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Development and Industrialization in Ethiopia Reflections from China's Experience

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Development and Industrialization in Ethiopia

Reflections from China's Experience

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1. Introduction

Ethiopia's economic success over the past decade is outstanding. With double-digit rates of GDP growth, 3 billion USD of Foreign Direct Investment (FDI) in 2016 (the second highest level of all LDCs)¹, and strong assessments by international credit rating agencies, Ethiopia has made huge advances in its goal of reaching middle-income status by 2025.

How can Ethiopia maintain this positive momentum and attain middle-income status by 2025? Post-World War II history suggests that industrial growth guided by a strong, proactive developmental state is the key to rapid, successful development. However, due to the high cost and poor reliability of logistics, comparatively low labor productivity, and foreign exchange difficulties, existing industrial businesses in Ethiopia struggle to make a profit. These issues threaten the long-term viability of existing industries, and discourage future investments. What lessons might China – a country with similar factor endowments and a similarly strong, proactive developmental state – offer for Ethiopia's development?

Based on fieldwork in Ethiopia and China, including interviews with government officials, companies, and industrial zone operators from both countries, as well as secondary literature, this report offers reflections and recommendations from China's experience for Ethiopia's industrial development. We make five key suggestions, designed to boost industrial and private sector growth, and to strengthen integration into Global Value Chains (GVCs).

- a. Modernize the logistics sector through opening to increased competition, and introduction of new technologies.
- b. Exploit Ethiopia's comparative advantage and strong international reputation to increase value added in agricultural industries.
- c. Encourage some reforms of the financial sector to loosen foreign exchange difficulties for importers and exporters.
- d. Improve productivity and industrial discipline.
- e. Unleash the developmental and entrepreneurial potential of local governments through incentive structures that reward economic successes.

2. Development in Context

Developmental states and industrial policy

History reveals that industrialization is the key to economic development. Structural transformation from traditional to modern industrial sectors improves productivity, fosters innovation, and facilitates technology diffusion and other positive spillover

¹ UNCTAD 2017.



effects. ² How should contemporary developing countries pursue industrialization? Classic theories of growth emphasize the role of savings and investment³ and technological progress⁴, but offer few practical policy lessons. Mainstream contemporary economics identifies institutions (property rights and free markets)⁵ as the key, and advises liberalizing institutional reforms (the 'Washington Consensus').

However, the most successful cases of industrial development in the post-World War II period have not followed Washington Consensus prescriptions.⁶ Japan, the four 'Asian Tigers' (South Korea, Hong Kong, Singapore, and Taiwan), and later China all transformed from low- to middle- or high- income economies over just a few decades. Common features across the 'Asian miracle'⁷ countries included:

- 1. 'Developmental states'⁸ that adopted industrial policy to shepherd upgrading to higher value-added sectors but were also "market conforming"⁹: preserving and partnering with private enterprise, and exploiting competition and their comparative advantages.¹⁰
- 2. Meritocratic bureaucratic systems that rewarded economic progress and limited corruption, and comparatively stable governments that reassured investors and allowing long-term relations between government and business to develop.¹¹
- 3. Educational policies that supported industrial development through delivering labor with the required skills, especially in vocational, engineering, and science subjects.¹²
- 4. Similar factor endowments, including relatively low levels of land and natural resources, large endowments of youthful labor, and significantly poorer capital and technology than Western countries, creating comparative advantages in light, labor-intensive industrial sectors.

Specific industrial policy strategies included:

 <u>Import Substitution Industrialization (ISI)</u>: Japan¹³ and other Asian developmental states¹⁴ used tariff and non-tariff trade barriers and fiscal support for targeted domestic industries to discourage imports and encourage

⁸ Amsden 1992; Johnson 1982.

¹⁰ Stiglitz 1996, 156.

² Lewis 1954.

³ Domar 1946; Harrod 1939; Rostow 1960.

⁴ Solow 1956; Swan 1956.

⁵ Acemoglu, Johnson, and Robinson 2001; North 1989, 1990; North and Weingast 1989.

⁶ Stiglitz 1996.

⁷ Coined in a World Bank report by Birdsall et al. 1993.

⁹ Assar Lindbeck, cited in Johnson 1982, 29.

¹¹ Stiglitz 1996, 164.

¹² Stiglitz 1996.

¹³ See Teranishi (1992) for a history of ISI in Japan.

¹⁴ Felix 1989; Shafaeddin and Pizarro 2007.



the development of local industries, which eventually became internationally competitive.

- 2. <u>Export-oriented industrialization (EOI)</u>: Asian developmental states also followed export oriented industrialization (EOI) strategies, under the rationale that export-oriented industries make an enhanced contribution to development through marketing and production knowledge spillovers. They promoted exports through building ports, roads and other necessary infrastructure, granting exporters preferential access to capital and foreign exchange, and proactively working to develop new markets and enhance the international reputation of their countries' products¹⁵.
- 3. <u>Special Economic Zones (SEZs)</u>: Special Economic Zones (SEZs), export processing zones, and industrial parks were used (principally by China) to provide industries with preferential incentives, smoother bureaucratic procedures, and infrastructure in a small, limited space. SEZs kick-started export led development and integration into global value chains (GVCs) without requiring sweeping nation-wide changes.¹⁶ Through clustering industries in a specific geographical location, SEZs also offered a means of facilitating technology transfer and diffusion between firms.¹⁷
- 4. <u>Agro-Industrial Parks (AGIPs)</u>: SEZs are typically associated with light manufacturing, but countries like India¹⁸ and the Philippines¹⁹ have extended the SEZ model to the agricultural sector, with the aim of upgrading from production and export of primary agricultural products to higher value added agro-processing.

Global Value Chains (GVC)

The Asian developmental states were also notable for their successful integration into Global Value Chains (GVCs). Contemporary production networks are increasingly internationalized and fragmented, and integration into GVCs offered a method of transitioning to higher value added industrial products without needing to develop entire supply chains, as well as a crucial means of acquiring sophisticated technical and management knowledge from "lead [multinational] firms".²⁰ Key factors in promoting GVC integration include reducing logistics and trade costs through infrastructure improvements, streamlining of customs processes and other hurdles²¹, strategic creation and utilization of regional linkages instead of replicating entire production chains domestically, and strategic cooperation between host countries and lead firms.²²

'African lions' replace 'Asian tigers'? Ethiopia in context

¹⁵ Stiglitz 1996, 170–71.

