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Ethiopia Economic Update II

Laying the Foundation for Achieving Middle Income Status






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LIST OF ABBREVIATIONS

AfDB	African Development Bank
AGOA	African Growth Opportunity Act
ASYCUDA++	Automated System for Customs Data
BOP	Balance of Payments
CAD	Current Account Deficit
CBE	Commercial Bank of Ethiopia
COMESA	Common Markets for Eastern and Southern Africa
CSP	Country Strategy Paper
DFID	Department of International Development (UK)
DRC	Democratic Republic of Congo
EAC	East African Community
EDRI	Ethiopian Development Research Institute
EEPRI	Ethiopian Economic Policy Research Institute
EMAA	Ethiopian Maritime Affairs Authority
EPA	Economic Partnership Agreement
ERCA	Ethiopian Revenue and Custom Authority
ESLSE	Ethiopian Shipping and Logistics Enterprise
eSW	Electronic Single Window
FDI	Foreign Direct Investment
FTA	Free Trade Area
GDP	Gross Domestic Product
GDS	Gross Domestic Savings
GNI	Gross National Income
GNS	Gross National Savings
GoE	Government of Ethiopia
GSP	Generalized System of Preferences
ICBT	Informal Cross-Border Trade
ICT	Information and Communications Technology
IFC	International Finance Corporation
IMF	International Monetary Fund
LPI	Logistics Performance Index
MDRI	Multilateral Debt Initiative
MOFED	Ministry of Finance and Economic Development
MoT	Ministry of Transport
MTS	Multimodal Transport System
NBE	National Bank of Ethiopia
NEPAD	New Partnership for Africa's Development
NIT	Net Income Transfers (sum of net income from abroad and current transfers)
ODA	Overseas Development Assistance
PRS	Private sector saving
SOE	State Owned Enterprise
SSA	Sub-Saharan Africa
ToT	Terms of Trade
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
UNIFM	United Nations Development Fund for Women
WCO	World Customs Organization
WEO	World Economic Outlook
WTO	World Trade Organization

EXECUTIVE SUMMARY

Over the past decade, Ethiopia has achieved high economic growth, averaging 10.7 percent per year. In 2012, Ethiopia was the 12th fastest growing economy in the World. If the country can continue its historically impressive growth performance, it could potentially reach middle income status by 2025. This, in turn, may require an adjustment in economic policy to phase in the private sector as an additional engine of growth. Moreover, Ethiopia needs to make progress on two related important fronts: enhancing domestic savings and resolving the bottlenecks of the trade logistics system. This 2nd Ethiopia Economic Update, prepared in collaboration with the Government of Ethiopia, offers policy guidance on how to move forward.[1]

Chapter 1 discusses Ethiopia's growth strategy, which emphasizes a strong expansion of public investment. This model has delivered impressive results, although the underlying macro-policy mix highlights important challenges going forward, suggesting that an adjustment to strategy may be warranted. One policy challenge relates to raising sufficient domestic savings to finance one of the highest public investment rates in the world, as discussed in Chapter 2. Another challenge relates to strengthening the competitiveness of the economy, to boost the lagging export performance and attract foreign direct investment. Ethiopia's trade logistics system is a key constraint in this regard, as highlighted in Chapter 3. The key messages of each of the three chapters are summarized as follows:

Recent Economic Developments

The Ethiopian economy continues to perform well, although important structural challenges may need to be addressed to sustain this performance.

The Short View. Economic growth is driven by services and agriculture on the supply side and by public investment on the demand side. Inflation has been brought down to single digits, as a result of tighter monetary policy and a drop in imported inflation. Financial intermediation and monetization are declining, however, with important negative implications for private sector development and savings. The general government fiscal performance was prudent in the first half of 2012/13, although the consolidated public sector fiscal stance was expansionary as a result of State Owned Enterprise investment activities. The external current account balance is widening as import growth, driven by public capital imports, is outpacing sluggish export growth. This is, to some extent, explained by real currency appreciation.

