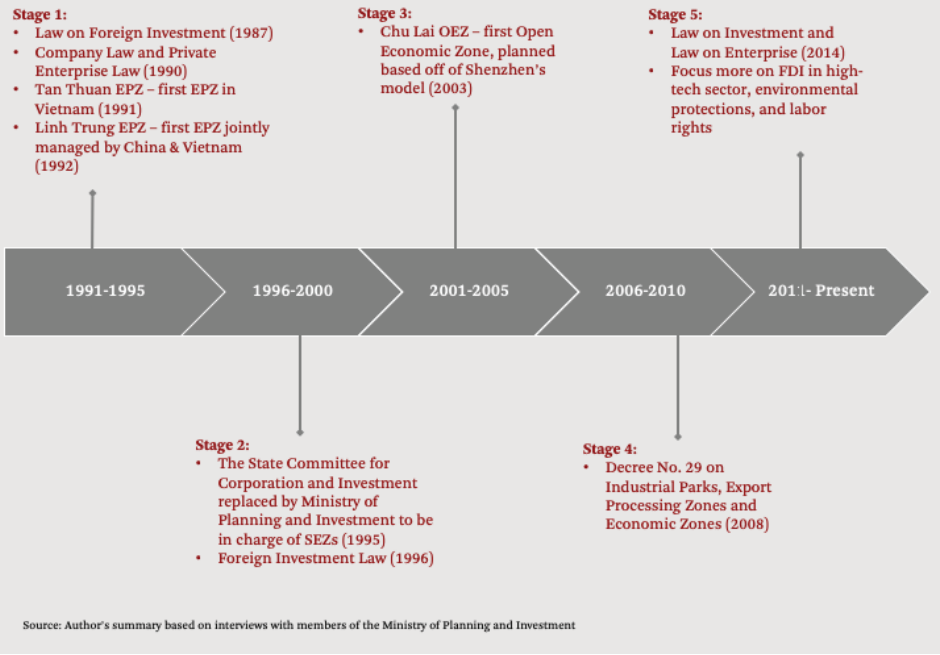


Source: Tan Thuan Export Processing Zone

Similar to the role of China's EIZ in Ethiopia, the development of Taiwan's Tan Thuan EPZ was an eye-opening lesson for Vietnamese government officials, most of whom had no clear concept of what an EPZ did, and what services the government should provide for the development of an EPZ. Since the establishment of Tan Thuan, Vietnam has been continuously improving its institutional and legal framework to create a better environment to attract FDI in SEZs, as Figure 6 shows.

During preparation for Tan Thuan, the CT&D team had to visit Hanoi to obtain special approval from the Prime Minister and the SCCI before they could receive support from the local government.[68] To streamline the examination and approval process, the Tan Thuan Export Processing Zone Authority was established in 1992. The Tan Thuan Export Processing Zone Authority was in charge of Tan Thuan EPZ's administration, as well as the China-Vietnam Linh Trung EPZ, which was also set up in 1992 as the second EPZ in HCMC. After Linh Trung's establishment, the Tan Thuan Export Processing Zone Authority changed its name to HEPZA in October 1993.[69] With help from Taiwanese SEZ management experts from Kaohsiung, HEPZA established its own OSS, job and enterprise support center, and investment attraction center. Zone

Figure 6: Vietnam's SEZ Timeline



Source: Author's summary based on interviews with members of the Ministry of Planning and Investment

developers could now access all necessary administrative support within HCMC without having to travel to the capital city. After Tan Thuan and Linh Trung, 13 more EPZs and IZs were set up in HCMC, and HEPZA is now responsible for providing administration services for all of them.

In the past, only central government agencies in Hanoi could approve FDI projects. HCMC's HEPZA was the first to show the feasibility of a decentralized SEZ administrative system. HEPZA's model has thereafter been spread nationwide.[70] The SCCI, which is responsible for managing EPZs on the national level, also has the power to grant local governments the ability to approve FDI projects below US$ 40 million. In 1996, the SCCI merged with the State Planning Committee to become the Ministry of Planning and Investment, which became the key organization in charge of SEZ management. Based on its experiences, the Ministry of Planning and Investment decided to continue decentralizing SEZ management. In 1996, the new Foreign Investment Law was issued, allowing more autonomy to local authorities. Notably, since 1999 HEPZA has been able to control its own budget.[71] Complete SEZ management decentralization was almost finished after 2005, with decisions on any FDI lower than US$ 300 million made locally.[72]