¹⁶ Taglioni and Winkler 2016, 3.

¹⁷ Stiglitz 1996, 157.

¹⁸ Laxminarayana Rao 2006.

¹⁹ The Peninsula. 2017. "Philippines woos Qatari firms to invest in industrial zones". Available at <u>https://www.thepeninsulaqatar.com/article/26/09/2017/Philippines-woos-Qatari-firms-to-invest-in-agro-industrial-zones.</u>

²⁰ Taglioni and Winkler 2016; World Bank 2017.

²¹ Gereffi 2014, 441; Taglioni and Winkler 2016, 2; World Bank 2017.

²² Gereffi 2014, 439–40, 446.



Ethiopia shares several important similarities with the Asian miracle countries, which suggest that it has the potential to follow a similar development path. First (as discussed in more detail in section 4 below), Ethiopia has a developmental state government with strong commitment to developmental macroeconomic planning and which has already started to adapt the strategies followed by the Asian developmental states to the Ethiopian context.²³ Second, in terms of factor endowments, Ethiopia has a relatively large, youthful population of just over 102 million people (41% of whom are under age 15), and comparatively few fossil fuel and mineral resources.²⁴ At present, Ethiopia's rural population share is 80%, similar to China's at the start of China's reform and opening in 1978 (82%)²⁵, suggesting strong potential for structural transformation through shifting labor from agriculture to industry. Taken together, these factors suggest that Ethiopia has the potential to become the next destination for labor-intensive industry as wages rise in countries like China and Vietnam.

However, there are significant differences between the 'Asian miracle' countries and Ethiopia, which imply both challenges and opportunities. First, Ethiopia is starting from a lower base in terms of both infrastructure and industry. In general, the Asian developmental states had substantive levels of infrastructure and industry before their periods of post-War 'miracle' growth began. Japan began industrialization during the Meiji period (1868-1912)²⁶, while Korea underwent significant modernization during the Japanese occupation (1910-1945)²⁷. China built infrastructure and industry first with Soviet help in the 1950s²⁸ and later through the Third Front policy²⁹ in the 1960s and 1970s. When China's reform and opening (and decades of rapid growth) began in 1978, it already had over 49,000 kilometers of rail lines and a per capita electricity consumption of 247,000 kWh per capita, over 3.5 times Ethiopia's 2014 level (70,000 kWh per capita)³⁰. Ethiopia's capital and infrastructure scarcity is therefore greater than that of the Asian miracle countries at the start of their development, a situation compounded by its land-locked status, which makes land transport and associated infrastructure (e.g. electricity) more vital.

However, as a latecomer, Ethiopia also enjoys advantages that the Asian developmental states did not have. First, renewable energy technologies have advanced significantly in recent decades. Ethiopia – with its substantial hydro, wind and solar potential³¹ – therefore has an opportunity to develop without the severe environmental problems that have plagued the Asian developers, particularly China. Renewable resources also reduce the need for energy imports and make lack of fossil

³¹Export.gov. *Ethiopia – Energy*. Available at

²³ Oqubay 2015.

²⁴ World Bank World Development Indicators.

²⁵ World Bank World Development Indicators.

²⁶ Yasuba 1986.

²⁷ See Haggard, Kang, and Moon (1997) for a critical perspective.

²⁸ Zhou 2015.

²⁹ Meyskens 2015.

³⁰ World Bank World Development Indicators.

https://www.export.gov/article?id=Ethiopia-Energy



fuels less of a developmental constraint. Second, global value chains have become an increasingly important feature of the world economy. This makes Ethiopia's lack of complete industrial production chains much less of a barrier to attracting foreign investment, which in turn brings technology spillovers. Moreover, as well as a large, young labor force; Ethiopia also has an advantage (and strong international reputation) in agricultural and livestock products, such as coffee and leather, which create opportunities for agro-processing industries. Finally, the widespread use of English increases the attractiveness of Ethiopian workers and is likely to help facilitate technology and knowledge spillovers.

Ethiopia and other African economies

Growing middle classes, large and youthful populations, vast potential for expansion of consumer markets, and high commodity prices for much of the 21st century, have fueled global expectations that Africa is on the verge of economic takeoff. In particular, as wages rise in formerly low-cost manufacturing destinations (including China), Ethiopia has been widely tipped as one of the world's next destinations for labor-intensive manufacturing, thanks to its large, young, and cheap labor force.³²

But, how do Ethiopia strengths, weaknesses, and potential compare with other African economies? Table 1 compares key indicators from Ethiopia, Angola, Kenya, Nigeria, Rwanda, and Uganda.

	Ethiopia	Angola	Kenya	Nigeria	Rwanda	Uganda
Headline macroeconomic indicators	5					
GDP growth (%)	9.5	4.0	5.5	3.4	7.2	4.5
GDP per capita (current USD)	578.8	4183.8	1304.9	2761.4	697.3	667.7
Inflation (%)	11.1	14.3	7.0	10.7	4.1	7.2
External debt stocks (% GNI)	28.5	24.8	26.6	4.8	23.8	19.4

Table 1: Comparison of Ethiopia and select African countries³³ (2012-2016 average performance)

Demographics and human capital

³² See e.g. McKinsey. 2015. *East Africa: The next hub for apparel sourcing?* Available at <u>https://www.mckinsey.com/industries/retail/our-insights/east-africa-the-next-hub-for-apparel-sourcing; World Bank. 2015. *Africa Still Poised to Become the* <u>Next Great Investment Destination. Available at</u> http://www.worldbank.org/en/news/opinion/2015/06/30/africa-still-poised-to-</u>

become-the-next-great-investment-destination.

³³ Note: all data are averages of 2012-2016 data from the World Bank World Development Indicators (WDI), with the exception of the literacy data, which are the most recent available year from UNICEF (data.unicef.org).



