

Ethiopia's Investment Prospects: A Sectoral Overview^{*}

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Abstract

Ethiopia is in the midst of a sustained growth surge that is becoming increasingly broad-based, building on major improvements in educational attainment, improved health outcomes, and infrastructure capacity in terms of access to power, transportation and telecommunications. The Government's Growth and Transformation Plan sets ambitious targets for further improvements in these areas, together with significant reforms aiming to improve trade logistics, by rolling-out the authorized economic operator program across export-oriented industry parks and improving the main export corridor to Djibouti. This industrialization push coincides with global trends that provide Ethiopia an opportunity to integrate its economy into the modern "Made in the World" production system, including by attracting labor-intensive production, which is leaving China and other East Asian economies due to their rising wage rates. This paper considers Ethiopia's prospects to succeed in this endeavor. It reviews overall economic management and performance indicators and provides a horizontal overview of the investment framework. It then summarizes the investment prospects in several major sectors of the economy, in light of Ethiopia's emerging capacities and global developments: agriculture, mining, oil & gas, economic infrastructure, manufacturing, and selected services, including health and tourism.

Keywords: Ethiopia, investment, growth and transformation plan

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1. Introduction

Ethiopia, like many Sub-Saharan African countries, has enjoyed a period of rapid growth in the past decade. Building on the expanding economic base and working within the developmental state model (e.g., Kefale, 2011), the Government is seeking to transform the economy, based on major investments in economic infrastructure, economic management reforms, and strategic public sector engagement in the economy.

The recent period of rapid growth, initially led by agriculture, has become more broad-based, with mining, services, and manufacturing sectors generating an increasing share of output (IMF, 2011). The basis for accelerated industrialization is being laid by increased educational attainment,¹ improved health outcomes², and quantum increases in infrastructure capacity in terms of access to power, transportation, and telecommunications. Industry parks are starting to spring up across Ethiopia, echoing China 20 years ago.

On paper, Ethiopia's business climate ranks relatively low globally. But its exports are growing rapidly, including in time-sensitive products, such as cut flowers, a sector in which Ethiopia has become one of the largest exporters in the world since 2005. While this development reflects in part Ethiopia's suitable climatic conditions, it also reflects Ethiopia's facilitation of just-in-time supply chain participation. What it achieved in the perishable export sectors of flowers, vegetables, and meat, Ethiopia is now seeking to do for labor-intensive manufacturing by establishing industry parks in which all firms will be "authorized economic operators" (AEOs), which greatly facilitates their import and export processes. This status has already been conferred on some firms; reforms now underway aim to roll this out to entire industry parks, a "game changer" for business operating costs.

1 Ethiopia has massively increased school enrolment at the primary, secondary, and post-secondary levels over the past two decades by raising public spending on education to 5.5% of GDP in 2008/09, one of the highest rates in Africa. See One.org (2011). School enrolment is now over 20 million, including about 4 million in secondary schools and 265,000 in tertiary education; see UNESCO (2011).

2 For example, life expectancy increased from 51.7 years in 2000 to 59.2 years in 2011 (World Bank, 2012a). Over the same period, the infant mortality rate dropped from 86 to 51.5 (UN 2011), and prevalence of undernourishment from 55% of the population to 40% (FAOSTAT database).

Ethiopia's timing is propitious. The factors that made Asia the "Workshop of the World" for the past several decades are changing: wages are rising and labor-intensive production is migrating. Ethiopia is positioned to attract a good share. As regards labor costs, a recent World Bank study affirms that Ethiopia is already cost competitive with China in manufacturing textile and garments and other labor-intensive light manufacturing industries (Dinh *et al.*, 2012).

Meanwhile, Ethiopia is centrally located globally, within non-stop transport distance to all major markets, roughly equidistant between the United States and Japan, between China and Brazil, between Europe's largest economy and India, and between Russia and South Africa (Figure 1).

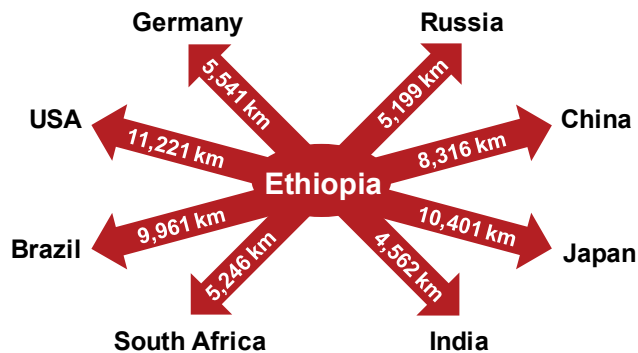


Figure 1: Ethiopia's Distances to G7 and BRICSA Economies

Source: Mayer and Zignago (2011).

Moreover, trade logistics reforms promise to dramatically shrink the effective distance between Ethiopia and global markets. Addis Ababa is already the main air hub for Africa and the home of Ethiopian Airlines, which carries two thirds of Africa's air freight and has just significantly extended its cargo capacity and range. The infrastructure program now underway is integrating the country's internal economy.³ For the internal market, this is beginning to accomplish for Ethiopia⁴ what the construction of the Interstate Highway

3 The World Bank's Africa Infrastructure Country Diagnostic program highlights the progress in developing the trunk road system in Ethiopia (Foster and Morella, 2011, p. 6). Lakshmanan (2011) provides a recent discussion of the significance of internal transportation networks in spurring rapid economic development.

4 Shiferaw *et al.* (2012) document the impact of Ethiopia's road development. They study the relationship between the quality of the road transport infrastructure and enterprise performance in Ethiopia using a

network in the 1950s and 1960s did for the United States⁵ and the rail and road program in the 2000s did for China.⁶ Meanwhile, Ethiopia's connections to global markets are being significantly upgraded with new, high-speed rail⁷ and road corridors under construction. For international trade, this will position Ethiopian industrial parks closer to fully modern seaport facilities than Munich is to Rotterdam, on a trade route accounting for 30% of global container traffic and connecting East, South, and West Asia to Europe and the Americas, a position that has historically been a natural advantage for Ethiopia.⁸

While the above stated positive factors and developments paint a bright picture for investment in Ethiopia, there are also some concerns, most of which relate to Ethiopia's policies and its developmental strategy. For example, some critics have argued that "Barriers to business caused by the government's state-led development model will hinder private-sector growth."⁹ Others have pointed out that this development model entails macroeconomic imbalances as well as

firm-level panel dataset and GIS-based information on road networks for a period that overlaps with the road sector development program. They find that "improved road accessibility is associated with higher firm performance and results are empirically robust for the local measures of road accessibility (i.e., improvements in travel distance and area accessible within an hour drive from a town firms are located in)." (16) They also find that productivity effects are larger for large firms that are capable of exploiting market expansion, and they document a significant expansion of start-up firms in smaller urban centres associated with improved connectivity. Siba *et al.* (2012) document the positive effects of agglomeration on firm-level productivity in Ethiopia; given the role that improved transportation generally plays in fostering agglomeration, this is corroborating evidence.

- 5 See, e.g., Fernald (1999) for a discussion of the contribution of the massive expansion of the U.S. road network through the construction of the interstate highway system in the 1950s and 1960s: he suggests that this resulted in a level boost to U.S. productivity in the pre-1973 period. Nadiri and Mamuneas (1996) show very high rates of return from highway construction in the 1950s and 1960s in the United States, much higher in fact than the return on private investment. The effects reported for Ethiopia by Shiferaw *et al.* (2012) are consistent with these findings
- 6 Faber (2012) examines the effect of China's massive program of trunk road construction from the late 1990s through the 2000s and finds significant gains from trade internally, an increase in concentration of industrial activity in the larger economic centres through a "home market" effect, which did not however have necessarily negative effects on welfare due to significant price reductions in peripheral regions. Roberts *et al.* (2010) report a boost of 6% to China's aggregate real income in 2007 from the road network, albeit with regionally heterogeneous effects consistent with core-periphery models of market integration. See also Sahoo *et al.* (2010) and Banerjee *et al.* (2012) for corroborating accounts of the spur to Chinese growth from its road-building program.
- 7 See, "Ethiopia: New railway project to link Addis Ababa with Djibouti," Africa Research Online, 22 March 2013. The new electric train will reportedly run at 120 kilometres/hour substantially shortening shipping times to Djibouti.
- 8 The Axumite Empire of Ethiopia, one of the five most powerful kingdoms in the world during the first millennium AD, drew its strength from its control of Red Sea trade. In building its new connections to global markets, Ethiopia is restoring the basis of its historic prosperity.
- 9 Economic Intelligence Unit (EIU) (2011), 3.

“risks and vulnerabilities related to the financing model of the large public investment projects” (IMF, 2012a, p. 4). At a more general level, the stability of the political system has been questioned, and while the transition to a new Prime Minister following Meles Zenawi’s death in August 2012 has been smooth so far, concerns regarding the future of Ethiopia’s political system and the government’s reform policy persist.¹⁰

There are also concerns related to implementation. Rapid growth would be expected to result in bottom line improvements in the factors that make economies more competitive; however, Ethiopia’s global competitive rankings have not yet shown the expected steep improvement. For example, Ethiopia’s scores under the World Economic Forum’s Global Competitiveness Index (GCI) have improved over the period 2007/08 to 2012/13 in all areas – basic requirements (from 3.28 to 3.55), efficiency enhancers (from 3.26 to 3.33) and innovation and sophistication factors (from 2.90 to 2.96);¹¹ however the increments were relatively small and not sufficient to allow Ethiopia to leapfrog significantly higher in the GCI’s global ranking. This raises questions as to how well measured growth is being translated into the (often subjective) evaluations of performance that such indices measure.

A related concern is raised by the IMF in its comments on measured growth: applying a growth-accounting analysis to Ethiopian data over the period 2007-2011, the IMF found that the high measured growth rates during the era of double-digit growth were driven by very high rates of capital accumulation in the public sector, at a rate (10.8%) which exceeded even the comparable figure for East Asian economies in the 1980s (8.9%), but also by rapid productivity growth, including total factor productivity (TFP) growth of 5.2%, a very high figure in view of the fact that some of the factors that normally support high TFP growth were absent in Ethiopia, including initial human and physical capital conditions, terms of trade and openness, low inflation, a competitive real

10 See e.g. “Ruling Ethiopia: Long Live the King”, *Economist*, 16 February 2013.

11 See World Economic Forum’s Global Competitiveness Reports, 2006/07 and 2012/13 editions.

exchange rate, low government consumption, high international reserve coverage, and low external debt.¹²

Against the background of these generally promising indicators but also the doubts, the purpose of this paper is to provide an overview of Ethiopia's investment landscape at the beginning of 2013, both at an economy-wide and a sectoral level. While the analysis is grounded in available data, it is descriptive in nature. Its contribution is to highlight the increasing complexity of Ethiopia's economy; a more complete quantitative treatment in an economic modeling framework is however beyond the scope of the present exercise.

We find that, by some metrics, Ethiopia's performance has moved it into the league of major emerging markets but significant challenges remain to consolidate that position, particularly in terms of stabilizing the monetary side of the economy and reducing business entry costs. Delving deeper into the underlying structural changes behind the bottom-line growth, we highlight the basis for significant sectoral diversification, corroborating the recently gained understanding that development involves first a major diversification of economic activity (Imbs and Wacziarg, 2003). We conclude that Ethiopia's emergence from land-locked isolation and integration into the global economy is deepening and accelerating, giving support to the label that has sometimes been accorded to it, namely that of Africa's newest "Lion Economy".