CHU LAI OEZ

QUANG NAM PROVINCE, IN CENTRAL VIETNAM, was home to the countries' first economic zone, the Chu Lai OEZ (See Appendix A for a detailed description of the difference between an OEZ, EPZ, IZ, and IP). Opened in July 2003 and covering a 42,000-hectare area, Chu Lai is a mammoth multi-sector economic complex that includes IZs, EPZs, a port, a free trade zone, a tourism area, and an urban area. This

so-called "zone-within-a-zone" model was established following China's Shenzhen's model, where industrial clusters from different industries dominate specific areas.[73] Quang Nam's provincial government's original goal was to turn Chu Lai into an industry-urban-tourism-services coastal center, which could attract FDI and increase employment and wages in largely rural, central Vietnam.[74] Chu Lai was supposed to be given the highest level of autonomy foreign investment law allowed. As a non-tariff zone, Chu Lai provides many preferential policies for FDI. For example, foreign investors can invest in manufacturing and service sectors without paying tax, there is no time limit on a foreign company's inventory, and foreign freighters can directly load and unload cargos without handling customs procedures.[75]

Despite Chu Lai's innovation and attractive investment incentives, it is far from achieving the success Tan Thuan and Linh Trung EPZ have reached. Fifteen years after Chu Lai's establishment, I did not see the same magic that turned Shenzhen from a fishing village into a metropolitan center—Chu Lai was still largely a rural area as of 2018. The data verified my first-hand account. In 2017, Chu Lai had a 50% average occupancy rate, received a total investment value of US$ 3.68 billion, exported goods worth US$ 60 million, and had accumulated an employment of 23,000 workers.[76] As Table 3 shows, in comparison with Tan Thuan and Linh Trung, Chu Lai's performance is quite low. Tan Thuan, with a smaller land area and total investment value, has an occupancy rate higher than 80%, and an export value exceeding US$23.5 billion as of 2017.

The principal reason for Chu Lai's failure is that it lacks the autonomy to put its innovative policies into practice. The central government has often denied Chu Lai's proposed reformative policies. First, Chu Lai's administration was not permitted to grant investment licenses on projects valued above US$ 40 million. Second, decisions

Table 3: Comparative SEZ Performance as of 2017

SEZ	Number of Companies	Industries	Occupancy Rate	Total Investment (US$)	Export Value	Local Employment
Eastern Industrial Zone (EIZ)	83	Textiles, garments, shoe making, auto assembly, cement, steel, etc.	100%	390 million	-	14,623
Hawassa (HIP)	24 (6 local + 18 US, China, India, Sri Lanka)	Textiles and apparel	100%	-	> 89.3 million	10,000
Tan Thuan EPZ	204 (62 Japan + 46 Vietnam + 45 Taiwan + 7 US +6 Singapore)	Textiles, garments, software & technology, electric appliances, electronics, mechanics, precision machinery, etc.	87.2%	1.78 billion	23.539 billion	> 60,000
Chu Lai Economic Zone	138 (104 domestic + 34 foreign investors)	-	65% - Tam Thang 40% - Tam Hiep Port 50% - North Chu Lai	3.68 billion	60 million	23,000

Source: Based on author's field research

made by the Chu Lai Authority are not mandatory government decrees and therefore lack enforcement mechanisms. Finally, the local government has no autonomy to issue bonds to finance infrastructure investment.[77] In addition, Chu Lai's geographic location is not as convenient as China's early-stage SEZs like Shenzhen, Zhuhai, and Xiamen, which are adjacent to Hong Kong, Macau, and Taiwan, respectively. The geographic proximity of China's SEZs to these highly developed regions has become an important source of FDI inflows. Chu Lai does not have such advantageous neighbors. Chu Lai's failure to learn from Shenzhen shows that the development of a SEZ must consider the local context. Foreign experiences cannot be easily replicated if the foreign country has different key preconditions, like geographic location, for development from the home country.

CONCLUSION

ETHIOPIA AND VIETNAM BOTH EXPERIENCED THREE DISTINCT periods during their early-stage industrialization. First, both countries learned about SEZ concepts from foreign SEZ developers. At the beginning of their respective reform periods, neither Ethiopia nor Vietnam had SEZs and no concept of what administrative services they required. After Chinese and Taiwanese investors set up the first SEZs in Ethiopia and Vietnam, they not only brought the novel SEZ concept, but also helped push central and local governments to provide essential support for proper SEZ management. Likewise, looking at China's early stage SEZ industrialization, they also derived tremendous lessons from the SIP, which was jointly developed by Singapore and China. The second stage involved learning how to establish the institutional and legal framework for SEZs. Through domestic reform, visits to successful SEZs in other countries, and constant communication with foreign SEZ developers, Ethiopia and Vietnam established the legal and institutional framework for SEZ development. Finally, both countries had to learn to adapt SEZ policies according to their local context. During SEZ management optimization, Ethiopian and Vietnamese officials and scholars visited successful SEZs in advanced economies around the world to learn about SEZ management methods. Foreign experts were also invited to Ethiopia and Vietnam to provide on-site consultation and guidance. However, both governments came to the conclusion that foreign experiences were not necessarily applicable to their local context, and instead each country had to take adaptive measures and propose constant policy adjustments.

