Pharma sector overview

Nov2020

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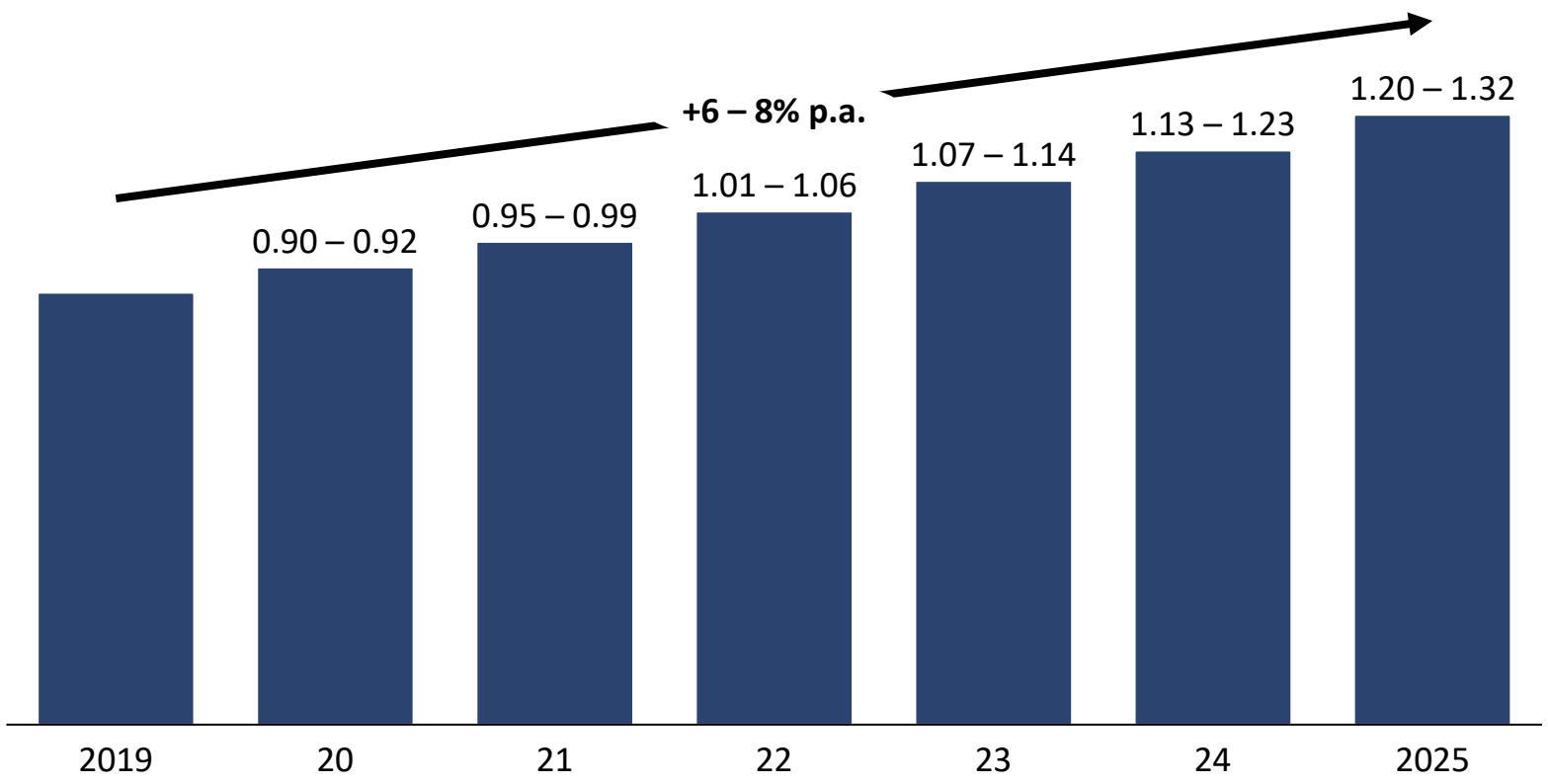
Ethiopia’s domestic pharmaceutical market could be worth ~1Bn USD by 2025

Pharmaceutical market in Ethiopia[1], in $Bn



Underlying Growth

Growing middle income base and increasing healthcare coverage as spending on healthcare in East Africa is expected to **increase by 3 – 5%** through 2025