The paper is organized as follows. Section 2 provides a brief overview of Ethiopia's investment prospects at the macroeconomic level. It reviews trends and prospects for real growth, inflation, and external performance including the exchange rate, trade, and the balance of payments. It also provides a macro scan of economic management and performance indicators and a horizontal scan of the framework for investment, overall investment trends, and the challenges that Ethiopia faces to sustain its resurgence. Section 3 reviews the converging global trends that provide Ethiopia an opportunity to integrate its economy into the modern "Made in the World" production system, including the migration of labor-intensive production out of China. Section 4 summarizes the investment prospects in major sectors of the economy in light of these

12 See IMF (2012a), Box 1. Ethiopia: Growth Accounting

developments: agriculture, mining, oil & gas, economic infrastructure, manufacturing, and selected services, including tourism and health. Section 5 draws conclusions.

2. Ethiopia's Investment Environment

2.1 Macroeconomic Overview

Ethiopia has been one of the fastest-growing countries worldwide since 2003. Based on official statistics; excluding oil and gas exporters, only China has grown faster in the last eight years. Ethiopia's growth prospects remain robust, even on the basis of more skeptical views concerning the actual pace of growth; for example, both the IMF and the African Development Bank project growth in the 7% range.¹³

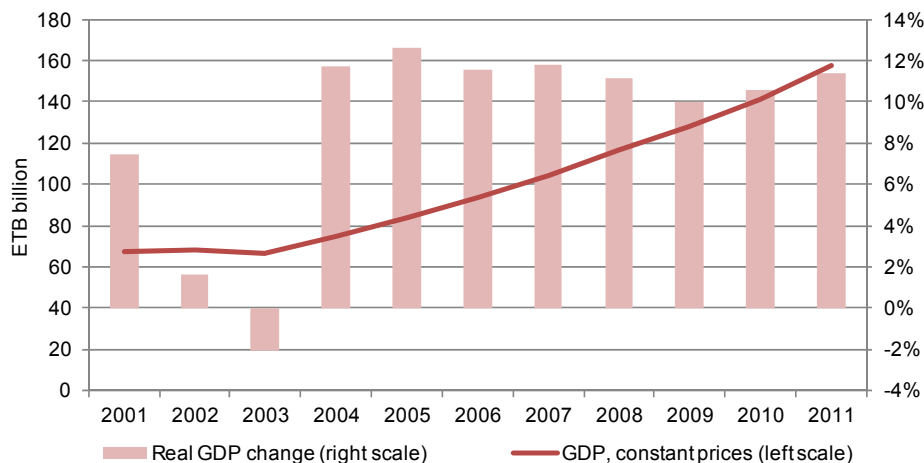


Figure 2: Ethiopia's Real GDP Growth, 2001-2011

Source: Authors' calculations based on IMF (2012b) and Central Statistical Agency National Accounts data. See notes to Figure 14.

Although growth as forecast by the international financial institutions is well below the ambitious growth projections under the Growth and

¹³ The African Development Bank (2012) forecasts growth in the 7% range for 2012-2013; the IMF (2012b) forecasts 7% in 2012, slowing to 6.5% in 2013. See also The Economist (2013) for a comment on Ethiopia's growth statistics.

Transformation Plan (GTP) of between 11.2% and 14.9%, it still places Ethiopia among Africa's and the world's growth leaders over the medium term.

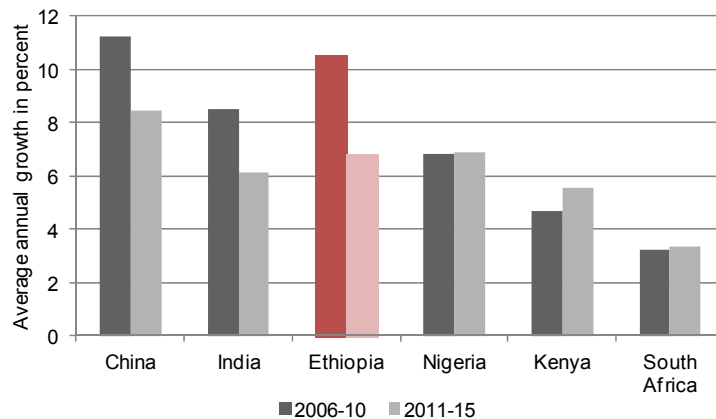


Figure 3: Ethiopia's GDP Growth vs. Global Pacesetters and Regional Peers

Source: Authors' calculations based on IMF (2012b) and Central Statistical Agency (2011).

See notes to Figure 14.

Performance on inflation has been less satisfactory. Periodically over the past decade, headline inflation has surged to worrisome levels (Figure 4). Some of the contributing factors have been external to Ethiopia, including volatility in international food prices. Domestic drought conditions have also contributed to the volatility. However, non-food price inflation has been relatively high and on an upward trend, which suggests an excessively accommodating monetary policy. The latter conclusion is strongly corroborated by cautionary advice from the IMF (2012a, p. 4) concerning the need to restore interest rates to positive levels in real terms. Inflation has decelerated sharply into single digit levels in the first months of 2013;¹⁴ however, African Development Bank economists conclude that Ethiopia lacks a credible monetary policy anchor (Durevall and Sjö, 2012). Nonetheless, with appropriate monetary policies (especially maintaining positive real interest rates – IMF, 2012a), Ethiopia is fortuitously in a position to restrain inflation to single-digit inflation over the medium-term

14 The Ethiopia Statistical Agency reported year-over-year inflation rates dropping sharply over the course of the first months of 2013, from 12.5% in January (and a first quarter average of 10.3%) to 6.1% in April 2013. Source: Central Statistical Agency, and various news reports for monthly rates.

horizon. A commitment to positive real interest rates would also activate the treasury-bill market, which would facilitate monetary policy management and mobilize domestic savings to finance the investment required to maintain the pace of development.

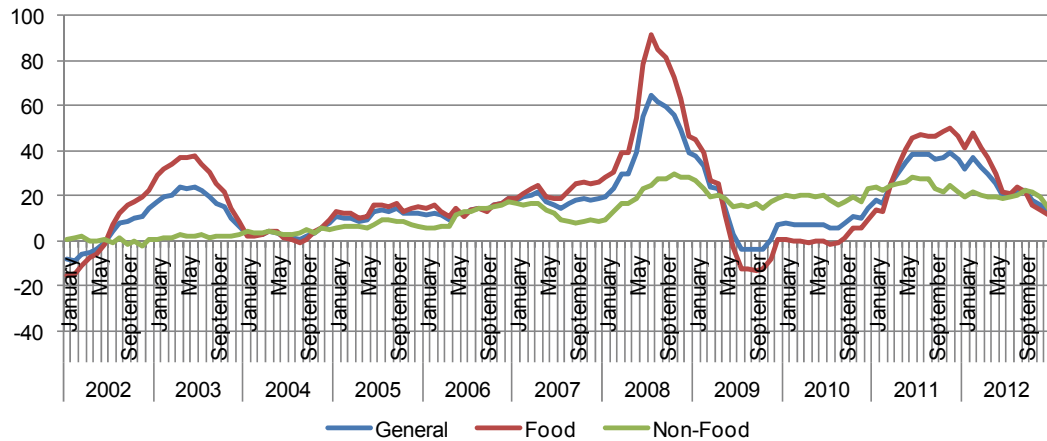


Figure 4: Inflation Trends – Rolling Monthly Year-On-Year Inflation Rates in Percent, 2002-2012

Source: Central Statistical Agency, Country and Regional Level Consumer Price Indices.

After appreciating steeply over 2003-2008, Ethiopia's real exchange rate temporarily returned to more competitive levels in 2009 and 2010, but this trend reversed over the period 2011-2012, with a renewed rise, driven in large measure by high domestic rates of inflation; renewed policy attention seems required (Figure 5).



Figure 5: Real Exchange Rate, 2000-2012, Average 2000-2005 = 1.00

Source: Bruegel, Real effective exchange rates for 178 countries: a new database, <http://www.bruegel.org/datasets/real-effective-exchange-rates-for-178-countries-a-new-database/>. Note: data are current through November 2012. For sources and methods see Darvas (2012).

Ethiopia's international trade has grown rapidly over the past decade (Figure 6). Until 2008, import growth was especially strong, reflecting both Ethiopia's rapid industrialization and the real exchange rate appreciation. Export growth picked up strongly in 2010 and 2011 following the real exchange rate adjustment. This stabilized the trade deficit, although the final quarter of 2011 saw a significant export slowdown, which the National Bank of Ethiopia (2011/12, p. 2) attributed to reductions in both volumes of major export products and international prices of key export products.



Figure 6: Ethiopian Exports, Imports and Trade Balance, 2002-2012, USD millions

Source: Authors' calculations based on UN COMTRADE data.

Ethiopia's external position is vulnerable to terms of trade shocks from international food and fuel price movements and to weather-related shocks, such as drought. The stabilization of the trade balance and strong growth in remittances improved the current account position significantly between 2008 and 2011. Together with continuing public transfers, this strengthened Ethiopia's balance of payments substantially: the IMF (2012a) reported a balance of payments surplus of almost USD1.45 billion or over 4% of GDP in the fiscal year 2010/11. However, with the renewed run-up in the real effective exchange rate, the trade deficit widened pushing the current account back into deficit (Figure 7) and the balance of payments back to a shortfall of USD1.2 billion in 2011/12. The IMF Article IV projections (2012a) assume modest surpluses over the medium term. However, this forecast may be in jeopardy given the trade balance deterioration.



Figure 7: Current Account as Percent of GDP, 2000-2012

Source: IMF World Economic Outlook Database, April 2013.

2.2 Policy Framework

Ethiopia's economic policy framework is described in the Ministry of Finance and Economic Development's Growth and Transformation Plan (MOFED, 2010). It commits government to address apparent market failures (e.g., trade logistics), identifies strategic growth sectors (textiles, leather, agro-processing, and mining), and sets out an ambitious program of infrastructure development (transport, energy, telecommunications), with the aim to meet the socioeconomic Millennium Development Goals by 2015, and to achieve middle-income status by 2020-23. Framed in terms of the developmental state model of industrial policy, the Plan applies all the tools of traditional industrial policy, namely:

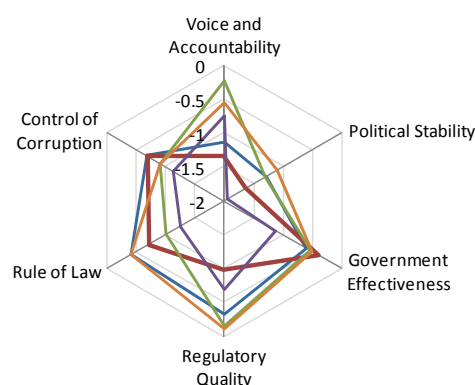
- targeted financial support, such as subsidies, loans from domestic policy banks, and equity participation;
- setting up public corporations or nationalization of industries to address market failures;
- trade policies that favor export-oriented and import-substituting industries;
- tax incentives, including import duty exemptions, tax holidays, etc. that promote priority sectors, particularly those facing handicaps such as inadequate trade logistics or infrastructure;

- strategic government procurement (e.g., assured profit margins for domestic pharmaceutical manufacturers in government health-care procurement);
- investment in specific supporting economic infrastructure; and/or
- regulatory exemptions to attract, preserve, or foster the growth of particular industries, including by attracting foreign direct investment.

