4th Ethiopia Economic Update:

OVERCOMING CONSTRAINTS IN THE MANUFACTURING SECTOR

WORLD BANK GROUP

4TH ETHIOPIA ECONOMIC UPDATE

OVERCOMING CONSTRAINTS IN THE MANUFACTURING SECTOR

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The World Bank greatly appreciates the close collaboration with the Government of Ethiopia (the Ministry of Finance and Economic Development, in particular) in the preparation of this report. The report was prepared by a team led by Michael Geiger (Sr. Country Economist, GMFDR) under the guidance of Lars Christian Moller (Lead Economist and Program Leader, GMFDR). Direct contributors to the report were for *Chapter 1*: Mesfin Girma (Economist, GMFDR), Ashagrie Moges (Research Analyst, GMFDR), Francesco Strobbe (Sr. Financial Economist, GFMDR), and Eyasu Tsehaye (Economist, GPVDR); direct contributors to *Chapter 2* were: Susan Kayonde (Consultant, GTCDR) and Asya Akhlaque (Sr. Economist, GTCDR). The report benefitted from three reports, which served as inputs to Chapter 2: *Ethiopia Skills for Competitiveness and Growth in the Manufacturing Sector* (World Bank, 2014b: Tazeen Fasih and Asya Akhlaque); *Ethiopia Investment Climate from the Perspective of Regions: Addis Ababa, Oromia and Dire Dawa* (World Bank, 2014c: Asya Akhlaque and Johanne Buba); and *SME Finance in Ethiopia: Addressing the Missing Middle Challenge* (World Bank, 2014d: Francesco Strobbe). Gelila Woodeneh (Communications Officer, AFREC) reviewed the document, provided editorial content and designed the cover page. The report was prepared under the overall guidance of Albert Zeufack (Practice Manager, GMFDR) and Guang Zhe Chen (Country Director, AFCE3). The peer reviewers were: Vincent Palmade (Lead Economist, GTCDR), and Andrea Coppola (Sr. Economist, GMFDR). Comments and guidance were also provided from Kevin Carey (Lead Economist, GMFDR).

LIST OF ABBREVIATIONS

CBE	Commercial Bank of Ethiopia
CPI	Consumer Price Index
CSA	Central Statistical Authority
DB	Doing Business
DBE	Development Bank of Ethiopia
EAL	Ethiopian Airlines
EDRI	Ethiopian Development Research Institute
EEPCO	Ethiopian Electric Power Corporation
EIA	Ethiopian Investment Agency
EIC	Ethiopian Investment Commission
EIZ	Eastern Industrial Zone
ERCA	Ethiopian Revenue and Custom Authority
ES	Enterprise Survey
ESLSE	Ethiopian Shipping and Logistics Enterprise
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEP	Global Economic Prospects
GoE	Government of Ethiopia
GTP	Growth and Transformation Plan
IC	Investment Climate
ICA	Investment Climate Assessment
IFC	International Finance Corporation
IMF	International Monetary Fund
IP	Industrial Park
IPDC	Industrial Park Development Corporation
IZ	Industrial Zone
LMSMI	Large- and Medium-Scale Manufacturing Industries
MFI	Microfinance Institution
MoFED	Ministry of Finance and Economic Development
MoU	Memorandum of Understanding
MSME	Micro, Small, and Medium Enterprises
NBE	National Bank of Ethiopia
OSS	One Stop Shop
PPP	Public Private Partnership
RER	Real Exchange Rate
ROA	Return on Assets
ROE	Return on Equity
SEZ	Special Economic Zones
SME	Small and Medium Enterprises
SOE	State-owned Enterprise
SSA	Sub Saharan Africa
TFP	Total Factor Productivity
ToT	Terms of Trade
TVET	Technical and Vocational Education Training
VAT	Value Added Tax
WBG	World Bank Group

EXECUTIVE SUMMARY

Recent economic developments

The Ethiopian economy continued its strong expansion in FY14 with real GDP growing by 10.3 percent. Growth was driven mainly by the services sector from the supply side and public investment from the demand side. At the same time, inflation has remained in single digits for the last two years on account of tighter monetary policy and lower international commodity prices. However, in recent months in 2015, domestic food prices are increasing partially as a result of shortage rainfall during the short rainy season. On the fiscal side, the budgetary stance at the general government level has been cautious. In an effort to adjust for the rising cost living, the FY15 budget incorporates an increase in public sector salaries after years of no increases which could also be the first step to adjust the balance between capital and recurrent expenditure. The salary increase accompanied by a supplementary budget in the middle of the fiscal year could potentially increase the budget deficit.

The current account balance weakened. The deterioration is on account of a worsening trade deficit which was driven by weak export performance and large imports of capital goods for public investment programs. Goods exports showed positive growth in 2013/14 but rates remained far below their historical growth; furthermore, export growth fell into negative territory again in the last quarter of 2014 and first quarter of 2015.

The strong economic growth in the past decade helped to reduce poverty significantly. The poverty headcount, measured by the national poverty line, fell from 38.7 percent in 2005 to 29.67 percent in 2011. Measured with the international poverty line (US$1.25 per day) Ethiopia saw the second fastest rate of reduction in Africa. Economic growth, particularly in agriculture, has been an important driver of poverty reduction in the last decade. Favorable weather conditions and improving terms of trade for rural producers have been reasons of this past trend supported by strong improvements in access to basic services and rural safety nets. Low levels of inequality have been maintained with the Gini coefficient remaining stable at 0.30.

Economic outlook and challenges

The recent fall in global oil prices is expected to have a positive economic impact on Ethiopia. The country is a net importer of fuel, which accounts for one-fifth of goods imports. The growth effect is expected to be positive in part because of declining oil prices increase disposable real income and support stronger domestic consumption. The price decline will result in a 1.8 percent reduction in the price of goods and services, bringing welfare gains for the average household, but this reduction will be larger for urban households and wealthier rural households. Improvements in terms of trade also support the external sector: Staff estimates suggest Ethiopia's terms of trade could increase by about 6 percentage points in FY15. Inflation is also expected to decline, especially due to indirect impact and its positive effect on expectations. The current account deficit is expected to improve by 1.5 percentage points of GDP in FY15.

Growth will remain high in the short term while gradually declining in the medium term. While a rising working age population will continue to support potential GDP growth, total factor productivity growth and investment are gradually expected to decline. High growth and lower oil prices will drive further reductions in poverty.

Lower oil prices will aid poverty reduction. This comes through a reduction of consumer prices by an estimated 1.8 percent for the average Ethiopian household. This reduction will be relatively larger for urban and wealthier households. For those rural households that depend on cereal sales, welfare gains from lower consumer prices may be partially offset by lower cereal prices. Lower oil prices reduce import prices and require local cereals to be more moderately priced to be competitive.

An appreciated real effective exchange rate does not help competitiveness, especially in manufacturing. The real exchange rate appreciated by 22.5 percent (y/y) at the end April 2015 showing a cumulative appreciation of 71 percent since the nominal devaluation in October 2010**.** In addition, Ethiopia is now on an appreciation path against all currencies that are depreciating against the US$. This is because the Birr is closely managed against the US$. The de facto exchange rate arrangement is classified as a crawl-like arrangement by the IMF (2013b). The authorities describe it as a managed float with no predetermined path for the exchange rate. The annual pace of nominal depreciation, however, has been stable at 5 percent in recent years. There is concern that the appreciated currency does not help improving export competitiveness; much more, since

exports are falling again and the Government is trying to encourage a thriving manufacturing sector to develop. Maintaining a competitive exchange rate is an important component of maintaining external competitiveness, but its macroeconomic effects, for instance on import prices and inflation need to be managed closely (World Bank, 2014a).

Growth and transformation through the manufacturing sector

The Growth and Transformation Plan (GTP) seeks to transform the economy toward an industrialized economy and to increase per capita income of its citizens by 2025. To this effect, the Government has adopted policy focused on the development of the manufacturing sector through the use of industrial parks to attract FDI and to support SMEs. Targeting SMEs is important as they are an engine for jobs creation and a manifest of a thriving and dynamic economy. But, with services and agricultural sectors contributing almost 90 percent of GDP the GTP has not been able to accelerate structural transformation. At the same time, the share of the manufacturing sector in GDP remained just above 4 percent of GDP for most of the past decade. Furthermore, Ethiopia has not made significant progress in pulling labor out of agriculture into more productive and industrial jobs. The share of employment in the manufacturing sector has changed only slightly and is virtually unchanged since 1999 at below 5 percent of total employment.

Productivity gains are a key factor in determining long-term economic growth and improvements in living standards. In Ethiopia, productivity performance is heterogeneous among firms; foreign owned, publicly owned, and older firms appear more productive than domestic, private, young firms. Although labor productivity in Addis Ababa compares well with firms in peer countries with same level of development, this appears to reflect higher capital intensity rather than more efficient production. Still, low wages in Ethiopia of about $1,000 per worker per year enable firms to remain competitive even if firms in other countries are more productive. A key determining factor of productivity is the ability of an economy to supply the skills needed for companies to grow and to thrive, but firms in Ethiopia struggle to recruit candidates with appropriate hard (technical) and soft skills. A more literate and trainable labor force would not only increase productivity in Ethiopia, but also make the country more attractive to international firms seeking to invest in Africa.

Private investment, both domestic and foreign, is crucial for developing the manufacturing sector. A better investment climate that fosters the growth of existing firms, while encouraging the creation of new firms is key to attracting and increasing private sector investments. The business environment affects the performance of all firms, irrespective of their size; however certain aspects such as regulatory burden and information asymmetry may be of particular consequence to SMEs. Access to finance is a top obstacle to SMEs as firms in Ethiopia are more likely to be credit constrained than global comparators. There is strong evidence that lending to micro-enterprises and larger firms in Ethiopia is relatively adequate, while SMEs are left behind ("missing middle phenomenon"). The intensity of business operational constraints and entry barriers vary depending on whether firms are large, FDI-financed, or domestic SMEs. Business entry regulations and processes are consistently highlighted by the private sector as burdensome and obstructive of firm entry and dynamism.

The Government is implementing an industrial parks (IP) development program to address investment-climate-related issues to land access, infrastructure, and logistic and customs processes, and to further the attraction of FDI. Combined with comparatively low labor costs in Ethiopia, the IP program is beginning to attract FDI especially in the manufacturing sector. But given that about half of FDI firms in Ethiopia cite investment climate or regulation related issues as important impediments to investment, more FDI could be attracted by addressing those constraints and furthering its IP program. Still, cumulatively more FDI firms succeed in moving from the investment stage to operational phase than domestic firms. But while FDI has a better "conversion" rate over domestic investors, there is still room for substantial improvement. Currently two out of three potential FDI firms do not reach operational state. Important lessons could be drawn from the IP experience around the world. For instance, the performance for IPs is greatly dependent on how well they are designed, implemented and integrated into the local economy. Despite the concept of enclaves, in practice, the success of IPs comes once they are entwined with the overall economy, and the institutional capacity of the Government. The importance of promoting linkages and spillovers with domestic firms and the role of services in developing value chains is key. Thus, addressing the investment constraints faced by firms outside the Industrial Parks needs to remain a simultaneously advanced critical issue.

Policy recommendations

This Economic Update offers seven policy recommendations, which could contribute to the development of the manufacturing sector in Ethiopia. The recommended actions focus on the key operational constraints and entry barriers both for FDI companies and SMEs.

1. Focus on skills development which is vital for increasing firm productivity.
2. Implement measures to improve access to finance for firms especially "the missing middle," small and medium sized enterprises, the majority of which are fully credit constrained.
3. Address binding constraints relating to access to land and access to electricity.
4. Improve tax administration and advance the simplification of the MSME tax system.
5. Improve trade logistics, customs procedures and trade regulations, which primarily impacts large (exporting firms) and FDI.
6. Simplify business entry regulations and processes to facilitate entry and exit of firms, which is a key requirement for a dynamic and thriving business sector.
7. Utilize a strategic and phased approach for the development of Industrial Parks in line with international experience and to ensure efficient utilization of and demand for IP infrastructure.

RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

1

The Short View

The Ethiopian economy continued its strong expansion in FY14 with real GDP growing by 10.3 percent. At the same time, inflation has remained in single digits for the last two years. On the fiscal side the budgetary stance at the general government level has been cautious. In an effort to adjust for the rising cost of living, the FY15 budget incorporated an increase in public sector salaries through a supplementary budget in the middle of the fiscal year. Goods exports showed positive growth in 2013/14 but rates remained far below their historical growth; furthermore, export growth fell into negative territory again—after an earlier dip in 2013/14—in the last quarter of 2014 and first quarter of 2015.

Real Sector

The Ethiopian economy continued its strong expansion in FY14.[1] Real GDP grew by 10.3 percent compared with 9.8 percent in FY2013 (Figure 1.1.1). Economic growth was driven mainly by the services sector, which accounted for about half (5.3 percentage points) of the growth contribution, followed by industry (2.8 percentage points) due to an ongoing construction boom. Agriculture, in turn, contributed 2.3 percentage points. The manufacturing sub-sector contributed only 0.5 percent to the GDP growth, less than the 0.7 percent contribution of the preceding year. Real GDP per capita grew by 7.2 percent in FY14, which is close to the necessary 8.0 percent annual per capita growth rate needed for Ethiopia to reach middle-income status by 2025.

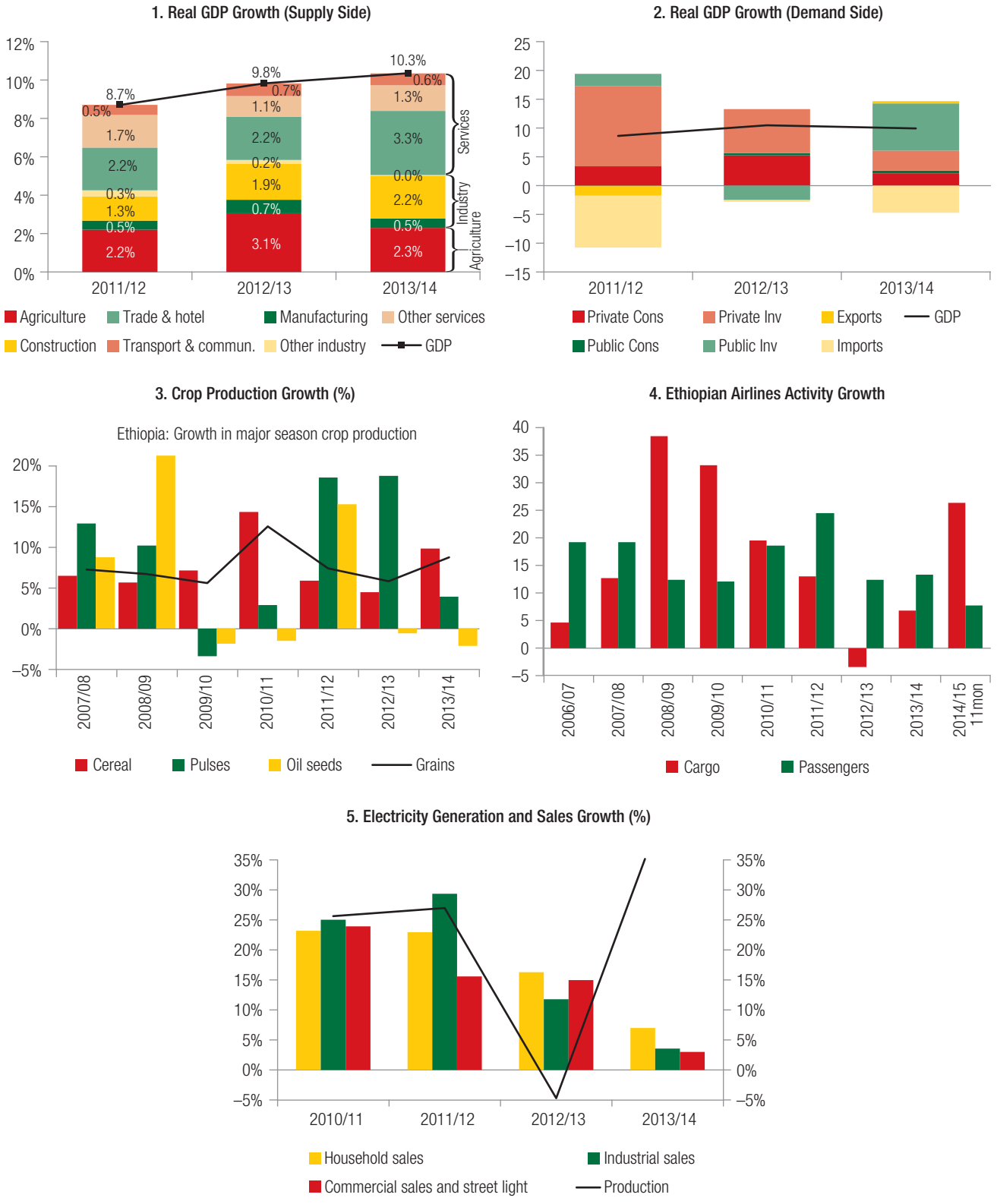
On the demand side, public investment growth accounted for more than half of GDP growth. Public investment contributed 56 percent to total GDP growth in 2013/14 (Figure 1.1.2). Private investment growth contributed 24 percent to overall GDP growth followed by private consumption with 14 percent in 2013/14. Public investment, which is largely driven by public enterprises, showed an average annual growth of 14 percent in the last three years (2010/11–2013/14). Such investment is fueled by domestic and external credits to public enterprises, which grew on average by 21 percent during the same three-year period. On the contrary, the net exports contribution to GDP is –4.3 percent as a result of large capital import of capital goods associated with public infrastructure investment which had a positive contribution to growth.

Three-fourths of the GDP growth in 2013/14 can be explained by the developments in three sub-sectors: agriculture, construction, and services.

- In the agriculture sector, the crop production value-added increased by 6.6 percent and was significantly higher than the 8.2 percent increase in 2012/13. Within the crops category, oilseed showed a declining trend for now two consecutive years (Figure 1.1.3) due to a decline in the production of linseed (decreased by 2.1 percent in 2013/14); and a combined drop of 24 percent in safflower and rapeseed. At the same time, sesame—one of the major export items of Ethiopia—increased production by 21 percent.
- Construction value-added increased by 36 percent and was the major driver of the industry sector in 2013/14. With this, construction contributed 2.2 percentage points to GDP growth and accounted for 81 percent of the total growth contribution of the industry sector.

[1] The Ethiopian Fiscal Year ranges over 12 months from July 8 to July 7. This note draws upon official national accounts data produced by the Government of Ethiopia. The growth rates quoted are expressed in factor prices.

FIGURE 1.1: Economic Activity



Source: World Bank staff computation, based on: 1.1: MOFED, 1.2: MOFED, 1.3: CSA, 1.4: EEPCO, 1.5: Ethiopian Airlines.
Note: 1.5: The difference between production and sales is equal to the export amount; but there is no detailed data available for power exports.

- The services sector had the largest growth contribution of all subsectors. The trade and hotel sub-sectors increased by 17 percent. Foreign merchandise trade, which is one of the items in the sector, increased by 13 percent in 2013/14. Meanwhile, within the transport and communications category, Ethiopian Airlines activities increased by 13.3 and 6.8 percent in passenger traffic and cargo services, respectively (Figure 1.1.4). In eleven months of FY15 (to May 2015), Ethiopian Airlines Cargo service increased by 26.2 percent and passenger service by 7.7 percent—despite the Ebola outbreak in West Africa. Similarly, electricity generation showed substantial growth from 12 percent per year to 45 percent per year in 2013/14; yet, power sales to industries grew by only 4 percent against 12 percent, while an estimated 170MW of power is exported to neighboring countries. (Figure 1.1.5).

Monetary Sector

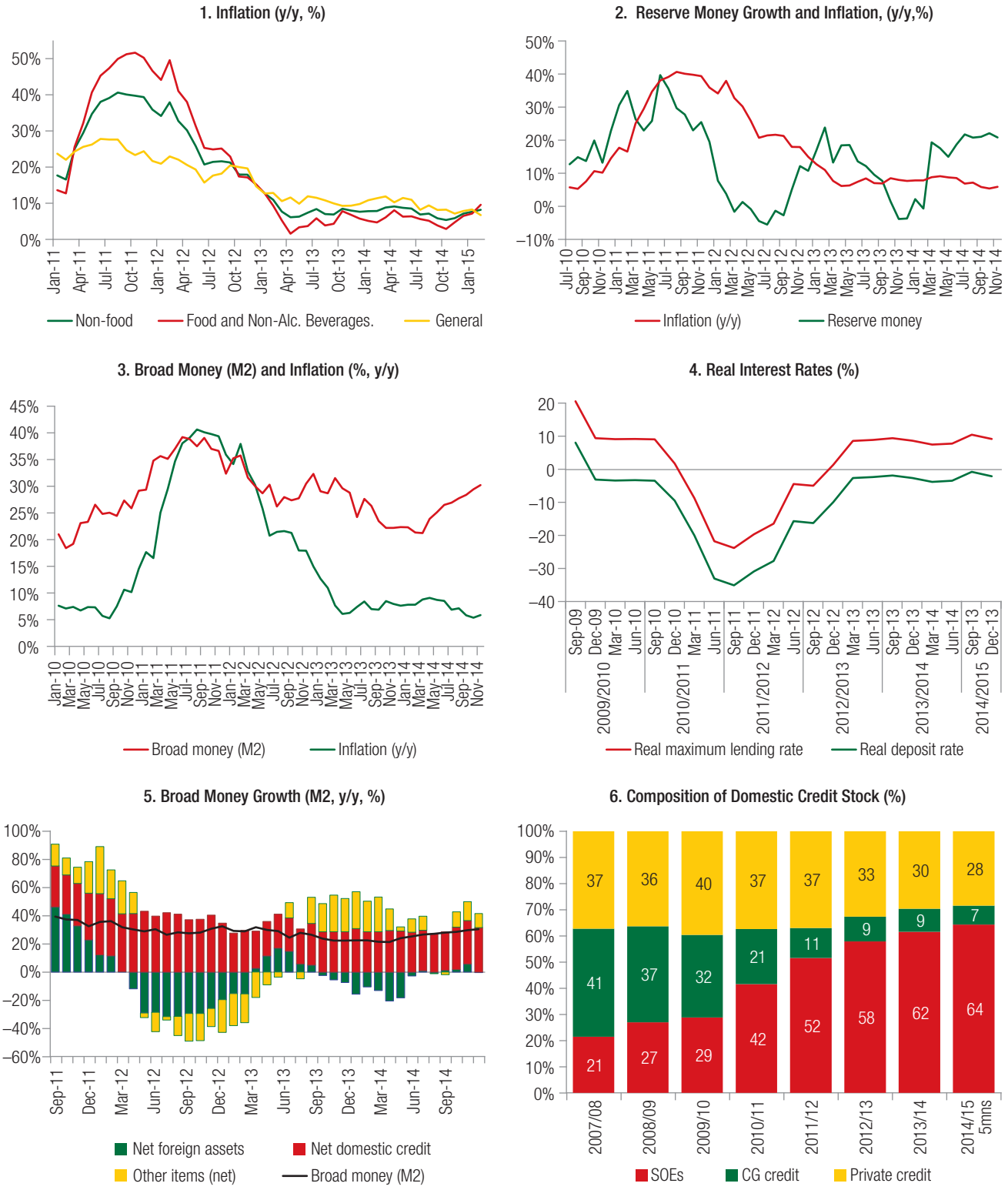
Inflation has remained in single digits for the last two years. In May 2015, the headline inflation continued its upwards trend, albeit on relatively low levels, and reached to 9.4 percent. This is slightly faster growth than on average over the past 6 months mainly due to an increase in food inflation. While food inflation increased to 10.1 percent in May, up from 2.9 percent in October, non-food inflation remained stable (Figure 1.2.1). The decline in the global prices of fuel contributed to keeping the non-food inflation relatively low while food prices, especially milk and milk products increased substantially (about 24 percent in May); the latter is a result of a shortage of milk due to short season rainfall failure, which caused low animal fodder. Overall, the rather low inflation over the past two years contributed to lower real interest rates, which meant that the maximum lending rate remained positive since December 2012. On the other hand, the real minimum deposit rate was close to zero in September (Figure 1.2.4).

Tighter monetary policy supported lower inflation even though reserve money growth is very volatile. Reserve money growth (the nominal anchor) increased by 21 percent in November 2014 compared to the deep –3.7 percent dive in December 2013 and recent peak of 24 percent in February 2013. Part of the volatility comes from methodological changes, but they do not explain the full extent of ups and downs.[2] In addition, the sale of a US$1 billion sovereign bond in December 2014 would hypothetically increase the foreign assets and accelerate the growth of reserve money unless NBE is able to sterilize its effects. Current data seems to suggest that the latter is, in fact, happening but a full picture has yet to unfold. Importantly, however, inflation was rather stable during the volatility period of reserve money, which indicates a rising role of inflation expectations in the economy at the current time (Figure 1.2.2). Low inflation expectations have a stabilizing effect on inflation rates.