The Long View. Projections indicate that Ethiopia could potentially reach middle-income status by 2025 if the historical growth momentum can be sustained. This, in turn, may require a change in economic strategy and the way in which growth is achieved. The current "big push" of public investment-led development has delivered very positive results. However, the development of a strong and vibrant private sector would eventually be needed to sustain high growth, as the experience of other high performing countries (including those in East Asia) demonstrates. A gradual phasing-in of the private sector in Ethiopia, therefore, offers improved prospects for achieving the country's middle income aspirations.

[1] The First Economic Update Report for Ethiopia was published in December 2012.

Savings

Increasing the domestic savings rate in Ethiopia is desirable, given the substantial investment proposals embedded in the Growth and Transformation Plan (GTP), and the limits and risks associated with external sources of financing. Ethiopia's savings rate is substantially lower than what would be expected for a low-income sub-Saharan Africa country. Moreover, the savings rate has declined during the last decade of very high economic growth. The empirical analysis of cross-country experiences presented in the chapter point to four key determinants of savings: real per capita GDP (level and growth rate), demography, the degree of monetization, and macroeconomic stability. In the case of Ethiopia, low and declining savings are mainly attributed to the negative real interest rate and demonetization. To increase the domestic savings rate, Ethiopian policy makers should focus on a combination of macroeconomic and financial sector measures: (1) facilitating a stable macroeconomic environment with positive real interest rates; (2) pursuing a strategy of monetization, while keeping inflation under control; (3) implementing policy measures to maximize the potential of remittances: (4) continuing the ongoing process of expanding bank branch networks, particularly in rural areas; (5) facilitating the capacity of micro finance institutions to access loanable funds; (6) integrating informal savings schemes into formal ones; (7) establishing mobile banking, drawing upon successful examples in neighboring countries, and; (8) improving financial literacy.

Trade Logistics

The efficient functioning of the trade logistics system in Ethiopia remains a major policy challenge. The analysis sheds light on a highly complex system with numerous actors, lack of clarity on regulations, and a plethora of interdependent factors. The implementation of the recent multi-modal transport system is a key challenge. While the Government has started important analysis and implemented some changes, much more is needed to improve the system in a coordinated fashion. As a first step, the Government is encouraged to complete the development of a National Trade Logistics Strategy, which is currently underway. Additional policy recommendations fall into three broad areas:

A. **Improve the structure and performance of the transport and logistics system:**
   - Strengthening the multimodal system by encouraging increased competition. Addressing the infrastructure challenges in roads, trucks, and railways.Developing multiple trade corridors.

B. **Improving customs, border controls, and other trade-related regulations:**
   - Reforming customs procedures with new technologies and Public Private Partnerships. Improving policy transparency, predictability and communication.

C. **Ensuring efficient logistics and distribution services**
   - Training ERCA staff to improve efficiency and professionalism.
   - Equipping warehouses with modern technology and build more terminals.Implementing sound risk-based control systems with optimal levels of inspections (including joint inspections).

The fiscal cost of implementing most of the trade logistics recommendations is either low or moderate, except spending on infrastructure and trade corridor developments, which would need to be weighed against other expenditure priorities.

1 RECENT ECONOMIC DEVELOPMENTS

The Short View

Real Sector

The Ethiopian economy continued to expand at a rapid pace in 2011/12, registering a growth rate of 8.5 percent. Agriculture, industry, and services grew by 4.9 percent, 13.6 percent, and 11.1 percent, respectively. However, given the relative size of each sector, expansion of the services and agricultural sectors explain most of this growth (57 and 26 percent, respectively), while the contribution of industry was relatively modest (16.7 percent).

The relative slowdown in economic activity compared to previous years is mainly explained by lower crop production. Agriculture, which accounts for close to half of output, experienced a markedly lower growth rate in 2011/12 of 4.9 percent, compared to 9.0 percent in 2010/11. This was explained by a decline in crop production growth from 10.3 to 5.0 percent.