The scale of public involvement is large: for the five-year GTP period, budgetary government spending and public enterprise off-budget spending is set to reach ETB1.26 trillion or 41% of GDP, disproportionately weighted to capital spending.

As regards policy delivery, overall governance is comparable to some of its African peers – Ethiopia is in the middle of the pack on most indicators, with its strongest suit being government effectiveness, which has seen marked improvement since 2000 (Figure 8).

Worldwide Governance Indicators



Ibrahim Index



Figure 8: Worldwide Governance Indicators & Ibrahim Index – Ethiopia vs. Regional Peers, 2011

Source: Authors' calculations based on Worldwide Governance Indicators and Ibrahim Index of African Governance (2012).

The World Bank's *Doing Business* (2013) ranks Ethiopia 127 out of 185 economies in "Ease of Doing Business". This is roughly in line with the average regional score (Figure 9). Ethiopia's relatively low rank mainly results from low scores in three sub-indices: "starting a business", "trading across borders", and "protecting investors".

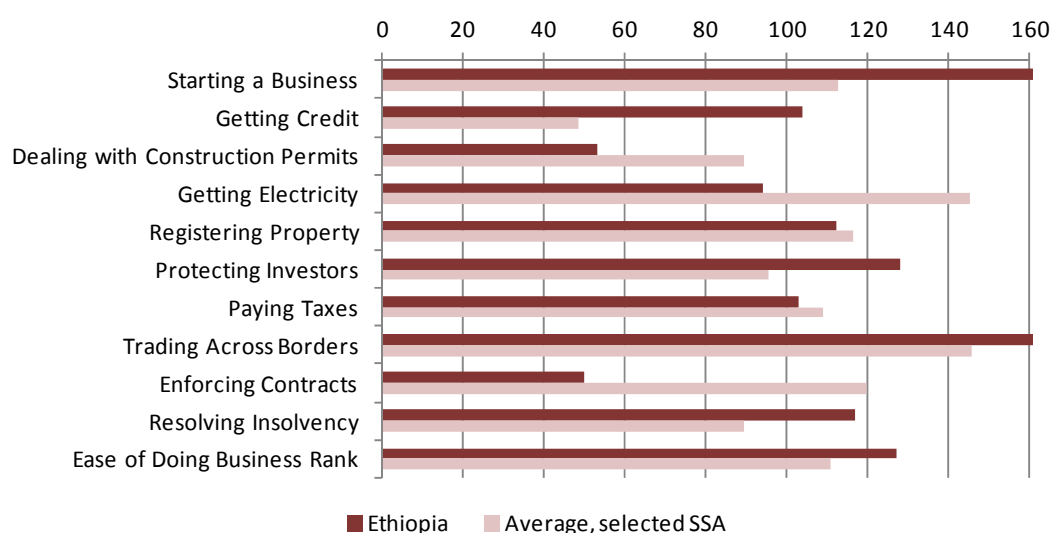


Figure 9: Doing Business Ranks – Ethiopia vs. Regional Peers, 2012

Note: Selected SSA is the simple average of Kenya, Nigeria, South Africa, Sudan, and Uganda.

Source: Authors' calculations based on World Bank (2013).

The low score in the first of these indicators is primarily due to the high cost of starting a business and minimum capital requirements in relation to per capita income. This constitutes a challenge for domestic businesspeople but is of limited importance to foreign investors.

Regarding the facilitation of trade across borders, Ethiopia ranks 161st out of 185 economies under the World Bank's *Doing Business* calculus; and the World Bank's *Logistics Performance Index* (LPI) (World Bank, 2012b) confirms Ethiopia's low score, ranking Ethiopia 141 out of 155 economies, down from 123 in 2010. However, as discussed, major initiatives are under way to improve trade logistics, including: new high-speed rail and multi-lane highway connections to Djibouti's main port and improved border connections to neighboring countries; and the establishment of new export-oriented industrial parks in which all firms benefit from the AEO procedures for imports and exports. Ethiopia has also made significant reforms to its logistics industry with the consolidation of Ethiopian Shipping Lines management, domestic logistics operators, and interior dry ports into Ethiopian Shipping & Logistics

Services Enterprise (ESLSE).¹⁵ The effect of this move, as well as of Ethiopian Airlines' ongoing monopoly position in air transport, on Ethiopia's evaluated ranking on ease of trading across borders remains to be seen.

With regard to protection of investors, Ethiopia provides an attractive policy regime for foreign investment regarding investment protection and profit repatriation: both the Constitution and the Investment Law¹⁶ protect private property and assure the repatriation of capital and profit.¹⁷ The only sectors reserved for government, according to the new law¹⁸, are transmission and distribution of electricity through the national grid, postal services, and air transport services using aircraft with a capacity of more than 50 seats. Investments in telecommunication services and production of weapons and ammunition can only be done jointly with the government. Also, sectors may be reserved for domestic investors by regulations¹⁹ – indeed a number of sectors, including financial services, have so far been closed for foreign investment. No restrictions are made on the modality of participation, although foreign investment is subject to minimum capital requirements, as a general rule USD 200,000 per project²⁰, as well as progress reporting requirements to government.²¹

Investments also benefit from Multilateral Investment Guarantee Agency (MIGA) guarantees and from measures in Ethiopia's Bilateral Investment Promotion & Protection Treaties (BIPPTs).²²

15 State-owned ESLSE was created in November 2011 through a merger of Ethiopian Shipping Lines, Maritime and Transit Services Enterprise, and Dry Port Services Enterprise; see Council of Ministers Regulation No 255/2004.

16 The core investment law covering investment in all sectors except mining is the Investment Proclamation No. 769/2012, which replaced the previous investment proclamation of 2002.

17 See Articles 25-26 of Investment Proclamation No. 769/2012.

18 Ibid., Article 6.

19 Ibid., Article 7.

20 Ibid, Article 11. Lower thresholds apply in certain sectors and for joint ventures between foreign and domestic investors

21 Ibid, Article 20.

22 Ethiopia has signed 29 bilateral investment treaties, of which 11 are with individual European Union Member States. Significant other partners include BRICS members China, India, South Africa, and Russia (but not Brazil), and a number of regional economic partners such as Israel, Egypt, and Sudan. See UNCTAD, Country-specific Lists of Bilateral Investment Treaties, <http://unctad.org/en/Pages/DIAE/International%20Investment%20Agreements%20%28IIA%29/Country-specific-Lists-of-BITs.aspx>.

There is also a comprehensive set of incentives, particularly for priority-sector investors:²³

- Customs duty payment exemption on capital goods and construction materials, and on spare parts whose value is not greater than 15% of the imported capital goods' total value;
- Income tax exemption from two to seven years for manufacturing or agro-processing and agricultural investments;
- Carry forward of losses: half of the tax holiday period; and
- Several export incentives, including the Duty Draw-Back, Voucher, Bonded Manufacturing Warehouse, and Export Credit Guarantee schemes.

Finally, the approval process for investments has been expedited—recent legislation enables one-stop shopping for investment approvals. Together with pre-approval and post-approval services to foreign investors (facilitation and aftercare services), foreign investors can expect to obtain necessary approvals within hours (Figure 10).

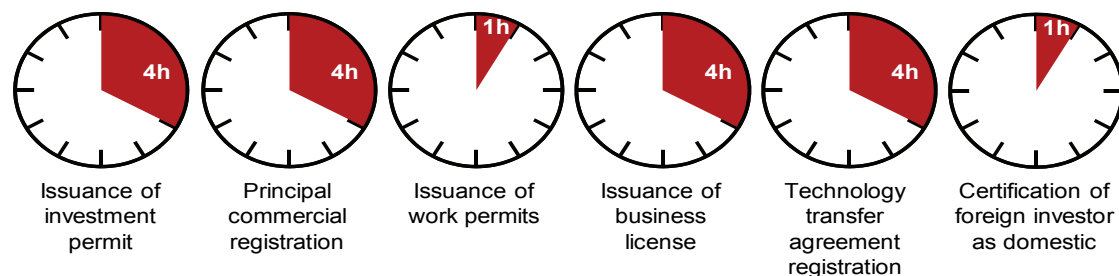


Figure 10: Duration to Obtain Approvals for Foreign Investors

Source: Ethiopia Investment Agency, May 2012.

2.3 *Ethiopia's Global Integration: Trade and Investment Trends*

Regarding geographical trade patterns, while China and India have been the most important sources of Ethiopian imports, China has also recently become Ethiopia's largest foreign market (Figure 11).

²³ See, "Invest in Ethiopia: Business Landscape 2013".

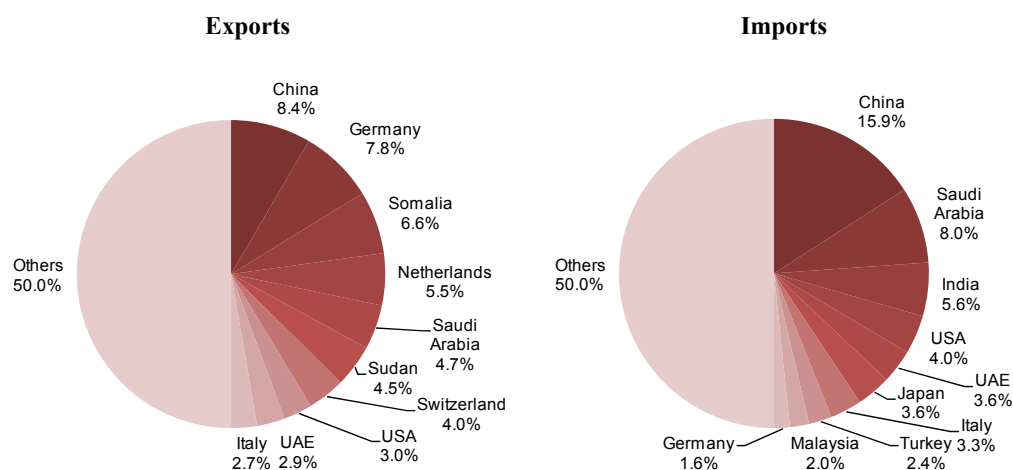


Figure 11: Ethiopia's Key Trading Partners, 2009-2011

Source: UN COMTRADE data, accessed May 2012, and authors' calculations.

Ethiopia's position at the crossroads between East and West is reflected in the fact that its most important export destinations are China (east), Germany (west), and Somalia (region) and no export destination dominates. This diversified pattern ensures against vulnerability to business cycles in any one of the global regions.

The stock of inward FDI in Ethiopia has grown steeply in the past decade, although the rate of accumulation has slowed since the onset of the global crisis in 2008. The 2011 level was almost five times that of 2000 (Figure 12).