Broad money is growing relatively faster, and credit growth to state-owned enterprises (SOEs) is the major contributor to that growth. Looking at broad money growth shows a continuing growth pattern from 21 percent in March 2014 to 30 percent in November 2014 (Figure 1.2.3). Net domestic credit growth reached 31 percent in November 2014 (Figure1.2.5). Public sector credit continues to be the main driver with credit to the SOEs increased by 37 percent (year-on-year) in November 2014. With this credit support, SOEs play an important role in the economy as a main contributor to public investment aimed at closing the infrastructure gap. The share of public enterprises in total outstanding domestic credit increased to 64 percent while the share of private sector credit declined to 28 percent in five months of 2014/15. The share of central government credit continues to contract (Figure 1.2.6). At the same time, the growth rate of private sector credit has decelerated sharply over the last year from 14.5 percent in 2014 to 5.7 percent in 2015.

[2] The reserve requirement of banks was reduced from 10 to 5 percent in March 2013, but the National Bank of Ethiopia (NBE) issued CDs to sterilize liquidity. The CDs held by private commercial banks with one year maturity were redeemed in March and April 2014, returning liquidity to the system.

FIGURE 1.2: Monetary Sector



Source: World Bank staff computation, based on: 2.1: CSA, 2.2–2.4: CSA and NBE, and 2.5–2.6: NBE.
Note: 2.6: Monetary survey data is used, which excludes DBE in private credits.

Maintaining single-digit inflation requires continued monetary discipline to maintain low inflation expectations and support from fiscal policy; lower oil prices will also help. International commodity prices and monetary growth are among major factors affecting inflation in Ethiopia. Maintaining low levels of reserve money and broad money growth would further cement the public's view of successful fighting of inflation in Ethiopia and hence contribute to lower inflation expectations going forward. In addition, while the current international environment with low fuel and other commodity prices supports a low inflation environment (see *Chapter 1.B* for a more detailed analysis of the effects of falling oil prices), it is also important to align fiscal policy to the current monetary policy stance and contain credit growth to SOEs.

Financial Sector

The banking sector's total assets in Ethiopia increased by 13.3 percent over the one-year period up to June 2014, but financial intermediation remains low. Three public banks constitute 77 percent of total assets of the banking sector.[3] Within this group are the Commercial Bank of Ethiopia (CBE) and the Development Bank of Ethiopia (DBE). CBE holds 80 percent of the total outstanding loans and investment used to finance public investments and DBE is a large holder of treasury bills. Consequently, financial intermediation remains low and on a declining trend. The share of private sector credit of the total banking sector credit has consistently been declining from 66.5 percent in 2007/08 to 40.1 percent in 2013/14 (Figure 1.3.1). Similarly, the ratio of private sector credit[4] to GDP declined from 15.4 percent in 2003/04 to 10.9 percent in 2013/14, and remained below the SSA averages for the period reviewed (Figure 1.3.2). Overall, credit as share of GDP is on a downward trend and below the SSA average since 2008 (Figure 1.3.3 and 1.3.4). This finding is consistent with the trend of demonetization observed for Ethiopia in the 2013 Ethiopia Economic Update.

On average, banks appear to be well capitalized and profitable. Compared with 2013, total capital of the banking industry increased by 13.2 percent and reached Birr 26.4 billion by the end of June 2014. As a result, the system-wide capital adequacy ratio increased to 17.2 percent at the end of March 2014 (it was 14.6 percent at the end of March 2013) and remains well above the 8 percent minimum requirement. Though banks' operating costs appear to have increased, the profitability of the banking sector remains high with return on assets (ROA) and return on equity (ROE) at 3.1 and 44.6 percent, respectively (as of end March 2014). Both are well above the SSA average of 2 percent for ROA and 17 percent for ROE at end 2013 Asset quality has also improved over time, with non-performing loans at less than 3 percent of banks' total loan portfolio at the end of March 2014. The liquidity situation however is showing some signals of stress in the system: at the end of March 2014, the system-wide liquidity ratio (liquid assets to total assets) was only slightly above the 15 percent minimum requirement.

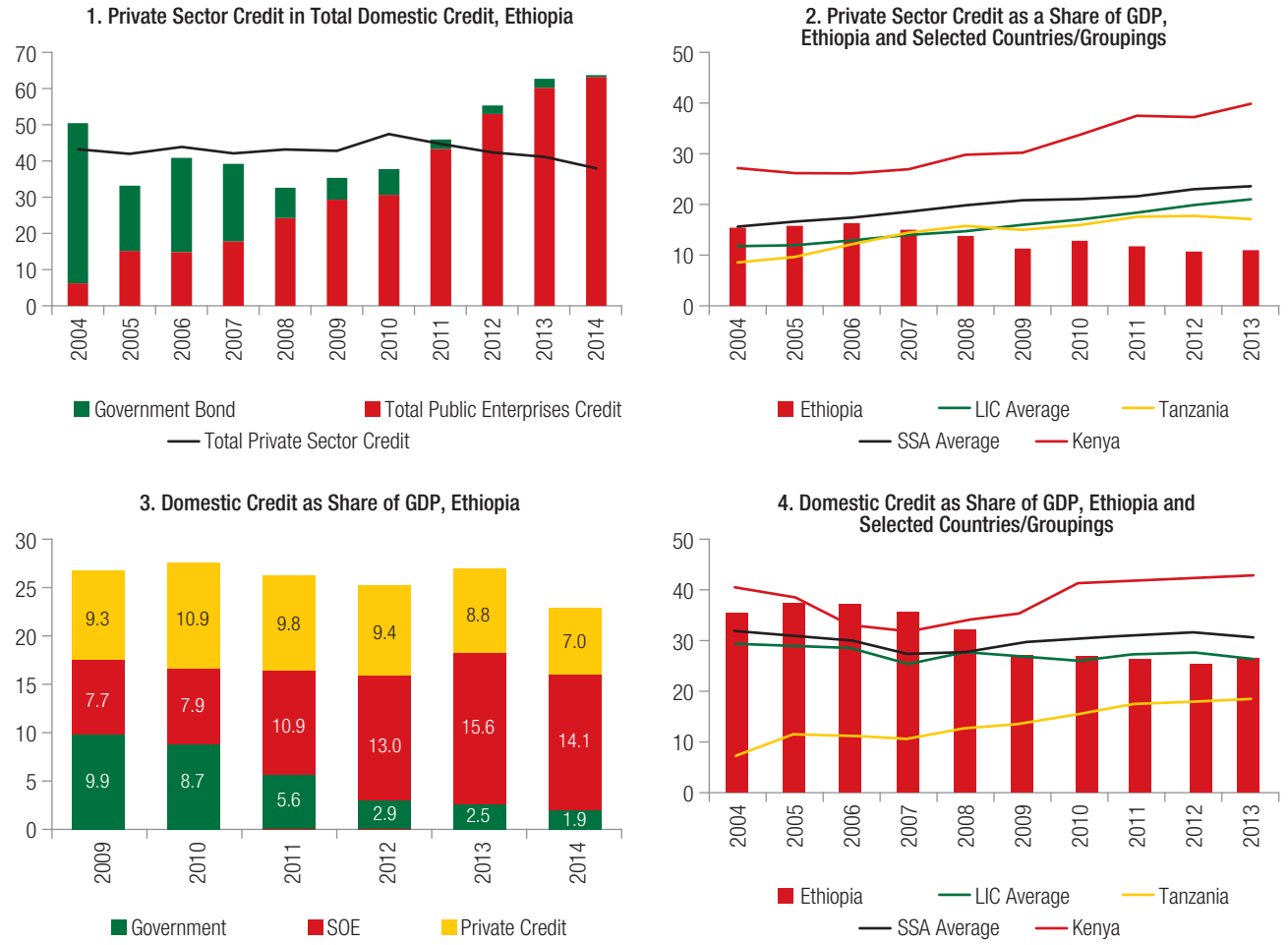
Capital markets in Ethiopia mainly comprise treasury bills and Government bonds. Treasury bills are transacted on a weekly basis while Government bonds are occasionally issued. Maturities of T-Bills range from 28, 91, 182 and 364 days of which 91 days and 364 days are the most demanded terms. In December 2014, the country joined Ghana, Kenya, Senegal, and Ivory Coast in issuing their its euro bond raising US$1 billion in 10-year bond to fund infrastructure-related projects for the electricity, railway, and sugar industry sectors.[5] As issuer, the Ethiopian central Government is rated B1 with a stable look by Moody´s Investors Service, B by Standard & Poor's Corp. and Fitch ratings, four and five levels below investment grade. Rating agencies agree on Ethiopia´s continuing strong growth

[3] As of June 30, 2014, there were 16 private and two state-owned commercial banks, one state-owned development bank, one state-owned and 16 private insurance companies, 31 microfinance institutions, and five capital goods finance companies.

[4] The private sector credit is based on NBE definition, which includes private sector credit by DBE. Private sector credit by DBE includes credit to cooperatives and the private sector.

[5] Deutsche Bank and J.P. Morgan managed the bond sale.

FIGURE 1.3: Financial Sector



Source: World Bank staff computation, based on: 3.1–3.2: NBE, and 3.3–3.4: NBE and WDI.

prospects, albeit its economy's small size, low per-capita income and reliance on the agricultural sector.

Both the banking sector and microfinance institutions (MFIs) are expanding in their structure of liabilities and assets, but access to finance for MSMEs remains a challenge.[6] Commercial banks have branched out in previously unbanked areas and the number of bank branches went from 390 in 2009 to 2,208 in 2014. As a result, the ratio of total bank branches to total population improved to 39,834 from 49,675 over the past year, reflecting a significant annual improvement in financial service outreach. As of June 2014, the banking system's total net deposits showed a year-on-year increase of 23.7 percent. Likewise, MFIs mobilized a total saving deposit of Birr 11.8 billion, about 54.8 percent higher compared to the same period of the previous year. The outstanding credit of the MFIs scaled up by 31.9 percent on annual bases and reached Birr 16.9 billion. As a result, their total assets increased 38.6 percent on annual bases and stood at Birr 24.5 billion by the end of June 2014. Access to finance for MSMEs, however, remains a critical constraint: only 1.9 percent of small firms have a loan or line of credit. This rate is lower than among micro, medium, and large firms (6.0, 20.5, and 35.5 percent, respectively) and corroborates with assertions that small firms struggle the most in obtaining access to finance since MFIs cater

[6] This is described in more details in Chapter 2 of this Economic Update.

to micro-sized firms, and commercial bank clientele are predominantly medium and large firms.

The small insurance sector has significant growth potential both through public and private insurance companies. The insurance sector remains underdeveloped. Because most insurance is targeted at the corporate market, focusing on general insurance, about 90 percent of the population does not have any type of formal insurance. Insurance premiums represent about 0.47 percent of GDP for non-life insurance, and 0.03 percent of GDP for life insurance. The market retail premiums are dominated by motor insurance and compulsory insurance include third-party policies. A total of 17 active insurance companies are operating in Ethiopia, most of which are private.[7] The significant expansion of the branch network (59 new branches in one year) is led by only four major insurance companies, including the state-owned Ethiopian Insurance Corporation, which opened 13 new branches in 2013/14. In total there are now 332 branches, of which over 50 percent are concentrated in Addis Ababa.

Fiscal Sector

The budgetary stance at the general government level has been cautious. **The general government fiscal deficit (excluding SOEs) remained modest at 2.6 percent of GDP but increased by 0.7 percentage point of GDP in 2013/14.** The general government budget deficit including grants increased to 2.6 percent of GDP in 2013/14, compared to 1.9 percent of GDP in the previous year. A decline in revenue and grants that was faster than a marginal decline in total expenditure deteriorated the fiscal deficit. The deficit was financed primarily from external sources (2.0 percent of GDP) with domestic financing contributing 1.3 percent of GDP while errors and omission accounted for repayment of 0.6 percent of GDP. The government continued to finance part of the deficit by issuing direct advances from NBE (Figure 1.4.2).

Government revenues declined modestly from 14.3 percent to 14.0 percent of GDP in 2013/14. The general government revenue performance showed a relative decline as a result of lower collection of non-tax revenues.[8] The non-tax revenue declined from 2.0 percent of GDP to 1.2 percent of GDP since state-owned enterprises were allowed, for the first time, to retain earnings for reinvestment instead of paying dividends to the government. This was partly compensated through additional revenues collected from domestic indirect taxes (0.1 percent of GDP) and direct taxes (0.3 percent of GDP). The foreign trade tax remained at a similar level to last year (Figure 1.4.3). On the other hand, external grants shrank from 1.5 percent of GDP to 1.1 percent in 2013/14.

The general government budget execution was tight in 2013/14. Total actual expenditure remained the same at 17.8 percent of GDP in 2013/14. Recurrent spending increased from 7.3 to 7.5 percent of GDP, and the capital spending-to-GDP ratio decreased by about 0.3 percentage points to 10.3 percent of GDP in 2013/14. Capital expenditure on development projects as a share of the general government budget is generally high (59.3 percent) but showed a relative decline, mainly due to lower spending on road construction (reduced from 3.9 to 3.6 percent of GDP) and, to some extent, lower spending on water. Government spending remains tilted in favor of capital spending (10.3 percent of GDP) versus recurrent spending (7.5 percent of GDP) (Figure 1.4.4).

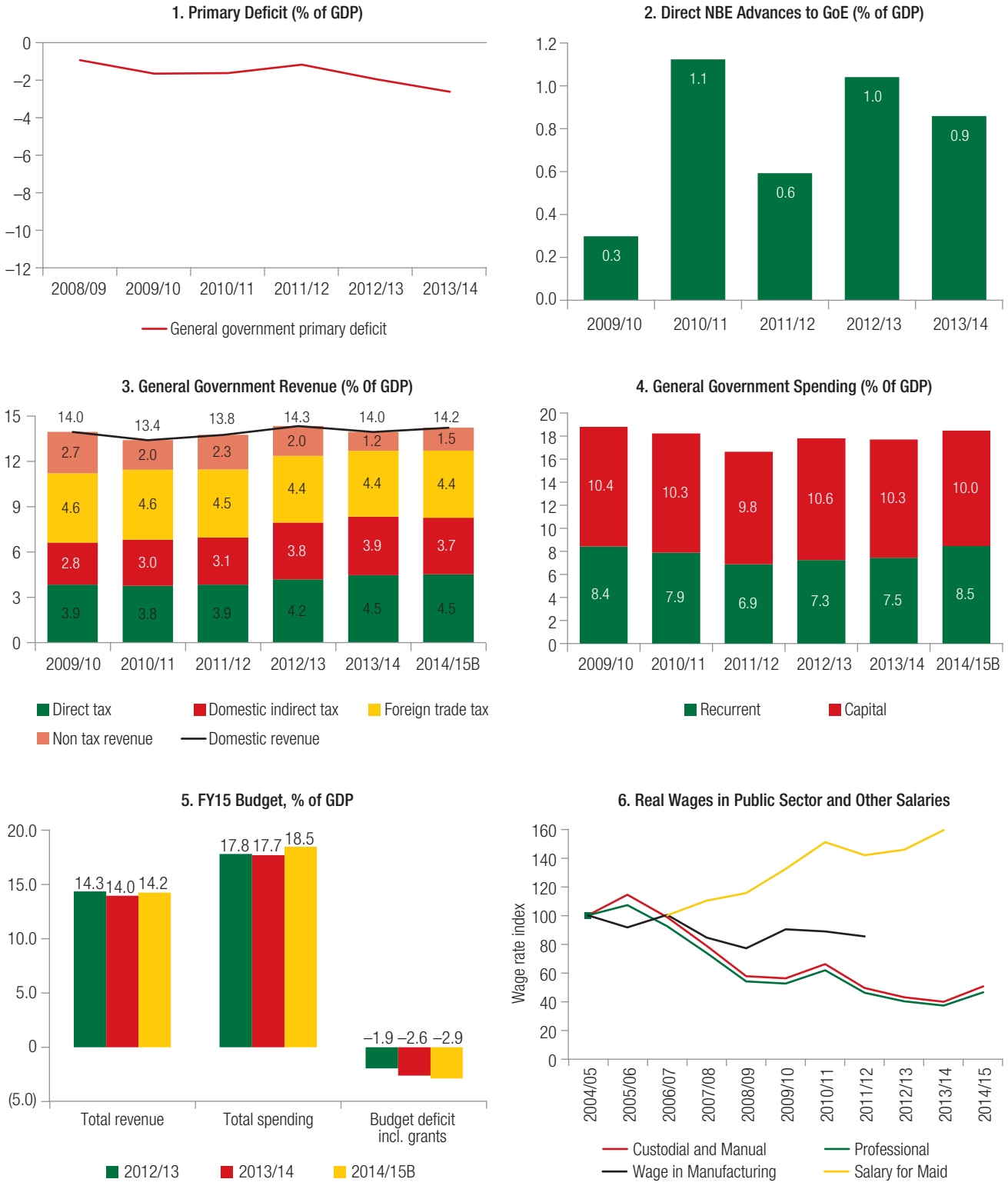
On the other hand, the general government budget deficit envisaged a slight increase to 2.9 percent of GDP in 2014/15.[9] The expenditure budget

[7] By 2013/2014, private insurance companies accounted for 78.6 percent of the total capital of insurance sector of Birr 2.0 billion. The sector was opened to the private sector in 1994.

[8] The contribution of direct taxes to revenues in Ethiopia is relatively limited, which is a reflection of Ethiopia's low-income economy that primarily depends on agriculture. The share of direct tax remained constant at around 29 percent of domestic revenue in the past decade. Most of the revenues from direct taxes are generated from payroll tax and taxes on profits of enterprises and individuals. The latter are low and volatile with an overall declining trend; down from a maximum of 2.8 percent in 2001/02 to as low as 1.4 percent in 2007/08 before it recovered to 2.5 percent of GDP in 2012/13. The recent upward trend may coincide with government measures in strengthening tax administration through tax education, enforcement measures, automation of tax registration, introduction of a Tax Identification Number and related measures.

[9] Nominal GDP growth for FY15 is estimate here at 18.7 percent (IMF 2014 Article IV report).

FIGURE 1.4: Fiscal Sector



Source: World Bank staff computation, based on: 4.1: MOFED and WB/IMF, and 4.2–4.5: MOFED. 4.6 Staff Estimate.

increased faster than revenues as a share of nominal GDP and as a result the deficit deteriorated. Tax revenues are estimated to remain at 12.7 percent of GDP while non-tax revenues are planned to increase to 1.5 percent. Total expenditure will increase to 18.5 percent of GDP due to an increase of recurrent spending to 8.5 percent while capital spending is expected to decline to 10 percent of GDP. The general government budget deficit (2.9 percent of GDP) is expected to be financed through domestic financing of 1.7 percent of GDP and external borrowing of 1.2 percent (Figure 1.4.5).

One feature of the FY15 budget that should not go unnoticed is that there is a slight shift from capital to recurrent spending due to public sector salary increments. The recurrent spending is planned to increase from 7.5 percent of GDP to 8.5 percent in FY15 mainly as a result of a rise in civil servant's wages. The overall civil servant salaries increased on average by 43 percent, although salary increase varied with pay grade from 33 percent to 46 percent. This civil salary adjustment was not large enough to compensate for the erosion of the real wage observed over the past decade though, but a first correction was made now. Real wages in other sectors have been rising faster than wages for government employees. For instance, unskilled labor real wages (e.g. for domestic workers) have been rising and real wages of the manufacturing sector remained stable over the decade (Figure 1.4.6). Notwithstanding the net decline of real public sector wages, a recent labor market study found that the public sector still remains very attractive over other sectors and is able to attract the best prospective employees (World Bank, 2015a). Considering the signaling effect of public sector wages there is a possibility that this adjustment may trigger salaries in private companies to increase and in turn negatively affect the competitiveness of the manufacturing sector (see *Chapter 2* for an in-depth analysis of the manufacturing sector).

The large size of the civil servant salary increase will likely have an impact on overall government expenditure in FY15. For FY 15, Birr 6.5 billion (US$331million) were provided through the budget for the salary increase at the beginning of the year. However, half way through the year, this proved insufficient to cover the increased cost of more than 1 million civil servants. As a result, the government approved additional Birr 8.0 billion (about $390 million) in a supplemental budget. Three-fourth of the supplement budget is expected to be financed through the fuel stabilization fund; the proceeds are collected by charging fuel consumers higher prices than the international market are used to replenish the fund. The total salary increment reached Birr 14.5 billion (1.2 percent of GDP) and potentially could affect the overall deficit if planned additional revenues are not collected timely.

External Sector

The chronic current account deficit deteriorated in 2013/14 due to trade balances and declining transfers. The current account deficit (including official transfers) reached 8.6 percent of GDP up from 5.3 percent in 2012/13. This was caused by the large imbalance in import and export of goods and services, which worsened from 16.5 percent to 17.8 percent of GDP (Figure 1.5.1 and 1.5.7). The trade deficit was driven by poor export performance and large external debt financed imports of capital goods for public investment programs. Private and official transfers, one of the largest external resources to Ethiopia, accounted for 7.4 and 2.1 percent of GDP, have also declined in 2013/14 from 8.2 and 3.2 percent GDP in 2012/13, respectively. Official transfers tended to decline with fiscal stress in developed countries. The fall in oil prices is expected to improve the current account deficit by 1.5 percentage points in FY15 (see also *Chapter 1.B* for a more detailed analysis of the effects of falling oil prices). The current account deficit was financed through external borrowing (4.4 percent of GDP) and FDI (2.7 percent of GDP),[10] as well as the drawdown of international reserve by 0.2 percent of GDP. Foreign exchange reserves are low at about 1.7 months of imports (the following year import) in

[10] FDI inflows are above 2 percent of GDP for the first time since 2008, likely reflecting a bettering of the investment climate in recent years.

FIGURE 1.5: External Sector

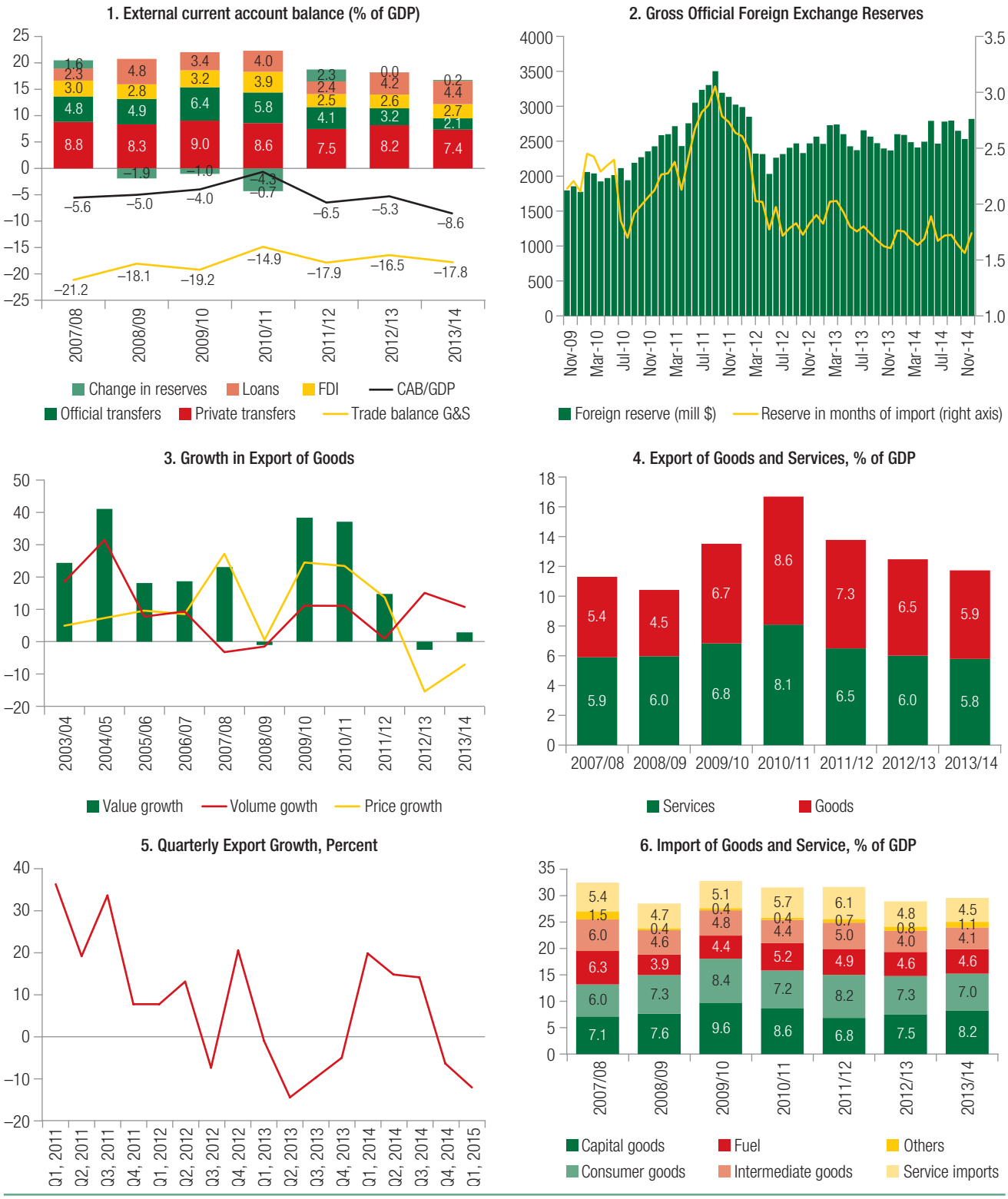


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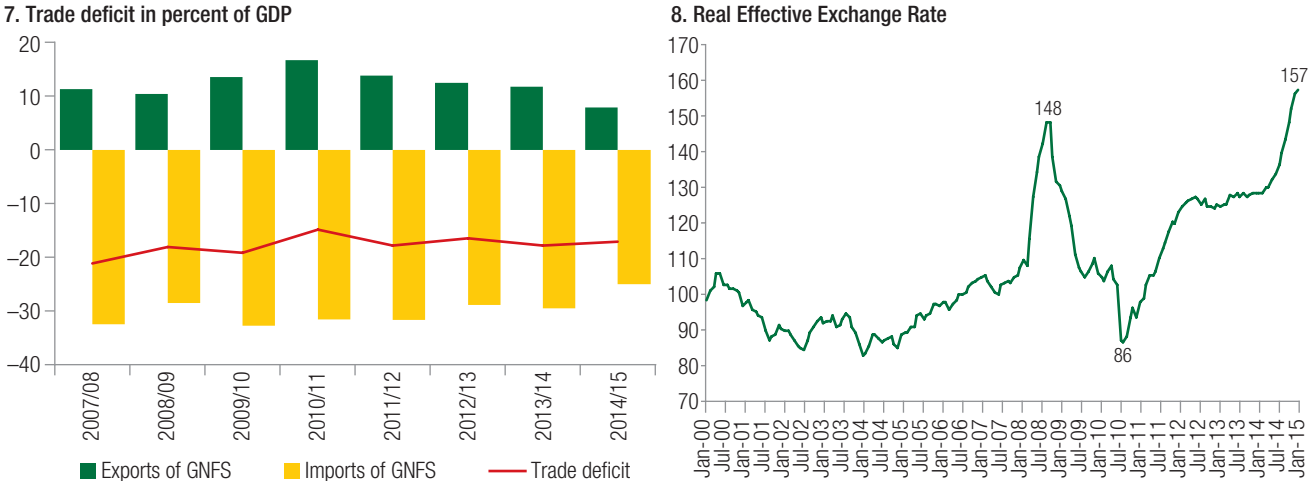
FIGURE 1.5: External Sector *(continued)*



Source: World Bank staff computation, based on: NBE and MOFED, except 5.5: some data from WB; 5.6: WB; and 5.8: IMF.