The EIZ and the Tan Thuan EPZ share many similarities. First, although both Ethiopia and Vietnam had initiated opening-up reform measures for several years before their first SEZ was established, they both found it hard to attract foreign investors. More specifically, the Tan Thuan EPZ was established five years after Vietnam's *Doi Moi* started in 1986 and the EIZ was also set up five years after Ethiopia enacted its first five-year plan in 2002. Second, the Tan Thuan EPZ and the EIZ, respectively operated by Taiwanese and Chinese investors, initially chose to invest overseas under the initiative of their governments. The Tan Thuan EPZ was established

with an investment from a Kuomintang-led company under Taiwan's "Go-South" policy, providing a safe production base for other Taiwanese investors in Vietnam. Similarly, Ethiopia's EIZ was developed by China's Qiyuan Group after it won a bid from MOFCOM's Overseas Economic and Trade Cooperation Zone Program. The EIZ also provided a safe base for the first wave of Chinese investors in Ethiopia. Third, the Tan Thuan EPZ and the EIZ both served as an important foundation for Vietnam and Ethiopia to acquire Taiwanese and Chinese early-stage SEZ development experience. Tan Thuan was modeled after Taiwan's Kaohsiung EPZ, while the prototype used for planning the EIZ was China's SIP, among others. Finally, Tan Thuan and EIZ greatly influenced the institutionalization and legalization of SEZ management in Vietnam and Ethiopia, like turning the OSS concept into a reality.

However, there are also many differences in the two countries' learning process. Although both countries researched many successful SEZ cases around the world, at the very beginning of their learning experiences Ethiopia seemed to be influenced more by Chinese models, while Vietnam was more focused on Taiwanese SEZ development models. Ethiopia has learned a lot from China in SEZ development, not only because a Chinese private investor built the first IP in Ethiopia, but also because Chinese state-owned construction companies won most of the contracts for Ethiopia's state-owned IPs. In building many of Ethiopia's state-owned IPs, technology transfer in zone construction, design, and after-care operation can be observed. In contrast, a Taiwanese company financed by the Kuomintang government jointly established Vietnam's first SEZ. The first step allowed the Tan Thuan EPZ better geographic location access and more attractive tax return policies than latecomers. Although a Chinese investor jointly set up the second SEZ in Vietnam, the Linh Trung EPZ, with the HCMC government, Linh Trung did not achieve the same level of success as the Tan Thuan EPZ.

The definition and scale of SEZs in Ethiopia and Vietnam are also quite different (see Appendix A). In Ethiopia, SEZs are often referred to as IPs and can include technology parks, export processing zones, agro-processing zones, and free trade zones while in Vietnam they are called IZs, which are more narrowly defined as a separate zone specializing in industrial production. Vietnam has developed more than 300 IZs, while Ethiopia only has 15 IPs, although they plan to build another 15 by 2025. Even with a total of 30, however, Ethiopia will still only have 10 percent as many IPs as Vietnam has IZs. Contributing to the discrepancy in total number of SEZs per country is that Ethiopia has a centralized SEZ development system, while Vietnam's is relatively decentralized. In Ethiopia, almost all flagship state-owned IPs are built, owned, and operated by the IPDC, a division of Ethiopia's central government. In contrast, private investors and Vietnamese local governments jointly developed many of Vietnam's SEZs. Under this public-private partnership, private investors are responsible for building infrastructure and attracting investors, while local governments help acquire land and provide OSS.

Vietnam's decentralized SEZ management system, where each province competes fiercely with one another to attract FDI and build SEZs, stands in stark contrast

compared to Ethiopia's centralized system. Vietnam's level of local competition is somewhat more similar to China's market reform system, where local Chinese government officials compete on the speed of GDP growth, which is one of the most important determinants for their promotion. The competition between Vietnam's local governments may be even fiercer than in China, as Vietnam has 58 provinces and five national cities compared to China's 32.[78] Although local autonomy in IZs and parks development may have facilitated Vietnam's market reform process, the same local autonomy may have brought the risk of wasted resources by leading to the construction of too many IZs and parks with overlapping functions.[79] Furthermore, such a high level of competition can create incentives for a race to the bottom, as local governments lower their environmental standards to attract more FDI.