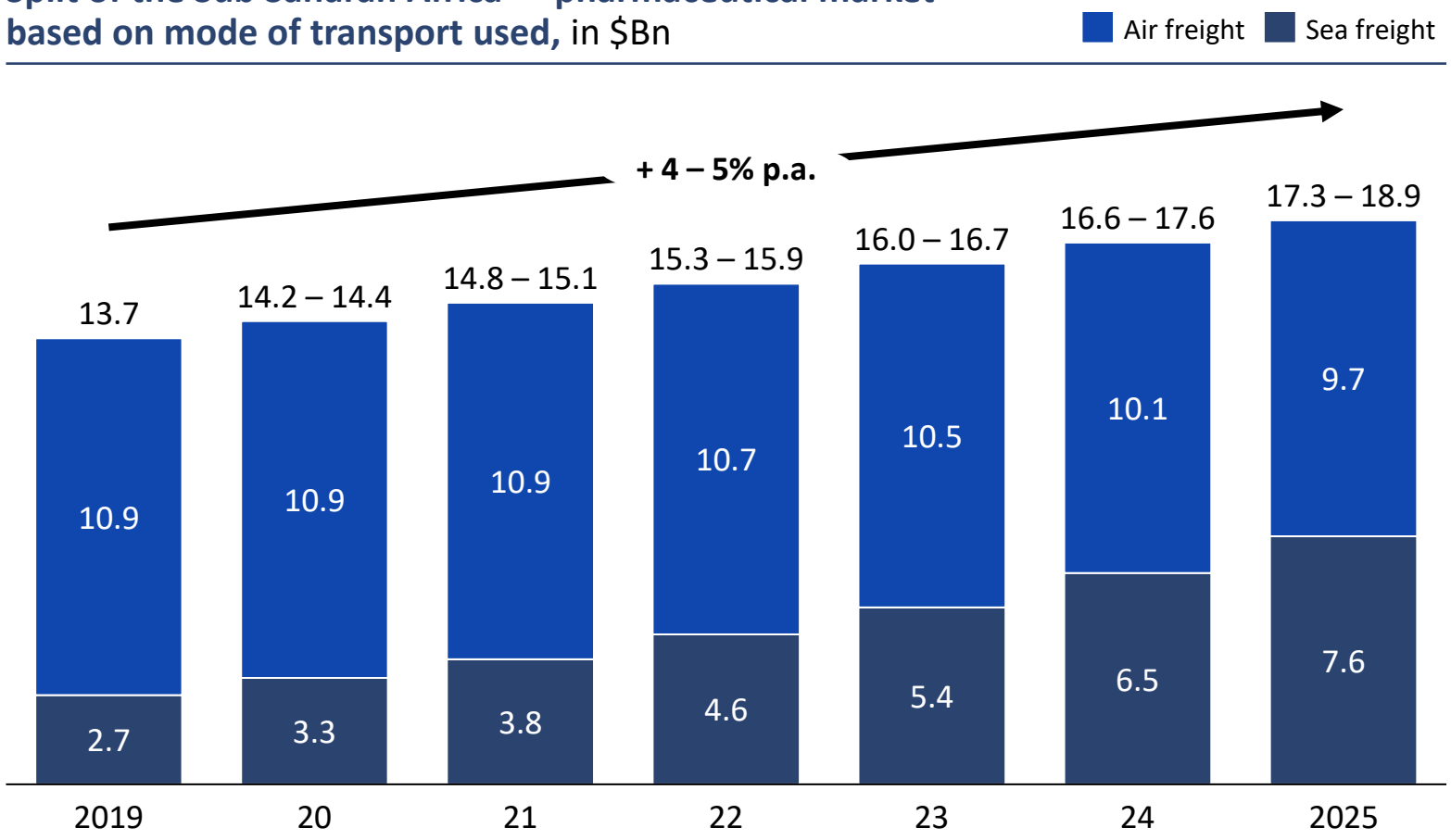
Rising urbanization at a rate of 5.4% p.a., which leads to greater access to healthcare as cities have better infrastructures and healthcare capacities

1. Sizing inclusive of the impact of COVID; reduction of CAGR growth forecasted (pre COVID) by 23% in the case of growth returns leading to full recovery (most optimistic scenario) and reduction of CAGR growth forecasted (pre COVID) by 40% in the case of slow long term growth insufficient to deliver full recovery (least optimistic scenario)

Source: BMI Research 2020, World Bank, ITC 2015 – 2019, Press research

Ethiopia is best placed to reach the wider SSA pharma market for export

Split of the Sub Saharan Africa[1,2] pharmaceutical market based on mode of transport used, in $Bn



Ethiopia could also seek to export to the larger Sub Saharan market due to it well established air logistics network through its national carrier, Ethiopian Airlines

Growth is expected in every segment of Africa's pharma market – including branded, generics, and OTCs

Three factors will drive this growth: the rise of major cities, the expansion in healthcare capacity, and the maturing of the business environment

Finished pharma products are primarily transported by air due to restrictions on temperature controls