Population (millions)	97.4	26.9	46	177	11.3	38.9
Age dependency ratio	84.1	98.0	79.6	88.3	78.0	102.7
Literacy (% of adult population)	39 (in 2007)	71 (in 2013)	72 (in 2007)	51 (in 2008)	66 (in 2010)	73 (in 2010)
Sector value added						
Agriculture, value added (% GDP)	42.3	-	31.6	21.1	30.9	26.4
Industry, value added (% of GDP)	15.2	-	19.6	23.4	18.1	20.7
Services, value added (% of GDP)	42.6	-	48.8	55.5	51.0	52.9
Agriculture & rural						
Rural population (% total)	81.0	56.7	74.8	53.1	72.2	84.2
Agriculture value added per worker	461.8	-	803.3	8300.7	407.6	471.8
Agricultural raw materials exports (% of merchandise exports)	14.8	0.0	12.2	3.6	4.7	5.7
Natural resources						
Oil rents (% of GDP)	0.0	28.4	0.0	9.4	-	-
Mineral rents (% of GDP)	0.8	0.0	0.1	0.0	0.2	0.0
Infrastructure and logistics						
Access to electricity (% of population)	25.5	33.0	30.5	56.2	15.9	16.2
Internet users (% of population)	8.4	10.2	17.4	21.3	13.1	17.2
Logistics performance index (1=low to 5=high)	2.4	2.4	2.9	2.6	2.7	3.0
Business environment						
Ease of doing business ranking	159.0	181.5	102.5	169.5	57.5	115.5
Cost of business start-up procedures (% of GNI per capita)	97.8	88.4	35.7	43.7	44.9	59.2
Globalization and trade						
Foreign direct investment, net inflows (% of GDP)	2.5	-0.3	1.2	1.0	3.3	4.3
Current account balance (% of GDP)	-6.9	1.4	-9.2	1.1	-12.1	-8.0
Imports of goods and services (% of GDP)	29.6	38.0	30.6	12.2	33.0	29.3
Exports of goods and services (% of GDP)	11.1	46.6	18.3	19.6	14.2	18.6



From a comparative perspective, Ethiopia is performing particularly well in GDP growth (by far the highest in the group) and net inward FDI. Ethiopia has extremely low reliance on natural resources, insulating it from the commodity price fluctuations that have recently harmed other African economies. However, Ethiopia is starting from a relatively low, traditional base in terms of economic structure, which creates both challenges and opportunities.

Ethiopia has the second highest share of rural population (81%) and highest agricultural value added in GDP (42%). However, Ethiopia's agricultural value added per worker is the second-lowest (462 USD), while its share of agricultural raw materials exports is the highest (15%). These data show that compared to other major African economies, Ethiopia's huge agricultural sector is dominated by low value added, traditional and subsistence activities, with a large amount of surplus labor. Likewise, Ethiopia's share of industry value added as a percentage of GDP is the lowest in the group.

However, these data also suggest huge opportunities for growth, in both agriculture and industry. Compared to other African countries, Ethiopia still has a large amount of surplus rural labor, and therefore potential to realize the productivity and developmental gains from moving this labor from traditional agricultural to modern industrial employment. Moreover, the comparatively high proportion of agricultural raw materials in exports suggests large room for upgrading to higher value added agro-industrial exports (e.g. from raw coffee to processed beans).

Realizing this potential requires attracting investment and entrepreneurship (both local and foreign) in the industrial sector, including agro-industry. While Ethiopia's development-oriented government and large population are strong advantages, a comparison with other African economies suggests that Ethiopia still has a long way to go in creating fruitful conditions for industrial development. Ethiopia is a comparatively poor performer in terms of electricity infrastructure and Internet users (a proxy for communications), and – crucially – shares the lowest logistics performance index score in the group, which is a serious barrier to exploiting opportunities offered by GVCs. Moreover, Ethiopia has the highest cost of starting a business (as a percentage of GNI), and is ranked third lowest in the group in terms of ease of doing business. While large multinationals have the capacity and the clout to deal with complex regulations and bureaucracies, a domestic private sector will struggle to grow unless it becomes easier to do business. Finally, Ethiopia has the lowest adult literacy rate, which implies that although the supply of workers is large, those many workers may not be sufficiently educated to be suitable for modern industrial employment.

3. China-Ethiopia economic exchange

Chinese investment, aid, and trade with Ethiopia are large and growing, and China's Belt and Road Initiative (BRI) is an opportunity to expand and deepen China's role in Ethiopia's industrial development. Alongside continuing China's strong role in infrastructure, key opportunities for improvement include:

*strengthening local supply chains to encourage Chinese investors to source



inputs domestically and reduce the trade imbalance,

* better aligning Chinese aid with our recommendations above to develop a modern, industrial workforce,

*promoting agro-industry,

*building official capacity.

Investment

China is among the top three investors in Ethiopia, in terms of number of projects and amount of capital invested.³⁴ According to China's Ministry of Commerce (MOFCOM), a total of 177 investments by Chinese companies in Ethiopia were approved between 2000 and 2015. Table 3 compares Chinese investment approvals in Ethiopia with other African countries. The number of Chinese investments in Ethiopia is relatively large to other African countries – more than Angola, Kenya, Rwanda, and Uganda, and 54% of the number of Nigerian approvals despite the fact that Ethiopia's economy is less than 20% the size of Nigeria's.³⁵

Table 2: Comparison of number of Chinese approved investments across selected African countries (2000-2015)

	Ethiopia	Angola	Kenya	Nigeria	Rwanda	Uganda
Approved investments	177	124	124	326	6	86
Primary sector	21	16	7	47	1	13
Secondary sector	158	88	87	204	3	64
Tertiary sector	147	112	108	290	6	76

Source: MOFCOM data set of investment approvals (2000-2015).

Note: because many investments cover more than one sector, the total number of approved investments for each country is less than the sum of approvals in each sector.

Compared to China's investment in other African countries, Chinese investors in Ethiopia are more heavily oriented towards the secondary sector, and rising wages in China and other low-cost manufacturing destinations are likely to drive an increase in secondary sector investments, making a positive contribution to Ethiopia's industrial development. Moreover, as the number of Chinese investors in Ethiopia grows, they are likely to pull in additional Chinese companies through professional and social networks, due to the importance of relational networks within Chinese business culture.³⁶

Trade

Chinese trade with Ethiopia has grown significantly in recent years. Imports of Chinese manufactured goods and equipment provide inputs for infrastructure and manufacturing, while China mainly imports primary commodities and basic foodstuffs from Ethiopia.³⁷

³⁴ Federal Democratic Republic of Ethiopia, 2016.

³⁵ World Development Indicators.

³⁶ World Bank 2012.

³⁷ Detailed statistics on trade sector composition are available from UNCTAD <u>http://unctadstat.unctad.org/EN/</u>.