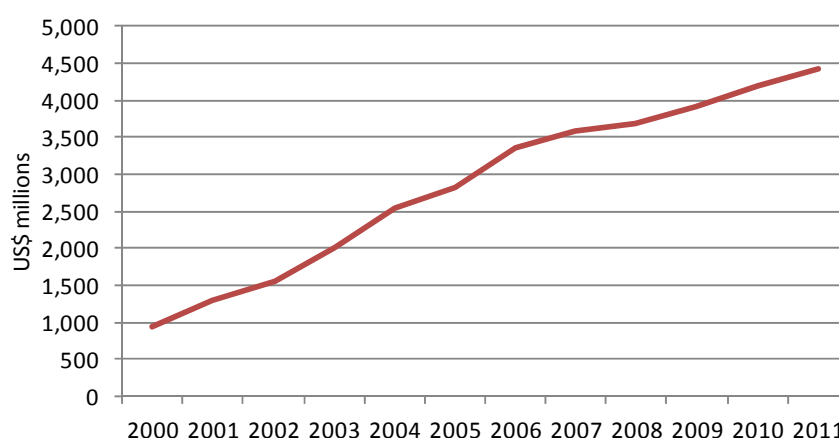


Figure 12: Inward FDI Stock, 2000-2011

Source: UNCTAD World Investment Report, various issues.

Like Ethiopia's trade, its FDI sources are remarkably diversified, yet another indicator of Ethiopia's centrality in the global economy, accounting for economic partners' distance and size (Figure 13).

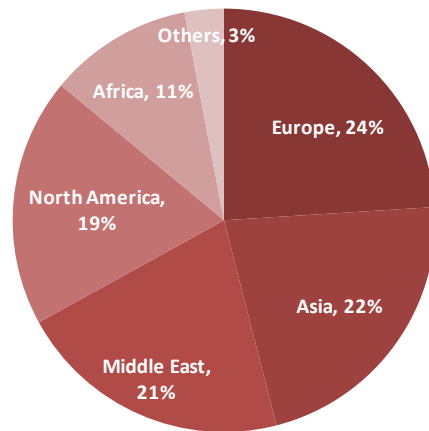


Figure 13: Sources of Foreign Direct Investment in Ethiopia

Source: Ethiopia Investment Agency, May 2012.

2.4 Macroeconomic Environment Summary

Many factors underpin Ethiopia's growth. The inflow of foreign direct investment from diverse sources into diverse sectors corroborates the impression obtained from the macroeconomic statistics that the economy features many important positive developments such as strong growth based on an increasingly diversified economy, stable non-food price inflation, increasing exports to a diversified range of markets, stable economic policies, and a solid investor protection framework.

Some important macro challenges do remain, notably inflation volatility, renewed upward pressure on the real exchange rate, and negative real interest rates. This situation generates a broad range of macroeconomic management challenges and constrains the growth of the savings needed to fuel Ethiopia's investment requirements, as well as putting pressure on Ethiopia's external balance.

	Source	Notes	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Growth & inflation													
GDP at current market prices, ETB billion	IMF, CSA	1-3	68.0	66.6	73.4	86.7	106.5	131.6	172.0	248.3	335.4	382.9	511.2
GDP at current market prices, USD billion	IMF, CSA	1-3	8.2	7.8	8.6	10.1	12.3	15.2	19.6	26.6	32.2	29.7	31.3
GDP constant prices, ETB billion	IMF, CSA	1, 3, 4	66.9	68.0	66.6	74.4	83.8	93.5	104.5	116.2	127.8	141.4	157.5
GDP constant prices, % change	IMF, CSA	1, 3, 4	7.4	1.6	-2.1	11.7	12.6	11.5	11.8	11.2	10.0	10.6	11.4
Inflation, average consumer prices, %	IMF		-5.2	-7.2	15.1	8.6	6.8	12.3	15.8	25.3	36.4	2.8	18.1
External performance													
Nominal exchange rate ETB/USD	CSA		8.33	8.54	8.58	8.63	8.65	8.68	8.79	9.24	10.42	13.00	16.00
Real exchange rate ETB/USD, Index 2000=1.00	NBE	5	0.90	0.80	0.90	0.95	0.98	1.06	1.18	1.34	1.64	1.34	1.24
Exports to World, current USD billion	UN		0.40	0.41	0.51	0.61	0.93	1.04	1.28	1.60	1.62	2.33	2.61
Imports from World, current USD billion	UN		1.81	1.59	2.69	2.87	4.09	5.21	5.81	8.68	7.97	8.60	8.90
Trade balance (X-M), current USD billion	UN		-1.41	-1.18	-2.17	-2.26	-3.17	-4.16	-4.53	-7.08	-6.36	-6.27	-6.28
Current account balance, % of GDP	IMF	1	-2.9	-4.5	-1.3	-1.4	-6.3	-9.1	-4.5	-5.6	-5.0	-4.4	-0.2
FDI													
Inward FDI stocks, current USD billion	UNCTAD		1.29	1.55	2.01	2.56	2.82	3.37	3.59	3.70	3.92	4.10	..
FDI inflows, current USD million	UNCTAD		349.4	255.0	465.0	545.1	265.1	545.3	222.0	108.5	221.5	184.0	..
Net FDI inflows, BoP data, current USD million	NBE	1	123.3	150.0	150.0	365.1	521.2	814.6	893.7	956.4	1,229.5
Capital of approved FDI projects, ETB billion	NBE	1	2.92	1.47	3.37	7.21	15.41	19.98	46.95	92.25	73.11	55.17	45.92

Figure 14: Development of Key Economic Indicators of Ethiopia, 2001-2011

Sources: IMF (2012b); Central Statistical Agency (CSA) (2011); National Bank of Ethiopia (NBE) (various years); UN COMTRADE; UNCTAD.

Notes:

1. Data refer to fiscal years (July 8/July 7). Data for 2011 represent fiscal year 2010/11.
2. According to IMF source notes, this is GDP at factor costs; see however the notes in CSA.
3. Values for 2010 and 2011 have been adjusted based on CSA latest data, which appear not to have been reflected in the IMF data.
4. GDP at factor cost.
5. Authors' calculations based on source material.

3. The Evolving Business Landscape

Today, it is understood that economic development is not a simple linear process of moving from agrarian- to industrial-, to services-, and finally to knowledge-based economic structures. Nor is integration into the global economy simply conceived as a process of increasing specialization - a narrowing of the production palette as each economy focuses on doing what it does best. Rather, economic development involves a massive diversification of production and trade (Imbs and Wacziarg, 2003), developing new capabilities while capitalizing on existing ones. It involves industrial development to increase agricultural productivity, as well as developing agricultural feedstock for downstream industrial development. It means developing services to enable industry to compete globally. And it ultimately depends on developing knowledge and human capital to enable the evolution of the complex ecology of

products, functions, and businesses that comprise the modern economy. Development thus involves a profound structural transformation of an economy.

More particularly, the evidence regarding the “how” of achieving this structural transformation clearly points to the role of manufacturing, typically as part of global value chains, as a critical factor in providing more productive jobs for workers otherwise employed in subsistence agriculture and informal urban work. This issue was recently explored in a World Bank study on the role of light manufacturing in development (Dinh *et al.*, 2012). The authors observe that Sub-Saharan Africa’s turnaround in the 2000s was fuelled in large part by resource exports and improving terms of trade from the commodity price boom (including for oil, agricultural products, and metals and minerals). However, labor-intensive light manufacturing, which led economic transformations in East Asia and elsewhere, was not a major contributor, reflecting the region’s marginalization in this area during Asia’s rise, notwithstanding largely tariff-free access to U.S. and EU markets.

Manufacturing’s economic role has recently received considerable attention in the debate over de-industrialization in advanced economies and the resurgence of interest in industrial policy. Ciuriak (2011) emphasizes several salient points in this discussion. First, manufactured goods dominate exports, while serving as the main conduit for export of business services: services are exported to a greater extent on a value-added basis embedded in exported goods than on their own.²⁴ Moreover, the direct export of services is increasingly contingent on the exports of goods – for example, see Neely *et al.* (2011) regarding after-sales services provided by manufacturing firms, the so-called “servitization” of manufacturing. Second, manufacturing accounts for a greatly disproportionate share of innovation; for example, Tassey (2010) shows that manufacturing firms conduct about 70% of U.S. industrial sector R&D. Similarly, manufacturing firms provide a substantial portion of a country’s domestic innovation infrastructure, which is as important for existing technology absorption and adaptation as for new technology development.

24 See Table 4 in Koopman *et al.* (2010) for a decomposition of sector shares of value added of domestic exports.

Third, manufacturing has important linkages throughout the economy. Manufacturing is connected upstream and downstream to agriculture, resource industries, construction, transportation, telecommunications, utilities, and services, as well as being a major activity driver in those sectors. Importantly, manufacturing anchors business services, which tend to co-locate with manufacturers. Accordingly, an economy's ability to effectively use trade to drive development depends importantly on its ability to grow its manufacturing sector, which serves as the vehicle for exporting embodied business services and for the development of technological capabilities.

Historically, a major problem for bootstrapping a manufacturing sector into existence from the foundations of an agriculture- or resource-based economy was the “missing markets” or coordination problem in development. The production of any good requires diverse complementary inputs and services, which are other firms’ or industries’ outputs. In a developing country, therefore, a potentially viable start-up in one sector might require simultaneous investments in others. While a major multinational firm might be able to establish its own supply chain (as McDonalds did when it entered the Russian market during the Soviet era), the gaps in the supply of inputs in an under-developed economy may defeat any would-be indigenous start-up (with cascading impacts on other potential start-ups that might depend on the first’s inputs).²⁵ The extent to which this idea has gripped the development community suggests observers sense this to be an important problem in developing countries. Rodrik (1994) describes the role of government policies in addressing the missing markets problem in Taiwan and South Korea. Ciuriak (2010) found that the very small number of Ethiopian firms represented an important obstacle to its trade development; the presence of few firms implies many missing markets.

25 The theoretical exploration of this idea goes back to Rosenstein-Rodan (1943) who noted that, if the economy’s various sectors adopt increasing returns technologies simultaneously, they each create income, which becomes a source of demand for other sectors’ goods, and so enlarge their markets, making industrialization profitable jointly where it would not be individually. Scitovsky (1954) concluded that problems arose due to the absence of adequate price signals for investment. He went on to observe that the problems of coordination would be more severe in under-developed economies. Arrow’s rejoinder that future markets could provide signalling for investment, which Scitovsky acknowledged, left the theory resting on incomplete markets. For a modern treatment of this idea in terms of multiple equilibria, see Murphy, Shleifer, and Vishny (1989).

In light of the missing markets problem, the modern “Made in the World” production paradigm could be the solution, enabling developing economies’ firms to plug into more complex production processes, which would not be possible in a purely domestic context.

At the same time, a country’s ability to plug into global value chains depends on (a) the existence of a formally organized manufacturing sector, given the contractual requirements of such participation; and (b) competitive trade logistics.

Consistent with this understanding, the development of priority sectors highlighted in Ethiopia’s Growth and Transformation Plan (MOFED, 2010) also anticipates the evolution of value chains, upstream and downstream from the core activity, many of which involve both manufacturing and services. Also, the GTP focuses on improved trade logistics. Importantly, as discussed below, Ethiopia is mounting its industrialization push at an opportune time, as East Asia’s labor cost advantage is being eroded by wage growth and some light manufacturing is searching for lower-cost locations. Furthermore, Ethiopia is mounting its push in light of lessons learned from East Asia’s experience.