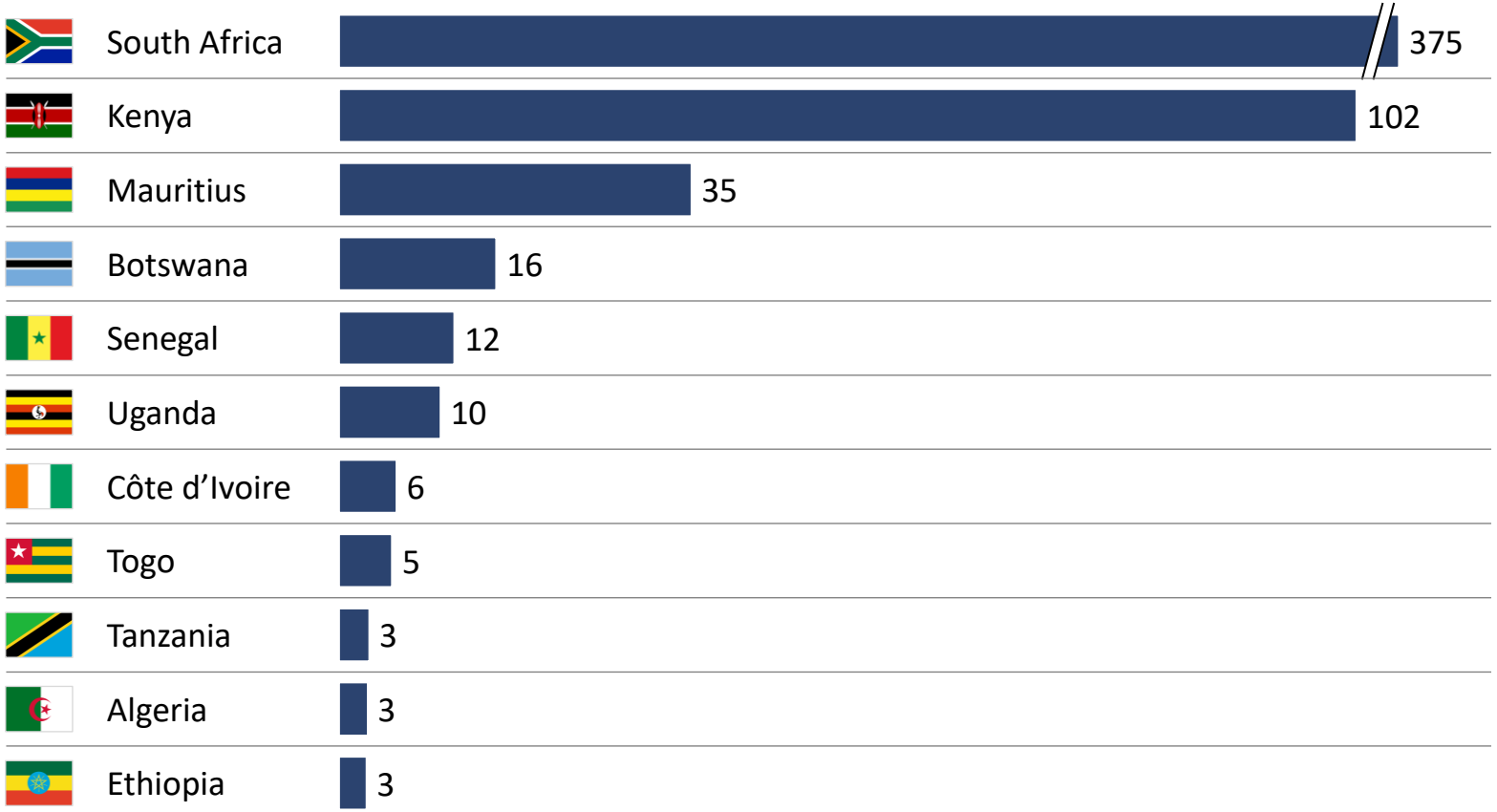
1. Sizing inclusive of the impact of COVID; reduction of CAGR growth forecasted (pre COVID) by 23% in the case of growth returns leading to full recovery (most optimistic scenario) and reduction of CAGR growth forecasted (pre COVID) by 40% in the case of slow long term growth insufficient to deliver full recovery (least optimistic scenario)
2. Sea freight accounts For 20% of the global pharma product transport and is estimated to grow to 75% by 2030, assuming this is consistent for the SSA region

Source: BMI Research 2020, World Bank, ITC 2015 – 2019, European Pharmaceutical reviews, International Air Transport Association reports, Pharma Logistics IQ reports, Press research

Currently, South Africa and Kenya are the continent's biggest exporters

Top African countries that export pharmaceuticals[1]