Figure 1: China-Ethiopia trade



Source: SAIS-CARI.³⁸

However, the faster rate of growth of Chinese exports to Ethiopia compared to imports contributes to Ethiopia's current account deficit. Many Chinese (and other) companies in Ethiopia source their inputs from China because local supply chains are not available.

Table 3: Manufactured goods in Sino-Ethiopian trade

	2000	2016
Share of manufactured products in Chinese	34	98
exports to Ethiopia (%)		
Share of manufactured products in Chinese	3	15
imports from Ethiopia (%)		

Source: UNCTAD. <u>http://unctadstat.unctad.org/EN/</u>.

Over the medium to long-term, building local supply chains through developing the local private sector will help to reduce this imbalance. Moreover, the fact that the share of manufactured goods in Chinese imports from Ethiopia has risen over time is a positive development. Capitalizing on Ethiopia's comparative advantage in agriprocessing would help to reduce the proportion of low-value added basic primary products in Chinese imports, further contributing to a reduction of the trade imbalance.

Aid

According to recently released non-official data from researchers at AidData³⁹, Ethiopia was the second largest African recipient of Chinese aid commitments between 2000 and 2014, and the third largest recipient in the world, reflecting Ethiopia's central position in China's Africa strategy and the close linkages between Chinese aid and Chinese investment.

As Chinese investment in Ethiopia continues to grow and China expands its outward

³⁸ Data from <u>http://www.sais-cari.org/</u>. SAIS-CARI sourced the data from UN Comtrade.

³⁹ Dreher et al. 2017. This is not Chinese official data and should not be interpreted as such (China does not release official country-level information on its development aid). More information about this data and the collection methodology can be found here http://aiddata.org/china.



economic engagement through the BRI, Chinese aid is likely to increase in parallel. Ethiopia's developmental state strategy combined with China's tendency to channel aid towards productive sectors such as infrastructure, and to mix aid with investment, means Chinese aid is likely to continue to play a strong role in Ethiopia's industrial growth.

Recipient	Amount (billion US\$)
Cuba	6.7
Cote D'Ivoire	4.0
Ethiopia	3.7
Zimbabwe	3.6
Cameroon	3.4
Nigeria	3.1
Tanzania	3.0
Cambodia	3.0
Sri Lanka	2.8
Ghana	2.5

Table 4: Top 10 Recipients of Chinese ODA 2000-2014

Source: AidData.org/China.

3. China's industrialization and development experience

What lessons might China's industrialization experience offer for Ethiopian development? We now turn to a detailed investigation of China's development, and identify four policy areas that were key to China's progress. First, special economic zones (SEZs) that are characterized with favorable investment conditions and credible policy environment play a major role in attracting foreign direct investment (FDI). Second, the formation of network linkages and integration into global value chains are important for export promotion and industrial transformation. Third, flexible land management facilitates the rapid urbanization and enables large-scale manufacturing. Lastly, transformative policy experimentation enables the government to adapt to large-scale economic change.

i. Special Economic Zones

China's economic opening began with the establishment of four SEZs in the coastal provinces Guangdong and Fujian in 1980. This experiment was inspired by the experience of Asian tigers that combined the advantages of a free trade zone, an industrial estate, and all the relevant administrative offices of the government in one place. Foreign firms enjoy a preferential tax rate, tax concessions, exemption of import/export duties, and flexible labor regulations. Through the one-stop-shop arrangement, the bureaucratic "red tape" was also reduced for foreign firms. These benefits, together with the abundant low-cost labor supply, created a capital-friendly environment that would otherwise not exist.



The design of SEZs, including generous incentives, streamlined regulations, autonomous fiscal authority, and enhanced political status, was an important institutional innovation. But SEZs were not an immediate success. The growth of FDI inflows accelerated only after the experimental SEZ policy became an enduring institutional arrangement as it represents the Chinese government's strong commitment to economic liberalization, which greatly reassured foreign firms about the risk of the investment environment. At their highest level, SEZs contributed more than a third of total FDI inflows and exports in China.⁴⁰ The enhanced policy credibility and consistency, rather than the existence of various incentives, played a more important role in explaining SEZs' success in attracting FDI.

ii. Integration into GVCs

While attracting FDI was the primary goal pursued by all SEZs in the early stage, building production networks and integrating into GVCs is an important strategy for them to achieve sustainable development. We carried out plant visits and interviews in three cities in China: Changzhou in coastal province Jiangsu, Wuhu in central province Anhui, and Chongqing municipality in western China. While these cities vary greatly in their sizes, industrial structure, and economic performance, they employ similar strategies in attracting FDI, promoting industrial clusters, and facilitating linkages with GVCs.

Located in landlocked southwestern China, <u>Chongqing</u> was a traditional mechanical manufacturing city. It has gradually transformed into a major e-commerce platform. The transition can be traced back to May 2008 when HP, a global leading IT company decided to set up a manufacturing base for laptop computers, partly thanks to Chongqing's mayor Huang Qifan's personal promise of generous incentives. Despite its disadvantaged location, Chongqing is endowed with some important advantages— a massive labor market, manufacturing capability, and growing logistics networks. Apart from HP, four other big global IT companies have set up factories in Chongqing. Major suppliers for those IT companies, including Foxconn and Quanta, followed the footsteps of the IT giants; 800 small IT component suppliers also moved to Chongqing. The railway line connecting Chongqing with Europe has solved transport and logistics problems, greatly reducing the waiting time (up to two weeks) in shipping goods to Europe.⁴¹ Chongqing now manufactures one in three laptop computers in the world.

Located in central province Anhui, <u>Wuhu</u> has neither the location advantage of those in coastal areas, nor has it the massive labor and manufacturing capacity as in Chongqing. Its development has also been driven by building production linkages and promoting industrial clusters. The center of this strategy is Chery Automobile, a statecontrolled automobile company that has been able to develop and market a line of low-end vehicles that suitable for both the local market and for export to other developing countries. By the end of 2007 Chery was already China's largest vehicle exporter. The growth of Chery attracted lots of suppliers to relocate to Wuhu, forming an integrated production chain. In particular, with the rising demand for industrial

⁴⁰ Zheng 2014.