November 2014 (Figure 1.5.2). According to recent data from NBE, reserves have increased to 3.2 months in December on account of the sovereign bond issuance. The external sector is vulnerable to terms of trade shocks which the government need to take the necessary measure to increase the country's resilience to shock. Though increased external borrowing could be a way to ease the reserves constraints, borrowing (like Eurobond) comes at relatively high cost exposing the country to debt service obligations.

Goods exports showed positive growth in 2013/14 despite the fact that it remained far below its historical growth, but the most recent developments in export performance are again a cause of concern.[11] Export of goods increased by 5.8 percent in 2013/14 from its decline of 2.5 percent in 2012/13. In the past decade, export growth had averaged 20 percent per year. Export volumes improved in 2013/14 but negative price effects are still present (Figure 1.5.3). Service export grew by 11.3 percent mainly due to an improvement in the number of passengers and cargo services of Ethiopian Airlines (EAL). Overall, since 2010/2011, Ethiopian exports have been on a declining path in percent of GDP (Figure 1.5.4). In addition, in nine month of 2014/15, merchandise export declined by 3.0 percent against the same period of same year. The declining trend was observed in the fourth quarter of 2014 and first quarter of 2015 (Figure 1.5.5) as a result of significant drop in the prices of oilseeds, leather products, pulses, gold, chat, meat and flowers as well as decline in the volume of live animals, gold, oilseeds, and chat. Despite the price of coffee rose significantly, the volume of export remained the same as nine months of last fiscal year.

Faster growth in goods imports contributed to the deteriorating current account balance in 2013/14. Imports of goods increased by 19.7 percent compared to 3.7 percent growth in 2012/13. A primary driver of growth was the 26 percent capital goods imports that are associated with government's large infrastructure investment activities. In terms of share in GDP, capital goods accounted for 8.2 percent of GDP (far higher than earning from goods export), and consumer goods import represented 7.0 percent of GDP in 2013/14. On the other hand, fuel and

[11] There is some evidence that there is the start of a diversion recognizable that shifts sales in some sub-sectors from export markets to the domestic market. To illustrate: in 2010/11 over 60 percent of total revenues from leather and leather products were derived from exports; this has declined to less than 30 percent in 2013/14 despite a 475 percent increase in total leather sector revenues over the same period (based on data from Ministry of Industry).

intermediate goods constituted 4.6 and 4.1 percent of GDP (Figure 1.5.6). It emerged that all major categories of imports increased in 2013/14. Despite the share of services import decline, it grew by 8 percent from 14 percent in 2012/13. In the nine months of FY15, goods imports grew by 21.3 percent mainly as a result of the 47.5 and 19.3 percent increases in capital and consumers good imports, respectively; fuel imports declined by 17 percent following the decline in the global oil prices.

The real effective exchange rate continued to appreciate into 2014/15. The real exchange rate appreciated by 22.5 percent (y/y) at the end April 2015 showing a cumulative appreciation of 71 percent since the nominal devaluation in October 2010 (Figure 1.5.8)**.** Since the US$ sharply appreciated over recent months and the Birr is managed against the US$, Ethiopia is on an appreciation path against all currencies that are depreciating against the US$. This is because the Birr is closely managed against the US$. The de facto exchange rate arrangement is classified as a crawl-like arrangement by the IMF (2013b). The authorities describe it as a managed float with no predetermined path for the exchange rate. The annual pace of nominal depreciation, however, has been stable at 5 percent in recent years. Moreover, Ethiopia continued to experience a positive inflation differential relative to major trading partners. An appreciated currency does not help improving export competitiveness and is a concern for the economy in a situation of exports falling again over the period of only one year. Maintaining a competitive exchange rate is an important component of maintaining external competitiveness (World Bank, 2014a).

The Long View: The Effect of Falling Oil Prices on the Ethiopian Economy

The recent fall in global oil prices is expected to have a positive economic impact on Ethiopia. The country is a net importer of fuel, which accounts for one-fifth of goods imports. The growth effect is expected to be positive in part because declining oil prices increase disposable real income and support stronger domestic consumption. The price decline will result in a 1.8 percent reduction in the price of goods and services, bringing welfare gains for the average household, but this reduction will be larger for urban households and wealthier rural households. Improvements in terms of trade also support growth: Staff estimates suggest an increase of around 6 percentage points in FY15. Inflation is also expected to decline, especially due to indirect impact and its positive effect on expectations. The current account deficit is expected to improve by 1.5 percentage points in FY15.

Recent Oil Price Developments

Crude oil prices measured by Brent halved from the peak at US$108 per bbl in June 2014 to US$54 per bbl on average in the first quarter 2015. Following four years of stability at around $105/bbl, oil prices have declined sharply since June 2014. A number of factors have driven the recent plunge in oil prices: while both demand and supply factors play their roles, the decline was in considerable measure the result of technology shocks (hydraulic fracturing and horizontal drilling) that have made oil and gas markets more competitive, unwinding of some geopolitical risks that had threatened production, changing OPEC policy objectives, and appreciation of the U.S. dollar. (Global Economic Prospects 2015).

The current oil prices are likely to persist for the next few years. Disruptive innovation led to increased production (6 million barrels a day in US and Canada) and, based on past experience, a technological shock has the potential to keep oil prices low for a prolonged time. In this regard, this section assumes that oil prices will be US$53 (WB Commodity Market Outlook, 2015) on average over 2015 and slightly increase to US$57 in 2016. The pronounced fall in prices is expected to be significant enough to have an impact on consumption patterns in the economy.

Ethiopia's Oil Market

Ethiopia's oil market is tightly controlled. The Ethiopian Petroleum Supply Enterprise is a government monopoly whose function is to purchase from international suppliers (Sudan, Saudi Arabia, and Kuwait) and sell to nine domestic distributors that then supply fuel to the local market. Distributors can be both of domestic and foreign ownership and include: Oil Libya, Total, National Oil Ethiopia, Yetebaberut Beherawi Petroleum, Kobil, Dalol Oil, Wadi Alsundus (a Sudanese Company), and TAF Oil. The first four mentioned companies constitute 89 percent of total fuel distribution in Ethiopia.

Response time to changes in global oil prices is delayed in Ethiopia. Figure 1.6.1 shows that retail fuel price adjustments are done on a monthly (sometimes bi-monthly) basis depending on market developments but that price changes in global markets of oil are not fully absorbed and that the Ethiopian response is delayed. For instance, from July 2014 to end-January 2015, the retail price of regular gasoline in Addis Ababa declined by 16 percent while diesel oil and kerosene prices reduced only by 15 and 12 percent, respectively. One exception is jet fuel, which decreased by 34 percent during the same period. The downward corrections of retail prices are far lower than the decline in the world market crude oil price, which more than halved over the same period.[12]

In fact, the domestic oil price decline in Ethiopia as of January 2015 has only been 18 percent compared to a 53 percent decline in world market prices. As Ethiopia depends entirely on imports for petroleum, and the extent of the impact

[12] In the case of regular gasoline, only 29.2 percent of the declining crude oil price was passed on to the consumers between July 2014 and the end of January 2015; the pass-through for diesel oil and kerosene were 28.6 and 21.9 percent, respectively. On the other hand, jet fuel experienced the largest (63.9 percent) price pass-through of the fuel products.

on households depends on the level of the pass-through to the domestic price. The pass-through to the domestic market has thus far been limited because of the time lag in transferring costs to the domestic market and also because of fixed costs in importing and distribution. The domestic oil price decline as of January 2015 (as set by the government) is on average only 18 percent.

Ethiopia's Oil Position

Ethiopia is a net importer of fuel with fuel accounting for one-fifth of Ethiopian goods imports in 2013/14[13] (Figure 1.6.2). Ethiopian demand for fuel increased over the past decade as the economy expanded. The value of fuel imports increased on average by 22 percent and thereby almost three times as fast as the growth of total import volumes (8 percent). Yet, looking at the volume and price developments of fuel imports separately (Figure 1.6.3) shows that much of the increase was driven by higher prices. The growth in fuel volumes (as an input to the economy) over the past decade doubled but is still relatively lower than the rate of expansion of the economy over the same period (10.8 percent GDP growth on average per year, implying a 2.5 times increase of the economy over one decade). The latter is a reflection of Ethiopia's ambitious hydropower program, which makes Ethiopia relatively less reliant on fuel for electricity generation compared to many other countries in SSA.

Lower oil prices that persist in the medium-term would contribute to global economic growth and lead to real income shifts from oil-exporting countries to oil-importing ones, including Ethiopia. Generally, weak oil prices support economic activity and reduce inflationary, external, and fiscal pressures in oil importing countries (GEP, 2015), making the recent drop in prices generally good news for Ethiopia. Staff estimates show that the observed increases in terms of trade could lead to an additional positive economic growth in the order of three-fourth of a percentage point.

Likely Impact of the Oil Price Decline

Improvements in terms of trade (ToT) and the current account balance

Increased terms of trade and a more balanced current account are likely to be the key effects on Ethiopia, especially as prices of other key commodities, such as coffee, are expected to remain stable. Preliminary estimates show that Ethiopian terms of trade could improve by about 6 percentage points, in FY15 for crude oil price of $53/bbl (Figure 1.6.4). At the same time, simulating the effects of the declining oil price on the 2014/15 Balance of Payment projection shows that this could lead to an improvement of the current account balance by 1.5 percentage points of GDP.

Increase in real income, consumption and poverty

Falling oil prices are expected to yield real income gains in oil-importing countries, including Ethiopia (GEP 2015). The maximum estimated decline in domestic oil price in 2015 because of a 53 percent fall in international price is about 37 percent considering the mark up for refined products and the fixed costs in import and distribution (Table 1.1). A 37 percent domestic price decline of petroleum products would have a significant impact on household welfare.[14] Since it is unclear, however, if the Government will allow the maximum possible pass-through to materialize, this analysis considers an alternative scenario where the 18 percent pass-through observed in January 2015 is assumed to not be further adjusted in 2015.

The direct savings from an oil price reduction is expected to be small (only 0.4 percent of the average household expenditure), as petroleum is a small share of household consumption for households.

[13] Fuel imports accounts for 16 percent of total import of goods and services.

[14] The direct and indirect impact of the petroleum price fall on households is simulated by price multiplier analysis using the input output table (EDRI 2006) and the 2011 household consumption survey (CSA).

TABLE 1.1: Assumption on the Maximum Pass-Through to Domestic Market of the Oil Price Decline

	2014	2015	% Change
International crude oil price $/bbl	105	53	–49%
Mark up for refined petroleum ($ /bbl)	17	17	
Service charge (suppliers) $/bbl	7	7	
Freight to Djibouti ($/bbl) ~	2	2	
Transport from Djibouti port ($/bbl)	8	8	
Other costs ($/bbl) ~	2	2	
Cost of refined petroleum in Eth. (exc. taxes) ($/bbl)	140	89	–37%

Source: World Bank staff estimates based on EDRI (2006) and the 2011 household consumption survey (CSA).

Households spend on average only about 1.2 percent of their expenditure on petroleum, mostly kerosene. The direct benefit to households of the 37 percent decline in the oil price in terms of expected household savings is equivalent to about 0.4 percent household expenditure.[15]

The greater savings comes from the impact of the price reduction on other goods and services, this indirect effect amounts to 1.4 percent of household expenditure on average. Petroleum is a major input in production activities. On average, it accounts for 11 percent of the intermediate cost of economic activities in the country (Ethiopian Development Research Institute (EDRI) Social Accounting Matrix 2006). Staff simulations show that a 37 percent reduction in the price of petroleum products would bring about a 1.8 percent reduction in the general price of consumer goods and services. This is equivalent to saying that, all else being equal, a household's real disposable income would increase by about 1.8 percent. Since the direct effect is 0.4 percent, the indirect effect of the oil price decline through other goods and services is about 1.4 percent of household consumption.

Although all income groups benefit as a result of the oil price decline, higher income groups benefit more with maximum estimated savings of 2.2 percent for the richest decile and 1.6 percent for the poorest decile. In the lower scenario (18 percent pass through), the poorest decile in rural areas would gain 0.6 percent compared to 1.7 percent for the poorest decile in urban areas. Richer households spend a higher proportion of their expenditure on petroleum products and outputs of activities that highly depend on petroleum as input compared to poorer households. The benefit of the oil price decline is progressive with household income both in urban and rural areas (Figure 1.6.5).

Urban households benefit more than rural households: the poorest decile in rural areas would experience savings of 1.2 percent compared to estimated savings of 3.5 percent for the poorest decile in urban areas. The per capita consumption of urban households is about 80 percent higher than rural households on average. In addition, there is a significant difference in the consumption patterns of urban and rural households at similar consumption levels. Urban households consume more than rural households of petroleum products and items that highly depend on oil as an input. As a result the benefit from the oil price decline is more pronounced in urban areas than in rural places. The benefit to an average urban household is more than twice the average benefit to a rural household (Figure 1.6.6).

[15] Simulations are in line with expectations: A 2012 study by the Ethiopian Development Research Institute (EDRI) found that the counterfactual increase of oil prices of 50 percent in 2012 led to a decline in real incomes of both rural and urban "non-poor" households and an associated decline of consumption of 2.1 and 1.3 percent, respectively. Poor households consume less oil-related products and hence their consumption "only" declined by 0.9 and 1.7 percent, respectively (EDRI, 2012).

Inflation is expected to decline due to indirect effects and improved expectations.

Fuel accounts for a small portion of the consumer price index in Ethiopia and a 30 percent decline in oil prices reduces global inflation only by about 0.4–0.9 percentage points. The GEP (2015) suggests that a 30 percent decline in oil prices, if sustained, would reduce global inflation only by about 0.4–0.9 percentage points through 2015. Furthermore, for 2016, inflation would return to levels prior to the plunge in oil prices. While country-specific circumstances will in some cases influence the impact of oil prices on domestic inflation, the direct impact in Ethiopia is expected to be minor since the weight of fuel in the national consumer price basket is small: the "gas and liquid fuels" component of the consumer price index (CPI) is 1.1 percent.

Energy prices will be largely unaffected by the oil price decline. There are two main reasons for this: (1) The role of hydropwer in Ethiopia's energy mix is about 98 percent and fuel imports increase at lower rates than the economy is expanding indicating a declining fuel intensity of GDP growth in Ethiopia; (2) There is limited correlation between energy prices[16] in the CPI against oil price developments (Figure 1.6.7). This is the case as the consumption weight of traditional sources of energy (i.e. solid fuels like firewood, charcoal, and dung cake) constitute the largest shares of energy consumption of households (ranging from 87 to 95 percent in most regions (including big regions) to about 73 percent in urban-oriented Harari and Dire Dawa regions; Addis Ababa as the main urban center still has a share of 47 percent).

There are two indirect impacts from lower inflation: (1) Declining oil prices may reduce medium-term inflation expectations thereby supporting price stability indirectly. (2) Petroleum is a major input in many activities and the oil price decline can bring about general declines in other goods and services (estimated to decline by 1.4 percent), indirectly benefiting households.

Potential other Impacts of the Oil Price Decline

Likely limited fiscal impact

The possible positive fiscal impact observed in many other countries is likely to be limited since Ethiopia does not have a direct subsidy of fuel prices in place. In fact, there may be a negative fiscal impact from those fiscal trade revenues that are based on ad valorem rates where a decline in the unit price would lead to a reduction of revenues. In Ethiopia, most of the duties are in fact ad valorem rates so there is likely to be a negative fiscal impact from this. The net effect is unclear, however, because the government also consumes oil and oil-related products; given data constraints the actual net effect cannot be estimated at the moment.[17]

Lower cost of production may increase profits and investment

In Ethiopia falling input prices likely will have a mixed impact on the main productive sectors of the economy: (1) The largest impact may be on agriculture production, especially where fertilizer usage is instrumental, and transportation costs of agricultural products are important. (2) In the export services sector the key impact is likely to come through transport services, which accounts for about 60 percent of the services sector, through lower operating cost of Ethiopian Airlines (EAL). The declining oil price is a blessing for EAL since fuel accounts about 46 percent of its operating expenses (2012/13). (3) Given the overall limited size of the manufacturing sector in the Ethiopian economy the effects on economic activity through that sector are probably negligible.

[16] Energy prices in the CPI incorporate electricity, gas (butane gas), liquid fuels (kerosene), and solid fuels (firewood, charcoal, and dung cake).

[17] Negative fiscal effects are expected from the following ad valorem taxes/levies (these are examples, and this is not an exhaustive list): On the fiscal accounts, the government collects 15 percent VAT on fuel product imports, and revenue collection will reduce as the value declines. Also, the government collects taxes and fees connected to the domestic retail prices, e.g. the 30 percent excise tax on regular gasoline, 15 percent VAT on regular gasoline and diesel.

FIGURE 1.6: Key Facts on Oil and Its Price Decline in Ethiopia

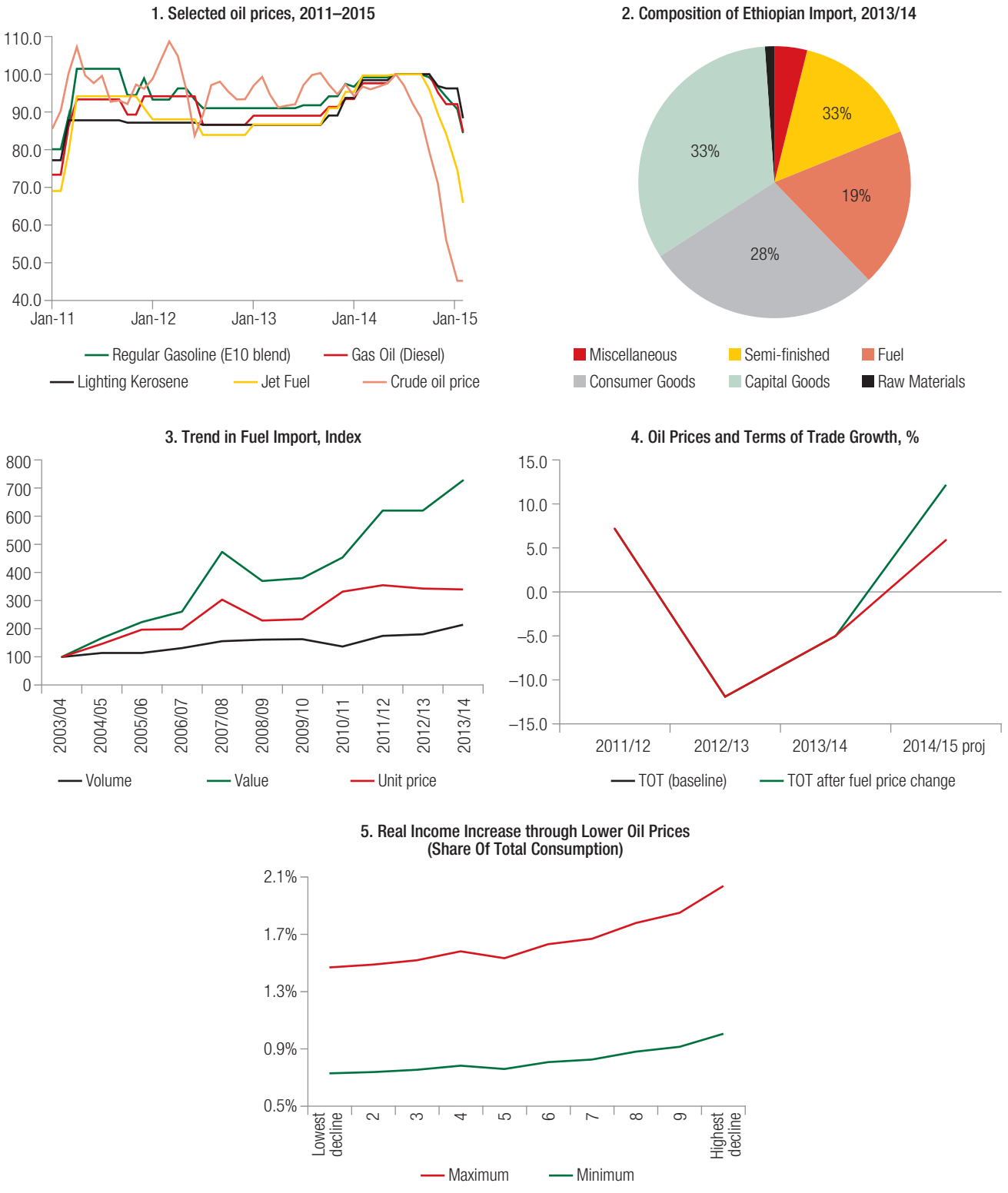


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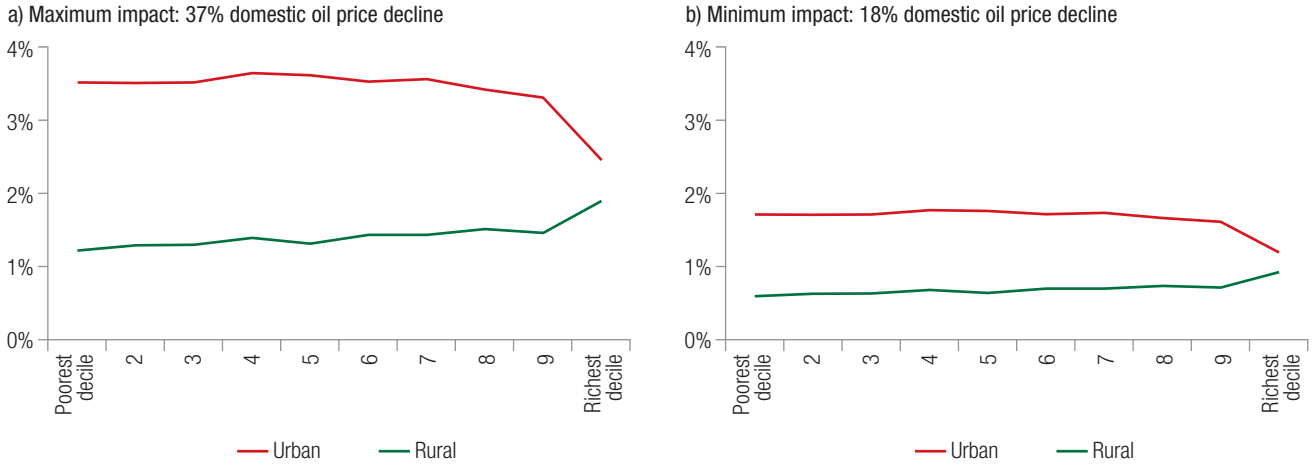
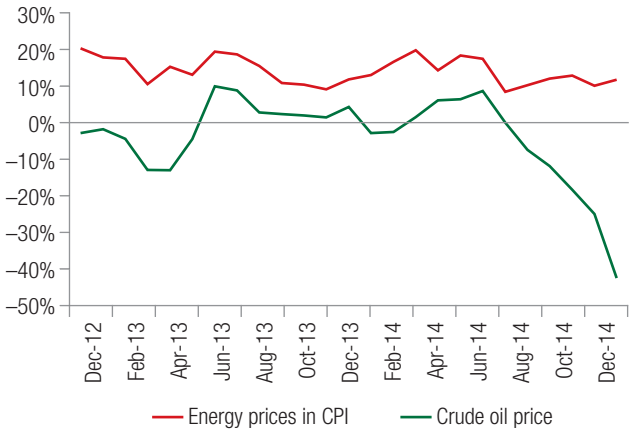
FIGURE 1.6: Key Facts on Oil and Its Price Decline in Ethiopia *(continued)*

6. Real income: Amount Saved as a Result of Lower Oil Prices by Rural Urban Income Decile (Share of Total Consumption)



7. Energy Prices (CPI) vs Oil Price, y/y growth



Source: World Bank staff computation and estimates, based on data from NBE, MOT, EDRI (2006) and the 2011 CSA.
Notes: (1) All FY15 calculation assume an oil prices at US$53 (from WB Commodity Outlook). (2) Figure 1.4 uses additional assumptions: a) no change in the compostion of imports; and b) change in international price of oil is the same as change in unit price of imported fuel. (3) Figure 1.5 also assumes: a) the share of fuel import value is unchanged in FY15; and b) the volume of fuel import will increase by 10 percent in FY15.