Export value of pharmaceutical products (2017), USD millions



While South Africa is currently the leading exporter of pharmaceuticals in the region, the country's ability to transport the products regionally has been crippled following the national carrier's bankruptcy filing in 2019

Additionally, the carrier only serves 15 destinations indicating a lower continental coverage compared to Ethiopian Airlines

South Africa is also facing increasing consolidation and closures with 37 plants closing and 6,500 jobs lost between 1995 and 2010 due to

1. Based on UN Comtrade data for pharmaceutical products; includes codes 300210, 300220, 300290, 300310, 300320, 300331, 300339, 300340, 300390, 300410, 300420, 300431, 300432, 300439, 300440, 300450, 300490 only, as others do not represent pharmaceutical outputs
2. Includes export to Hong Kong (11%) and Mainland China (1%)

Source: BMI Research 2020, World Bank, ITC 2015 – 2019, Press research

Ethiopia has made significant strides in boosting pharmaceutical manufacturing

The government has put in place several measures to improve the sector

Developed a 10 year strategy and plan of action[4] for pharmaceutical manufacturing, which has resulted in:

The creation of the **Kilinto park**, which is Africa's first dedicated pharmaceutical manufacturing park

The provision of enabling policies to boost local manufacturing and capability building e.g., offering transparent public tenders through the Revolving Drug Fund (RDF) and promoting university industry linkage

Additionally, the **FMHACA1 has collaborated with the WHO2 to strengthen its regulatory systems** through the development of guidelines, capacity strengthening by way of staff trainings, production of manuals, and technical and material support

The number of pharma manufacturers has increased over the last 5 years

The country is **import reliant**, approximately **65 – 75%** of the market:

11 local finished pharmaceutical products (FFP) manufacturers, 40% of which are GMP certified1 – which better positions them for the export market and **22** medical supplies producers

200+ importers, both wholesalers and distributors

COVID has created supply side disruptions due to the slowdown in the manufacture of active pharmaceutical ingredients (API) in China that will have repercussions for the supply of essential medicines in Ethiopia

1. Good Manufacturing Practice certification
2. Ethiopia's Food, Medicine and Healthcare Administration and Control Authority
3. World Health Organization
4. July 2015, the GoE put forth an ambitious 'National Strategy for Pharma Mfg Development (2015 25),' the first country in Africa to establish a pharmaceutical strategy

Source: TBI Pharmaceutical Industry Profile - 2017, EIC interviews, Press releases

Domestic competition is low with only 11 manufacturers, 45% of which are jointly owned by international and local investors

Name	Date of establishment	Ownership structure	Initial investment size, USD $	Source and Products[1] manufactured
Cadilla Factory S.C	2003	Private	6.5. million	Anti hypertensives, antidiabetics, antibiotics, anti anemia etc.
Julphar Factory S.C	1992	Private	*Information unavailable*	Analgesics, anti – malarial, anti asthmatics, anti helminthic, antitussives etc.
Sino Ethiopia Africa Plc	2001	Private	3.7 million	Gelatin capules
East Africa Pharma	1996	Private	3.3 million	Antibiotics, gastrointestinal, cardiovascular, anti diabetic, antihistamines,, analgesics etc.
Medsole Plc	2011	Private	*Information unavailable*	Analgesics, anti – malarial, anti asthmatics, anti helminthic, antitussives etc.
Rx Africa Plc	2006	Private	5 million	Antibiotics, anti fungal, gastrointestinal, anti inflammatory etc.
Sansheng Pharma	2018	Private	85 million	Antibiotics, gastrointestinal, cardiovascular, anti diabetic, antihistamines etc.
Fäwes Pharma	1996	Private	0.6 million	Analgesics, anti – malarial, anti asthmatics, anti helminthic, antitussives etc.
Addis Pharma Factory (ADF)	1992	Private	10.5 million	Antibiotics, gastrointestinal, cardiovascular, anti diabetic, antihistamines,, analgesics etc.
Ethiopian Pharma (EPHARM)	1964	Private	8 million	Antibiotics, gastrointestinal, cardiovascular, anti diabetic, antihistamines,, analgesics etc.
Pharmacure Plc	1998	Private	1.2 million	Drugs for corrective water, electrolytes and acid base disturbances

These companies are **primarily joint ventures owned by international and local investors**

China is an emerging force in the Ethiopian pharma sector , with 2 joint ventures and 1 full owned company