⁴¹ China Daily. 2014. "Chongqing: land of laptops." June 16.



robot in car manufacturing, Chery established Efort, a robotic manufacturing equipment department. Efort's production capacity has quickly outgrown the demand of Chery, which encourages not only Chery, but also the Wuhu government, to promote the development of the robot industry. A robot industrial park was established. By the end of 2016, it has managed to attract 79 companies with a total output of 7 billion yuan.

<u>Suzhou-Wuxi-Changzhou</u> metropolitan area is part of a highly developed Yangtze River Delta region. Hosting more than a dozen of industrial parks, this area is one of the most active and innovative industrial agglomerating areas. With the rapidly rising labor costs and land prices, its traditional competitive advantage is quickly diminishing. Whether the growth momentum can sustain will depend on how to differentiate competitive advantages and how to establish network linkages among different parks. With the coordination of local governments, all industrial parks have developed their own priority sectors and formed a vertical value chain: Suzhou is the technological innovation center, Wuxi is the base of advanced manufacturing industry, and Changzhou specializes in traditional manufacturing industry, particularly railway equipment manufacturing. Locating in this industrial cluster allows manufacturing firms to work closely with local suppliers and find ways to lower production costs through modest component design and modification. This linkage effect is particularly important for firms with strategies of integrating into GVCs.

iii. Flexible land management

China's rapid industrialization can be attributed to two major advantages: large-scale manufacturing and massive cheap labor. Neither advantage would have materialized without mass land acquisition and conversion. Although land acquisition has also been one of the most contentious issues in China's economic development, flexible land management system facilitates conversion of agricultural land into industrial land for large-scale manufacturing production. It also provides local governments with a source of revenue to relieve their fiscal stress and a source of collateral to finance local infrastructure.

China's land is governed by a dual system: urban land is owned by the state; rural land is collectively owned by rural residents. Although land ownership remains unchanged, a series of reforms to land use since the 1980s have established markets in land and real estate. Decentralized land ownership with hierarchical land management were adopted after a series of reforms that commodified land, separating use rights and ownership.

The generation of land markets proceeded through experimentation, first with land use fees and later with leasing long-term land use rights in exchange for capital. This arrangement creates a strong incentive for the local government to convert rural land for urban construction and industrial development, leading to the rapid expansion of cities and massive rural migrants. Therefore, this process facilitates large-scale laborintensive manufacturing.

iv. Transformative policy experimentation



China's experience of economic development suggests that the Chinese government adopted some innovative policies and institutions to master the complex challenges of large-scale economic change while avoiding systematic crisis. This unusual adaptive capacity could be partly attributed to the transformative policy experimentation by local governments.

Under the framework of regional decentralization⁴², local governments at the level of municipality or county have overall responsibility for governing business activities in their own jurisdiction. The central government uses appointment and promotion as instruments to motivate local governments to follow the center's direction and maintain an investment-friendly policy environment. The experimentation process involves the interplay between local initiative and central sponsorship.

Local innovations, in the form of experimental regulation, SEZ, or policy practice, are first implemented as pilot projects within a few localities and only those proven to produce desired outcomes are then diffused to more localities and may eventually become national policy. Instead of seeking for "best practices", this experimentation approach helps the central government to tap local knowledge and mobilize local officials while avoiding protracted policy deadlock. ⁴³

4. Ethiopian development and industrialization

i. Strengths and achievements

Ethiopia has achieved outstanding economic success in recent years, and is regarded as a leader in Africa, both in terms of achievement and future potential. In the interest of conciseness, in this report we do not offer a detailed account of Ethiopia's well-known achievements, the detailed plans laid out in GTP 2⁴⁴ or specific incentives to attract investors.⁴⁵ Instead, we concentrate on the findings from our fieldwork, first briefly outlining why our interviewees found Ethiopia an attractive destination for industrial investment, before turning to a detailed discussion of the challenges we discovered during our research.

Low labor costs are the obvious key pull factor for manufacturing investors. McKinsey Global Institute (MGI) finds that Ethiopia's unit labor costs for the manufacture of polo shirts are less than half the level in China and Vietnam. In the case of leather loafers, its unit labor costs are one-third those in Vietnam and one-fifth those of China.⁴⁶ But, why would investors choose Ethiopia over other low-cost manufacturing destinations? Our interviewees identified three key reasons:

⁴⁵ Ethiopian Investment Commission (EIC). Available at <u>http://www.investethiopia.gov.et/</u>.

⁴² Xu 2011.

⁴³ Heilmann 2008.

⁴⁴ Federal Democratic Republic of Ethiopia 2016.

⁴⁶ McKinsey Global Institute 2016.



- 1. <u>Strong political will for development</u>: Investors and international organizations (e.g. UNIDO) highly praise central officials' commitment to creating a fertile environment for doing businesses, and see Ethiopia as a leader in Africa in this respect.
- 2. <u>Strong central government capacity</u>: Likewise, investors praise high levels of knowledge of the practice of development within the central government, and the ability to learn from experience (for example learning from past industrial park development to successfully launch the Hawassa park within 9 months).
- 3. <u>Improving infrastructure</u>: Although businesses were concerned about lack of infrastructure (see section ii below), they felt a strong, positive momentum in this area. Continuous improvements in water, electricity, communications and transport in recent years mean that businesses have positive expectations about their futures in Ethiopia.

ii. Challenges and issues

However, despite the positive forward momentum, the high economic growth has not been accompanied by structural transformation. The manufacturing sector continues to contribute a small share of GDP. In 1980, Ethiopia shared several fundamental economic characteristics with several Asian countries, including Vietnam, Cambodia, and Lao PDR. All were predominantly agricultural economies that exported mostly agricultural commodities and minerals, and imported nearly all manufactured goods they consumed. By 2010, the three Asian countries witnessed significant increase in the share of manufacturing in GDP.⁴⁷

	Share of Agriculture in GDP		Share of manufacturing in GDP		
	First 3 years after 1980	2008-2010	First 3 years after 1980	2008-2010	
Ethiopia	60	47	5	4	
Vietnam	40	21	14	20	
Cambodia	48	35	9	18	
Lao PDR	61	33	10	20	

Table 5: Comparison of Economic Structures

Source: Chandra 2013.