When it comes to learning from China, Ethiopia seemed to be particularly interested in learning lessons from the SIP, while the Shenzhen SEZ was likely more influential for Vietnam. China's Jiangsu Qiyuan Group, which funded and built the EIZ, is headquartered in Zhangjiagang, Suzhou. Due to the Jiangsu Qiyuan Group's geographical proximity to Suzhou, the EIZ's park design was likely influenced by Suzhou's design. Moreover, the HIP had a three-year contract with a team of Chinese SEZ management experts from Kunshan, Suzhou to transfer Kunshan's after-care operation experiences. In contrast, most Vietnamese economists interviewed, including three members of the Prime Minister's Economic Advisory Board, mentioned that, for them, Shenzhen's model was the most successful Chinese model. For instance, Vietnam's first economic zone, the Chu Lai OEZ in Quang Nam province, was set up based on Shenzhen's model. Ethiopia and Vietnam's preferences for different development models in China might have something to do with their different geographic preconditions for development—Ethiopia is a landlocked country, and it might learn more from Suzhou, an inland city; Vietnam has a long coastline, so it might also choose to learn from Shenzhen, which is also a coastal city with a good port.

Learning from China's experiences, one of the biggest obstacles facing both Ethiopia and Vietnam is their lack of local autonomy. Ethiopia's HIP failed to learn IP operation experiences from Kunshan, Suzhou, partially because their local IP authority did not have power to put the lessons learned into practice, even if they had suggestions on how to do so based on the Chinese operation team's onsite experience transfer. Similarly, Vietnam's Chu Lai OEZ was established with the understanding that it would be granted more autonomy in legislation and administration, which is how Shenzhen has been able to succeed. Chu Lai's original development goal failed, too, due to a lack of local autonomy. In contrast, Shenzhen was given much autonomy in making its own laws and investment incentive policies. The high degree of autonomy has helped Shenzhen find the best policies and regulations suitable for its development. Ethiopia may also benefit from granting more autonomy to local IP administrators with regard to Shenzhen's successful experiences. ★

APPENDIX A

Summary of SEZ Differences in Definitions between Ethiopia and Vietnam*

	Ethiopia	Vietnam		
Category	**Industrial Parks (IP)**	**Industrial Zone (IZ)**	**Export Processing Zone (EPZ)**	**Open Economic Zone (OEZ)**
Function	An area with distinct boundaries designed by the appropriate organ to develop comprehensive, integrated, multiple, or selected functions of industries. Includes Special Economic Zones (SEZs), technology parks, Export Processing Zones (EPZs), agro-processing zones, free trade zones, and the like as designated by the Investment Board.[80] -	A separate zone specializing in industrial production.	An Industrial Zone (IZ) specializing in export-oriented products.	Established in favorable geographic locations and connected to major international and national transportation routes.
Land Area (hectares)	Ranges from 100 ha to several hundred ha	Ranges from 75 ha to several hundred ha		More than 10,000 ha
Civil Residence	No civil residence			There may be civil residence, urban centers, ports, airports, and other functional areas.
Infrastructure	Railroads and expressways connecting to major city/ports are usually developed	No need to be close to a seaport		A seaport must be included in an OEZ
Administration	Approved by prime minister, developed and managed by IPDC, EIC, and Ministry of Industry	Prime minister approves master plan and Provincial People's Committee approves zone establishment		Master plan and establishment must be approved by prime minister
Case Study	Hawassa Industrial Park (HIP) Eastern Industrial Zone (EIZ)	-	Tan Thuan EPZ Linh Trung EPZ	Chu Lai OEZ

* Author's research based on interviews with officials from Ethiopia's EIC and Vietnam's MPI. Addis Ababa, Ethiopia and Hanoi, Vietnam, July and August, 2018.[80]

APPENDIX B

List of Abbreviations

CCCC	China Communications Construction Company
CCECC	China Civil Engineering Construction Corporation
CGCOC	CGC Overseas Construction Group Co., Ltd.
CTCE	China Tiesiju Civil Engineering Group Co., Ltd.
CT&D	Central Trading & Development Group
EDRI	Ethiopian Development Research Institute
EIC	Ethiopian Investment Commission
EIZ	Eastern Industrial Zone
EPRDF	Ethiopian People's Revolutionary Democratic Front
EPZ	Export Processing Zone
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GM	General Manager
GTP	Growth and Transformation Plan
HCMC	Ho Chi Minh City
HEPZA	Ho Chi Minh City Export Processing Zone Authority
HIP	Hawassa Industrial Park
IP	Industrial Park
IPDC	Industrial Park Development Corporation
IZ	Industrial Zone
KETD	Kunshan Economic and Technology Zone
KMT	Kuomintang
MOF	Chinese Ministry of Finance
MOFCOM	Chinese Ministry of Commerce
MPI	Vietnamese Ministry of Planning and Investment
OEZ	Open Economic Zone
OSS	One Stop Shop Services
SCCI	Vietnamese Cooperation and Investment
SEZ	Special Economic Zone
SIP	Suzhou Industrial Park
SSA	Sub-Saharan Africa

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