The manufacturers have a **similar product portfolio**

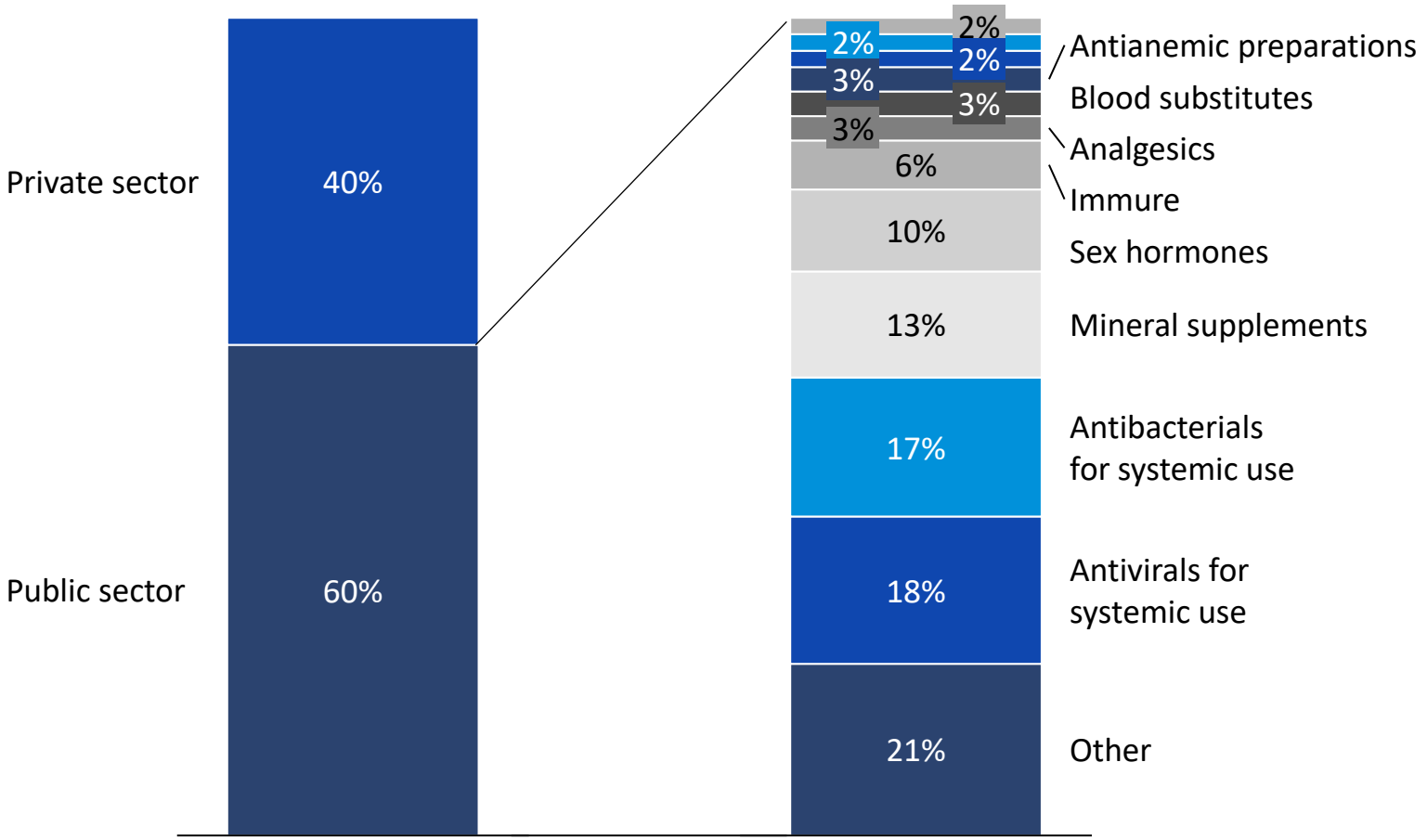
The investment size averages **between USD $4 – 5 million**, with one exemption of Sansheng pharma, the Chinese player

1. Where we strictly consider tablets, capsules, vials, ampoules, syrups, suspensions, elixirs and dermatological preparations for human consumption

Source: TBI Pharmaceutical Industry Profile - 2017, Ethiopian National Strategy & Plan of Action 2015 – 2025, Ethiopia Pharma sector, EIC interviews, Press releases

The Ethiopia public and social sector accounts for 60% of the national pharma spend

Estimated sales value split per sector, %



Public procurement by therapeutic area, %

60% of total pharma spend in Ethiopia is public and social sector related, making the Ethiopian Pharmaceutical Supply Agency (EPSA) the single most powerful buyer in the country