4. Sectoral Investment Opportunities in Ethiopia

To understand the implications for business and investment opportunities of the changes in Ethiopia’s business landscape that the GTP promises, a closer look at sector level developments is required. We identify a number of key sectors, taking into account each sector’s role in the Ethiopian economy, the factors driving growth and development in the sector, the policy framework, and a discussion of opportunities and challenges both within the sector and the various ancillary activities and upstream and downstream supply opportunities. These sectors are agribusiness, mining and oil and gas, economic infrastructure, manufacturing, tourism, and health services.

4.1 *Agribusiness*

Ethiopia is the 27th largest country in the world by land size and has significant agricultural resources. Historically, Ethiopia has produced large amounts of maize, sorghum, barley, and wheat along with the Ethiopian staples of teff and coffee. However, given its diverse topography and geographical location, Ethiopia is suitable for growing a commensurately diverse range of crops depending on local factors such as suitable soil conditions, surface characteristics (e.g., slope), rainfall, temperature (while it is in the tropics, temperatures range from a mean annual high of 30° Celsius to a mean annual low of 10° Celsius), and supporting economic infrastructure.²⁶ Options are further being expanded by new technologies.²⁷

Approximately 80% of Ethiopia's workforce is employed in agriculture²⁸ and thus has some of the skillset required for expanding agribusiness. The policy environment for development of the private sector's role in agribusiness is also supportive: Ethiopia has consistently sought to leverage its agricultural base for industrial development. In line with the Agricultural Development Led Industrialization (ADLI) strategy²⁹ and building on the lessons learned from past plans and programs, the GTP continues to rely on agriculture as a major source of economic growth (MOFED, 2010: section 2.3.2).

Commercialization of smallholder farming continues to be the major source of agricultural growth under the GTP, supported by policies to increase productivity of smallholders. Meanwhile, the GTP's Agriculture Growth Program emphasizes shifting to high value crops and developing large-scale

26 See Hurni (1998) for a highly detailed geo-referenced mapping of Ethiopia's agro-ecological zones based on a "spatial classification of the landscape into area units with 'similar' agricultural and ecological characteristics. There are attributes of such units which determine similarities, such as: (a) comparable agroclimatic conditions for annual cropping, perennial crops, or agroforestry, (b) similar conditions for livestock raising, (c) comparable land resource conditions such as soil, water or vegetative parameters, or (d) similar land management conditions such as raggedness of agricultural land, slope steepness, or topography in general." (p. 1)

27 Chamberlin and Schmidt (2011) emphasize that "Changing production opportunities and new technologies have allowed greater flexibility of livelihood decisions within defined biophysical endowments." (p. 6)

28 The most recent data available are for 2005. For this year, the CSA labor force survey estimates total employment in agriculture at 80.2% (CSA, 2006: Summary Table 5.4). The ILO LABORSTA database reports 79.3% for the same year. See <http://laborsta.ilo.org>.

29 ADLI was first formulated in 1993 (Ministry of Planning and Economic Development, 1993) and has been at the heart of all government's economic development strategies formulated since then.

commercial agriculture where possible (e.g., in the lowlands). Thus, concerted support is to be given to increase private investment in large commercial farms, including through public investment in relevant infrastructure, such as water supply for irrigation. Also, the GTP emphasizes the development of intensive agricultural production in the highlands and where basic infrastructure is available.

Ethiopia's most important cash crop remains coffee, a product which originated in Ethiopia's highlands. However, the production of fresh fruits and vegetables, oilseeds, and most recently of cut flowers has contributed substantially to both GDP and export performance.³⁰ Sub-sectors with new investment opportunities include plantation crops (e.g., tea and tobacco); oil crops and cotton; fish farming; horticulture and floriculture (fruits, vegetables, and flowers); livestock and poultry (Ethiopia's livestock resources are the largest in Africa, and tenth largest worldwide); and forestry and forest by-products.

Ethiopia has learned the business model for developing export-oriented time-sensitive industries, such as cut flowers. It now seeks to build on this experience. In this regard, plans call for making more intensive use of farmed land, especially in the proximity of urban centers where intensive agriculture-based industrial clusters are viable. Public sector support will include developing greenhouse facilities and irrigation systems, programs to enhance the role of breeders and seed suppliers, and programs to expand the number of horticulture investors, input suppliers, and service providers within the sub-sector. In addition, substantial portions of Ethiopia's currently uncultivated arable land are to be brought under cultivation³¹ and the number of large-scale commercial farms is to be expanded in order to increase productivity and to develop exportable cash crops. Further, complementary programs are envisaged to alleviate input supply constraints, including as regards irrigation, fertilizer, and seeds; to improve the knowledge base in the smallholder farm sector; and to

30 In 2011, coffee accounted for 32% of Ethiopia's export earnings, followed by fruits and vegetables (16%), oilseeds (14%), and cut flowers (7%). See International Trade Centre Trademap, <http://www.trademap.org/>.

31 Note that some 80% of Ethiopia's arable land remains uncultivated.

improve infrastructure to allow isolated communities to plug into commercial opportunities. Finally, FDI is being promoted both in commercial agriculture and in downstream agro-processing industries.³²

Under the GTP, the Government of Ethiopia plans to maintain an organized land bank, which will make land available for lease for commercial agriculture. Commercial farms' production will be intended primarily for export or to provide raw materials for industries. The GTP identifies cotton, date palm, tea, rubber, and similar agricultural products as desirable, although food crop production will be encouraged in a double cropping system. In the coming five years, it proposes that over three million hectares of land be identified and prepared for transfer to investors; the GTP also indicates preparedness by the government support private investors to enhance their commercial agricultural investment.

Various analyses, including Dinh *et al.* (2012), suggest that Ethiopia can, with well-rehearsed and technically feasible policy reforms, make quantum leaps in capitalizing on its rich agricultural base to develop downstream industries and create jobs. The output and export expansion identified is on the scale of orders of magnitude. At the same time, this is without a doubt the area most fraught with difficulties in terms of conflict over customary land and water rights with local indigenous people, in terms of potential for larger inter-state conflict over water use, and in terms of ecological risks.³³ While *The Economist* concedes (somewhat grudgingly given its general perspective on state involvement in the economy) that Ethiopian officials have done a reasonably competent job (in part because "they welcome outside advice") and have managed "to keep corruption remarkably subdued for such a centralized

32 See MOFED (2010), section 5.1 for the details.

33 The World Bank's review of this area highlights these risks: "Data from country inventories highlight serious weaknesses in institutional capacity and management of land information. In many countries where demand has recently increased, limited screening of proposals, project approvals without due diligence, rivalries among institutions with overlapping responsibilities, and an air of secrecy all create an environment conducive to weak governance. Official records on land acquisitions are often incomplete, and neglect of social and environmental norms is widespread. All this implies a danger of a 'race to the bottom' to attract investors. Deficient processes for local consultation and unclear boundary descriptions create several problems: they reduce tenure security and investment incentives, increase the likelihood of conflict, and make it difficult for the public sector to collect land taxes and monitor whether investors comply with agreements they had entered into with local people." See Deininger *et al.* (2011; xxxii).

system”,³⁴ Ethiopia is nonetheless embroiled in the backlash against the “global land grab”, as foreign direct investment in leased land for projects ranging from palm oil plantations for biofuels to export-oriented agribusiness ventures has been characterized.³⁵

According to Ethiopia Business Landscape Survey 2012 interviews (Precise Consult/BKP Development/The Africa Group, 2012), firms are successfully functioning in the current formal Ethiopian policy setting, and confirm that planned trade logistics improvements, including improved rail and road corridors and the application of the AEO concept by customs, will further facilitate the conduct of time-sensitive business in Ethiopia.

Ethiopia has attracted investment in both its agriculture “upstream” production from diverse sources, including China, India, and Saudi Arabia, as well as its “downstream” food and beverage processing and marketing sectors.³⁶ Given the growing number commercial large-scale agribusiness investments, opportunities for ancillary and supporting service businesses, as well as joint ventures, are multiplying. The existing supply web for agribusiness in Ethiopia remains inadequate to meet needs, leading some firms to self-supply across the entire agribusiness value chain, from production of inputs, to processing, to marketing/distribution, although they would prefer to outsource many non-core functions.

4.2 Mining, Oil and Gas

Ethiopia’s varied geology endows it with a variety of minerals, including gold; platinum and platinum group elements (PGE); tantalum and other metals, such as copper, iron, lead, nickel, and zinc; gemstones, such as ruby, emerald, sapphire, garnet, and opal; decorative and dimension stones, such as marble and granite; and various industrial minerals, such as potash, phosphorous, coal,

34 The Economist (2013).

35 For example, ODDO Securities, a Paris-based investment broker, identified Ethiopia as one of four high-risk countries under its environmental, social and governance (ESG) risk analysis. See ODDO Securities (2010). Evidence that Ethiopia is not immune to these risks is set out in Liu *et al.* (2013) regarding human rights impacts of agricultural investment policies in Gambella, including through the so-called “villigization” program.

36 See the list of investors in Precise Consult/BKP Development/The Africa Group (2012), exhibits A10 and A11.

marble, limestone, and soda ash. There is also significant potential in oil and gas, as well as in geothermal energy within the Rift Valley, where pilot exploration drilling has proven the existence of steam capable of generating geothermal power.³⁷

Despite its mineral potential, Ethiopia only very recently became a significant mining region. The accelerating mining sector boom is driven by several factors. First, the rich resource base is only now being discovered through systematic mapping: geological-related mapping will be increased from 50% to 100%, and evaluated and delineated areas of potential industrial exploration from 48% to 77%, of Ethiopia's land mass over the period to 2015 (Addis Fortune, 2012). Second, global demand for resource products is expanding exploration. Given Ethiopia's attractive mining sector investment terms and incentives, including generous terms for royalty rates and income taxation, and security of tenure,³⁸ there has been strong private sector engagement, including entry by major global mining industry players.

Reflecting these developments, mining was the economy's fastest growing sector in recent years, with output more than doubling between 2008/09 and 2011/12 in real terms (MOFED, 2011; and MOFED, 2012). The intensified exploration uncovered several new deposits, including of gold, tantalum, and potash, positioning Ethiopia to strengthen output growth as new production sites come on stream.

The mining and oil and gas sector is strategically important to Ethiopia's growth. The Government of Ethiopia's goal is to facilitate the establishment of a large and diverse private-sector-based minerals industry to help underpin

37 For a review of the extent of installed geothermal capacity in Ethiopia and the potential to expand capacity, see Energy Sector Management Assistance Program (ESMAP) (2012).

38 The new mining law (the Mining Operations Proclamation No. 678/2010) provides a detailed statement of the rights and obligations of firms obtaining mining licenses. The main provisions may be summarized as follows: 1) License owners generally have the right to sell all the minerals locally or abroad. 2) Royalties for large-scale licenses vary by the nature of the resource being exploited; there are seven classes of mined products, with royalty rates ranging from 2% (geothermal) to 8% (precious minerals), based on the sales price of the products in the commercial transactions involving the minerals produced. 3) The income tax rate is 35% (as established in the Mining Income Tax Proclamation No. 53/1993, as amended). 4) Exemptions from custom duties and taxes are provided for equipment, machinery, vehicles and spare parts. 5) Security of tenure is guaranteed. And 6) the opening and operation of a foreign currency account in banks in Ethiopia is provided for, as is retention of a portion of foreign currency earnings, and remittance of profits, dividends, and principal and interest on a foreign loan etc. out of Ethiopia.

industrial development, generate foreign exchange earnings, provide employment, and alleviate poverty (MOFED, 2010: section 5.4). The mineral sector was opened to private investors in 1991. The 1994 Mineral Operations Regulations (Mining Regulation No. 182/1994) further created an environment conducive to private investment. Today's mining laws and regulations, enacted in 2010, provide for attractive royalty terms for investors, while addressing sector-specific topics, such as environmental protection, community development, and worker health and safety (Mining Operation Proclamation No. 678/2010). Additionally, to foster competition, the law prevents companies from holding licenses for lengthy periods without demonstrable activities.