A difficult external environment also took its toll on growth. Economic activity declined among trading partners, including the EU, China, and neighboring countries (Figure 1.1). International prices for coffee, Ethiopia's biggest traditional export crop, declined by about a third. Only gold prices remained high and stable in the first half of the fiscal year, though prices have dropped recently (Figure 1.2). As a result, the positive growth impulse from net exports in the two previous years converted into a drag on growth in 2011/12.

Ethiopia was the 12th fastest growing economy worldwide in 2012. In sub-Saharan Africa, only four other countries grew faster in 2012 (Sierra Leone, Niger, Cote d'Ivoire, and Liberia). Ethiopia managed to grow faster than African countries such as Rwanda, Mozambique, Zambia, and Ghana, as well as China and India (Figure 1.3).

The sources of growth in Ethiopia are, however, somewhat different from the rest of the region. While Sub-Saharan Africa is also experiencing solid growth (4.4 percent in 2012), its expansion is driven by favorable commodity prices, public and private investment, and robust private consumption. In Ethiopia, meanwhile, soaring public investment explains most of the 2011/12 growth (about two-thirds), with private consumption explaining about one-third (Figure 1.4).[2]

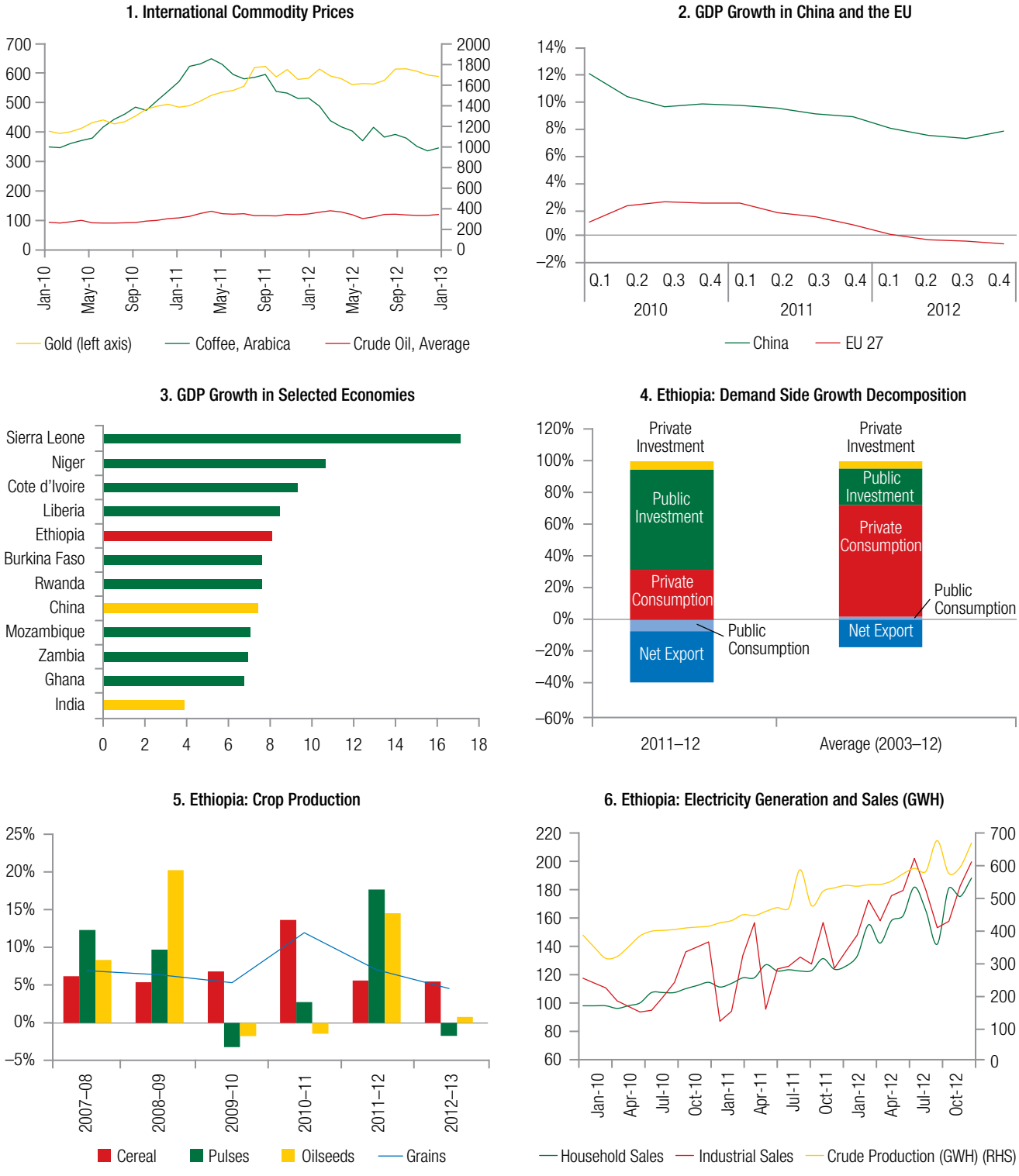
Leading economic activity indicators suggest slower growth for 2012/13. Crop production is forecast to grow by 4.8 percent in 2012/13, compared to 7.4 percent in 2011/12. Since crop production accounts for about a third of GDP:[3] this would potentially slow down the 2012/13 growth rate by about 0.75 percent compared to the previous year. Electricity generation, on the other hand, increased by 20 percent (y/y) in the first six months of 2012/13. Electricity sales to industries grew by 31 percent, suggesting solid manufacturing activity, though the sector is small in total output (Figures 1.5 and 1.6).