It is not only growth that matters for the overall development, but also the pattern and structure of economic growth within individual economies. The manufacturing businesses we interviewed are generally not currently making a profit. Despite the decline in unemployment rate, unemployment is prevalent, particularly in urban areas, where unemployment rate is still as high as 21 percent in 2013. Concerns exist regarding whether economic growth is sufficient to create a dynamic and inclusive

⁴⁷ Chandra 2013.



labor market. ⁴⁸ Cross-country evidence makes it clear that growth in labor-intensive sectors such as agriculture or manufacturing are typically more poverty-reducing than growth in capital-intensive sectors such as mining.⁴⁹ In Ethiopia, however, despite the rapid growth in manufacturing employment in recent years (from 40,000 in 2002 to 200,000 in 2014), manufacturing has not met the targets of job creation.⁵⁰ The construction sub-sector is the primary contributor of economic growth, thanks to the continued high investment and finance in infrastructure.⁵¹ Moreover, the current account deficit has widened over the past half-decade, and if future export growth is slow Ethiopia will struggle to reduce this shortfall in the medium term, putting additional pressure on importers and threatening debt sustainability.⁵²

If this situation continues over the long term, investors will consider leaving Ethiopia, seriously threatening the continued success of GTP 2 and wider industrial strategy. In order of importance, the issues affecting industrial investors in Ethiopia are: (1) cost and reliability of logistics; (2) productivity and industrial discipline; (3) access to foreign exchange; and (4) local government capacity and consistency of regulations.

- Logistics: Almost every manufacturing business we interviewed identified logistics as their biggest concern. The fact that Ethiopia's 2016 score in World Bank's Logistics Performance Indicator was 2.377 out of 5, compared to averages of 2.47 and 2.884 for Sub-Saharan Africa and the world respectively, and 2.977 for Vietnam⁵³ suggests these concerns are representative of the situation across the country. For importers and exporters, high logistics costs are a major reason for loss-making (one factory manager in the Bole Lemi industrial park noted that sending goods to Djibouti by road costs almost as much as sending them from Djibouti to China). In addition to high costs, business also cited high levels of accidents and delays, which have a significant impact in sectors such as apparel, where quick turnarounds and meeting customer orders on time is crucial.
- 2. <u>Productivity and industrial discipline</u>: Our interviewees reported that labor productivity in Ethiopia was lower than in other low-cost manufacturing destinations (for example, one apparel manufacturer stated that productivity was around 25-30% of levels in Vietnam), reflecting the fact that most factory have very limited experience of modern industrial employment. Absenteeism, ability to "concentrate" on the job, unresponsiveness to financial incentives to work overtime, and high turnover were identified as problems. Moreover, cultural differences between management (typically foreign) and Ethiopian workers leads to misunderstandings. As a result of low productivity, the majority of the manufacturing businesses we interviewed are not operating at

⁴⁸ Golubski, Christina. 2016. "Trends in Ethiopia's dynamic labor market." Available at https://www.brookings.edu/blog/africa-in-focus/2016/08/17/trends-in-ethiopias-dynamic-labor-market/.

⁴⁹ Bhroat and Tarp 2016.

⁵⁰ Ansu et al. 2016.

⁵¹ Seid, Seyoum, and Ali 2016.

⁵² IMF 2016.

⁵³ World Bank World Development Indicators.



full capacity (estimates ranged from 25 to 90%), impacting profitability and – over the long term – sustainability.

On agricultural productivity, the high dependency on traditional, rain-fed farming in small and fragmented landholdings needs to be addressed. Climate change is also a major threat to the sustainability of growth, especially due to its negative impact on agricultural output as well as the additional cost of climate resilient infrastructure.⁵⁴

- 3. <u>Access to foreign exchange and credit</u>: Manufacturing firms rely heavily on imported raw materials, which generally does not play to their advantage given the limited availability of foreign exchange and lack of access to adequate credit—particularly for small- and medium-sized firms. Many of our interviewees cited foreign exchange as an additional barrier to imports and exports, and a source of costly delays. The National Bank is perceived as being unwilling to respond to the concerns of businesses (or example, Cash Against Document (CAD) requirements for export permits are perceived as overly-burdensome), but agencies responsible for assisting investors (the EIC and IPDC) are unable to influence the Bank to change its policies and processes. Logistics companies such as ESL also suffer from lack of access to foreign exchange, which compounds shipping delays (if logistics firms do not have the foreign currency required to reimburse companies in Djibouti for clearing services, goods can be held at the port).
- 4. <u>Local government capacity and inconsistent regulations</u>: While our interviewees universally praised the capacity and will of the central government, there is a widespread perception that local governments and agencies (e.g. customs) lack the capacity (and sometimes the will) to create a good business environment. Lack of training, poor technology, and lack of financing create inconsistent policies and slow implementation that frustrate investors.

5. Recommendations

Ethiopia's government already has extensive plans that aim to address many of the issues outlined above.⁵⁵ What lessons might China's development experience contribute? Drawing on reflections both from the Chinese experience and our fieldwork, we offer suggestions in five areas. These are intended to make a positive contribution to Ethiopia's future development planning, either through helping to address the specific issues for industrial investors outlined above, or through fostering wider growth of modern industries in Ethiopia (both private and public, domestic and international), underpinned by a proactive, entrepreneurial state.

i. Modernization of logistics

⁵⁴ African Development Bank Group 2016.

⁵⁵ Federal Democratic Republic of Ethiopia 2016.



Our first recommendations are concerned with modernizing the logistics sector. Good logistics are crucial in seizing the advantages of integration into Global Value Chains (no countries with poor logistics performance have succeeded in becoming central to GVCs⁵⁶). The quality of logistics has a significant link with export growth: improving logistics would not only attract more investment, but also help to reduce the high current account deficit.⁵⁷ Ethiopia already has an ambitious target to increase the global logistics performance index rank 104th to 57th⁵⁸ during the GTP 2 period.

New infrastructure such as the Addis Ababa-Djibouti railroad will significantly contribute to achieving this target through offering a much faster form of transport, reducing delays caused by road accidents, and by putting competitive pressure on road transport contractors. For these reasons, our interviewees eagerly awaited its opening, and those located within the railway corridor predicted it would reduce their costs and waiting times substantially.