Possibly depreciating real exchange rate (RER)

The impact on the real exchange rate (RER) depends on the relative change of foreign inflation against domestic inflation as well as the rate of nominal depreciation. The FY15 nominal depreciation rate of the ETB against the US$ can be assumed to be similar to the rate of FY14 (5.5 percent), but it is unclear whether the impact of declining oil prices on Ethiopian inflation is different from the impact on global inflation, thereby triggering a change in the RER. The 2014 Ethiopia Economic Update found that Ethiopia's real exchange rate is overvalued and the report suggested that a 10 percent lower real exchange rate could increase export growth in Ethiopia by more than 5 percentage points per year and increase economic growth by more than 2 percentage points. Further analysis is needed to estimate the effect of the oil price decline on Ethiopia's RER.

The Future View: Outlook and Challenges

Growth will remain high in the short term while gradually declining in the medium term. While a rising working age population will continue to support potential GDP growth, total factor productivity growth and investment are gradually expected to decline. Fiscal and external balances will slightly deteriorate until 2017, since deficit financed imports of heavy machinery will continue. High growth and lower oil prices will drive further reductions in poverty.

Outlook

The recent fall in global oil prices is expected to have a positive short-term economic impact on Ethiopia. The country is a net importer of fuel, which accounts for one-fifth of goods imports. The growth effect is expected to be positive in part because declining oil prices increase disposable real income and support stronger domestic consumption. The oil price growth effect is projected to be three-fourth of a percentage point (see Chapter 1, Section B).

But the high double-digit growth rates of the past decade will likely fall over the medium term. Projections of potential GDP growth indicate a slowdown in the medium term due to declining Total Factor Productivity (TFP) growth (Figure 1.7.1 and Table 1.2). Simulations of real GDP growth depend on three factors: 1) TFP growth; 2) the share of the working age population; and 3) capital stock. TFP growth is estimated using a Hodrick-Prescott filter for the 1970 to 2008–10 period. Since TFP growth was exceptionally high during the growth acceleration, this would lead to gradually declining TFP growth going forward. The economy's potential to grow depends partly on its labor supply, which in Ethiopia's case is expected to grow healthily over the next couple of decades. Finally, the capital stock depends on assumptions about public and private investment. With falling growth rates of capital stock, potential growth will decline on account of declining TFP growth.

Economic growth will see a rising importance of exports and an abating role of investment over the next three years. Projections expect that the current drop in exports is temporarily (again) and that exports will increase in importance while investment will slightly decrease its growth contribution (Figure 1.7.2). The supply side growth contribution will continue to be dominated by services and see a slightly lower industry sector over the next three years (Figure 1.7.3). The latter comes from the background of renewed policy emphasis on the industry sector through GTP II, a second GTP that will cover 2015/16–2020/21. In order to industrialize and significantly expand the manufacturing sector in Ethiopia it is important to address some of the key bottlenecks identified in the next chapter, such as shortage of skilled labor, access to finance and trade logistics.

Fiscal and external balances will slightly deteriorate until 2017 as deficit-financed imports of heavy machinery will continue. The current general government accounts reflect a cautious stance at –1.9 percent, which is possible as SOEs have taken on significant parts of the public investment program of the country (and they are not included in the general government accounts). Staff estimates indicate that this is going to dip to –2.9 percent due to faster spending of general government (Figure 1.7.4). At the same time, the chronic current account deficit will further deteriorate, driven by soaring imports to support the public infrastructure program. The current account deficit is expected to reach –8.8 percent of GDP in 2017 (Figure 1.7.4).

Poverty in Ethiopia saw the second fastest rate of reduction in Africa over the past 10 years. The poverty headcount fell from 38.7 percent in 2005 to 29.6 percent in 2011, measured by using the national poverty line. Measured with the international poverty line (US$1.25 per day) Ethiopia saw the second fastest rate of reduction in Africa. Economic growth, particularly in agriculture, has been an important driver of poverty reduction in the last decade. Each percent of overall growth reduces poverty by 0.55 percent, but each percent of agricultural growth reduces poverty by 0.9 percent. Favorable weather conditions and improving terms of trade for rural producers have been drivers

of this past trend supported by strong improvements in access to basic services and rural safety nets. Low levels of inequality have been maintained with the Gini coefficient remaining stable at 0.30.

High growth and lower oil prices will drive further reductions in poverty. But poverty reduction from agricultural growth will be lower than in the past due to less favorable weather and weaker price gains for producers. In contrast, urban poverty rates will fall faster than in the past owing to an increase in the number and the quality of urban jobs as well as lower inflation.

Challenges

Continued infrastructure improvements offer the single best growth prospects for Ethiopia due to a still large infrastructure gap and high economic returns. However, rising debt levels and borrowing costs suggest a need to rely on complementary ways to closing the infrastructure gap (such as public-private partnerships [PPPs]) in addition to debt-financed public investment. Moreover, a gradual phasing-in of the private sector via credit and foreign exchange markets is also warranted to reap relatively higher returns to private investment.

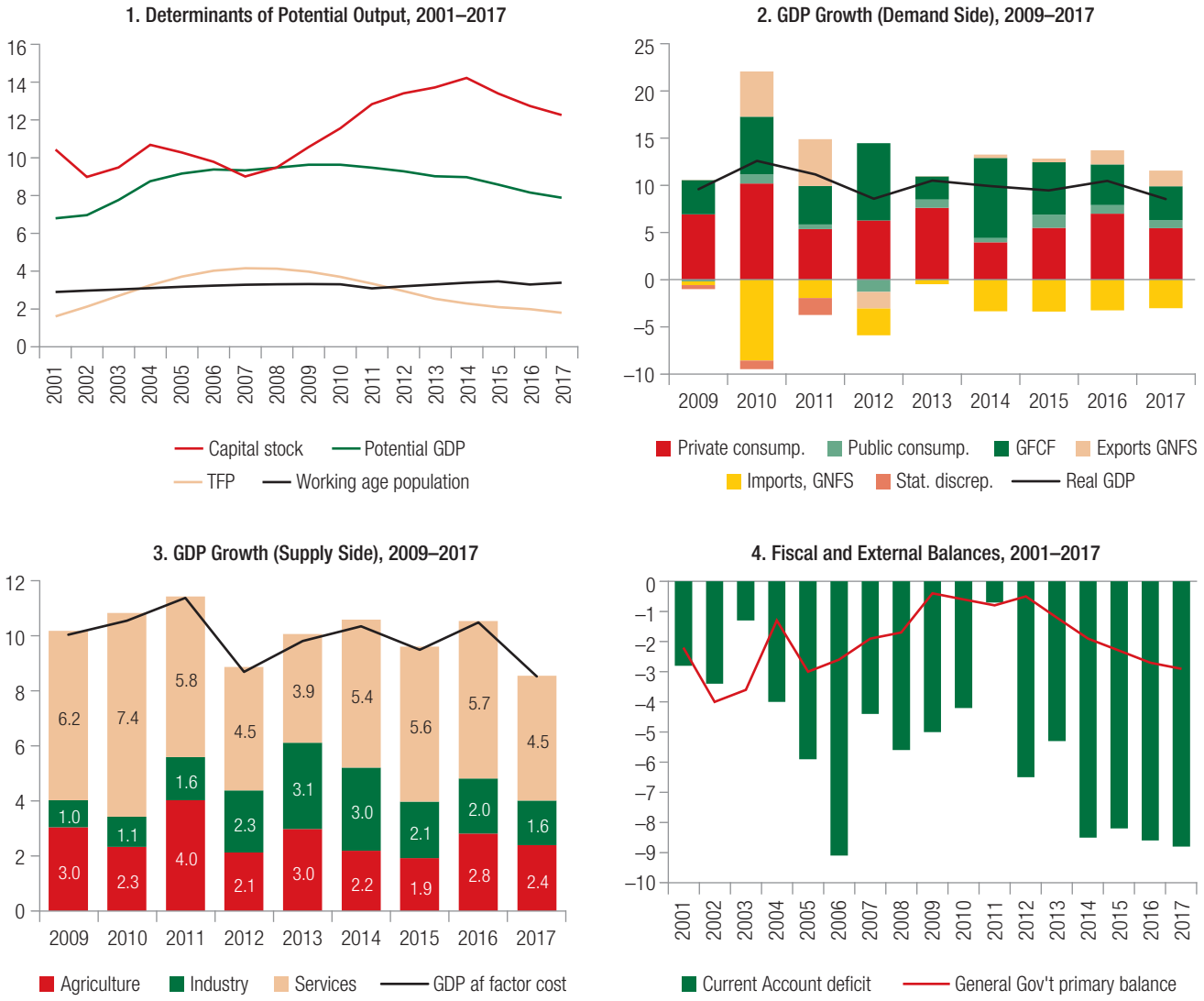
Rates of poverty reduction will decrease. The rate of rural poverty reduction will likely be slower than in the past given the failure of the 2014 Meher rains in Oromia and Somali regions, and modest terms of trade increases for cereal producers. While lower fuel prices will reverse the worsening ToT that farming households experienced in 2014, ToT gains will not reach the levels observed during the period from 2008–10.

Lower oil prices will aid poverty reduction. This comes through a reduction of consumer prices by an estimated 1.8 percent for the average Ethiopian household. This reduction will be relatively larger for urban and wealthier households Consumer prices of urban households will be reduced by 3.4 percent compared to 1.4 percent for rural ones. Likewise, households in the richest decile will see reductions in prices of 2.2 percent, while poorer households will have reductions of 1.6 percent. For those rural households that depend on cereal sales, welfare gains from lower consumer prices may be partially offset by lower cereal prices. Lower oil prices reduce import prices and require local cereals to be more moderately priced to be competitive.

An appreciated real effective exchange rate does not help competitiveness, especially in manufacturing. The real exchange rate appreciated by 22.5 percent (y/y) at the end April 2015 showing a cumulative appreciation of 71 percent since the nominal devaluation in October 2010 (Figure 1.5.7)**.** In addition, Ethiopia is now on an appreciation path against all currencies that are depreciating against the US$. There is concern that the appreciated currency does not help improving export competitiveness; much more, since exports are falling again and the Government is trying to encourage a thriving manufacturing sector to develop. Maintaining a competitive exchange rate is an important component of maintaining external competitiveness, but its macroeconomic effects, for instance on import prices and inflation need to be managed closely (World Bank, 2014a).

Slow recovery in advanced economies and slower growth in emerging markets and weather shocks all exert potential risks to the Ethiopian economy. Risks associated with sluggish growth in advanced economies and slower growth in emerging markets relate to further commodity price declines with a negative impact on Ethiopian exports and also to declining remittances and FDI. In addition, Ethiopia's domestic agriculture sector remains vulnerable to weather-related shocks. Food production remains largely rain-fed and adoption of improved varieties and farming practices remains limited. Prolonged droughts would manifest higher food prices with associated impacts on inflation and poverty levels. In order to mitigate these risks, structural reforms to diversify exports and development of irrigations system are important in the medium to long term.

FIGURE 1.7: Economic Outlook: Selected Projections to 2017



Source: World Bank staff compilation, based on data from the Macro-Fiscal Forecasting Model.

TABLE 1.2: Macro-Fiscal Outlook Indicators, 2012 to 2017

	2012	2013	2014	2015f	2016f	2017f
GDP, at constant market prices	8.6	10.5	9.9	9.5	10.5	8.5
Private Consumption	8.7	10.5	5.5	7.9	10.2	8.0
Government Consumption	–12.6	10.4	5.4	17.5	10.8	9.8
Gross Fixed Capital Investment	25.5	6.6	23.7	13.8	10.3	8.6
Exports, Goods and Services	–10.6	0.2	3.1	3.5	13.5	14.5
Imports, Goods and Services	8.9	1.5	11.5	11.5	10.8	10.0
GDP, at constant factor prices	8.7	9.8	10.3	9.5	10.5	8.5
Agriculture	4.9	7.1	5.4	5.0	7.5	6.5
Industry	19.6	24.1	21.2	13.8	13.2	10.5
Services	9.9	8.8	11.8	12.1	12.1	9.5
Inflation (Household Consumption Deflator)	33.5	4.7	10.2	8.2	7.2	8.2
Inflation (Consumer Price Index)	34.7	13.9	8.1	—	—	—
Current Account Balance (local definition), % of GDP	–6.5	–5.3	–8.5	–8.2	–8.6	–8.8
Fiscal Balance, % of GDP	–0.7	–1.5	–2.2	–2.6	–3.0	–3.2

Source: World Bank staff compilation, based on data from the Macro-Fiscal Forecasting Model.
Notes: f=forecast; annual percentage change.

GROWTH AND TRANSFORMATION THROUGH MANUFACTURING

2

Industrialization in Ethiopia

The Growth and Transformation Plan seeks to transform Ethiopia towards an industrialized economy and to increase per capita income of its citizens by 2025. To this effect, the Government has adopted a deliberate policy focused on the development of the manufacturing sector through the use of industrial parks to attract FDI and to support SMEs. But with services and agricultural sectors contributing almost 90 percent of GDP, the GTP has not been able to accelerate structural transformation. At the same time, the share of the manufacturing sector in GDP remained just above 4 percent of GDP for most of the past decade. Furthermore, Ethiopia has not made significant progress in pulling labor out of agriculture into more productive and industrial jobs. The share of employment in the manufacturing sector has changed only slightly and is virtually unchanged since 1999 at below 5 percent of total employment.

Ethiopia's Growth and Transformation Plan seeks to transform the economy from a predominantly agrarian to a modern and industrialized economy. The current plan (GTP 2010/11–2014/15) provides the medium-term strategic framework that guides the country's efforts towards accelerating GDP growth and employment creation. The GTP seeks to transform Ethiopia to an industrialized economy and increase the per capita income of its citizens to middle-income levels by 2025. Integral to the achievement of a vibrant and competitive industrial sector is a deliberate policy focused on the development of the manufacturing sector, for instance through the use of Industrial Parks (IP) to attract Foreign Direct Investment (FDI). To bundle efforts and facilitate this transformation the Government puts special focus on five sectors thought to maximize the country's endowment and comparative advantage in the manufacturing sector: textiles and garments; leather and leather products; sugar and related products; cement; and the metal and engineering industries.

But the GTP has not been able to foster and accelerate structural transformation of the economy and the share of the manufacturing sector in GDP remained stable at a rather low level. In fact, Ethiopia's past high growth decade has been fueled by large services and agricultural sectors. Economic growth averaged 10.9 percent per year from 2003/04 to 2013/2014 compared to the regional SSA average of 5.4 percent (Figure 2.1.1). The two sectors of services and agriculture are the backbone of the economy, together accounting for almost 90 percent of GDP between 2003/04 and 2013/14 (Figure 2.1.2). At the same time the manufacturing share in GDP is rather stable at or just above 4.1 percent of GDP. The manufacturing sector has grown at an average of 10.9 percent in last decade—about the same rate of expansion as real GDP—thereby falling short of the targeted 22 percent in the GTP. In 2013/14 the three sector shares in GDP were: 40.2 percent (agriculture), 45.5 percent (services), and 14.3 percent (industry).

The agriculture sector still employs more than three-quarters of all workers and the pace of structural transformation has been slow. So far, Ethiopia has not made significant progress in pulling labor out of agriculture into more productive and industrial jobs. The share of employment in agriculture is relatively unchanged between 1999 and 2005, but then declined from 80.2 percent in 2005 to 77.3 percent in 2013 (Table 2.1. and Figure 2.1.4). At the same, the largest relative gains were recorded by other services (1.3 percentage points) and construction (1.2 percentage points). Commerce registered a decline of 2.3 percentage points. The share of employment in the manufacturing sector has changed only slightly

TABLE 2.1: Employment by Sector

	Employment by Sector (Thousands)			Employment by Sector (% Total Employment)			Employment by Sector (Annual Growth, %)		
	1999	2005	2013	1999	2005	2013	1999–05	2005–13	1999–13
Agriculture	19,869	25,208	30,821	79.8	80.2	77.3	4.0	2.5	3.2
Mining	16	82	195	0.1	0.3	0.5	31.8	11.5	19.8
Manufacturing	1,107	1,529	1,882	4.4	4.9	4.7	5.5	2.6	3.9
Utilities	28	33	90	0.1	0.1	0.2	2.7	13.4	8.7
Construction	229	446	825	0.9	1.4	2.1	11.8	8.0	9.6
Commerce	2,342	2,406	2,845	9.4	7.7	7.1	0.5	2.1	1.4
Transport	123	146	378	0.5	0.5	0.9	3.0	12.6	8.4
Finance	20	38	134	0.1	0.1	0.3	11.6	17.1	14.7
Public services	578	729	1,212	2.3	2.3	3.0	3.9	6.6	5.4
Other services	585	818	1,492	2.4	2.6	3.7	5.7	7.8	6.9
TOTAL	24,897	31,435	39,874	100.0	100.0	100.0	4.0	3.0	3.4

Source: Martins (2015).

and is virtually unchanged between 4.4 and 4.7 percent of total employment between 1999 and 2013. Agriculture, commerce, and manufacturing registered the lowest annual growth rates from 1999 to 2013, although agriculture absorbed 73 percent of the total increase in employment (Martins 2015).[18]

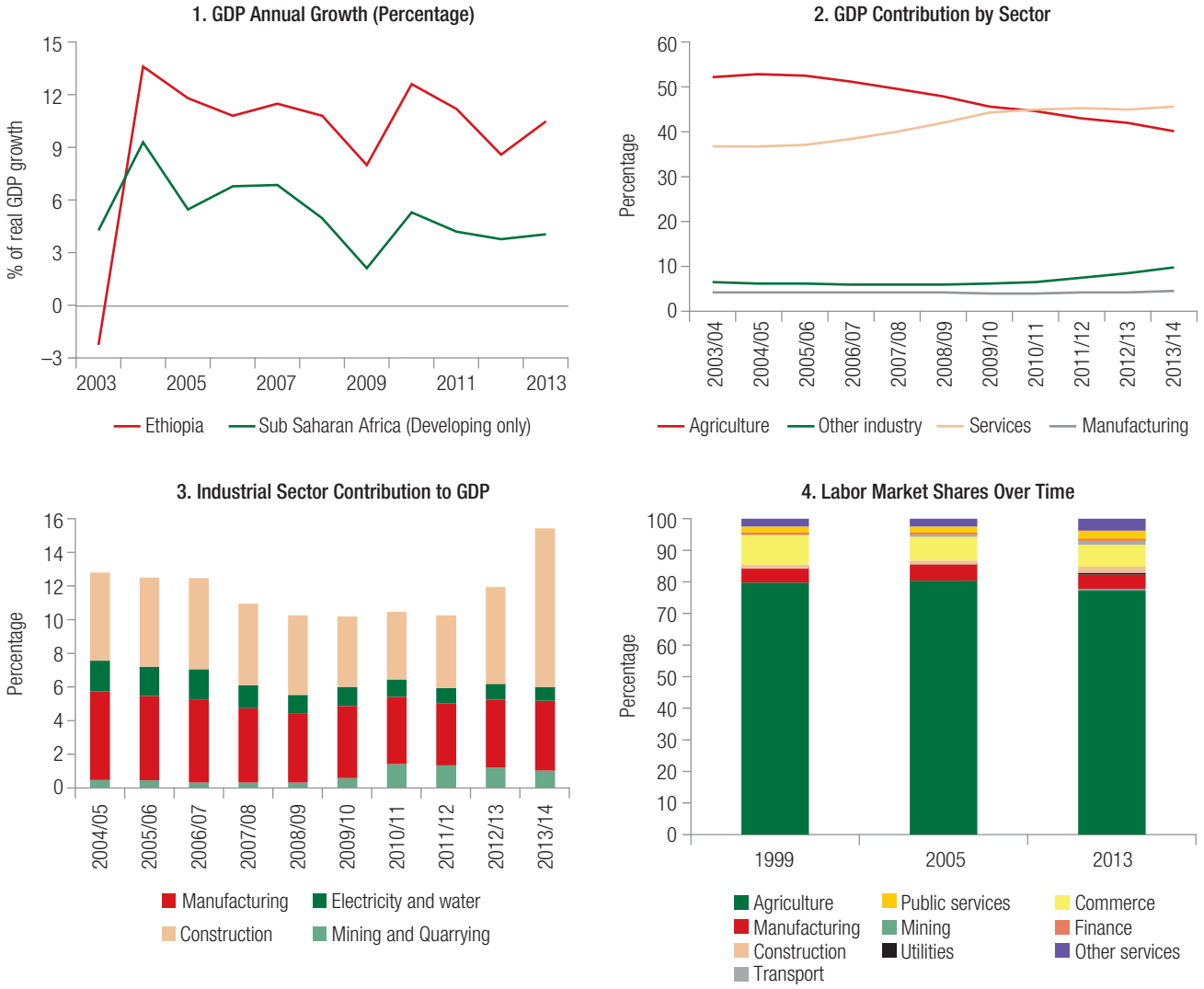
Recently the industry sector was the highest growing sector, driven by a construction boom and expansion in mining sub-sectors. The industrial sector growth rate was 18.5 percent in 2013/14 (Figure 2.1.3). But manufacturing, which forms part of industry and is dominated by the food, beverages, leather, textiles, and apparel industries, contributed a meager 4.4 percent to GDP in 2014 and on average grew only by 11 percent during the same period**.** The manufacturing export sector is relatively small in terms of production and employment, constituting 10 percent of total export merchandise. Given that the manufacturing sector has grown at the same pace as the economy, its contribution to GDP has remained static.

For Ethiopia, a country graduating through the early stages of economic development, growth in the industrial sector is essential for sustained long-term growth and poverty reduction (World Bank, 2000; and World Bank, 2004). The structural economic transformation that entails the reallocation of workers from the poorly productive agriculture and the informal sectors to more productive economic activities in manufacturing, industry, and related services is an important step towards the creation of better-paying jobs in low-income countries (McMillan and Rodrik 2011). Job creation through industrialization can positively impact equity and poverty indices in low-income countries. During the early stages of industrial development, due to the potential for higher productivity in the manufacturing sector and the manufacturing sector's utilization of predominantly unskilled and semi-skilled labor, the movement from agriculture to manufacturing tends to benefit the poor (World Bank, 2014b).

The Ethiopian Government is preparing a second GTP five-year program and a ten-year perspective plan, both of which place high emphasis on manufacturing development. With GTP II (2015/16–2020/21) and Vision 2025, the

[18] Martins 2015.

FIGURE 2.1: Real GDP Growth and Sector Contribution



Source: World Bank staff computation, based on: 1.1: WDI, 2.2-2.3: MOFED; 2.4: Martins (2015).

Government is making a concerted effort towards structural transformation where manufacturing is expected to play a prominent role in the economy. Ethiopia's goal is to become a manufacturing powerhouse—with a focus on light manufacturing for employment generation. It is for this reason that this chapter of the Economic Update focuses on the manufacturing sector to contribute to the discourse about how to develop the manufacturing sector in the next GTP period.

Productivity and Skills for Development

Productivity gains are a key factor in determining long-term economic growth and improvements in living standards. This section moves from using national accounts data for the analysis to firm level data. In Ethiopia, productivity performance is heterogeneous among firms—foreign owned, publicly owned, and older firms appear more efficient than domestic, private young firms. Although labor productivity in Addis Ababa compares well with firms in peer countries with same level of development, this appears to reflect higher capital intensity rather than more efficient production. Still, low wages in Ethiopia enable firms to remain competitive even if firms in other countries are more productive. A key determining factor of productivity is the ability of an economy to supply the skills needed for companies to grow and to thrive, but firms in Ethiopia struggle to recruit candidates with appropriate hard (technical) and soft skills. A more literate and trainable labor force would not only increase productivity in Ethiopia, but also make the country more attractive to international firms seeking to invest in Africa.

Productivity Benchmarking

Productivity gains are a key factor in determining long-term economic growth and improvement in living standards. Empirical evidence, globally, reveals that about half of long-term growth is driven by increases in productivity rather than just factor accumulation. There are two main channels for improving aggregate productivity: (1) increasing the productivity of individual firms, and (2) improving allocative efficiency by shifting resources from less productive firms to those that are more productive. Ethiopia needs to make reforms on both fronts: improve how well the firms are managed and how products and services are delivered; and improve how well the overall economy is able to reassign resources from lagging firms to more dynamic ones.