Ethiopia has attracted investment from a range of top-tier and junior mining companies worldwide. The emergence of a world class mining sector in Ethiopia spells opportunities not only for the extractive industries, but also for the myriad suppliers and downstream applications of mined resource products, including industrial materials manufacturers who can take advantage of the raw material supply, inexpensive labor, and low-cost energy supplies. Mining generates demand for a wide range of supporting services, including water supply (including efficient water management through recirculation), energy supply (including renewable and geothermal), transportation, specialized financial services, machinery and equipment maintenance, human resource training, information technology (including remote sensing), etc. The government is addressing the mining companies' main issues – transportation logistics and trained personnel (see following section) – by developing supporting infrastructure and the private sector is contributing by, for example, establishing an undergraduate mining engineering program at Unity University.³⁹

The infrastructure and logistics developed for the extractive industries directly enable downstream processing and value-added activities. However, downstream linkages between the mining and other sectors that would drive

39 See http://www.midroc-ceo.com/midrocetg/?q=uu_program. This program started in the 2011/12 academic year. See “Geologists Becoming Real Gems in Job Market,” in Ethiopia Investor, http://www.ethiopiainvestor.com/index.php?option=com_content&view=article&id=3391:geologists-becoming-real-gems-in-job-market&catid=74:top-story&Itemid=27.

broad-based social benefits have not traditionally been well developed in the African mineral industry, reflecting both the scale and capital intensity of the primary processing industries and the global excess capacity in such industries, which motivate multinational firms to ship raw materials abroad for processing rather than developing new facilities in Africa.⁴⁰ The virtual absence of an African manufacturing sector has reinforced this tendency.

In this context, policy measures appear to be required as well as an economic context in which such policy action can have traction – that is, the ground for downstream demand for processed mineral products is in place locally, and willing foreign partners step forward. Ethiopia's tantalum mining sector is a case in point: in March 2012, the Ministry of Mines ordered production of tantalum ore to be shut down pending the construction of a downstream processing plant to develop processed products such as bar and wire. However, with no foreign partner engaging, and the Ethiopian company involved – Ethiopian Minerals Development Enterprise (EMDE) – lacking sufficient capital to proceed with the downstream enterprise without current earnings, the mine is reportedly to re-open prior to the processing plant being built (Bekele, 2013).

As well, to contribute to economic and social development, the development of large-scale mining requires flanking policies. For example, in Ethiopia's case, gold mining has long been a major artisanal industry providing a livelihood for up to half a million people, many of them women (World Bank, 2012c); by contrast, modern capital-intensive mining provides few jobs. Coupled with the issues related to local environmental degradation associated with mining activity, and the exclusion of traditional access to mining sites which can trigger social tensions, mining poses numerous challenges to serve as the springboard for sustainable development for developing countries. The main grounds for some degree of optimism in Ethiopia's case is that the mineral exploitation has come relatively late in the growth surge and is thus complementing an already increasingly differentiated economy rather serving as the initial and primary stimulus.

40 For a full discussion of this issue see African Union Commission *et al.* (2011).

4.3 *Economic Infrastructure*

Ethiopia is mounting a highly ambitious economic infrastructure development program, which has already resulted in significant expansion of installed electricity capacity and distribution, road length, water and sanitation supply, and telecommunication services throughout the country.⁴¹ Its infrastructure indicators now compare relatively well in some areas with low-income country peers. Furthermore, Ethiopia is starting to develop its infrastructure connections to neighboring countries, including transportation and power links.

The overall objectives in this area are ambitious (MOFED, 2010: section 5.5). They include: a quintupling of Ethiopia's power generation capacity; a major expansion of the trunk roads network; a substantial expansion of its internal rail network coupled with development of a new heavy-duty, high-speed rail link to Djibouti (Ethiopia's main export port) and a link to Lamu Port in Kenya; a major telecommunications capacity expansion; and further major water supply expansion.

While the Government is the sole direct infrastructure provider, private sector investment opportunities are available both in service provision (e.g., France Telecom was brought in to manage Ethio Telecom⁴²), and in supply chains surrounding infrastructure development (e.g., China's ZTE has developed solar power solutions to extend telecommunication services to remote areas lacking conventional power supply; the result will be the largest scaled solar telecom network in the world).

41 Installed electricity capacity more than doubled over the period 2007-2011, from 800 MW to 2,000, while distribution increased from 1,600 communities to almost 6,000 over the same period (Ethiopian Electric Power Corporation). Total road length (municipal and rural) increased from 42,429 kilometers in 2007 to 52,042 kilometers in 2011 (Ethiopian Roads Authority). In 2010, 44% of the population had access to freshwater sources, and 20% to improved sanitation, up from 30% and 10%, respectively, in 2001 (<http://www.wssinfo.org/>). With regard to telecommunications, the number of mobile subscribers and telecom density for mobile lines increased from 6.52 million and 8.7% in 2010 to 10.7 million and 12.85% in 2011. Similarly, the coverage of wireless telephone service increased from 50% in 2010 to 90% in 2011 (Ethio Telecom).

42 The management contract ended at the end of 2012. France Telecom will continue to support Ethiopian management of Ethio Telecom for at least another year under a "partnership and support framework agreement"; see Ethio Telecom, "The Management Contract with France Telecom concluded", <http://www.ethionet.et/news/news.php?id=79> (02 January 2013).

Additionally, as noted, Ethiopia's customs service has plans to significantly improve trade logistics by implementing the Authorized Economic Operator (AEO) system in export-oriented industrial parks, working with Ethiopian Airlines and Ethiopian Shipping & Logistics Services, a major integrated shipper serving the Gulf, India, and Asia Pacific and operator of two dry ports in Ethiopia.

4.4 *Manufacturing*

Manufacturing is under-developed in Ethiopia - even by African standards - notwithstanding limited success in a few narrow areas such as leather and textiles.⁴³ Several mutually reinforcing factors prevented the emergence of a stronger manufacturing base historically, including periods of isolation from global markets. Yet, Ethiopia has the means to change that due to several converging trends. First, there is a surging supply of young, increasingly well-educated, trainable, and inexpensive workers⁴⁴ at a time when rising Asian wages are driving labor-intensive production to migrate elsewhere. Second, it occupies an advantageous geographic position to access global value chains given the above-mentioned transportation infrastructure and trade logistics improvements. Third, it has duty-free, quota-free access to the U.S. and EU markets under the African Growth and Opportunities Act (AGOA) and the Everything But Arms (EBA) initiative, respectively. Fourth, the historic shortfalls in energy supply are being remedied through major new infrastructure developments (see section 4.3 above). With no hangover of legacy manufacturing technology, a supportive policy framework to leverage the agricultural and mineral resource base for downstream manufacturing activity, and increasing FDI inflows stimulated by the experience of first-movers, who entered the Ethiopian market with success, the conditions have been recognized as propitious.

43 The leather and textiles sectors are the only two Ethiopian manufacturing sectors that are competitive internationally, as evidenced by high export shares of production: according to calculations by the authors based on CSA data, 67% of leather product sales and 48% of textile sales were for export in 2011, compared to only 10% of the manufacturing sector on average.

44 See footnote 1 and section 1 above.

Indeed, according to Dinh *et al.* (2012), with policy reforms that have been successfully applied elsewhere, Ethiopia could expand its export potential by orders of magnitude in several light manufacturing subsectors: apparel, leather products, agribusiness, and wood and metal products.

In the apparel sector, the main constraints are poor trade logistics and access to trade finance. Proven solutions are a green channel for apparel at customs, providing free and immediate access to foreign exchange, reducing the cost of letters of credit, and setting up an industrial zone close to the main port of export (Djibouti). Competitiveness could be reinforced by developing a textiles industry based on its high-quality cotton and cheap hydro-energy. Potential impact: while Ethiopia's apparel sector currently generates only about USD8 million in exports and 9,000 jobs, Vietnam has achieved USD8 billion in exports and created 1 million jobs with policies similar to those recommended above.

In the leather products sector, Ethiopian leather is highly regarded. With modest, targeted reforms Ethiopia's large animal herds could produce vast amounts of some of the world's best leather to feed leather products industries. However, in the meantime, Ethiopian leather industries apparently face shortages of suitable processed leather. The immediate binding constraints on input supply could be lifted by allowing processed leather imports, while straightforward reforms to cattle herding practices and allowing raw hides exports would stimulate investment in hide production, providing a longer-term solution to the input problem. Potential impact: with similar policies, Vietnam, which has a similar population size, created 600,000 jobs in the leather products industry.

In agribusiness, Ethiopia's coffee and cut flower successes demonstrate the potential for agribusiness based on low wages, varied soil and climatic conditions, opportunities to increase yields on cultivated land, and large tracts of unused arable land. High input prices are the main constraints. Relevant reforms aim to improve supply and reduce costs of agricultural inputs, including by facilitating investment (e.g., removing trade restrictions and allowing use of cattle as collateral). Potential impact: Dinh *et al.* (2012) observe that Ethiopia

has the second largest African dairy herd, offering the potential for large-scale downstream processing.

As regards wood and metal products, Ethiopian manufacturers rely on imported wood and steel, made more expensive by high tariffs and poor trade logistics. The sector is dominated by smaller, mostly informal, firms; there are no large or exporting firms. For wood, the recommended policies are to facilitate access to rural land and to financing for private wood plantations; for metals, to reduce input costs by cutting the 10% import tariff on steel and by exploiting Ethiopia's proven reserves of iron ore. For both subsectors, enterprise development would be spurred by facilitated access to skills, finance, and industrial land as part of "plug-and-play" industrial parks. Initially, the sector's development would be driven by rapidly growing domestic markets.

Ethiopia's manufacturing sector growth can also be increased by exploiting processing trade. For example, cellphone assembly has started in Ethiopia for local and regional markets based on imported inputs.⁴⁵

The Ethiopia Business Landscape 2013 (Precise Consult/BKP Development/The Africa Group, 2012) provides examples of effective trade facilitation impacts for firms operating export-processing manufacturing in Ethiopia. For example, Ayka, a Turkish leather products manufacturer, imports production inputs from Djibouti; Ethiopian Shipping & Logistics Services takes the sealed containers from ship to truck, straight to Ayka's premises; they are unsealed in the presence of a customs official and go straight into production. From dockside to factory, this process currently takes 2-3 days. The major current bottleneck (slow, sometimes uncertain, and costly trucking from Djibouti) will be relieved soon with the completion of the rail link to Djibouti. According to the Ethiopian Shipping & Logistics Services and companies, time will be cut to hours, uncertainty eliminated, and costs sharply reduced. The rollout of the AEO concept across the growing number of export-orient industry parks is thus building on established practice.