However, new transport infrastructure does not address another key cause of high logistics costs and slow processing times. The multimodal logistics market is dominated by the Ethiopian Shipping and Logistics Authority (ESL), which enjoys near-total monopoly power. We recommend opening the multimodal logistics market to competition, in order to stimulate a driving down of costs and improvements in service. This could be done gradually, for example with an initial opening to domestic competitors, or Joint Ventures (JVs) between international and domestic firms. China's experience, in which central state owned enterprises co-exist alongside smaller private firms, shows that opening to competition need not signal the demise of former state monopolies.⁵⁹

Moreover, support for new technologies such as GPS tracking and communications technology would contribute towards reducing delays and improving efficiency. Public Private Partnerships (PPPs) could provide a means of bringing in new, modern technology without burdening state finances. Finally, introduction of automated technologies in customs processing would reduce bureaucratic delays and offer a solution to low capacity in this area.

ii. Leverage Ethiopia's comparative advantage in agro-processing GVCs

In contrast to the Asian developmental states, whose comparative advantages lay squarely in light manufactured goods such as apparel, footwear and toys, Ethiopia has additional advantages in the production of agricultural products and livestock, and enjoys strong reputations for quality internationally (in particular coffee and leather goods). Exports are currently heavily dominated by low-value added raw products. The share of processed products in total agro-industry exports constitute only 1.3 per cent in 2013.⁶⁰ Unleashing the potential of Ethiopia's advantages in these sectors

⁵⁶ World Bank 2017, 8.

⁵⁷ IMF 2016,17.

⁵⁸ Federal Democratic Republic of Ethiopia 2016, 172.

⁵⁹ Deloitte China 2015.

⁶⁰ UNIDO 2017.



through upgrading to higher-value added agricultural processing industries would create industrial job opportunities, and boost exports and foreign exchange earnings.

The promising potential of the agri-processing sector is particularly pertinent in the context of global value chains, as major agri-food companies are becoming increasingly involved in raw materials procurement and sustainability, creating possibilities for vertical FDI⁶¹. If Ethiopia can attract global agri-foods lead firms to not only source their raw materials from Ethiopia, but also process their products, this will not only bring industrial jobs, but also important technological and knowledge spillovers for the rest of the economy.

To contribute towards meeting (or exceeding) Ethiopia's agro-processing goals⁶², we suggest greater attention is paid to the promotion and support of agro-processing above other manufacturing industries. In particular, Agro-Industrial Parks (AGIPs), which are the responsibility of local governments, may benefit from greater central government oversight and attention. The central government has proven itself remarkably capable of attracting and reassuring major investors in the industrial sector (e.g. PVH at Hawassa), which in turn pulls in smaller investors and also creates opportunities for local supply chains. If the EIC and others could work to secure more major agro-processing investors, additional important positive spillovers could occur in this sector. In particular, the large share of agriculture in Ethiopia's economy means that bringing modern global partners and domestic agricultural producers into GVCs could benefit large swathes of the Ethiopian economy. Likewise (as discussed in part iv below) building capacity and entrepreneurial attitudes within local governments would help AGIPs to realize their potential.

iii. Foreign exchange and the financial system

Access to foreign exchange is a major difficult for importers and exporters, both domestic and foreign. The current account deficit is projected to remain high over the medium term, constraining Ethiopia's ability to grow its foreign exchange reserves.⁶³ However, mindful of the negative consequences of rapid liberalization of foreign exchange in many developing countries, including the Asian Tigers, and conscious of the slow, incremental, and incomplete liberalization of China's financial system, we do not advocate for full liberalization in this area.

Nevertheless, there are ways in which the needs of industrial operators could be better addressed. First, access to foreign exchange could be prioritized for sectors where speedier access would have positive spillovers for the rest of the economy, including logistics and infrastructure development. Minimizing delays caused by lack of currency to pay foreign clearing companies would contribute to a general improvement across Ethiopia's logistics sector, and be particularly valuable for exporters whose business model requires them to rapidly meet customer orders. Prioritizing foreign exchange for sectors with high export performance would

⁶¹ Gereffi 2014, 439–40.

⁶² See GTP II (p.140) for the specific goals.

⁶³ IMF 2016.



contribute to reduction of the current account deficit.⁶⁴ Likewise, prioritizing access to foreign exchange for key infrastructure would allow businesses to more rapidly take advantage of new infrastructure.

iv. Human capital & productivity

Ethiopia produces 100,000 domestic graduates every year, and universities and colleges are expanding across the country. As a result, manufacturers are now recruiting and training Ethiopian management trainees (sometimes in China and other countries), which will have important knowledge transfer effects. However, the productivity and discipline of the low skilled workers who form the vast majority of industrial workers remains comparatively low.

We make several suggestions aimed at improving this. First, labor services could be more closely integrated into industrial parks' "one stop shop" model. Park management could assist investors to find workers, and offer HR support to help international managers to better understand Ethiopian culture and adapt to the local context (for example, many interviewees reported absenteeism due to family matters as a key problem: advice and training on how to deal with this in a manner appropriate to local cultural norms could be extremely valuable). Moreover, practical provisions that ensure workers are able to live close to the factory (e.g. dormitories) and arrive at work on time (e.g. transportation) would reduce turnover and absenteeism. Linking the development of industrial parks to residential and services development would be extremely valuable.

Finally, China's vocational education system has had success in preparing students from rural families for industrial jobs. China's vocational schools offer an alternative to traditional secondary education, which is focused on preparing students for an academic university education, and aim to produce skilled workers and technicians. They offer education in relevant technical and other skills (e.g. secretarial studies), and are typically characterized by close linkages between schools and companies, which produces employable graduates with the capabilities that industries need. Some vocational schools are even run by large companies.⁶⁵ Ethiopia already has 1329 technical and vocational education and training (TVET) institutions (2014/15)⁶⁶ – further expansion of TVET and encouragement of businesses (including private businesses) to set up their own TVET institutions would help deliver a more productive industrial workforce.

v. Bureaucratic incentives and policy consistency

Studies from other countries show that, under stable central authority, greater autonomy and incentives for local bureaucrats correspond to better governance outcomes.⁶⁷ We suggest that the central government could consider to delegate some decision-making authority, particularly those related to industrial parks and

⁶⁴ IMF 2016.

⁶⁵ Biermann 1999.

⁶⁶ Federal Democratic Republic of Ethiopia 2016.

⁶⁷ Bardhan 2002.



investment promotion, to local bureaucrats, relying on their professionalism and resolve to deliver public services and manage economic activities in their jurisdictions. It is not about weakening the central authority. Instead, it is about making governance at the local level more responsive to heterogeneous needs of the local community.