Labor productivity in Addis Ababa compares well vis-à-vis its peer countries. Analysis of labor productivity indicates that firms in Ethiopia (proxied by studies of Addis Ababa) appear to be relatively productive when compared to firms in other countries at similar levels of development such as Zambia and Vietnam. The median firm in Ethiopia produces about $4,900 of output (value added) per worker (2009 prices; Figure 2.2.1).[19] Ethiopia, nonetheless, lags behind better performing middle-income economies such as China and South Africa in terms of labor productivity. Looking at regional productivity, patterns are noticeable. For instance, in Oromia and Dire Dawa productivity levels lag behind the national average.

Higher labor productivity of firms in Addis Ababa appears to reflect higher capital intensity rather than more efficient production. Differences in labor productivity can reflect both differences in firm efficiency (firm organization, technology, worker skills, or the business environment), and differences in capital intensity. Firms in Ethiopia are more capital intensive than firms in peer countries[20] (Figure 2.2.2). Given that labor productivity and capital intensity are both high in Ethiopia, it seems likely that the two are linked. That is, labor productivity may be high not because firms are particularly well-managed or technologically advanced, but because firms substitute capital for labor.[21] Figure 2.2.3 suggests that Ethiopian firms compare less well with those in peer countries when using measures of firm productivity that take capital intensity into account, such as capital productivity[22] and total factor productivity.[23] Indeed, for the median firm in Ethiopia, the ratio of value added to capital is about 85 percent. This is lower than in any of the comparator countries. This suggests that in Ethiopia capital is relatively unproductive. Similarly, total factor

[19] World Bank 2014b.
[20] The median firm in Ethiopia uses about US$6,000 of capital for each worker. For example, the median firms in Nigeria and Cote d'Ivoire have less than $1,000 of capital per worker and the median firms in Tanzania, Cameroon, Egypt, Zambia, and Vietnam have less than $5,000 of capital per worker.
[21] This effect varies across sectors and even manufacturing sub-sectors—a fact that is largely kept undifferentiated in this report. More research is needed in the future about the capital utilization rates across all manufacturing sub-sectors.
[22] Capital productivity is higher in firms that produce a lot of output with only a small amount of machinery and equipment. Hence, capital productivity is generally higher for labor-intensive firms (i.e., firms that rely relatively heavily on labor to produce their output) since they produce a lot of output, due to their heavy use of labor, with relatively little capital.
[23] TFP is the best measure of overall firm performance because it controls for levels of all inputs and levels of labor and capital applied to production. Firms with higher total factor productivity are more efficient because they produce higher output than other firms that use more, or a similar set, of inputs.

FIGURE 2.2: Productivity Benchmarking

Source: World Bank staff computation, based on: 2.1–2.3: World Bank (2014c), 2.4: Enterprise Survey (2011), 2.5–2.6: Large and Medium Scale Manufacturing Industry Survey.

Note: Productivity in these figures is calculated by tracking companies across time to arrive at truly firm-level annual productivity growth numbers. This method leaves out those companies that were only featured in the data for one year, and it does not recognize the first year productivity contribution of companies. The overall trends are similar to an aggregated economy-wide approach of calculating annual labor productivity that considers all companies in each year regardless of their continuous existence.

TABLE 2.2: Unit Labor Cost (Wages-Productivity Ratio) in Manufacturing, 2011

	China	Vietnam	Ethiopia	Tanzania
Polo shirts	100	101	50	102
Wooden chairs	100	888	2,592	1,884
Leather loafers	100	29	15	37

Source: Reported by Rodrik (2014), based on data from African Center of Economic Transformation (2014).

productivity is relatively low in Ethiopia compared to any other peer country (Figure 2.2.4).

Low wages, nevertheless, allow Ethiopian firms to remain competitive even if firms in other countries are more productive. The median Ethiopian firm reports labor costs of about $1,100 per worker (based on Enterprise Survey Data, 2011).. Although this is slightly higher than in several of the comparator countries, including Bangladesh, Cote d'Ivoire, Tanzania, and Nigeria, labor productivity is also lower in these countries. For the countries where labor productivity is higher or similar to Ethiopia, labor costs are also higher. For example, the median firm in China reported that wages were about $1,800 per worker and the median firm in South Africa reported per worker labor costs of close to $8,000 per worker. This suggests that lower wages in Ethiopia may allow it an initial advantage vis-à-vis other countries in attracting new investment. Indeed this is quoted as a prime reason from FDI that is coming into Ethiopia (World Bank, 2013a). Table 2.2 confirms this assessment for the production of polo shirts and leather loafers. It is noteworthy that Table 2.2 refers to very specific products and not product groups. In other words, the fact of Ethiopia being not unit labor cost competitive in wooden chairs does not necessarily imply that it is not competitive in wood and other wooden products.

Productivity performance is heterogeneous among firms; foreign owned, publicly owned and older firms appear more efficient that domestic, private young firms. Foreign firms and older firms appear more efficient than domestic and young firms (Figure 2.2.5). Public firms[24] are more productive, a fact that may suggest that having a connection with the government helps to more effectively deal with business barriers; for instance, quicker and better access to services (water, electricity, and facilitation with local authorities), and easier access to inputs (including finance and imported raw materials). For new entrants into the market, Ethiopia appears to have a preference for foreign investors over domestic ones (largely SMEs). To some extent this reflects the nature and extent of business entry challenges such as starting business regulatory aspects, land access for FDI, and institutional support. In addition, with the exception of the leather sector, firms in the priority sectors highlighted in the GTP do not appear more productive than those in the other sectors (Figures 2.2.6).

The investment climate in Ethiopia does not foster productivity growth for new comers and tends to favor well-established and large firms. Ideally, in a sound and well-functioning business environment, less productive firms will be swept out from the market while newcomers will converge towards incumbents' productivity. Recent estimates in World Bank (2014c) suggest that firms enter at a lower productivity level than incumbents and this difference gradually narrows in the subsequent years. Nevertheless, the incumbent firms still show a distinct productivity advantage, even after four years. Findings suggest that firms exiting the market experience a deterioration of their productivity in year two prior to exit. If newcomers do not manage to converge towards incumbent firm productivity, they will likely be swept out from the market, resulting in a high turnover of

[24] Firms either 100 percent owned by the state or firms with public participation.

firms. Well-established firms as well as medium and large firms seem to survive, and to exhibit a higher productivity. However they are also stagnant and do not show any increase in productivity.

Skills and Productivity[25]

A key determining factor of productivity is the ability of an economy to supply the skills needed for companies to grow and to thrive, but firms in Ethiopia struggle to recruit candidates with appropriate hard (technical) and soft skills. As Ethiopia moves towards the goal of achieving middle-income status, its education sector policy should focus, inter alia, on the provision of a diverse range of Technical and Vocational Education and Training (TVET), and second-chance general education programs for primary and secondary graduates who seek further education and skills development (Joshi and Verspoor, 2013). Experience from the East Asian tigers suggests that FDI was able to capitalize on a large pool of trainable labor, enabling investors to improve productivity while benefitting from low production costs. Empirical studies show that the gap between Ethiopia and China is explained by workers in Ethiopia being less educated and poorly equipped (World Bank, 2012).[26]

A more literate and trainable labor force could make Ethiopia more attractive to international firms seeking low-wage countries. As wages rise in China, emerging market economies will become more attractive to international firms, resulting in the relocation of low-skill intensive manufacturing jobs to other low-wage countries, offering an unprecedented opportunity to low-income countries like Ethiopia (Chandra et al. 2013). However, firms seeking a low-wage workforce need a minimum skills base in order to train workers at low cost (Spence 2011).

The productivity of firms is strongly and positively correlated with worker education and training in Ethiopia. This is particularly pertinent given Ethiopia's relatively poor secondary education enrollment profile. In the manufacturing sector, a one-year increase in the average education of a production worker is associated with an increase of 33 to 41 percent in various measures of labor productivity. Consequently, increasing enrollment at all levels above primary education, as well as improvements to the overall quality of education delivered through the Ethiopian education sector, should have a strong and positive impact on firm-level productivity

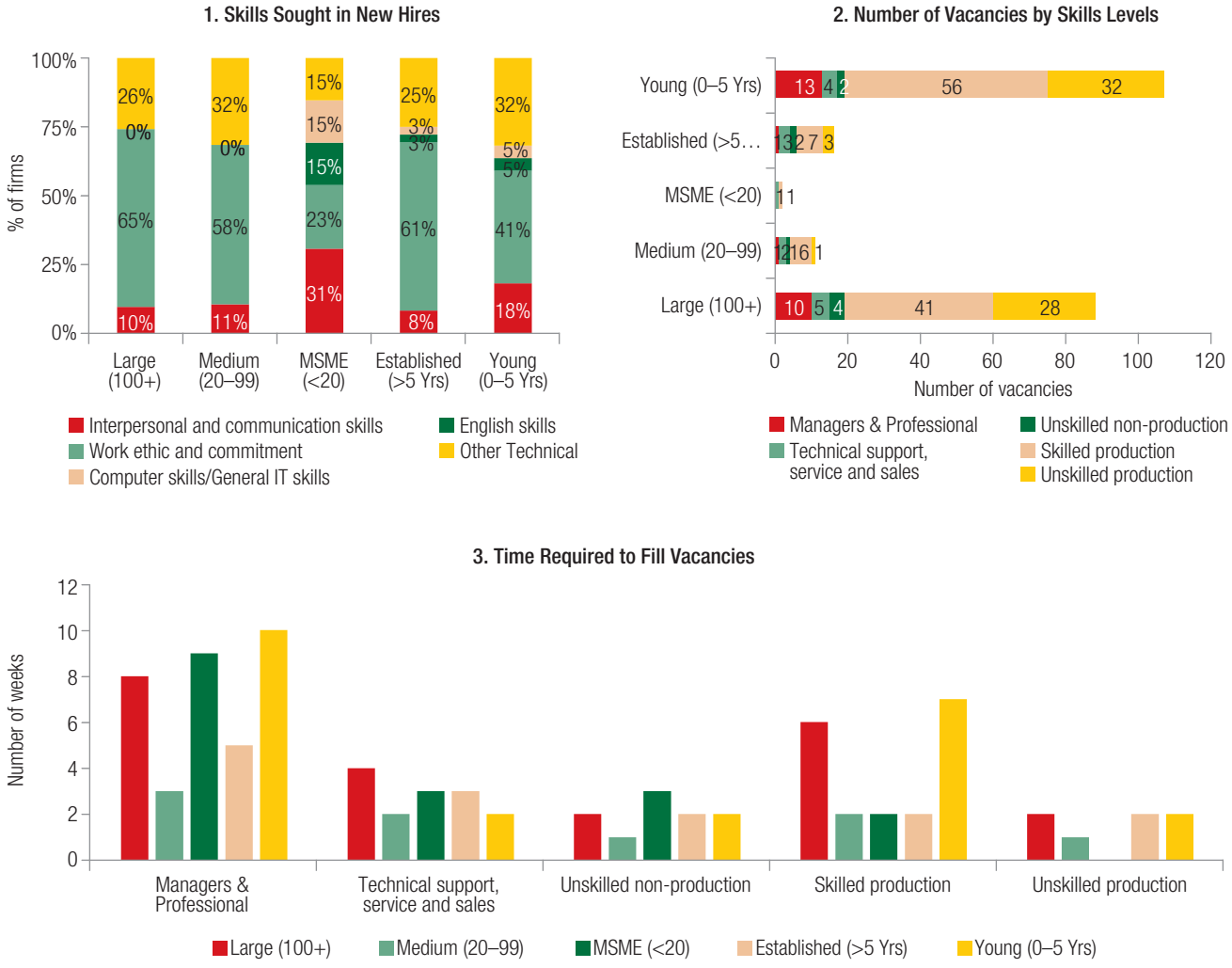
Skills shortages in Ethiopia constitute a key constraint to growth and improved productivity in the manufacturing sector, although data demonstrates variation by firm size, the age of the firm, and other characteristics. Analysis demonstrates that larger and foreign-owned firms are significantly more likely to cite poor skills as an impediment to increased productivity in the manufacturing sector. This observation resonates with the findings of an analysis of light manufacturing in Africa (World Bank, 2012), which highlighted the poor supply of appropriately skilled labor as a major obstacle to improving the competitiveness of the manufacturing sector in Ethiopia.

For employers the most common sought after worker skill relates to work ethic and commitment (World Bank, 2014b). Among all manufacturing firms regardless of size, the most desired skills are "soft" rather than technical (Figure 2.3.1). A reason for the high interest in work ethic and commitment could be that the Ethiopian manufacturing sector is still relatively underdeveloped and not heavily reliant on more technical production. Moreover assembly line production requires discipline, timeliness, and

[25] This section draws from the recent World Bank Policy Note Ethiopia: Skills for Competitiveness and Growth in the Manufacturing Sector (World Bank, 2014b). A key source of the work in this section is the Ethiopia Skills Module (2013). The module is a survey that was conducted specifically for this study in 2013. The sample is a sub-set of the firms interviewed in the Ethiopia Enterprise Survey, including 100 manufacturing firms surveyed in Addis Ababa. The skills module included questions relating to demand for skills, vacancies, and interactions between firms and TVET institutions.

[26] The reason for the large impact of education on labor productivity can be explained by the fact that less educated workers are unable to read instructions or operate machines properly. It is easier to train workers with some basic level of literacy and numeracy. Moreover, goods produced by less educated workers are poor in quality and uncompetitive in the global market.

FIGURE 2.3: Education, Skills and Employment



Sources: World Bank staff computation, based on Enterprise Survey (2011), and Ethiopia Skills Module (2013).
Note: Manufacturing firms in Addis Ababa only.

team coordination. Across all firm groups, almost a third of firms' most desired skills are technical in nature (technical, computer, or information technology skills). However, positions in skilled production form proportionately the largest share of reported vacancies (Figure 2.3.2). Younger firms and large firms take much longer to fill vacancies than other companies, especially for positions requiring skilled production skills, managers, and professional qualifications (Figure 2.3.3). Addressing the skills deficiencies is critical in light of the fact that the majority of firms would like to expand their workforce.

Ethiopia has made significant progress in expanding access to primary education and has successfully reached a gross enrollment ratio in primary education comparable with middle-income countries. However the overall education profile remains low and the country lags behind even lower-middle-income country enrollment averages at all other levels of education. While these should remain long term goals for the Ethiopian education sector, industrialization can be scaled up rapidly by targeting promising sectors in so called light manufacturing or agro-processing where relative modest skill

requirements suffice (World Bank, 2012). The profile of a lower-middle-income country demonstrates gross enrollment rates in lower secondary education of 80 percent—and Ethiopia has a long way to go in order to get there. Despite the fact that enrollment in all secondary education grew by almost three percent between 2006 and 2011 the national enrollment ratio for the first cycle of secondary education was only 17.3 percent in 2011/2012.[27] Overall, the current education attainment profile in Ethiopia is still low, equivalent to that of Vietnam in 1960. A lower secondary level of educational achievement endows students with the basic knowledge and requisite cognitive and behavioral skills that signal a trainable workforce to potential FDI.

In the short run, Ethiopia may not need to wait for higher levels of enrollment and improvements in the quality of education provision at secondary and tertiary education levels to stimulate the growth of the manufacturing sector. As Ethiopia moves towards the goal of achieving middle-income status, its education sector policy should focus, inter alia, on the provision of a diverse range of TVET and second-chance general education programs for primary and secondary graduates who seek further education and skills development. In the medium term, poor nations need to invest in overall improvement in education quality, with special focus on science and technology (Ansu and Tan, 2012).

Ethiopia places particular emphasis on education and training policies as an important lever for enhancing productivity, especially in small and medium enterprises and the acceleration of employment generation. The GoE has developed a National TVET Strategy to improve the quality and relevance of the TVET system to more effectively address the challenges of unemployment and low labor productivity (Ministry of Education of Ethiopia 2008). The main objective of the TVET sub-sector is to train middle-level manpower for participation in the economy. While Ethiopia has made admirable progress in improving the policy framework for TVET, significant challenges remain with regard to ensuring that the current context is coherent with policy and the implementation thereof.

From the perspective of firms, the low engagement between firms and TVET institutions as a source of technical workers is one of the key constraints on increased productivity. While there are a high number of vacancies for skilled production workers, only a minority of firms contact TVET institutions regarding vacancies. In a recent survey, only 14 of 60 firms surveyed reported contacting TVETs to fill outstanding technical positions (Ethiopia Skills Module, 2013). In the same survey, only half of firms reported hiring TVET workers directly from an institution.

Attitudes and expectations on the part of students towards TVET suggest misinformation about how the return to training accrues to different areas of specialization. Students demonstrate a strong preference for white-collar occupations in the services sector or the public sector. In fact there is recent evidence that the public sector currently attracts the large majority of new graduates (World Bank, 2015a). So while there is evidence that graduates from these fields have trouble getting jobs (Table 2.3), some of may also be "waiting" for public sector jobs to open up (World Bank, 2015a). This, in part, contributes to problems of under-capacity at most TVET institutions as students are not willing to join specific fields of training in the TVET institutions. The mismatch between students' interests and the fields of study to which they are tracked may also contribute to a lack of commitment and effort on the part of enrolled students, in turn contributing to high dropout rates from TVET courses of study. The problem is exacerbated by poor communication with prospective and enrolled students regarding these issues. The TVET agency currently does not have any information programs aimed at prospective students. While several TVET colleges have implemented their own outreach initiatives, these programs have not been standardized and are uneven in quality.

[27] Education Statistics Annual Abstract (2011/2012).

TABLE 2.3: Unemployment of TVET Graduates, Selected Training Areas, 2012

Fields of training	Unemployment rate (%)
Tailoring	36
Electrical Work	36
Computer Applications and Usage	42
Metal Technology	43
Lower Scale Training of Agriculture (from Agarfa, Ardaeta and Baco)	44
Mason	49
Woodwork/Carpentry	53
Weaving	54
Textile Engineering	60
Plumbing	71

Source: UEUS 2012 data.
Notes: (1) Training areas are taken from a variable that asks for any type of vocational or professional training that an individual has undertaken. (2) Unemployment rates shown of secondary and diploma TVET educated individuals.

Despite an explicit policy of engaging the private sector to improve the TVET sector, mechanisms to facilitate integration of private sector needs into the TVET curriculum and operational standards have not been established. In order to improve quality and certification, the GoE is in the process of transitioning the TVET system to an outcome-based approach. An assessment for Certificate of Competency has recently been rolled out in most TVET institutions, and the GoE hopes that the introduction of the certificate will help address problems associated with the poor quality of graduates from TVET programs. New curricula have been adapted in line with changes to occupational standards, and in order to graduate, TVET trainees are now required to pass assessment tests based on occupational standards. In theory, occupational standards and assessment tools are intended to be prepared with input from industry, the TVET institutions, and external experts. However, in practice, chambers of industries and other representatives of the private sector have not been involved in a process of consultation, and input that informs changes to occupational standards remains limited to various government ministries.

In summary, this analysis has shown that to increase productivity of firms Ethiopia's education sector will need to develop and supply the appropriate managerial, technical and soft skills within the workforce. But improving Ethiopia's overall education profile will take many years, so promising sectors in light manufacturing and agro-processing could be scaled-up by focusing on relatively modest skills development in the meantime. To this end, TVET programs and second-chance education programs, tailored to private sector needs will be important instruments to upgrade managerial and technical skills, especially among small-scale operators already working in high potential sub-sectors.

Constraints for Manufacturing Growth

Private investment, both domestic and foreign, is crucial for developing the manufacturing sector. A better investment climate that fosters the growth of existing firms, while encouraging the creation of new firms is key to attracting and increasing private sector investments. The business environment affects the performance of all firms, irrespective of their size, however certain aspects such as regulatory burden and information asymmetry may be of particular consequence to SMEs. Access to finance is a top obstacle to SMEs as firms in Ethiopia are more likely to be credit constrained than global comparators. There is strong evidence that lending to micro-enterprises and larger firms in Ethiopia is relatively adequate, while SMEs are left behind ("missing middle phenomenon"). The intensity of business operational constraints and entry barriers vary depending on whether firms are large, FDI financed, or domestic SMEs. Business entry regulations and processes are consistently highlighted by the private sector as burdensome and obstructive of firm entry and dynamism.

Private investment, both domestic and foreign, is crucial for developing the manufacturing sector. Key to attracting and increasing those investments is to better the investment climate to foster the growth of existing firms, while encouraging the creation of new firms. Ethiopia's overall business climate rankings are relatively low albeit the country ranks better than peers in Doing Business Rankings on theme-specific business regulatory measures. Ethiopia has dropped slightly in Doing Business rankings, from 124 to 125 (out of 189) from 2013 to 2014. Figure 2.4.1 provides the top 10 business constraints cited by the Doing Business report. And according to the World Economic Forum's Global Competitiveness Index (2014 and 2015), the top five problematic factors for doing business in Ethiopia are: inefficient government bureaucracy, foreign currency regulations, access to finance, corruption, and inadequate supply of infrastructure. This is supported by results of a 2014 public-private dialogue for the National Business Agenda,[28] where firms identified the top five critical and binding constraints as: tax administration, access to finance, limited access to land and availability and quality of electricity, and market/unfair competition. Table 2.4 provides a comparison of binding constraints for business in Ethiopia.

The business environment affects the productivity of firms. Over the last decade, the investment climate in Ethiopia appears to have worsened leading to the continuous deterioration of the performance of individual firms overall even though

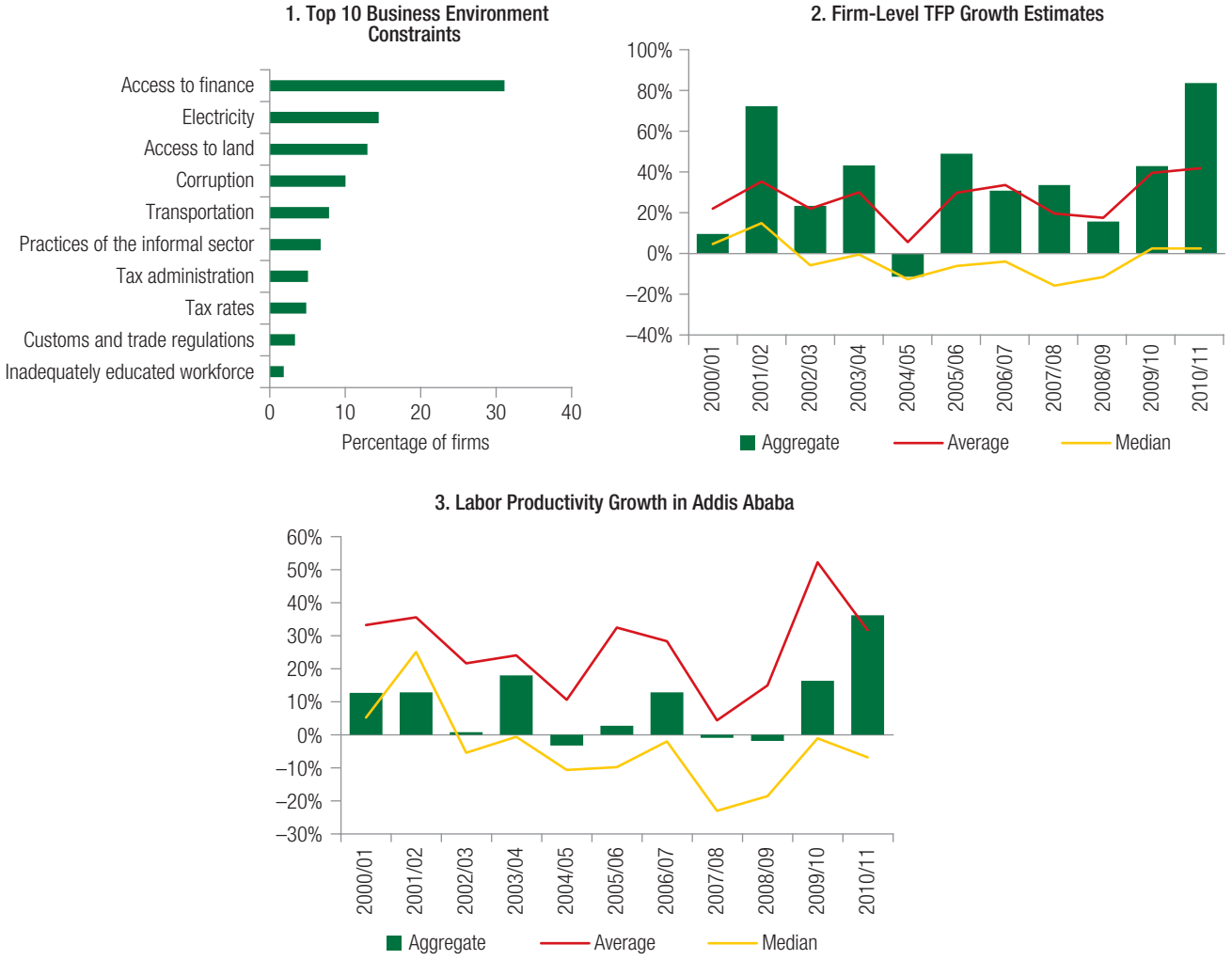
[28] See National Business Agenda Report, July 2014. The consultation for the NBA is led by the Ethiopia Public Private Consultative Forum with the objective to validate barriers that have been identified in national studies and international benchmarking exercises such as the Global Competitiveness Report. In total, 194 businesses were consulted, 80 of which were in Addis Ababa.