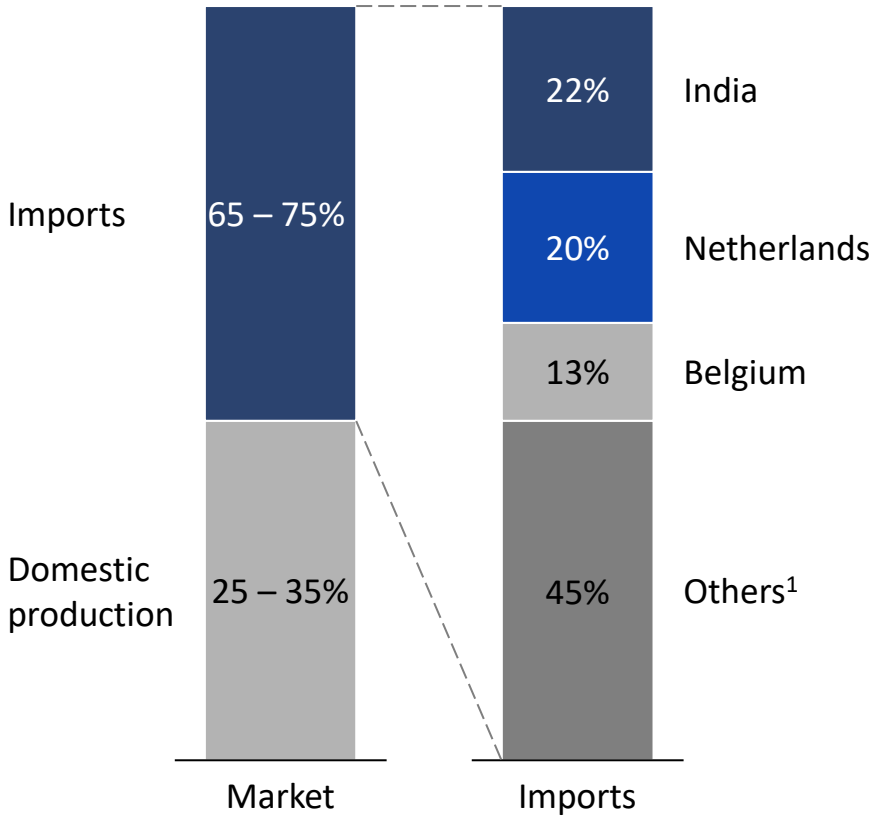
Key products purchased in the public and social sector are **anti – virals** and **anti – bacterials**

In Ethiopia, **local manufacturing is encouraged by a premium of 25% for public procurement**, which serves as an incentive for local manufacturing

Source: World Bank: population data and progressive health care expenditure per capita 2015 - 2020, Statista pharma healthcare spending estimates in SSA - 2014, East African Healthcare Overview by Medic East Africa- 2018, EIC interviews, press releases

The Ethiopian pharmaceutical market is primarily reliant on imports

Ethiopian pharma market by source,
2015 – 2019



of players

200+

Source and Products[2] manufactured

Imports account for 65 – 75% of the Ethiopian market and are primarily sourced from **India – 22%, Netherlands – 20%, Belgium – 13%**

Finished pharmaceutical products account for the bulk of the imports e.g., ~80% of all the pharmaceutical products imported in 2019 and **290 or 76% of approved medication on the essential list are imported**

The key products imported into Ethiopia include:

- **60% - anti infectives**
- **9% - central nervous system** medicines,
- **8% - water and acid base electrolytes**
- **5% - endocrine disorder** and **contraceptives**

1. Switzerland, Germany, China, United Arab Emirates, France, United Kingdom, Kenya
2. Where we strictly consider tablets, capsules, vials, ampoules, syrups, suspensions, elixirs and dermatological preparations for human consumption

Source: TBI Pharmaceutical Industry Profile - 2017, Ethiopian National Strategy & Plan of Action 2015 – 2025, Ethiopia Pharma sector, EIC interviews, Press releases

Ethiopia is an opportune market for the manufacture of finished products and excipients

Least feasibility or demand High feasibility or demand

	Active pharmaceutical ingredients	+	Excipients	=	Finished pharmaceutical products (FPPs)
Description	Active pharmaceutical ingredients (APIs) are drug molecules that exert a biological effect		Excipients are the substances that determine the solubility, stability and release method of a drug into the human body		Finished pharmaceutical products are the final combination of the products e.g., tablets, capsules, oral liquids etc.
Current production status	There are **no APIs manufacturers** in the country, the country solely relies on imports due to the high degree of complexity required		The country currently has **only one manufacturer** which is government owned and operates at a small capacity – it produces starch and starch based products		There are **10 local manufacturers** which are able to produce FPPs, of which **only 4 are GMP certified,** who collectively account for >20% of the entire market
Product demand	This product is essential for all products and particularly **because Africa only has 2 API manufacturers**		As excipients ordinarily take up 70 – 90% of a drug's weight and **the market is primarily reliant on imports,** indicating an opportunity for local suppliers		The country has over **200 importing companies** who account for 50 – 60% of the market, indicating an addressable opportunity for local suppliers
Feasibility	Investors would be **difficult to attract** due to **high investment requirements, lack of technology capabilities** and **relatively low margins**		It is a relatively cheap and simple product to produce Additionally**, other sectors would interested** in the production of starch, e.g., chemical and textile		FFPS have a **higher ROI compared to APIs** and consumables, **receives government support** and the **manufacturing capabilities are within the country's scope**