Advancing the role of local governments in development requires two main elements. First, using training and technological improvements to strengthen capacity. Practical training in areas such as public policy and administration would help to build local governments ability to design and implement proactive, investment-friendly policies; while technological improvements, in particular to automate bureaucratic procedures, would free up local officials' time to concentrate on development and speed up bureaucratic processes. The second and most important element in building proactive local governments is incentives. Without practical, measureable incentives, local officials will not be motivated to promote development. For example, China's system for management of government officials prioritized economic development in the promotion structure. Officials who designed and implemented successful policies were rewarded with more promotion opportunities, creating an incentive for innovative, entrepreneurial local governments to attract investment.

Given the critical role of policy consistency in the development of industrial parks, we suggest that the central government create incentives for local governments to maintain investment-friendly policy environments. In particular, some industrial parks and agri-processing parks could be used to test some policies that have been successfully adopted in other countries. As Ethiopia becomes more integrated into the global market and move up along the development ladder, space for experimental policies is shrinking. The central government could play certain activist roles to coordinate the experimentation process and scale up local innovations. With development-focused incentive structures and central government co-ordination, the innovations that result from successful local experiments can be rolled-out across the rest of the country.

7. Conclusion

Ethiopia's economic development achievements over the past decade are extraordinary. Sustaining this successful momentum will require continued investment to build a modern, job-creating industrial sector and integrate into Global Value Chains (GVCs). However, businesses operating in Ethiopia face key challenges that threaten their long-term sustainability and constrain further development, including logistics, human capital, and access to foreign exchange. This report offers suggestions for Ethiopian industrial policy and development based on lessons from China and other 'Asian miracle countries', and on fieldwork within Ethiopia and China. We make suggestions in five main areas. First, we recommend modernization of logistics through increased competition and new technologies. Second, we advocate intensified efforts to exploit Ethiopia's comparative advantage in agroindustries. Third, we offer some suggestions for management of the financial system and foreign exchange to ease the difficulties of importers and exporters, and prioritize sectors with positive spillover effects. Fourth, we suggest that expansion and



innovation of the vocational education system would help improve human capital and productivity. Finally, we offer some recommendations for the development of activist, experimental and innovative local governments that play an entrepreneurial economic role.

To further improve the contribution Chinese economic ties makes to Ethiopian development, it would be valuable to closer align aid with the other recommendations we make above. For example, to improve human capital and build an industrial workforce, Chinese aid for vocational education could be expanded, and the government could assist Chinese investors in Ethiopia to set up their own vocational education institutions. Likewise, infrastructure assistance could be more closely aligned with AGIPs, to promote the development of agro-processing industries. Although China and Ethiopian officials already carry out experience-sharing exercises, more institutionalized knowledge-sharing and training activities, in particular targeted at local governments, could help to improve official capacity and create proactive, entrepreneurial local governments. We hope that the benefits of China's already significant economic engagement could be strengthened through better leveraging Sino-Ethiopian cooperation to address these suggestions.



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Appendix: List of Interviewees

We are grateful for the kind assistance of the following interviewees:

Minister and Special Adviser to the Prime Minister of Ethiopia: Dr. Arkebe Oqubay

Ethiopian Ministry of Industry: Mr. Ahmed Nuru, Director: Policy and Program Study and M&E and Special Adviser

Ethiopia Ministry of Finance and Economic Cooperation: Mr. Tilahun Tadesse Haile, Director, Ethio-China Development Cooperation Directorate

Ethiopian Investment Commission (EIC): Dr Belachew M. Firke, Deputy Commissioner

Ethiopian Railways Corporation (ERC): Mr. Abiy Getachew, Head of Research and Development

Ethiopian Shipping and Logistics Authority (ESL): Mrs. Emebet, Freight Forwarding Head

Ethiopian Industrial Parks Development Corporation (IPDC): Mr. Solomon Shiferaw, CEO

Bole Lemi Industrial Park: Mr. Solomon Asfaw, Manager of Bole Lemi One Stop Shop Service; and representatives of the Shints and George Shoe factories

Eastern Industrial Zone, Addis Ababa: representatives of the Lifan, Sansheng, and Huajian factories

Hawassa Industrial Park: representatives of the Wuxi Jinmao and Indochine factories

UNIDO (Addis Ababa office): Mr. Gustavo Aishemberg, Representative and Director of Regional Office, and Mr. Asegid Adane Mebratu, National Programme Officer

UK Trade and Industry (UKTI): Mr. Dessalegn Yizgaw, Ethiopia Head

Chinese Embassy in Ethiopia: Mr. Liu Tao, DCM/Counselor

Chinese Economic and Commercial Counselor (ECC) in Ethiopia: Ms. Liu Yu

China-Africa Development Fund: Dr. Hao Rui, General Manager of the Research Department; Mr. Mao Ke, Manager of the Ethiopia Office



China Civil Engineering Construction Corporation: Mr. Wang Xixue, Vice President of the Ethiopian Company; Mr. Wei, General Manager of the Hawassa Industrial Park Administrative Commision

Anhui Wuhu Economic and Technological Zone: Mr. Hong Zhiqiang, Director of Administrative Commission; representatives of Chery Auto

Chongqing Free Trade Zone: Mr. Chen Yinqiao, Chief Editor of *Jianbeizui*; Ms. Zhang Ning, Director, Free Trade Zone Promotion Department; representatives of the Quanta Computer and Lifan Panda

Jiangsu Changzhou Economic Zone: Mr. Ren Yiquan, Head of Strategic Development Division; Mr. Jin Miao, Head of Finance Development Division; representatives of CRRC Chishuyan.

《国务智库战略报告》已出报告

国务智库战略报告10	Development and Industrialization in Ethiopia Reflections from China's Experience
国务智库战略报告10	埃塞俄比亚工业化与亚吉铁路经济走廊(中文版)
国务智库战略报告9	一带一路"合作中的国际法律问题
国务智库战略报告8	中国崛起面临的国际法若干重大问题
国务智库战略报告7	中国城市治理现代化——电子治理与民众满意度
国务智库战略报告6	经世之道——探索中国大国特色经济外交
国务智库战略报告5	复旦G20报告——将发展议程融入G20整体框架
国务智库战略报告4	复旦国际秩序报告——互联世界中的自治与共治
国务智库战略报告3	复旦国家治理战略报告——常态化治理与全面深化改革
国务智库战略报告2	复旦中国国家安全战略报告——安全、发展与国际共进
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