TABLE 2.4: Most Binding Constraints to Doing Business in Ethiopia, Various Rankings

	Doing Business 2015	Global Competitiveness Index 2014–2015	Consultations on National Business Agenda 2015	Enterprise Survey 2011
1	Starting a business	Inefficient Government Bureaucracy	Tax Administration	Access to finance
2	Trading across borders	Foreign Currency Regulations	Access to finance	Access to land
3	Getting credit	Access to finance	Access to land and construction permits	Electricity
4	Protecting minority investors	Corruption	Availability/quality of energy	Paying taxes
5	Paying taxes	Inadequate supply of electricity	Unfair competition	Customs, trade regulations

Source: World Bank Doing Business Report (2015); Global Competitiveness Report (2014 and 2015); and National Business Agenda (2014); and World Bank Enterprise Survey (2011).

FIGURE 2.4: Business Constraints and Firm Productivity



Sources: (1) Enterprise Survey (2011); (2) and (3) based on World Bank (2014c).
Note: Productivity is calculated for all firms irrespective of sectors. Productivity in these figures is calculated by tracking companies across time to arrive at truly firm-level annual productivity growth numbers. This method leaves out those companies that were only featured in the data for one year, and it does not recognize the first year productivity contribution of companies. The overall trends are similar to an aggregated economy-wide approach of calculating annual labor productivity that considers all companies in each year regardless of their continuous existence.

some recovery occurred in 2009–2011. The medium individual firm appears to have experience a drop in productivity as measured by changes in TFP growth and in labor productivity growth. (Figures 2.4.2 and 2.4.3).

The specific nature and relative importance of binding constraints will vary according to the sector and firm size; these will need to be addressed both at the operational and entry level (World Bank, 2014c). In order to improve productivity of enterprises, particularly SMEs, access to finance, access to land, reliability of electricity, and taxation will need to be addressed. In addition, for large firms (FDI and exporting) improving trade logistics and reducing skills gaps remain imperative for enhancing competitiveness. Similarly, business entry regulations and processes that obstruct firm entry and dynamism require attention so that young firms are encouraged to establish. Reforms and interventions to address these constraints can be prioritized and sequenced

according to three guidelines: 1) focus on sectors and sub-sectors that demonstrate the most promising comparative advantage and job growth; 2) implement measures which are the most cost effective in the short and long runs with the least fiscal impact; and 3) assess implementation capacity, implication for governance and the political economy of policy reforms.

Access to Finance: Particular Challenge for SMEs[29]

Financial intermediation is a driving force for economic development—an expansion in credit to the private sector enables firms to invest in productive capacity, thereby laying the foundation for a sustainable growth path. However Ethiopia is falling behind its peers in financial intermediation. In 2011, credit to the private sector was equivalent to about 14 percent of GDP compared to the regional average of 23 percent of GDP (FinStats, 2012). Moreover, while the global trend has been an increase in private sector credit, Ethiopia has experienced a decline of about 5 percentage points since 2004 (Figure 1.3.2). According to the Doing Business Report 2015, Ethiopia ranks 165 out of 189 in the ease of getting credit compared to the SSA average ranking of 122 and well-performing peers such as Rwanda which ranks 4 of 189 economies (World Bank, 2015b).

Firms that are fully credit constrained exhibit poorer performance and productivity. Firms in Ethiopia are more likely to be fully credit constrained than global comparators, including SSA countries. As illustrated in Figure 2.5.2, nearly half of firms in Ethiopia are fully credit constrained. Fully credit constrained firms are those without external financing and were either rejected for a loan or did not apply even though they needed additional capital. For firms, being credit constrained means poorer performance and less productivity. In Ethiopia, a credit constrained firm has 15 percentage points lower sales growth, 5 percentage points lower employment growth, and 11 percentage points lower labor productivity growth than firms who are not credit constrained. Investment decisions of manufacturing firms in Ethiopia are heavily dependent on cash flows.

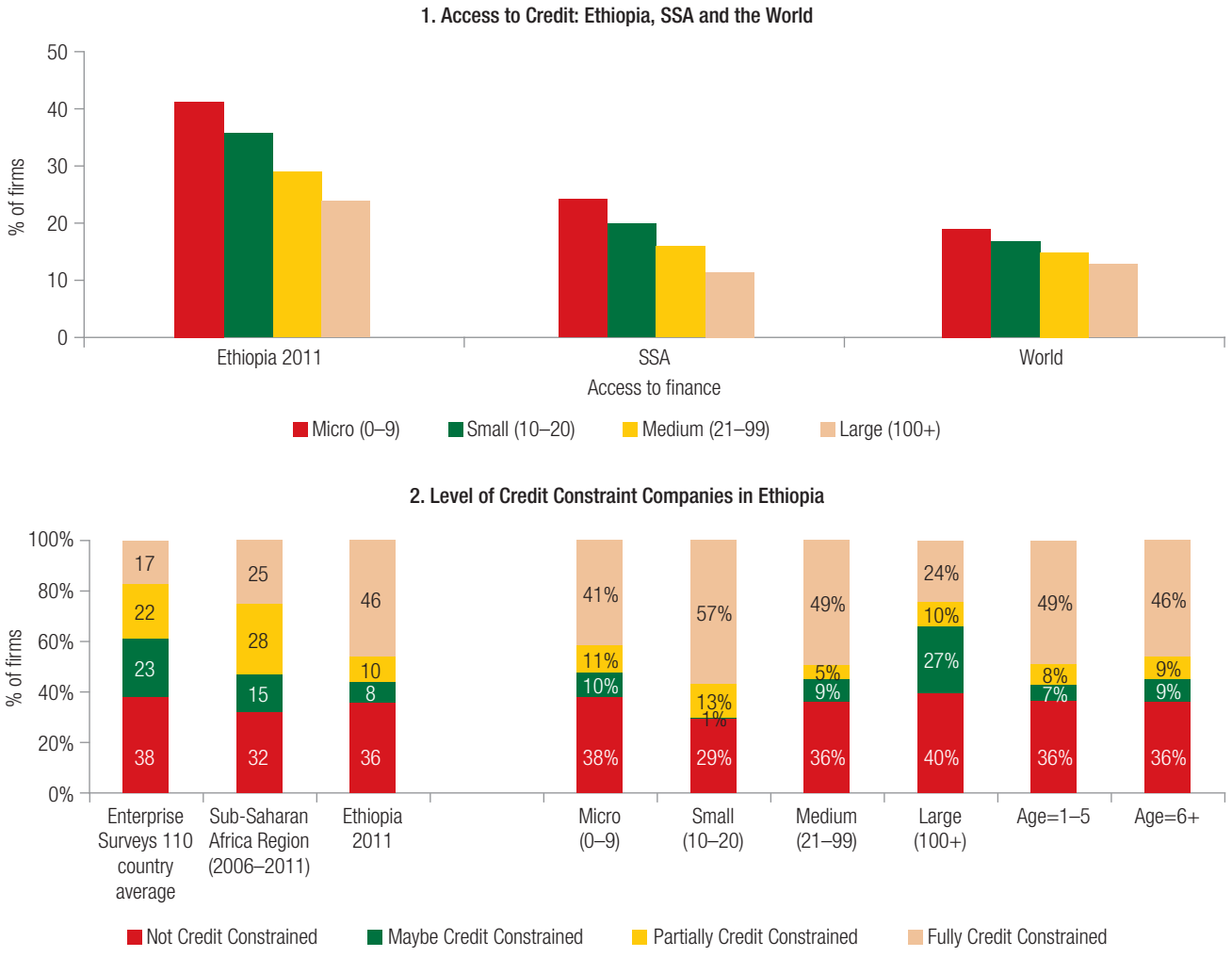
Access to finance remains a top obstacle for enterprises in Ethiopia. As shown in Table 2–4, firms consistently identify access to finance as one of the top five obstacles to doing business in Ethiopia, rated as the third most binding constraint in the Global Competiveness Index 2015 and number one in the Enterprise Survey 2011. According to the Enterprise Survey, this is perceived as the main business environment constraint by micro (41 percent), small (36 percent), and medium (29 percent) enterprises in Ethiopia, compared to a SSA average of 24, 20, and 16 percent, respectively (Figure 2.5.1). The same data indicates that almost 93 percent of small enterprises and over 95 percent of medium enterprises have either a checking or a savings account (a percentage higher than the respective SSA averages) but only 3 percent of small enterprises and 23 percent of medium have a loan or a line of credit.

Young and small firms appear to face more serious financial constraints relative to those that are larger and more established. Across a range of financial indicators created using the Ethiopia Enterprise Survey (2011), young and small firms are the most likely to report that access to finance is a major constraint to their business operations and at rates higher than other well developed African countries. In South Africa in 2010, only 10.4 percent of SMEs rated access to finance as a major constraint compared to a much higher rates in Ethiopia.

Overall, data indicates the existence of a missing middle phenomenon in terms of financial services catering to small firms. Young and smaller firms are much more likely to be rejected for a loan or a line of credit than firms who are more established or larger (Figures 2.5.2 and 2.5.3). Moreover, despite confirming their need for improved access to finance, SMEs are discouraged from applying for loans due to

[29] This section draws from the World Bank report: SME Finance in Ethiopia: Addressing the Missing Middle Challenge (World Bank, 2014d).

FIGURE 2.5: Access to Finance for Enterprises



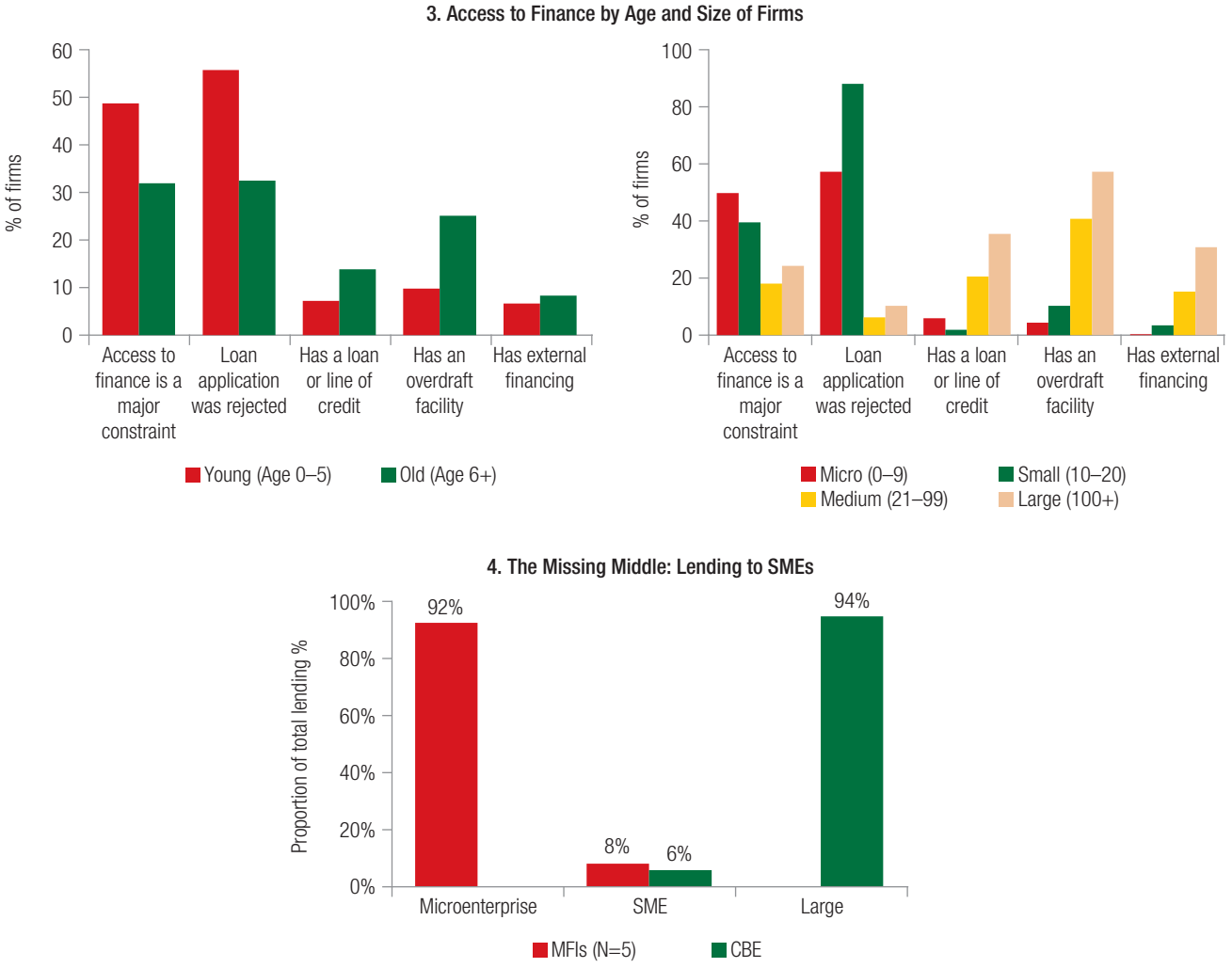
(continued on next page)

excessively high collateral requirements. Only 1.9 percent of small firms have a loan or line of credit. This rate is much lower than that of micro, medium, and large firms (6.0, 20.5, and 35.5 percent, respectively). Further illustrating the existence of a missing middle phenomenon, in Ethiopia, small-sized firms (10–20 employees) are the most credit constrained of all firm segments (57 percent), more than micro medium, or large firms at 41,49, and 24 percent, respectively.

The missing middle phenomenon is a common feature to many developing countries that have a large number of microenterprises and some large firms, but far fewer small and medium enterprises. In high-income countries, SMEs are responsible for over 50 percent of GDP and over 60 percent of employment, but in low-income countries they are less than half of that: 30 percent of employment and 17 percent of GDP. This SME gap is called the "missing middle." Evidence from international research clearly shows that returns to capital are high in this segment. SMEs aren't missing because they would not be profitable; they are missing because finance is not reaching them in an effective way.

High collateral requirements are a binding constraint for smaller firms since the most common type of collateral used are land and buildings or personal assets (Table 2.5). As elsewhere

FIGURE 2.5: Access to Finance for Enterprises *(continued)*



Sources: (1) and (3) based on Enterprise Survey (2011); (2) and (4) based on World Bank (2014d).

TABLE 2.5: Types of Collateral Used by MSMEs

	Micro (0–9)	Small (10–20)	Medium (21–99)	Large (100+)
Land and Buildings	69.6	86.1	81.9	85.4
Equipment	2.1	2.5	33.0	84.9
Accounts	2.1	2.5	4.8	24.5
Personal Assets	26.2	36.8	27.0	22.0
Other	4.2	0.0	0.0	14.3

Source: World Bank (2014d).

TABLE 2.6: MSME Definitions by National MSE Development Strategy

Level of the enterprise	Sector	Number of Employees	Total assets (Birr)
Micro enterprise	Industry	<= 5	Less than or equal to 100,000 (US$ 6,000 or EUR 4,500)
	Service	<= 5	Less than or equal to 50,000 (US$ 3,000 or EUR 2,200)
Small enterprises	Industry	From 6–30	Less than or equal to 1.5 million (US$ 90,000 or EUR 70,000)
	Service	From 6–30	Less than or equal to 500,000 (US$ 30,000 or EUR 23,000)

Source: National MSE Strategy of Ethiopia (2011).

in developing economies, Ethiopian banks prefer immovable collateral such as land rather than movable assets such as machinery. Large firms are the only ones who commonly can use equipment as collateral. The use of accounts as collateral is also rare, even for large firms; less than a quarter of large firms use this as a form of collateral. The average value of collateral needed for loans in Ethiopia is also very high compared to other regions of the world as well as to other developed economies in Africa. On average, Ethiopian firms require 234 percent of the loan amount for collateral, compared to 134.3 percent in Eastern Europe and Central Asia. In well-developed African countries, collateral requirements are also much lower than in Ethiopia: 120.8 percent in Kenya (2007), and 103.6 percent in South Africa (2007).

A recent ad hoc *survey* of the supply side of MSME financing in Ethiopia[30] confirms that small and medium enterprises are being underserved compared to micro and large firms. MFIs primarily cater to micro firms and bank clientele are primarily large firms. The five MFIs[31] who reported lending figures disaggregated by client size focus their lending on microenterprises;[32] 92 percent of their total loans are disbursed to microenterprises while only 8 percent are issued to SMEs. Among banks, only the CBE reported disaggregated lending by client size. The CBE tends to focus on large enterprises and provides lending to the SME sector comprising almost 6 percent of the bank's total disbursements.

The majority of financial institutions believe that prospects for the SME market are good and that the SME market size is large. The small enterprise segment is also identified as the most promising segment for growth by both commercial banks and MFIs, however SME lending is limited as MFI deposits and loan portfolios are comprised mainly by microenterprises. The same is true for commercial banks where deposits and loan portfolios typically comprise less than 10 percent of MFIs.

Financial institutions in Ethiopia lack a commonly agreed definition of MSMEs which leads to poor market segmentation, along with a lack of in-depth customer knowledge and proper business strategy While the majority of MFIs use the SME definition that is laid out in the Government's National MSME Development Strategy (Table 2.6), commercial banks do not seem to uniformly distinguish among small, medium, and large enterprise. Typically banks define SMEs according to the annual turnover of the business, loan size, and number of employees and/or revenues generated by the financial institution. All MFIs besides one uniformly use the number of employees-criteria. Most MFIs also categorize micro and small enterprise in term of turnover and loan size.

[30] The survey is informed by responses from 13 financial institutions: seven banks representing 87.1 percent of the banking sector asset portfolio and six microfinance institutions representing 70 percent of the micro finance sector asset portfolio. Due to a varying response rates to questions, the questionnaires were supplemented by structured face-to-face interviews conducted with six banks and five microfinance institutions.
[31] The five MFIs are: OCSSCO, Adds*, Omo Micro, Wasasa, and Wisdom.
[32] Most MFIs define microenterprises to be those with less than five employees.

Having a common MSME definition at the national level would ease the design of loans, investments, grants, and statistical research. Worldwide, efforts to support MSMEs are at the center of the development agenda. Since the G-20 summit in Pittsburgh in 2009 the MSMEs opened a debate on whether a universal definition of MSMEs could be found. Hypothetically, the choice of an MSME definition could depend on many factors, such as business culture, the size of the country's population; industry; and the level of international economic integration.

The banks and MFIS' business models are not tailored to address the peculiar needs of the MSME clientele. The organization model used by the majority financial institutions does not seem to take into account the need for a specialized MSME unit or department to better serve the MSME clientele. Many of the financial institutions do not possess a separate SME department.[33] Although most MFIs state being involved with SMEs, only 2 indicate their client relationships are managed through a dedicated MSMEs unit. Financial institutions do not have a large product mix that caters for the specific needs of SMEs. Banks reported that 70 per cent of their loan products are term loans and other top loans including overdraft, pre-shipment credit, and advances on import bills. MFIs provide group lending as their main product loan and they also provide non-financial products such as training, technical assistance, and services aimed at increasing market linkages to MSMEs.

The combined absence of a collateral registry and ineffective enforcement of contracts in case of default can significantly discourage access to finance for SMEs. Financial institutions can adopt a possible range of approaches that use different technologies, monitoring mechanisms, screening, and underwriting policies and contract structures where the level of collateral involved can vary from no collateral required (e.g. small business credit scoring technology) to full collateral requirements (e.g. fixed-assets lending). Of course, each technology requires an understanding of the underlying context, but often, technical assistance interventions help financial institutions to broaden their horizons and test these different methodologies with mutual benefits for the financial institutions and for the MSMEs.

The legal and regulatory framework affecting financial institutions impact the ability of banks and MFIs to lend to SMEs. Banks and MFIs report facing weak liquidity positions due to credit limits for SMEs and micro enterprise loans, not being able to go beyond 10 percent of their capital for microfinances institutions and 25 percent for banks. Financial institutions are required to set their lending portfolio for monitoring purpose by the NBE. These lending restrictions were imposed on private banks and then replaced by an NBE directive requiring commercial private banks to allocate 27 percent of their loan disbursements to purchase fixed and low-interest-bearing NBE Bills. According to private commercial banks, this directive has had a negative impact on their liquidity and lending capacity and they are therefore not able to lend as much as they want. In a constrained liquidity environment banks are likely to favor existing, established clients when allocating loans as opposed to newer, riskier SMEs. Although a temporary solution was provided by NBE by reducing the reserve and liquidity requirements on commercial banks, lowering the reserve requirement down from 10 to 5 percent and the liquidity requirement from 25 to 20 percent, the liquidity problem of the private banks appears to still be an issue.

Government financial programs such as partial credit guarantee schemes and the provision of dedicated credit lines associated with technical assistance can encourage financial institutions to lend more to SMEs. The Government of Ethiopia is committed to supporting MSMEs in line with GTP objectives. According to the revised MSE Strategy (2011) the Government has developed comprehensive and practical policy interventions to facilitate the development of micro and small enterprises. The strategy aims to address challenges that impede growth of micro and

[33] Nine out of the 12 financial institutions interviewed for the financial sector survey did not have a dedicated SME department.

small enterprises including skills development, technology transfer, and access to finance. Several of these initiatives are already ongoing. For instance, GoE is providing training in entrepreneurship, skills development, and business management through more than 300 TVET centers in the country. Other initiatives include a machine-leasing program intended to address collateral problems along with partial guarantee schemes.

Operational Constraints

Countries whose policies are more conducive to foreign investors stand a better chance of attracting FDI. In Africa, some studies have argued that market size and access to natural resources are the major economic determinants attracting FDI; however other policies and institutional factors are especially critical for non-resource rich countries (Morisset 2000; and Asiedu 2002). It is argued that African countries can also be successful in attracting FDI that is not based on natural resources or aimed at the local market, but rather at regional and global markets, by improving the investment climate. Evidence suggests that FDI is encouraged by trade openness, the good quality of infrastructure, and an efficient legal system in the host country (Asiedu 2003). Using manufacturing and services firm-level data for 30 SSA countries between 2000 and 2006, Tidiane Kinda (2014) concluded that infrastructure, human capital, and institutions are major drivers for the location of foreign firms in SSA, while taxation is not.

The varied investment climate in Ethiopia has resulted in heterogeneous productivity of the private sector depending on firm characteristics. The investment climate tends to favor established and large firms, particularly FDI, and does not foster productivity growth for domestic SMEs including new comers. The intensity of business operational constraints and entry barriers vary depending on whether firms are FDI or domestic SMEs. While access to finance, land, reliability of electricity, and taxation are the top ranking constraints highlighted by SMEs, poor trade logistics and skills constraints are key factors that affect the competitiveness of larger firms that include export-oriented firms and/or FDI.

Operational-level constraints affecting SMEs

Availability of land has been cited as one of the top constraints for enterprise development and expansion especially for firms in Addis Ababa, where there is an unmet gap in the supply of land vis-à-vis demand. Over 75 percent of firms consulted for the National Business Agenda considered access to land and associated issues as a highly or very highly severe problem for doing business in Ethiopia.[34] Investors can access land only through lease arrangements with the Government or through secondary leases. Lease rights can be acquired either through a competitive tender process or through direct assignment of rights to investments. The management of urban land is overseen by municipal administrations, including for Addis Ababa. A wide range of government interventions influences the operation of land markets, from policies aiming at modifying the spatial distribution of economic activity (for example, industrial location) to those promoting specific sectors of activities. Moreover, these interventions can affect the land market directly through zoning laws or indirectly through policies that affect capital market. Ambiguous property rights sometimes add to the problem and hamper the functioning of land markets.

Reported land acquisition delays are very long; investors complain of waiting for years and a minimum of six to twelve months. This does not take into consideration the time it takes the city administration to prepare a particular area for lease. Once land is acquired, the biggest obstacle reported is infrastructure, particularly in outlying expansion areas. These include electricity, telecommunication, and access roads. To mitigate the access to land constraint highlighted by investors, the Government has rolled out an Industrial Parks (IPs) development program

[34] Ethiopia National Business Agenda 2014.

that includes setting up IP sites in and around Addis Ababa, along with multiple regional cities.

Infrastructure is one of the most critical factors affecting firms' productivity in the long term and electricity stands out as one of the top bottlenecks highlighted by firms. The GoE has accordingly made massive investments in power plants to meet the tremendous growth in demand. In 2010, the Ethiopia Electric Power Company (EEPCO) commissioned three large hydro power plants and presently has sufficient capacity to service the demand.[35] However, reliability of electricity remains a critical issue. Firms in Ethiopia experience frequent outages compared to other countries (Figure 2.6.1). Moreover, these electrical outages seem to last longer than in its comparator countries (7.8 hours in Ethiopia compared to 3.8 in Kenya, 6.0 in Tanzania, 3.3 in Vietnam and 0.5 in China according to the Enterprise Survey Unit).

The poor reliability record of Electricity can be attributed to poor maintenance and a lack of upgrades of transmission and distribution grids. Ethiopia has the lowest electricity tariff vis-à-vis its comparator countries.[36] This low pricing undermines the capacity of the national electricity company to finance network maintenance and upgrades of transmission and distribution grids. Strengthening of the grid network is an essential part of EEPCO's strategy. A major focus of sector strategy is upgrading the network by reinforcing existing (and adding new) transmission and distribution lines to provide energy access to high energy-consuming industrial areas as well as for promoting electricity exports.[37] The success of this strategy will be instrumental in reducing the additional costs that are being borne by the private sector—and thereby profitability—due to poor reliability and quality of electricity supply.