There is a **growing domestic need for affordable pharmaceutical products** to meet the country's disease burden

While the manufacture of APIs is difficult and largely unattractive, the country could look to:

- **Scale up production of the FFPs**
- **Introduce manufacturers interested in manufacturing excipients** for pharma as well as other sectors

Source: TBI Pharmaceutical Industry Profile - 2017, Ethiopian National Strategy & Plan of Action 2015 – 2025, Ethiopia Pharma sector, EIC interviews, Press releases

Annex

EIC
ETHIOPIAN INVESTMENT COMMISSON
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Ethiopia

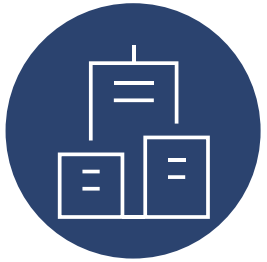
Pharmaceutical Industry

Oct 2020

Ethiopia has key competitive advantages for Pharmaceutical Manufacturers

Access to a ~$1Bn Domestic market and a ~$20Bn SSA market

Strong government support and competitive tax benefits

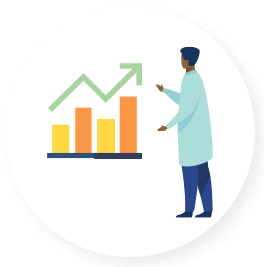


Abundant natural resources and infrastructure

A competitive and skilled-labor pool

Has one of the highest domestic market potentials in Africa and is best placed to reach the SSA export market

Ethiopia's domestic pharmaceutical market could be worth ~1Bn USD by 2025, driven by:

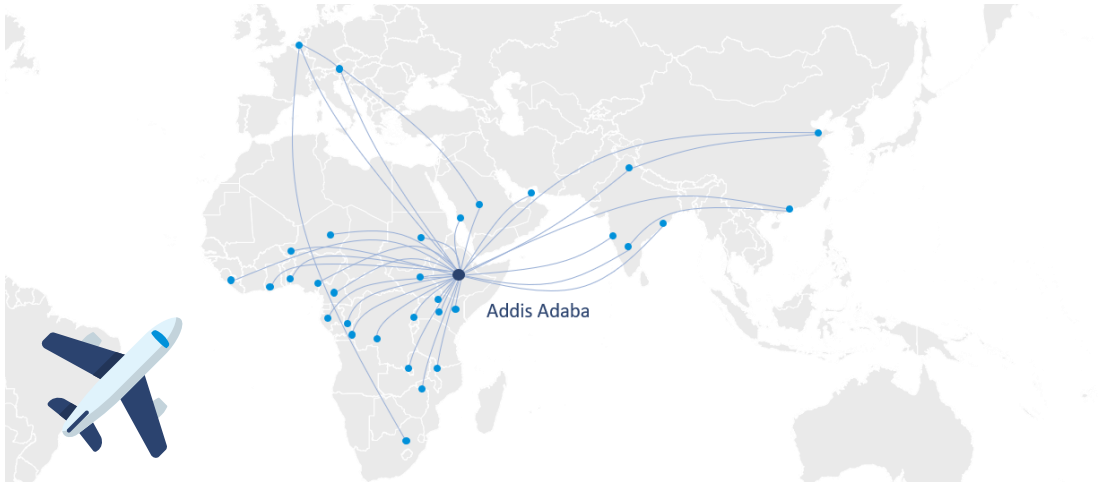


Growing middle income base and increasing healthcare coverage as spending on healthcare in East Africa is expected to **increase by 3 – 5%** through 2025

Rising urbanization at a rate of 5.4% p.a., which leads to greater access to healthcare as cities have better infrastructures and healthcare capacities

Large unsatisfied demand
Only 30% of the population currently has access to drugs

Ethiopia's well established air logistics network make it best placed to reach the ~20Bn USD SSA pharmaceutical market



Growth is expected in every segment of Africa's pharma market – including branded, generics, and OTCs

Given the high value per weight and care transport needs, pharmaceuticals can be effectively transported by air which is especially attractive for the multitude of African markets that are inaccessible by sea

Has strong government support to realize its vision of making Ethiopia a pharmaceutical manufacturing hub by 2025