45 Tana Communications has been assembling mobile phones in Ethiopia since the first quarter of 2011 based on components provided by China's ZTE. See "Amharic mobile phones – Made in Ethiopia", Ethiopia Forums, 19 February 2012. Hong Kong-based Tecno has also been assembling smart phones in Ethiopia since 2011. See "Chinese mobile phone company Tecno explains why it only does business in Africa," *HowwemadeitinAfrica.com*, 21 January 2013.

However, while the actual business-operating environment is much less problematic than the pro forma accounts recorded in the World Bank's *Doing Business* (2013) surveys - a point confirmed by the World Bank's *Enterprise Surveys*, as reported by Hallward-Driemeier and Pritchett (2011) - for many firms problems remain. To offset the frictions that firms may experience while the full package of reforms is being implemented, the government offers incentives to foreign investors, as described earlier.

4.5 *Services: Tourism*

Ethiopia has great - and largely unexploited - tourism potential (Walle, 2010). In terms of cultural tourism, Ethiopia features the richest archaeological heritage of any Sub-Saharan African country. It is home to Lucy, the world's oldest hominid skeleton, has a claim to being the land of the legendary Queen of Sheba, and the even more legendary Ark of the Covenant, but also benefits from the rich heritage of the Axumite Kingdom, the castles of Gondar that date from the 1600s, and the rock hewn churches of Lalibela (which have been designated a World Heritage Site and sometimes described as the "8th wonder of the ancient world"). It is also the birthplace of coffee and its traditions. Indeed, Ethiopia has the most World Heritage sites of any African country (nine).⁴⁶ Its natural attractions are equally varied: the source of the Blue Nile; the Rift Valley with its volcanoes, lakes, and exotic wildlife; and a topography ranging from rugged mountains to lowland savannahs for the adventure tourist. Although close to the equator, higher altitude regions are suitable for year-round tourism. Furthermore, Addis Ababa hosts both the African Union headquarters and the UN Economic Commission of Africa and thus hosts a disproportionate number of international events, which can be leveraged for tourism purposes. Tourist arrivals are growing rapidly and the industry is starting to attain scale: arrivals reached 515,000 in 2011 compared to 330,000 in 2008.⁴⁷

46 UNESCO World Heritage Center, <http://whc.unesco.org/en/list/>.

47 World Bank Indicators, International tourism, number of arrivals, <http://data.worldbank.org/indicator/ST.INT.ARVL>. Government officials have expressed considerable optimism concerning the potential growth - e.g., in an interview, Adelech Dalacho, State Minister of Culture and Tourism, referred to a lofty target of 1 million by the end of 2012. Reported in "Bringing sustainable tourism into the heart of Africa," *Worldfolio* (2012).

By global standards, Ethiopia is under-explored, reflecting limited historical accessibility. Accessibility is improving as Addis Ababa expands its role as one of Africa's leading air transport hubs.⁴⁸ Ethiopian Airlines, with its Star Alliance partners, now links the country with 69 destinations across Africa, Asia, the Middle East, Europe, and North America. Other carriers serving Ethiopia include (as of this writing) Egypt Air, Kenya Airways, South African Airways, Turkish Airlines, Saudi Arabian Airlines, Brussels Airlines, Delta Airlines, Gulf Air, Sudan Airways, KLM, and Emirates. Ethiopia's tourism sector is poised to benefit further from an upgrade program including constructing airports, road and communication networks, and improving its electric power generation and water works.

The tourism industry is fairly liberalized and 100% foreign ownership is allowed (albeit with some exclusions).⁴⁹ Tax holidays and 100% duty exemptions are available for all investment capital goods imports.⁵⁰ The government has effectively removed tourist visa constraints⁵¹ to position Ethiopia as a major African tourist destination. On the World Economic Forum's 2013 *Travel & Tourism Competitiveness Index*, Ethiopia's ranking has shown a modest improvement over previous years but still ranks 120th out of

<http://www.worldfolio.co.uk/region/africa/ethiopia/tadelech-dalacho-minister-culture-tourism-ethiopia-1258>. The World Travel and Tourism Council (WTTC) projected only 429,000 foreign visitors in 2012, with leisure travel spending expected to reach USD2.1 billion and business travel spending USD0.5 billion (WTTC, 2012).

- 48 The degree of "hubness" of a city for air travel can be measured in absolute and relative terms. Absolute "hubness" is measured by the total number of passengers arriving at the city while relative hubness is the number of passengers connecting through that city as a percent of total passenger arrivals. Otiso *et al.* (2011) provide data that show Addis Ababa at the top of the list for relative hubness in Africa in 2001, although Johannesburg, Casablanca, and Nairobi were ahead in absolute terms. Addis Ababa also was among the leaders in terms of passenger traffic growth over the period 2001-2009 in percentage terms.
- 49 The World Bank's "Investing Across Borders" gives Ethiopia a score of 100 for both greenfield and M&A investment in tourism sector; however, it notes that excluded from the sector definition is ownership of restaurants, bars, and travel agencies. See: World Bank, Investing Across Borders, <http://iab.worldbank.org/>. The Ethiopian Investment Agency provides a more detailed set of exclusions including non-star-rated hotels and pensions, ticket-selling services, car hire, and operation of museums, theaters and cinema halls; however, it also indicates that the exclusion on foreign ownership of restaurants does not extend to international and specialized restaurants. See Ethiopian Investment Agency, http://www.ethioinvest.org/Investment_Regime.php.
- 50 Ethiopian Investment Agency, "Ethiopia Investment Guide 2012". The World Economic Forum's Travel & Tourism Competitiveness Index rankings for 2013 give Ethiopia a relatively good score for overall tax competitiveness
- 51 Tourist visas are obtained at the airport upon arrival; the nominal tourist visa requirement therefore does not serve as a constraint but rather functions as a minor arrival tax.

140 countries, up from 123 in 2009. Accordingly, Ethiopian tourism is still very much a work in progress but, as the growing numbers of tourist arrivals indicates, is moving the right direction - and has much room to move.

Tourism requires many supporting services, and, thus, drives activity in many downstream and ancillary industries. Particularly significant private investment opportunities are opening in the hotel sector, as the top hotels are operating at very high capacity and there is limited capacity near tourist attractions and emerging industrial zones.

4.6 Services: Health

Like many developing economies, Ethiopia has inadequate health care services supply, despite the increase in the number of health facilities (hospitals, clinics, and health stations) from 575 in 1997 to 17,300 in 2010.⁵² Total health expenditure rose steeply, increasing from 4.3% of GDP in 2008 to 4.9% in 2010,⁵³ and is expected to expand further under ambitious targets set by the GTP (MOFED, 2010: section 6.2). Private hospitals have grown significantly over the past five years, triggered by such factors as the rapid influx of medical technology, rising middle class incomes, and supporting government policy. Indeed, 47% of Ethiopian health care spending was financed privately (out of pocket) in 2010, up from just under 40% in 2005.⁵⁴ Moreover, the government has sought an increase in private sector involvement (both for-profit and not-for-profit) in health services delivery (MOFED, 2010: section 6.2). Today, practically all drug vendors and stores are private, as are the majority of pharmacies. There are also a number of private hospitals in Ethiopia. Nair *et al.* (2011) report a total of 25 private hospitals operating in Addis Ababa, including 16 general, 8 maternity, and 1 specialty hospital, with a total of 922 beds; these

52 Ministry of Health, Health Sector Development Program IV, 2010/11 – 2014/15, October 2010; p. 18.

53 World Bank Indicators, Health expenditure, total (% of GDP), <http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS>.

54 World Bank Indicators, Health expenditure, public (% of total health expenditure).

account for most of the private hospitals operating in Ethiopia as there are few outside of Addis Ababa.⁵⁵

The Ministry of Health's 2010 Health Sector Development Plan reports that there were also 277 private, not-for-profit clinics and 1,788 private for-profit clinics in operation.⁵⁶

Land for construction of hospitals and related services may be leased; the terms are liberal. Investments can be facilitated through the state-owned bank with a minimum of 30% investor equity. The government also offers tax holidays, duty free biomedical instruments and equipment privileges, minimal or zero tariffs on raw materials (where relevant, like in the pharmaceutical industry), and a 20% margin advantage to domestic suppliers over imports on public procurement tenders. Improved regulation in a number of areas, including hospital autonomy, pharmaceutical distribution, and licensing is being developed to facilitate private sector engagement.⁵⁷

Planned investment for Ethiopia's health care system will drive demand for many privately provided goods and services, including laboratory services, ambulance services, pharmaceutical manufacturing, and health care personnel training. The provision of medical tourism services was examined as a case study in the Ethiopia Business Landscape Survey 2013 (Precise Consult/BKP Development/The Africa Group, 2012): in 2010, 6,000 Ethiopians travelled to Bangkok for medical treatment, spending approximately USD36 million. Citizens of many other Sub-Saharan African countries also use foreign facilities for medical treatment, participating in the global "medical tourism" trend whereby individuals obtain procedures in a low-cost country bundled with a tourism experience for the price of the procedure alone in the home country. Ethiopia is well placed to make a competitive bid for a slice of this trade opportunity.

55 Vilasini Devi Nair, Sudhakar Morankar, Challi Jira, and Kora Tushune. 2011. "Private Hospital Sector Development: An Exploratory Study on Providers Perspective in Addis Ababa, Ethiopia," *Ethiopian Journal of Health Sciences* 21(Suppl 1), August: 59–64.

56 Ministry of Health, Health Sector Development Program IV, 2010/11 – 2014/15, October 2010; p. 16.

57 Precise Consult/BKP Development/The Africa Group (2012).

5. Conclusions

This paper has examined the statistical record and drawn on interviews with companies with experience doing business in Ethiopia to compile a critical investment prospects picture. The macroeconomic overview identifies a number of positive features in Ethiopia's macroeconomic performance. These include strong growth, based on an increasingly diversified economy, stable non-food price inflation, increasing exports to a diversified range of markets, an improved trade balance, and generally stable economic policies and a solid investor protection framework. Indeed, by some metrics, Ethiopia's performance has moved it into the league of major emerging markets.

At the same time, this assessment agrees with the view concerning Ethiopia's two key challenges to sustain economic performance: high and volatile headline inflation rate and negative real interest rates, which generate diverse macroeconomic management challenges and constrain savings growth needed to fuel investment. Furthermore, the macro scan highlights that Ethiopia's exchange rate has again risen in real terms between 2011 and 2012, after devaluations of the birr in the late 2000s corrected the overvaluation caused by a steady real currency appreciation over the previous half-decade. The importance of reducing domestic business entry costs is also highlighted.

The sectoral discussion drills deeper into the underlying structural changes going on in Ethiopia, which are generating bottom-line growth. Based on an assessment of investment prospects in agribusiness, mining, oil & gas, economic infrastructure, manufacturing, tourism, and health services, several major conclusions are drawn.

First, the assessment of the sectoral drivers of growth supports the optimistic sense of economic prospects for Ethiopia based on the macroeconomic scan. Importantly, Ethiopia's global economic connectivity is poised to improve, creating new opportunities across the entire spectrum of economic activity.

Second, the supply chain opportunities surrounding the core sectoral activities – agricultural processing, mining, infrastructure, tourism, and health – also drive developments in manufacturing and an increasingly diverse business

services sector. Third, the simultaneous development of new opportunities in these areas also creates synergies for business attracted by opportunities in any of these sectors. Fourth, the scale of change could involve production and exports of particular products leaping by orders of magnitude, as the experience of other countries attests, and as companies' specific plans signal. Fifth, the pace of change is accelerating.