Tax administration is costly and time consuming. On average, firms make 30 payments per year and spend 306 hours per year filing, preparing, and paying taxes; total taxes paid amount to 31.8 percent of profit, which is more than benchmark countries (Figure 2.6.2 and 2.6.3).[38] Estimated average time requirements for the VAT alone are 12 payments per year and over 24 hours spent. In addition, the threshold for a "type A" tax payer is only $25,000, such that semi-illiterate business owners are required to comply with very complex tax filing requirements.[39] Another challenge relating to tax administration is the difficulty in accessing the tax appeals tribunal due to lengthy processes and high costs.[40] As a precondition to having recourse to the Tax Appeal Commission, businesses are required to deposit in cash 50 percent of the disputed amount with interest.[41] This leads to substantial cash flow constraints on businesses (during a lengthy process) and act as a strong disincentive to proceed with the appeal. The MSME tax regime is a rather complex schedule of margins (64 different sectors) that risks defeating the objective of providing a simple and efficient tool for micro taxpayers. Compliance rates for small businesses are dismal. Severe penalties—imprisonment in most cases—are imposed if firms do not pay the correct taxes. As a result, firms are paying wrongful amounts and they are rarely reimbursed because of the weaknesses of the Tax Appeal Commission.

Operational constraints for FDI/Large export oriented firms

According to the Logistics Performance Index (LPI), Ethiopia ranks 104th out of 160 economies

[35] EEPCO commissioned Tekeze (300 MW), Gibe II (420 MW) and Beles (460 MW) power plants that increased its power generation capacity from about 850 MW to above 2000 MW. In FY2011, EEPCO's peak demand was around 1,100 MW, which was well within its capacity.

[36] On average, the electricity costs in Ethiopia are $0.023 per kWh while it costs $0.068 in Kenya, $0.083 in Tanzania, $0.118 in China, $0.180 in South Africa, and $0.240 in Djibouti.

[37] The Electricity Network Reinforcement and Expansion Project (US$200 million), financed by International Development Association (IDA), consists of two sub-components: (i) grid upgrade and (ii) grid extension in order to improve the overall service delivery of the Ethiopian electricity network, starting with a few cities in Ethiopia, such as Dire Dawa, Nazret and Jimma (in Oromia).

[38] Doing Business Report 2015

[39] Currently taxpayers in Ethiopia are segmented into three categories. "Type A" taxpayers (with annual turnover of 500,000 birr or more) are under the general regime of taxation. In theory, "B" taxpayers therefore have almost the same reporting requirements as "A," the main difference being mandatory VAT registration at the threshold of ETB 500,000. Category "C" taxpayers have no obligation to keep records, but these are seen as advisable in dispute situation during the turnover assessment.

[40] Ethiopia National Business Agenda (2014)

[41] Article 43 of the Value Added Tax Proclamation 285/2002.

surveyed.[42] It lags behind peers like Kenya (74th) and Rwanda (80th) but is ahead of Zambia (123rd) and Tanzania (138th). On specific components of LPI, Ethiopia performs better than its average rank (and score) in, logistics competence, and timeliness. Overall, it fares poorly on infrastructure and international shipments. Ethiopia has undertaken multiple steps for improving logistics infrastructure. It undertook a major organizational merger of three agencies involved in trade logistics, shipping lines, maritime services, and dry ports. At the same time, investments to improve trade logistics in the medium term are ongoing. These include: several new public investments in roads; a rehabilitated rail link between Addis Ababa and the rapidly modernizing container port of Djibouti[43]; the expansion of the dry port in Modjo; and expanded coverage of the multi-modal transport system.

Large firms also cite customs and trade-related regulations as one of the top constraints that drive costs up. It takes up to 44 days to comply with all procedures needed to export or to import at a cost of US$2,380 and US$2,960 respectively per container (World Bank, 2015b; Figure 2.6.4). These procedures and documents involve different agencies, which require the manager to go in person to all those agencies. As a matter of fact, there is no legal framework in place to recognize documents exchanged electronically in relation to e-commerce, e-signatures and e-payments. All documents for information exchange both between the private sector and government actors and between government actors themselves have to be provided to the authorities using a hard copy. Also, it is reported by private sector that there is lack of staff with sufficient experience in custom procedures, and those who officiate have limited mandate for decision making (World Bank, 2014a).

Modernization efforts are underway as the Ethiopian Revenue and Custom Authority (ERCA) plans to upgrade its customs processing system and implement an electronic Single Window.[44] Once the coordinated reforms in customs and shipping-related agencies are fully completed, it is expected that trading will be simplified and costs and dwell time reduced. The recently approved Customs Proclamation provides the legal basis for the development of a modern customs administration with more focus on facilitation than control. Noteworthy key reforms introduced in the proclamation include: the introduction of the use of simplified customs procedures for authorized traders; pre-arrival clearance of goods; and use of risk assessment and post-clearance audit.

Entry Barriers

Business entry regulations and processes are consistently highlighted by the private sector as burdensome and obstructive of firm entry and dynamism. This is reinforced by the *Starting a Business* indicator that ranks Ethiopia 168th out of 189 economies vis-à-vis global comparators (Doing Business Report, 2015). This is therefore an area of concern for Government, because a growing body of empirical research shows that simpler processes of business start-up are associated with higher levels of entrepreneurship and higher productivity.

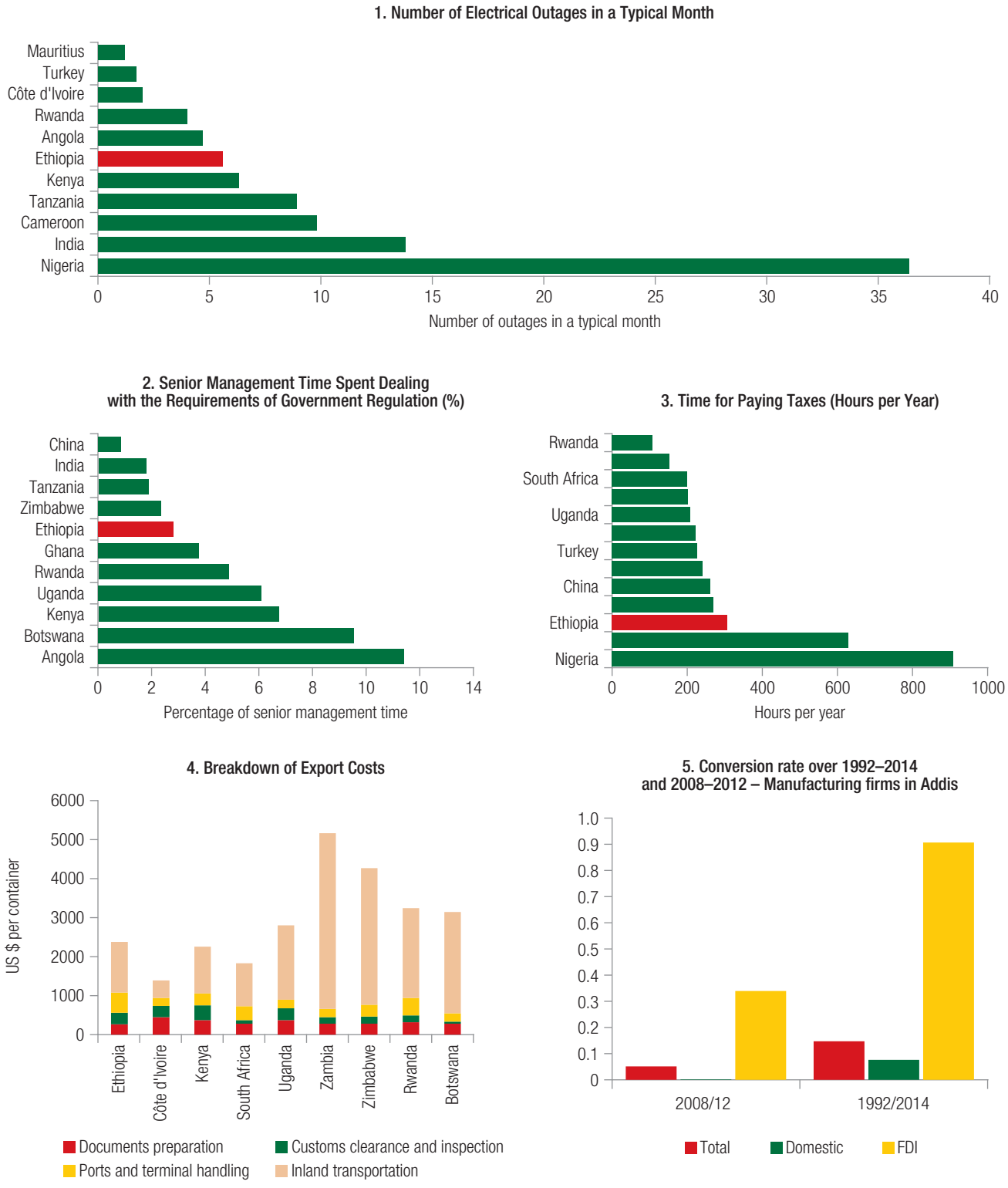
New businesses face complex and bureaucratic entry procedures that have led to an escalation in time and cost for enterprises setting up business. To obtain the registration and licenses, firms have to meet multiple requirements, pay numerous fees, and interact with several agencies. Licensing of businesses in Ethiopia is governed by the Commercial Registration and Business Licensing Proclamation (CRBLP No.

[42] The LPI comprises six indicators on customs, infrastructure, international shipments, logistics quality and competence, tracking/tracing and timeliness, as assessed by international freight forwarders.

[43] Modernization of the Djibouti port is important, but similarly importance needs also be placed on ways to reduce the very high port handling charges, which are very high and hurt the competitiveness of manufacturing industries exporting through the port.

[44] The electronic Single Window is an electronic facility that will allow all traders involved in the import/export/transit business to discharge all their regulatory obligations with relevant government agencies electronically in a simplified paperless environment.

FIGURE 2.6: Business Environment Constraints Identified by Firms



Sources: (1) and (2) based on Enterprise Surveys. (3) and (4) based on World Bank (2015b). (5) based on Ethiopia Investment Agency.
Notes: (1) Power outages as reported by firms per month.

686/2010).[45] Engaging in any commercial activity without registration and obtaining the appropriate license is prohibited. A business will have to comply with about nine steps to obtain a license (IFC 2014).[46] There are 35 different competence-certifying agencies, which clearly could benefit from rationalization. In addition, all business licenses and many of the competency certificates have annual renewals. Some of the bureaucratic processes are centrally managed such as the trade name registration, thus creating an extra burden for domestic businesses located in the regions.[47]

Ethiopia has a de facto preference for foreign investors over domestic ones, which needs to be carefully balanced to ensure a level playing field. The nature and extent of business entry challenges differ between FDI and SMEs and where the firm is established. Entry constraints related to business licensing and registration processes are more severe for domestic firms than FDI. While FDI firms are supported by the former Ethiopian Investment Agency (newly reconstituted as the new Ethiopian Investment Commission, EIC), domestic investors have to deal with local investment offices with a lower capacity than the EIC. As part of the One Stop Shop (OSS) service, FDI firms are offered commercial registration, competency certification, business licensing, and issuance of construction permits, among other important services at the EIA. Equally significantly, the EIC is expected to provide services following up on critical steps on behalf of the investors related to access to land, loans, access to utilities, residence permit requests, and approval of environmental impact assessments. In addition, FDI firms enjoy a preferential access to land—in some cases, free or subsidized land. This discrimination is particularly observable in Addis Ababa where land is scarce.

Cumulatively more FDI firms succeed in moving from the investment stage to operational phase than domestic firms.[48] From 2008–2012, the cumulative data for all domestic, foreign and public firms trying to enter the Ethiopian market is not encouraging as just 5 percent of firms are moving from pre-implementation to operations (Ethiopia Investment Agency). The picture changes significantly when only FDI "conversion" from pre-implementation to operations phase is examined: nearly one in three "intended" FDI becomes operational[49] (Figure 2.5.4). While FDI has a better "conversion" rate over domestic investors, there is still room for substantial improvement. Currently 2 out of 3 potential FDI firms do not reach the operational state. Even though an OSS service is operational its effectiveness record is mixed. Bureaucratic hurdles continue to affect project implementation along with entry obligations remaining burdensome and time-consuming for investors. Further research is needed to identify those factors that facilitate the conversion of successful FDI in Ethiopia.

[45] The Commercial Registration and Business Licensing Proclamation No.686/2010 (the CRBLP), and the Commercial Code as amended by piecemeal legislation of various kind, promulgated at different times, provide the general legal framework to govern registration and licensing of businesses. The licensing regime provided for by the CRBLP applies to all business activities except in a limited number of sectors that are regulated by specific laws.

[46] IFC, Inventory of Business Licenses (April 2014.)

[47] It is worth noting that there is a positive development towards the decentralization of trade name registration in Ethiopia. Through the support of IFC/WBG, the Ministry of Trade is rolling out the Online Trade Registration and Licensing System to the regions that would, among other things, enable them to register trade names in their respective regions.

[48] According to the Ethiopia Investment Agency (EIA), an enterprise entering the Ethiopian market goes through three phases in setting up a business, classified as follows: pre-implementation, implementation and operation. At the pre-implementation phase, firms declare their intention to invest in the region and claim an allotment of land; at the implementation firms effectively receive the land and start construction and installation of machinery; and at the operation phase firms are allowed to start operations. Each phase requires compliance with multiple steps in terms of processes, time, and cost.

[49] A similar, albeit slightly lower, estimate has been reported by another study by Sutton. (EIA, A New Direction LSE, August 2012). Of the total number of licensed firms, only about 23 percent of firms become operational, pointing to entry-level constraints for new investors.

The Role of Industrial Parks and FDI for Manufacturing Growth

The Government, in its effort to accelerate manufacturing growth, is implementing an ambitious IP program. In adopting this approach, it is emulating the path of the East Asian countries that have successfully used IPs as a platform to attract foreign direct investment (FDI), especially in manufacturing. While FDI has the potential to generate employment, and earn much needed foreign exchange through exports among other benefits, it also requires a suitable investment climate to bring about sustainable structural transformation. When fully functional such parks can help alleviate the binding constraints related to land access, infrastructure, and logistic and customs processes. At the same time, learning from the global IP experience, the performance for IPs is greatly dependent on how well they are designed, implemented, and integrated into the local economy. Despite the concept of enclaves, in practice, the success of IPs is entwined with the national economy, and the capacity of the Government. The importance of promoting linkages and spillovers with domestic firms, and the role of services in developing value chains is key. Thus addressing the investment constraints faced by firms outside the Industrial Parks need to remain on the front burner, as is the strengthening of IP institutions.

Rationale for Industrial Parks (IPs)

The Government of Ethiopia (GoE) has embarked on an IP development program,[50] partly in recognition that systematic investment-climate reforms in multiple areas take time to address and are politically challenging to implement. The IPs in Ethiopia aim to address the market failures related to land access, infrastructure, and logistics costs, as well as the high costs of doing business. The IPs can potentially be an effective instrument that offers investors the chance to operate in an improved investment climate vis-à-vis the national investment climate while giving the Government time and a natural experiment for testing policy and regulatory reform to support industrialization, as evidenced from countries in East Asia and Latin America regions. In general, the successful IPs lead to two main types of benefits: "static" economic benefits such as employment generation, export growth, government revenues, and foreign exchange earnings; and the "dynamic" economic benefits such as skills upgrading, technology transfer and innovation, economic diversification, productivity enhancement of local firms (Zeng 2010). The results globally are mixed with some countries successful such as China, Singapore, Malaysia, South Korea, Jordan, Mauritius, etc., and others struggling, in particular those in Sub-Sahara Africa (SSA).

The IP strategy in Ethiopia hinges on attracting FDI in the export-led and labor-intensive manufacturing sector.[51] The Government is emulating the path of the East Asian countries that have successfully managed to use industrial parks as a platform to catalyze investments— FDI and domestic—in creating jobs, generating exports, and foreign exchange. Focusing on the manufacturing sector, Ethiopia is prioritizing FDI in specific sectors: textile and apparel, leather and leather products, agro-processing, and pharmaceuticals and chemicals.[52] The imperative is to build on the country's agricultural foundations by moving toward new tradable activities in manufacturing that absorb large numbers of young and semi-skilled workers.[53] Ethiopia's potential in the light manufacturing sector is significant, but faces binding constraints related to access to land, infrastructure, trade logistics, and customs regulations as well as skills gap (World Bank, 2012).

FDI inflows into Ethiopia have finally picked up in 2013, driven by manufacturing FDI, and

[50] Industrial Parks are defined as geographically delimited areas that are administered by a single body, and aim to overcome investment barriers at the national level by offering services, infrastructure, and incentives for businesses that locate and operate within the site. The term "Industrial Park" is used generically to describe different forms of zones (including Industrial Zones, Special Economic Zones, Free Trade Zones, and Export Processing Zones) that vary in size and scope and operate under different incentive regimes.

[51] Labor-intensive manufacturing sector is also referred as light manufacturing.

[52] This capitalizes on the country's endowment and comparative advantage through a special focus on high-potential sectors that have been identified by the GoE, namely textile and apparel, leather, sugar, cement, metal and engineering, chemical, pharmaceutical, and agro processing.

[53] Overall, 2–2.5 million young people are entering the labor market every year. While unemployment for the youth was only 4.1 percent for men, and 11.2 percent for women in 2005 (World Bank 2012c); this number may increase if young labor entrants are not able to find employment opportunities.

reached more than 2 percent of GDP for the first time since 2008. The country attracted 1.2 billion dollars in 2014 with the manufacturing sector being the largest recipient of FDI. For the first time Ethiopia is now among the top 5 landlocked countries in terms of FDI inflows (UNCTAD, 2015). It is not clear how much FDI is flowing into the IPs. Overall, FDI projects are on the increase again since 2011 (Figures 2.7.1 and 2.7.2). The manufacturing sector has the highest number of FDI projects under implementation. Manufacturing accounts for 41 percent of new FDI projects under implementation and 70 percent of FDI capital investments. Looking at investment inflow, Turkey is the largest source of FDI (accumulated), followed by China and Saudi Arabia. FDI in leather manufacturing and textile production indicate areas where Ethiopia seems to have a comparative advantage. To this end, it seems, Ethiopia is successful in leveraging its access to the European and U.S. markets through the Everything But Arms (EBA) and Africa Growth and Opportunities Act, respectively, which provide preferential trade access to Ethiopian goods in these markets.

Ethiopia could probably attract more FDI by addressing investment climate constraints and improving its IP program. Experience from Latin America and East Asian suggest that the failure or success of zone development is linked to its policy and incentives framework and the way the zones are located, developed, and managed. Several policy issues related to the sub optimal zone performance include: uncompetitive fiscal incentives, restrictive controls on zone activity, and cumbersome regulations. The use of generous incentives packages to offset other disadvantages such as poor location and inadequate facilities is ineffective in terms of overall zone performance. Moreover some incentives such as tax holidays impose significant costs to the public budget.

Ethiopia's Experience with IPs so Far

Ethiopia initiated its IP program in a phased, yet ad hoc manner, resulting in mixed results and delayed implementation. The GTP envisions the establishment of five industrial parks in the country: Bole Lemi and Kilinto IPs in Addis Ababa, and one each in Hawassa, Dire Dawa and Kombolcha. To date, only the first phase of Bole Lemi has been developed and is partially functioning.[54] Bole Lemi Phase I consists of twenty (20) factory sheds that are leased to 12 manufacturing firms to produce and export leather and apparel goods. The IP is still not completed and is thus functioning partially. In addition a number of private industrial zones have been sanctioned with the Eastern Industrial Zone (EIZ)[55] in operation.[56] Both the Bole Lemi I and EIZ IPs have faced a number of challenges in the planning design phases that led to delayed implementation and mixed performance. So called, "Plug and Play Industrial Zones" could provide ideas to better operationalize parks in Ethiopia as they make it easy to SMEs to come to the zones and work in partnerships with the larger firms (see Box 1).

The inexistence of IP-related policies and management experience led to multiple challenges in planning and implementing of the EIZ and Bole Lemi 1 industrial parks. A range of issues have held back the performance of the program, including (World Bank, 2011b; and World Bank, 2013b): lack of an effective and functioning policy, regulatory and institutional framework; weak strategic planning and demand-driven approach; poor on-and-off site infrastructure planning; lack of specific on-and-off-site costing, performance agreements, and economic and financial

[54] To date, five factory sheds have been completed in Bole Lemi I, and the remaining 15 sheds are to be completed in the next few months. It is entirely government financed and managed and has attracted FDI in the leather, shoe, garments, and textile industries.

[55] This was established through a Memorandum of Understanding (MoU) between the GoE and the Chinese consortium investment. Set up in 2009, it is operated by a Chinese enterprise that is also the major investor and developer of the EIZ. It is located in Dukem along the highway linking Addis Ababa and the port of Djibouti. EIZ has signed the lease agreements with a total of 20 firms with actual investments of over US$460 million, and nine firms have started production. The firms cover several sectors, including construction materials, steel products, textile, leather processing, food, chemical products, and automobile assembly. Thus far, only 25 percent of the tenant firms have exported their products overseas.

[56] Other private investment parks are also under development in the Addis and Oromia region. This includes the Huajian IP and the Turkish zone.

FIGURE 2.7: FDI inflows

Source: World Bank staff own calculations, based on data from Ethiopia Investment Agency (EIA).

analysis; absence of institutional capacity to oversee IP development; inefficient procedures and controls, including customs administration; lack of systematic investment promotion to attract committed anchor investors; and deficiencies in designing and implementing a linkages program, a communications and outreach strategy, and establishing and tracking performance indicators. These factors, combined with a poor business environment and weak eco-system related to skills and technology, have not led to the envisaged outcomes.

Ethiopia is keen to learn from global IP experience. As a latecomer to IP development, Ethiopia has the opportunity to avoid missteps of the many failed IPs, particularly in Africa (World Bank, 2011b; and World Bank, 2013b). The failure of these zones is attributable to a number of factors, which Ethiopia's zones can and should avoid. They include: (i) lack of a compelling business case for companies to invest in; (ii) establishment of zones, often for political reasons, in remote areas that lack access to transport infrastructure, utilities, markets, and labor; (iii) failure to mitigate investment environment constraints that prevail in the wider national economy; (iv) minimal private sector involvement in the development and operation of zones; (v) zone authorities acting as regulator,

BOX 1: China's secret weapon in light manufacturing: Small and Medium Enterprise-oriented "Plug and Play" industrial zones

The success of Chinese manufacturing growth in recent decades is indisputable and has irrevocably shifted the global landscape for manufacturing competitiveness. In contrast, manufacturing in other regions has failed to deliver broad-based growth and poverty reduction on anything close to the scale as has been observed in East Asia. Although the importance of China's coastal special economic zones has been well-recognized and documented (e.g. as platforms for attracting export driven FDI and testing grounds for key reforms), China's experience with smaller industrial zones mostly catering to domestic SMEs is less well known—and yet these have also played a critical role in China's astonishing industrial development over the last twenty years.

One spectacular example of China's success and the role played by zones is the Weihai Zipper Company in Zhejiang. Starting from virtually nothing, over a span of two decades, it now exports $15 million worth of zippers to about 60 countries. It currently employs 3,000 workers with an estimated daily output of 4 million zippers. This company is part of a zipper industrial cluster which counts more than 500 companies (China has more than 75 percent of the world's market share in zipper, with the industry employing more than a million workers). Weihai Zipper Company decided to move to an industrial zone because the government offered a great package of cheap and abundant land and a predictable supply of utilities, especially water and energy. The manufacturer said that moving to the industrial zone enabled the scale up of the company by providing more space for plant expansion and for workers' dorms in the park.

China has more than 1,000 industrial zones following a central government policy encouraging the development of such zones. Most cities and counties have followed the models set by the large zones developed by the central and provincial governments. The local governments are motivated to develop industrial zones to get tax revenues and revenues from selling land, as well as nice records of administrative performance. Of course, not all Chinese industrial zones have been successful; the better ones were built on existing or potential industrial strengths, in other words, local comparative advantages. These industrial zones played a critical role in facilitating the growth of Chinese SMEs from family operations catering to the local market to global powerhouses. These zones not only provided Chinese SMEs with good basic infrastructure (e.g. roads, energy, water and sewage), security, streamlined government regulations (e.g. government service centers) and affordable industrial land, they also provided technical training, low cost standardized factory shells allowing Chinese entrepreneurs to "Plug and Play" as well as Chinese workers with free and decent housing accommodations right next to the plants. Hence they played a very critical role in helping Chinese small enterprises to grow into mid-size and large enterprises, avoiding the "Missing Middle" problems that other countries face.

These industrial "Plug and Play" zones considerably reduced the start-up investment costs and risks for SMEs at a phase in their development where they are still too risky for bank loans. They also facilitated the development of industrial clusters allowing tremendous economies of scale and scope for Chinese industries (the emergence of clusters was further facilitated by the Chinese government's support for the development of input and output markets). In a nutshell, the Chinese government facilitated SME development through the efficient provision of public goods and market information about sellers and providers but not subsidies. For example, firms pay market prices for the use of utilities. Most importantly, competition between firms is intense. The government does not bail out failing firms. It should also be noted that most of these zones did not preselect particular light industries, letting market forces drive the organic development of specialized clusters.