Ethiopia is the first African country to develop a 10 year strategic plan to develop the pharmaceutical sector, and from this, there have been three key categories of success

Enabling policies and government reforms

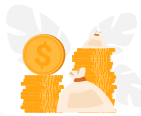
Ethiopia has seen the implementation of a package of supportive policies including

- **Offering transparent public tenders** through the Revolving Drug Fund (RDF)
- **Implementing protectionist policies** for local manufacturers
- **Offering closed bidding** when more than one manufacturer is able to produce a drug on the Essential Drug List (EDL)
- The government has also undertaken a **larger set of economic reforms** that will see the country's critical sectors privatized which will increase service efficiency
- **New investment law** which allows overseas investors to buy into other sectors of its economy

Supporting trade and regulatory environment

There have been several developments that have creating a enabling trade and regulatory environment to support pharma manufacturers:

- The **strengthening of FMHACA** through a collaboration with the WHO to strengthen its regulatory systems, capacity and processes
- The **ratification of the Africa Continental Free Trade Agreement** which aims to remove tariffs from 90% of goods which will boost intra-African trade and make Africa a single market of cumulative GDP of US$ 3.4Tn



Competitive incentives

One of the largest incentive programs in the continent:

- **Tax free loans of up to 70%** for new investments and up to 60% for upgrading new projects during first 5 years of operations
- Companies exporting between 50-75% of products to receive **income tax exemption** for up to 5 years
- **15% customs duty exemption** on spare parts
- **100% customs duty exemption** on import of granted capital goods
- **Reduced land lease rates** offered for those who are export oriented

Has one of the fastest growing manufacturing sectors in Africa enhanced by abundant natural resources and strong infrastructure

Ethiopia's economy has been **one of the ten fastest growing in the world** since the early 2000s, the GDP growth rate **exceeded 10% consistently between 2004 and 2013**

Industrial parks

Is the only African country with a dedicated pharmaceutical industrial park

Kilinto Park is Africa's first dedicated industrial park covering 279 hectares, with **136 hectares land dedicated to pharmaceutical manufacturing**

The park is **located 15km South East from Addis Ababa** city center, 863 km from Djibouti port and 10 minute drive from Bole International Airport

Investors are provided with **serviced or ready to use land with common infrastructure and utilities** to allow for a quick set up e.g.,

- Presence of a **dedicated power substation** expected to address the 21,000 KWH demand
- **Presence of water supply**, approximately 3400m3 per day for the pharmaceutical and medical cluster
- **Presence of waste water treatment plant** which includes pre treatment for the heavy metals and toxic organics
- **Presence of one stop shop services** to facilitate for medicine registration, permit renewal, site visits, site management and aftercare support
- **Presence of complimentary services** e.g., **police station and health centers** to ensure safety and emergency services

Infrastructure

The country has a well established transport system which includes:

The widest African air connectivity through its national carrier, **the Ethiopian Airlines**

A well developed train network which includes the 752 km transnational **Ethiopia-Djibouti Standard Gauge Rail, East Africa's first electrified railway** and forms part of the newly developed Ethiopia-Djibouti-Europe cool logistics corridor

A well developed road network worth 121,200 kilometers

Natural Resources

Ethiopia has abundant natural resources required for manufacturing e.g., labor, energy and water

Ethiopia has **the region's highest installed power generation capacity of 4,206 MW**, compared to Kenya's – 2,400 MW, Tanzania's – 1,500 MW and Uganda's – 950 MW

A **strong labour force of ~55 million** Ethiopians

Source: USAID Power Africa reports and profiles, EIC interviews, Press research

Has invested significantly in developing local talent

Ethiopia is intensely focused on building the capabilities **that will help sustain the vision for the pharmaceutical sector**

Ethiopia has **taken up measures to systematically and sustainably** provide a skilled and highly competitive labour force to match the complex needs of pharmaceutical manufacturing, which include pharmacy, digital, entrepreneurship and product engineering among other related courses

The Ethiopian Education Development Roadmap 2018 – 2030 envisages future improvement through **promotion of university industry linkages, increased budget and support systems, allocation of more staff time for research** etc.

In line with this, leading universities in the country have started or implemented a number of measures, e.g.:

- Starting an **MSc degree program in regulatory affairs** at Addis Ababa university
- **Improving the capacity of science and technology institutions** to produce qualified technicians, engineers and scientists
- Establishing centers of excellence aimed at **offering new areas of specializations** e.g., Industrial pharmacy and pharmaceutical analysis

The government has also **incorporated flexible local talent development requirements** where pharma investors can hire expatriates where local talent is unable to fill in the gaps, however, the companies must develop a skills transfer program to build the capabilities locally