While each company must assess the value proposition that Ethiopia offers in light of its own business models and strategic plans, the overall assessment in this survey is that Ethiopia's emergence from land-locked isolation and integration into the global economy is deepening and accelerating, giving support to the label that has sometimes been accorded to it, namely that of Africa's newest "Lion Economy".⁵⁸

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58 The term "lion economy" was apparently coined by McKinsey Global Institute in a 2010 article entitled "Lions on the Move". Ethiopia was not one of the economies included in McKinsey's original list.

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References

- Addis Fortune. (2012). 'Chinese to Help Map Mining Potential of Ethiopia', *Addis Fortune*, vol 12, no. 622, 1 April.
- African Development Bank. (2012). *African Economic Outlook 2012: Promoting Youth Employment*, AfDB, Development Centre of the OECD, UNDP, UNECA, Published online.
- African Union Commission, African Development Bank and United Nations Commission for Africa. (2011). *Action Plan for Implementing the AMV*.
- Banerjee, A., Duflo, E., and Qian, N. (2012). 'On the Road: Access to Transportation Infrastructure and Economic Growth in China'. NBER Working Paper No. 17897.
- Bekele, K. (2013). 'Ethiopian Minerals Development Enterprise to resume tantalum production'. *The Reporter*, 11 May.
- Chamberlin, J. and Schmidt, E. (2011). 'Ethiopian Agriculture: A Dynamic Geographic Perspective. Ethiopia Strategy Support Program II'. ESSP II Working Paper No. 017.
- Ciuriak, D. (2011). 'The Return of Industrial Policy', Available at <http://ssrn.com/abstract=1929564>.
- Ciuriak, D. (2010). 'Supply and Demand Side Constraints as Barriers for Ethiopian Exports - Policy Options'. BKP Development Trade and Development Discussion Paper 02/2010.
- CSA. (2006). *Report on the 2005 National Labour Force Survey*. Statistical Bulletin 365, CSA, Addis Ababa.
- Deininger, K., Byerlee, B., Lindsay, J., Norton, A., Selod, A., and Stickler, M. (2011). *Rising global interest in farmland: can it yield sustainable and equitable benefits?* The World Bank, Washington DC.
- Dinh, H., Palmade, V., Chandra, V., and Cossar, F. (2012). *Light Manufacturing in Africa: Targeted Policies to Enhance Private Investment and Create Jobs*, The World Bank, Washington DC.

- Dorvas, Z. (2012). 'Real Effective Exchange Rates for 178 Countries: A New Database'. Bruegel Working Paper No. 2012/06.
- Durevall, D. and Sjö, B. (2012). 'The Dynamics of Inflation in Ethiopia and Kenya'. African Development Bank Group, Office of the Chief Economist, Working Paper No. 151.
- EIU. (2011). *Country Report Ethiopia*, Economist Intelligence Unit, London.
- ESMAP. (2012). *Geothermal Handbook: Planning and Financing Power Generation*, Technical Report 002/12, The World Bank, Washington DC.
- Ethiopian Investment Agency. (2012). *Ethiopia Investment Guide 2012*. EIA, Addis Ababa.
- Faber, B. (2012). 'Trade Integration, Market Size, and Industrialization: Evidence From China's National Trunk Highway System'. Working Paper, 2 June.
- Fernald, J. G. (1999). 'Roads to prosperity? Assessing the link between public capital and productivity'. *American Economic Review* vol. 89, no. 3, pp. 619-638.
- Hallward-Driemeier, M. and Pritchett, L. (2011). 'How business is done and the 'doing business' indicators: the investment climate when firms have climate control'. *World Bank Policy Research Paper Series* 5789.
- Hurni, H. (1998). *Agroecological Belts of Ethiopia: Explanatory notes on three maps at a scale of 1:1,000,000*. Soil Conservation Research Programme Ethiopia, Centre for Development and Environment University of Bern, Switzerland in association with The Ministry of Agriculture, Ethiopia.
- Mo Ibrahim Foundation, (2012) 'Ibrahim Index of African Governance 2012', Available at <http://www.moibrahimfoundation.org/interact/> (accessed 16 May 2013)
- Imbs, J. and Wacziarg, R. (2003). 'Stages of Diversification'. *American Economic Review* vol. 93, no. 1, pp. 63–86.
- IMF. (2012a). *The Federal Democratic Republic of Ethiopia: Staff Report for the 2012 Article IV Consultation*, 27 August 2012. IMF Country Report No. 12/287.
- IMF. (2012b) *IMF Economic Outlook*, IMF, Washington DC.
- IMF. (2011). *The Federal Democratic Republic of Ethiopia: Joint Staff Advisory Note on the Growth and Transformation Plan 2010/11–2014/15*. IMF Country Report No. 11/303.
- Kefale, A. (2011). 'Narratives of Developmentalism and Development in Ethiopia: Some preliminary explorations'. Paper presented at ECAS 2011 - 4th European Conference on African Studies, Uppsala, 15-18 June 2011.
- Koopman, R., Powers, W., Wang, Z., and Wei, S.-J. (2010). 'Give Credit Where Credit Is Due: Tracing Value Added In Global Production Chains'. NBER Working Paper 16426.
- Lakshmanan, T. R. (2011). 'The broader economic consequences of transport infrastructure investments'. *Journal of Transport Geography* vol. 19, no. 1, pp. 1–12.

- Liu, W., Sinha, G. A., and Stern, R. (2013). *Unheard Voices: The Human Rights Impact of Land Investments on Indigenous Communities in Gambella*. The Oakland Institute, Oakland.
- Mayer and Zignago. (2011). 'Notes on CEPII's distances measures (GeoDist)'. CEPII Working Paper 2011-25, Available at <http://www.cepii.com/anglaisgraph/bdd/distances.htm>.
- McKinsey Global Institute. (2010). *Lions on the Move: The Progress and Potential of African Economies*. McKinsey Global Institute, New York.
- Ministry of Health. (2010). *Health Sector Development Program IV, 2010/11 – 2014/15*, Government of Ethiopia, Addis Ababa.
- Ministry of Planning and Economic Development. (1993). *An economic development strategy for Ethiopia: A comprehensive guidance & a development strategy for the future*, Government of Ethiopia, Addis Ababa.
- MOFED. (2010). *Growth and Transformation Plan 2010/11 – 2014/15*, 2 volumes, Government of Ethiopia, Addis Ababa.
- MOFED. (2011). *Brief Note on the 2003 EFY GDP Estimates*, Ministry of Finance and Economy, Addis Ababa.
- MOFED. (2012). *Brief Note on the 2004 (EFY) National Accounts Estimates*, Ministry of Finance and Economy, Addis Ababa.
- Murphy, K. M., Shleifer, A., and Vishny, R. W. (1989). 'Industrialization and the Big Push'. *Journal of Political Economy* vol. 97, no. 5, pp. 1003-1026.
- Nadiri, I. M. and Mamuneas, T. P. (1996). 'Constitution of Highway Capital to Industry and National Productivity Groups'. Report prepared for the Federal Highway Administration (FHWA).
- National Bank of Ethiopia. (2012). *Quarterly Report, Second quarter 2011/12*.
- National Bank of Ethiopia (NBE). (Various years). *Annual and quarterly reports*.
- Neely, A., Benedettini, O., and Visnjic, I. (2011). 'The servitization of Manufacturing: Further evidence'. Conference paper presented at the 18th European Operations Management Association Conference, Cambridge, July.
- ODDO Securities. (2010). *Land grabbing: myth or reality?* Economic Report.
- One. (27 July 2011). 'Ethiopia's progress in education', Available at <http://one.org/livingproof/en/article/ethiopias-progress-in-education/> (accessed 16 May 2013).
- Otiso, K. M., Derudder, B., Bassens, D., Devriendt, L., and Witlox, F. (2011). 'Airline connectivity as a measure of the globalization of African cities'. *Applied Geography* vol. 31, pp. 609-620.
- Precise Consult/BKP Development/The Africa Group. (2012). *Invest in Ethiopia: Business Landscape 2013*, Precise Insights, Addis Ababa.

- Roberts, M., Deichmann, U., Fingleton, B., and Shi, T. (2010). 'On the road to prosperity? The economic geography of China's national expressway network'. World Bank Policy Research Working Paper 5479.
- Rodrik, D. (1994). 'Industrial Organization and Product Quality: Evidence from South Korean and Taiwanese Exports', in Krugman P. and Smith M. A. (eds.). *Empirical Studies of Strategic Trade Policy*, University of Chicago Press, Chicago and London.
- Rosenstein-Rodan, P. N. (1943). 'Problems of Industrialisation of Eastern and South-Eastern Europe'. *Economic Journal* vol. 53, pp. 202-211.
- Sahoo, P., Dash, R. K., and Nataraj, G. (2010). 'Infrastructure Development and Economic Growth in China'. Institute of Developing Economies (IDE) Discussion Paper No. 261.
- Scitovsky, T. (1954). 'Two Concepts of External Economies'. *Journal of Political Economy* vol. 62, pp. 143-51.
- Shiferaw, A., Söderbom, M., Siba, E., and Alemu, G. (2012). 'Road Networks and Enterprise Performance in Ethiopia: Evidence from the Road Sector Development Program'. International Growth Centre, The College of William and Mary, Working Paper 12/0696.
- Siba, E., Söderbom, M., Bigsten, A., and Gebreeyesus, M. (2012). 'Enterprise Agglomeration, Output Prices, and Physical Productivity: Firm-Level Evidence from Ethiopia'. WIDER Working Paper WP/085.
- Tassey, G. (2010). 'Rationales and mechanisms for revitalizing US manufacturing R&D strategies'. *Journal of Technology Transfer* DOI 10.1007/s10961-009-9150-2.
- The Economist. (2013). 'Ethiopia and Kenya: Doing it My Way'. 2 March.
- UN. (2011). *Level & Trends in Child Mortality*. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA, UNPD).
- UN COMTRADE, Commodity Trade Statistics Database. Available at <http://comtrade.un.org/db/> (accessed 16 May 2013).
- UNESCO. Global Education Digest. (2011). *Comparing Education Statistics Across the World*, UNESCO Institute for Statistics, Montreal.
- Walle, Y. M. (2010). 'Tourist Flows and Its Determinants in Ethiopia'. Ethiopian Development Research Institute Working Paper 001.
- World Bank. (2013). *Doing Business 2013: Smarter Regulations for Small and Medium-Size Enterprises*, The World Bank, Washington, DC.
- World Bank. (2012a). *World Development Indicators 2012*, The World Bank, Washington, DC.
- World Bank. (2012b). *Connecting to Compete 2012: Trade Logistics in the Global Economy: The Logistics Performance Index and Its Indicators*, The World Bank, Washington, DC.

- World Bank. (2012c). *Linking Gender, Environment, and Poverty for Sustainable Development: A Synthesis Report on Ethiopia and Ghana*, The World Bank, Washington DC.
- World Bank. (2012). 'Worldwide Governance Indicators', Available at <http://info.worldbank.org/governance/wgi/index.asp> (accessed 16 May 2013).
- World Economic Forum. (2013). *The Global Competitiveness Report 2012/13*, The World Economic Forum Geneva.
- World Economic Forum. (2007). *The Global Competitiveness Report 2006/07*, The World Economic Forum, Geneva.