A large proportion of China's 350 million migrant workers from the Western Provinces live inside these zones in free housing located right next to the plants. These free accommodations provide decent housing at very low economic costs to the country (they are built using large scale productive techniques). The companies also provide very cheap food through cost effective means to the zones. Not having to spend much on food plus free housing and no need for transportation means that a worker in China can save up to 80% of her salary. In other developing regions, most of the wage is gone by the time the worker pays for his housing (often in slums), food and transportation. This, combined with the fact that a worker can increase her salary by 50 percent through extra hours and productivity bonuses, goes a long way in explaining why Chinese workers are so motivated and productive while costing relatively little (it also explains a big part of the more than 40 percent of GDP saving rate in China)—these workers can earn and save in a few years enough money to change their and families' lives.

By contrast, Vietnam did not develop such SME-oriented zones, relying exclusively on FDI linked industrial zones to develop manufacturing exports and has successfully done so. However, there are limited linkages between such zones and the vast majority of small, informal SMEs which focus on the domestic market and remain small. Export growth in Vietnam does not bring about as much value addition as found in China (20 percent vs 33 percent in China from manufacturing value added) as the large firms also suffer from not being plugged into local clusters and value chains—they import most of their inputs. The Chinese system of SME-oriented "Plug and Play" industrial zones is thus one of the most important and least well publicized factors behind China's extraordinary competitiveness in light manufacturing industry.

Source: Palmade et al. (2010).

developer, and manager for the zones; and (vi) inappropriate legislative, regulatory, and institutional frameworks for zone governance and management (even when zones are 100 percent government-owned, a successful zone authority should operate with a high level of autonomy and lack of political interference). Unlike successful zone programs in other parts of the world, most zones in SSA thus far show low levels of investment and exports. Their job creation impact and integration with the local economies have also been limited. In addition, these zones have not facilitated industrial upgrading, or acted as a catalyst of wider economic reforms, raising serious questions about the fundamental competitiveness and utility of these zone programs.

The Government has shown a strong commitment in putting in place the appropriate policies and institutional structures necessary to ensure good performance of IP development and operations.[57] Key recent developments to address the current weaknesses in the investment regulatory framework include: (i) the approval of the Industrial Parks Proclamation by the Parliament on March 30, 2015; (ii) setting up a regulatory body at the newly constituted Ethiopian Investment Board that will oversee the administration and supervision of industrial development zones, and thereby separate the regulatory function of IP regime from the development and operational aspects of IP Management; (iii) establishing the Industrial Park Development Corporation (IPDC) for the purpose of, among other things, developing and administering industrial zones, technology and food parks, and management of a land Bank; and (iv) strengthening the EIC for the purpose of investment promotion, export promotion, implementation of regulation for industrial zones, OSS, aftercare services, and policy analysis/market intelligence, primarily for FDI. Actions are also underway to develop a systematic approach to encourage private sector participation in the IP development program in Ethiopia. The focus of private sector participation is expected to cover the gamut of activities from development, operations and management, service provision, sub-contracting, construction and ownership of buildings, infrastructure, and investment in IPs.

Lessons Learned for IP's in Ethiopia: Design and Implementation

Design

Site assessment is only the initial step in the development of the IP locations. The site assessment should be followed by a feasibility study for each site to determine a business case that includes; i) if the site can support an IP; ii) what the industry sectors are for each IP location; iii) the short-, medium-, and long-term projected demand for the selected sites; iv) the development of a comprehensive master plan and associated phasing plans for all locations in accordance with demand; v) identification of on- and off-site infrastructure requirements;[58] vi) environmental and social impacts; vii) the economic benefits to the cities and regions in each location; viii) if the projects are financially viable and sustainable in the long-term; and finally ix) integration with existing urban plans.

IPs should be rolled out in a strategic and phased fashion in the country. All potential locations should be ranked and prioritized for development based on the site selection criteria. This is to ensure that IPs do not compete with each other and that there is sufficient demand to fill all proposed IP sites. Experience suggests that it is better to make one or two IPS work before starting new initiatives. Lessons learned from international experience shows that this is even more important in countries that have a small private sector, underdeveloped national transport infrastructure, and unreliable infrastructure and utilities**.**

[57] The World Bank is supporting the Government through a "Competitiveness and Job Creation Project" in developing an effective framework implemented by strong institutional capacity for a successful and effective development approach.

[58] When there is a clear PPP, this could be different, where the government could assess pre-feasibility and go into a transaction process and the private sector would in turn develop their vision, feasibility, and planning.

In Ethiopia, the strengthening of IP institutions and capacity building of staff is crucial and an urgent priority. It is imperative that urgent and concerted efforts be made to develop the capacity of the IPDC and regulatory function at the EIC. While the IPDC is still in the process of developing its business strategy and business case, it is critical to adopt a service oriented and corporate (financial viability) approach to the development function. Because IPs are new to Ethiopia, staff responsible for marketing and promoting zones will require state-of-the art training. In addition, at present, there are no salary incentives to allow the IP institution to hire promising, energetic staff. In the future this will limit the quality of the hired staff.

Currently, in Ethiopia, master planning and infrastructure is not utilizing best practices. It is important that all zones in Ethiopia be master planned to attract the greatest number of investors to the country. This means providing a combination of serviced land and pre-built facilities with reliable infrastructure and social services on site. For IPs to succeed location matters in terms of being near major cities and linked to the international market. Successful IPs also have good access to major infrastructure, such as ports, airports, and railways.

Viable IPs in Ethiopia should be run as commercially sustainable ventures. IPs must be developed and operated as commercially sustainable ventures. When zones are subsidized by governments, then the country is not seen as an attractive investment location to private developers because it creates an uneven playing field for the private developer, who is not in business to subsidize investors. Hence this limits the potential of private zone development in the country. To be a successful zone location, it is necessary to have a mix of private developers, PPPs, and public zones in a country, because over time it is not viable for all zones to be developed by the government.

Efforts are needed to ensure strong links between the IPs and the domestic economy are being established. One of the key strengths of the IPs is that they have a high concentration of very skilled people, including many R&D personnel. As a result, they have become centers of knowledge and technology generation, adaptation, diffusion, and innovation. The abundance of FDI provides a good opportunity for technology learning. Governments also put strong emphasis on technology learning and innovation, as well as technology-intensive industries. In addition, the IPs are closely linked to domestic enterprises and industrial clusters through supply chains or value chains. This connection not only helps achieve economies of scale and business efficiency, but also stimulates synergistic learning and enhances industrial competitiveness (Zeng 2010).

Implementation

Proper quality and reliable infrastructure is required in the IP. Key infrastructure should be prioritized along with the construction of the land and factory sheds. It is important that key infrastructure such as wastewater treatment plants, power, and water be developed along with serviced land and pre-built factory sheds so that investors can start operations the moment they take over their leases. This has not been the case in Bole Lemi I. Power is not consistent and as such, factories are experiencing power surges, brownouts and blackouts. Water has also been a concern for investors; when the first investors took possession of their factory sheds, water was erratic. The water treatment system should be up and running in the IP before investors moves into their factory premises. This is an environmental issue that is a requirement for many international investors. It is imperative that basic infrastructure is working properly when investors move into the zone.

"Investor aftercare" for current tenants is instrumental for future success. Investors have indicated the advantages of establishing in Ethiopia, but also expressed concern about Customs procedures, power quality, and visa/work permit procedures, among others. Customs procedures and power outages topped the list of concerns. Word of mouth has

a powerful effect when satisfied investors talk to those considering Ethiopia. A full staff of zone representatives should be working on a daily basis in Bole Lemi I site to manage day-to-day activities in the zone, provide aftercare to investors and to promote the zone to future investors.

Focus on environmental and social sustainability. The GoE should focus on effective management and monitoring of environmental and social impacts. There is an opportunity to make the IPs areas of excellence in social and environmental practices through application of low-carbon and green policies. This is all the more important for export-oriented industries since buyers are becoming more and more focused on the ability to certify their value chains. It may be noted that China's growth model based on low technology and labor- and resource-intensive manufacturing have faced criticism; many SEZs face serious environmental and resource challenges.

Short Summary and Recommendations for Manufacturing Development

Structural transformation through manufacturing development is one of the key goals of the Government of Ethiopia. The Government is currently preparing the GTP II five-year program (2015/16–2020/21), and a ten years perspective plan (Vision 2025). With these instruments, the country is making a concerted effort towards structural transformation where manufacturing is expected to play a prominent role in the economy. Ethiopia's goal is to become a manufacturing powerhouse—with a focus on light manufacturing for employment generation.

Growth in the industrial sector is essential for sustained long-term growth and jobs creation. The structural economic transformation that entails the reallocation of workers from the relatively low productive agriculture and informal sectors to more productive and formal economic activities in manufacturing, industry, and related services is essential for growth and jobs creation. Experience from the rapid growth of Asian countries supports the view that sustained economic growth requires growth in industry and, in particular, growth in the manufacturing sector.

Productivity gains are a key factor in determining long-term economic growth and improvement in living standards. Empirical evidence, globally, reveals that about half of long-term growth is driven by increases in productivity rather than just factor accumulation. In order to improve the productivity of firms in the manufacturing sector it will be instrumental to improve the overall business climate starting with the key binding constraints for both large and MSMEs. For large firms or FDI, the inadequate supply of skills and poor trade logistics are some of the key constraints to growth. For SMEs, access to finance, access to land, electricity, and a cumbersome tax administration constitute key constraints in the business environment.

While FDI has the potential to generate employment and earn much-needed foreign exchange through exports among other benefits, foreign direct investors need to be attracted by a thriving investment climate. FDI is also instrumental for advancing the Government's agenda to facilitate IPs. In both FDI attraction and IP development, lessons from other countries show that they are most successful with appropriate linkages to the domestic economy, and particularly with strong linkages to domestic SMEs.

Based on the preceding analysis, this Economic Update offers seven recommendations, which could contribute to the development of the manufacturing sector in Ethiopia. The recommended actions focus on the key operational constraints and entry barriers both for FDI companies and SMEs.

***First*, focus on skills development, which is vital for increasing firm productivity.** This can be done utilizing two channels: First, through technical assistance that focuses on developing managerial, technical and vocational skills for subsectors in manufacturing in which Ethiopia has a comparative advantage; and second, by addressing the mismatch of private sector needs to the graduates of Technical and Vocational Education and Training (TVET). In addition, a strengthened mechanism to integrate the private sector through industry associations in the development of TVET curriculum and industry operational standards would be instrumental.

Through clearly communicating the option within the TVET system to count as a continuation of higher education, the public perception towards TVET could be improved and with it the efficacy. Finland serves as a good example of a government effectively upgrading the public image of TVET through improvements to the quality of education provided, and the publication of the benefits associated with a TVET education. Singapore also offers the example of a well implemented model for shifting the image of TVET from being perceived as a dead-end stream to an education track that effectively aligns graduates with high labor market demand, and as a means to transition to higher education (World Bank, 2014b describes those examples in more detail).

From the perspective of skills development within firms, enterprises with similar technologies and sufficient proximity could pool resources to invest in production lines solely for training purposes. These production lines would not need to be utilized by TVET trainees exclusively, but could benefit all employees and the firm as a whole. In practice, the pooling of resources is difficult if firms, or colleges, are competing against each other. A possible approach could be to complement the current Industrial Parks initiatives with incentives to encourage joint cooperative training. An example of a promising joint training model is evident in the experience of the Korean training consortium for SMEs (Almeida et al. 2012 provide a good account of these experiences).

***Second*, implement measures to improve access to finance for firms especially "the missing middle"—small and medium sized enterprises—the majority of which are fully credit constrained.** Four areas are particularly important in this area: (1) Banks and MFIs report facing weak liquidity positions due to credit limits for SMEs and micro enterprise loans, not being able to go beyond 5 percent of their capital for microfinances institutions and 20 percent for banks. The legal and regulatory framework affecting the liquidity positions of commercial banks and MFIs to lend more to SMEs needs urgent review. (2) Financial institutions do not have a uniform definition of MSME. Having a common MSME definition at the national level would ease the design of loans, investments, grants, and statistical research. (3) Creating a collateral registry would help to reduce the high costs of collateral that firms have to provide. (4) Capacity-building programs for financial institutions to develop an "SME culture" that adopts business models suitable to the needs of the SMEs could make a big difference.

***Third*, address binding constraints relating to access to land and access to electricity.** A more attractive investment climate could bring about more and better domestic and international investment to increase economic activity through productivity enhancements. An expedited land approval and allocation process would encourage more investors to establish shop in Ethiopia. In addition, reliability of electricity is an important bottleneck that stands out as the top third constraint usually highlighted by firms in Addis Ababa. Continued emphasis on power distribution and transmission will have to be equally important as ongoing large-scale power generation projects.

***Fourth*, improve tax administration and advance the simplification of the MSME tax system.** Managers in manufacturing firms spend a significant amount of time dealing with tax administration and a quarter of firms report tax administration as a major problem faced in their day-to-day operations. Simplified tax filing requirements would allow higher compliance by semi-illiterate business owners. In addition, the tax appeal system needs to be reviewed. Over 60 percent of businesses consider the existing tax appeals process to be lengthy and costly.

In particular, the current MSME tax regime is overly complicated. For instance, there is excessive compliance burden on 'type C' taxpayers due to the assessment of tax liability using daily sales estimates. In order to reduce the burden of tax administration the micro business taxation regime could be based on the principle of self-assessment. Likewise, there is no real simplified tax regime for small businesses in place. This has resulted in a low level of voluntary compliance with the regime, as businesses are reluctant to migrate from 'type C' into the 'type B' classification. A simplified tax regime for non-incorporated small businesses should be introduced. One way to do this could be by applying lump sum cost deduction ratios instead of requiring the calculation of net business profit.

***Fifth, improve* trade logistics, customs procedures and trade regulations that mainly impacts large (exporting firms) and FDI.** As recommended in a previous Ethiopia Economic Update (World Bank, 2014), improving selectivity of inspections to reduce cost, transit time, and corruption, and providing warehouses with better technology are possible ways to improve trade logistics. The recently launched National Trade Logistics Strategy provides a strong foundation on which GoE could mobilize resources

and coordinate interventions to remove binding bottlenecks in trade facilitation. The implementation of the new Customs Proclamation (December 2014) which puts emphasis on facilitating rather than controlling trade will usher in much needed reforms such as the introduction of use of simplified customs procedures for authorized traders; pre-arrival clearance of goods, and use of risk assessment and post-clearance audit.

***Sixth*, simplify business entry regulations and processes to facilitate entry and exit of firms, which is a key requirement for a dynamic and thriving business sector.** Ethiopia's record in entry barriers is among the least facilitating countries for entry of companies (Starting a Business Indicator in Doing Business: Ethiopia ranks 168th out 189 economies). Simplifying the most onerous elements of entry requirements, which relate to securing registration, professional competency certificate, and a business license could make a big difference. There is also a need to rationalize the responsibilities of the various agencies responsible in the various stages of registration.

***Seventh*, adopt a strategic and phased approach for implementing the Industrial Parks program in line with international experience.** This would ensure that there is sufficient demand for existing IPs. There is need to phase implementation based on the business case for each IP to ensure that there is sustained demand. Experience from Asia and Latin America suggest that it is better to make one or two industrial parks succeed before starting other initiatives.

ANNEXES

ANNEX 1: Ethiopian Selected Economic Indicators High Frequency

	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15
Inflation (Year-on-Year): %	8.7	8.5	6.9	7.2	5.8	5.4	5.9	7.1	7.6	8.2	8.5	9.3	9.5
Food	6.3	6.4	5.7	5.2	3.8	2.9	4.8	6.5	7.1	9.6	10.1	10.8	10.1
Non-Food	11.5	11.0	8.2	9.4	8.1	8.3	7.1	7.9	8.3	6.8	6.9	7.6	8.7
Inflation in AA (Year-on-Year):%	8.8	9.0	9.0	7.3	4.7	5.9	5.7	6.4	7.5	7.1	7.7	9.0	9.1
Traded Goods	8.8	9.6	9.7	7.5	7.9	6.3	5.8	6.4	6.3	3.7			
Non-Traded	8.6	8.6	8.7	7.1	3.9	5.7	5.5	6.4	7.8	8.0			
Monetary Growth (Year-on-Year):%													
M2	25.1	26.5	26.9	27.8	28.4	29.4	30.2						
Domestic credit	28.0	28.4	27.0	27.0	29.8	30.4	31.3						
Net Foreigh Assets	-2.8	0.9	-0.9	1.4	1.9	5.9	-0.3						
Reserve Money*	14.9	18.7	21.7	20.8	21.0	22.1	20.8						
Gross reserves (Mill. $)	2786.1	2462.9	2778.8	2791.6	2644.6	2527.7	2815.3						
In months of import	1.9	1.7	1.7	1.7	1.6	1.6	1.7						
Exchange rate													
Exchange rate (Birr/$), pa	19.4	19.5	19.6	19.7	19.8	19.9	20.0	20.1	20.1	20.2	20.3	20.4	20.4
Real Effective Exchange Rate index	128.5	129.7	129.8	131.9	133.8	136.2	139.4	143.0	148.1	152.0	156.2	157.0	
Annual growth, %	2.9	3.7	1.7	3.7	4.5	6.9	8.6	12.4	15.8	18.5	21.8	22.5	
Black market premium (%)	4.6	5.2	5.5	7.0	8.0	6.6	11.5	14.5	13.2	13.2	13.2	12.5	12.0
Trade Deficit, goods, billion US$													
Trade Deficit, goods, billion US$	-0.9	-0.9	-1.1	-0.9	-1.0	-1.2	-1.1	-1.5	-1.1	-1.0	-1.2	-1.2	
Export, (billion US$)	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	
Import, (billion US$)	1.2	1.2	1.3	1.1	1.3	1.4	1.3	1.7	1.3	1.2	1.4	1.4	
International Prices													
Crude oil, average ($/bbl)	105.7	108.4	105.2	100.1	95.9	86.1	77.0	60.7	47.1	54.8	52.8	57.5	62.5
Coffee, arabica (/kg)	4.7	4.4	4.3	4.7	4.6	5.0	4.6	4.3	4.2	3.9	3.5	3.6	3.5
Gold ($/troy oz)	1288.7	1279.1	1310.6	1295.1	1236.6	1222.5	1175.3	1200.6	1250.8	1227.1	1178.6	1198.9	1198.6
World Growth (quarterly: y-o-y) %		Q2			Q3			Q4			Q1		
China		7.5			7.3			7.3			7.0		
Euro area		0.8			0.8			0.9			1.0		
US		2.6			2.7			2.4			2.9		
OECD-Total		1.9			1.8			1.8			1.9		

Sources: CSA; NBE, Customs, WB, OCED-National Accounts.

ANNEX 2: Ethiopia: Selected Economic and Social Indicators (Annual Frequency)

Fiscal year ending July 7	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Income and Economic Growth										
GDP growth at factor cost (annual %)	12.6	11.5	11.8	11.2	10.0	10.6	11.4	8.7	9.8	10.3
GDP per capita growth (annual %)	8.7	7.8	8.5	7.9	6.0	9.6	8.3	5.9	7.7	...
GDP per capita, PPP (current international $)	657	730	813	894	955	1,059	1,171	1,262	1,380	...
Atlas GNI per capita, US$	160	180	220	280	340	380	390	420	470	...
Private Consumption, nominal (annual %)	33.8	25.9	26.9	51.8	35.7	15.3	28.6	45.1	15.7	16.2
Gross Fixed Investment (% of GDP)	30.6	32.2	28.2	28.5	29.5	31.6	32.1	37.1	35.8	40.3
Money and Prices										
Inflation, consumer prices (annual %, end of year)	13.0	11.6	15.1	55.3	2.7	7.3	38.1	20.8	7.4	8.5
Inflation, consumer prices (annual %, period average)	6.8	12.3	15.8	25.3	38.7	3.0	17.9	34.7	13.9	8.1
Treasury bill rate (91-days maturity, annual average)	0.1	0.0	0.8	0.6	0.9	0.9	1.3	1.9	2.2	1.2
Nominal Exchange Rate (End of period)	8.7	8.7	9.0	9.6	11.3	13.5	16.9	17.8	18.6	19.6
Real Exchange Rate Index (1990=100)	84.7	83.2	76.8	66.9	61.5	53.3	39.2	40.2	38.2	...
Fiscal										
Revenue (% of GDP)	14.8	15.0	12.8	12.1	12.1	14.0	13.4	13.8	14.3	14.0
Expenditure (% of GDP)	23.5	22.5	20.9	19.1	17.4	18.8	18.2	16.6	17.8	17.7
Current (% of GDP)	12.6	11.7	10.1	9.3	8.2	8.4	7.9	6.9	7.3	17.7
Capital (% of GDP)	10.8	10.8	10.8	9.8	9.2	10.4	10.3	9.8	10.6	10.3
Fiscal balance including grant (% of GDP)	(4.4)	(3.9)	(3.1)	(2.9)	(0.9)	(1.6)	(1.6)	(1.2)	(1.9)	(2.6)
Fiscal balance excluding grant (% of GDP)	(8.7)	(7.5)	(8.1)	(7.0)	(5.3)	(4.9)	(4.8)	(2.9)	(3.5)	(3.8)
Primary fiscal balance including grants (% of GDP)[a]	(3.5)	(3.1)	(2.4)	(2.5)	(0.6)	(1.2)	(1.2)	(0.9)	(1.6)	(2.2)
Total public debt (% of GDP)	78.9	66.8	43.9	38.5	35.5	39.4	37.8	32.7	37.4	44.7
External public debt (% of GDP)	48.9	37.3	11.8	10.4	14.8	18.3	22.2	17.9	20.5	22.6
External Accounts										
Export growth (%, yoy)	41.1	18.1	18.7	23.1	(1.0)	38.3	37.1	14.8	(2.3)	5.6
Import growth (%, yoy)	40.4	26.4	11.6	32.8	13.4	7.7	(0.2)	34.0	3.7	19.7
Merchandise exports (current US$ billions)	0.8	1.0	1.2	1.5	1.4	2.0	2.7	3.2	3.1	3.3
of which coffee exports (current US$ billions)	0.3	0.4	0.4	0.5	0.4	0.5	0.8	0.8	0.7	0.7

(continued on next page)

ANNEX 2: Ethiopia: Selected Economic and Social Indicators (Annual Frequency) *(continued)*

Fiscal year ending July 7	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Merchandise imports (current US$ billions)	3.6	4.6	5.1	6.8	7.7	8.3	8.3	11.1	11.5	13.7
Services, net (current US$ billion)	0.3	0.1	0.2	0.1	0.4	0.5	0.8	0.2	0.6	0.7
Private transfers, net (BoP, current US$ billions)	1.0	1.2	1.7	2.4	2.7	2.7	2.7	3.2	3.9	4.0
Current account balance before grant (BoP, current US$ billions)	(1.5)	(2.3)	(2.1)	(2.8)	(3.2)	(3.1)	(2.1)	(4.6)	(4.0)	(5.9)
Current account balance after grant (BoP, current US$ billions)	(0.7)	(1.4)	(0.9)	(1.5)	(1.6)	(1.2)	(0.2)	(2.8)	(2.5)	(4.7)
Foreign Direct Investment (current US$ bilions)	0.2	0.4	0.5	0.8	0.9	1.0	1.2	1.1	1.2	1.5
External debt, total (Current US$, billion)	6.0	5.7	2.3	2.8	4.4	5.6	7.8	8.9	11.1	13.9
External debt, total (% of GDP)	48.9	37.3	11.8	10.4	14.8	18.3	22.2	17.9	20.5	22.6
Multilateral debt (% of total external debt)	82.7	81.1	51.6	55.7	46.7	48.6	46.0	45.4	45.0	42.1
Debt service ratio (% of goods and NFS)	8.9	8.0	7.3	2.9	2.3	2.7	4.5	6.9	9.3	10.3
Population, Employment and Poverty										
Population, total (millions), UN	76.2	78.3	80.4	82.6	84.8	87.1	89.4	91.7	94.1	96.5
Unemployment Rate (urban)		17.0			20.4	18.9	18.0	17.5	16.5	17.4
Poverty headcount ratio at national poverty line (% of population)	38.7						29.6			
Poverty headcount ratio at $1.25 a day (PPP) (% of population)	39.0						30.7			
Poverty headcount ratio at $2 a day (PPP) (% of population)	77.6						66.0			
Inequality – Income Gini	29.8						29.8			
Population Growh (annual %)	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6
Life Expectancy	56.6	57.6	58.7	59.7	60.6	61.5	62.3	63.0		
Others:										
GDP (current LCU, billions)	105.3	130.2	170.1	245.6	331.8	378.8	505.6	738.6	852.7	1047.4
Nominal GDP (current US$, billions)	12.2	15.0	19.3	26.6	31.8	29.4	31.4	42.8	46.8	53.6
Doing Business (rank)[a]		101.0	97.0	102.0	116.0	107.0	104.0	111.0	124.0	129.0
Logistics performance index (1=low to 5=high)			2.3					2.4	2.2	2.6
Human Development index ranking[b]	170.0	170.0	169.0	169.0	171.0	157.0	174.0	172.0	173.0	173.0

[a] This indicator is ranked out of 175 countries in 2007, 178 in 2008, 181 in 2009, 183 in 2010, and 2011, 185 in 2012, and 189 in 2013 and 2014.
[b] The HDI ranking in 2001 is in relation to 175 countries; from 2005 to 2008, to 177; in 2009, to 181; in 2010, to 169 countries; and, from 2011-2014 to 187 countries.

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