External sector data reveal a mixed picture regarding aggregate demand for 2012/13. Strong capital imports (+45 percent) during the first seven

[2] This chapter relies substantially on demand side analysis of the national accounts. Caution must be exercised in interpreting the results, owing to the relatively lower quality of such estimates, compared to supply side estimates. This phenomenon is typical for sub-Saharan Africa. The authorities are aware of these limitations, and are collaborating with development partners to improve the quality of national account statistics.

[3] The agricultural sector accounts for 48.7 percent of GDP. This includes: crop production (35.3 percent of GDP), animal farming and hunting (9.8 percent of GDP), and forestry (3.6 percent of GDP).

FIGURE 1: Economic Activity



Source: 1.1: World Bank (2013), 1.2: Staff calculations based on MOFED data. 1.3. EUROSTAT. 1.4: World Bank. 1.5: CSA. 1.6. EEPCO. Note: Demand side decomposition uses GDP deflator for individual items. *Note:* Figure 1.1 prices are quoted in dollars/barrel (oil), cents/kg (coffee, Arabica), and US$ per troy ounce (gold).

months of 2012/13 suggest that public investment continues to be the key growth engine. Private consumption imports, on the other hand, declined by 9 percent. Export growth was mute at 7 percent and a widening trade balance could suggest an additional drag on 2012/13 growth from net exports.

Monetary Sector

Inflation is on a declining trend and has finally returned to the single digit target. Since the peak of 40.7 percent (y/y) in August 2011, headline inflation dropped to 7.4 percent in March and 6.3 percent in May 2013—reaching a single digit level for the first time since October 2010. The continuous decline of headline inflation has largely been driven by the fast decline in food price inflation. Non-food price inflation, however, has also fallen noticeably by about five percentage points (Figure 2.1), which is an important break from past trends.

International factors contributed to reduced inflationary pressure. A decomposition of inflation into tradable and non-tradable goods reveals that internationally traded goods (imported and exported commodities) in Addis Ababa exhibit a much faster decline in inflation (Figure 2.2).[4] Edible oil, coffee beans, benzene, and chick peas are examples of tradable goods (Figure 2.3). Following the currency devaluations in 2009–10, tradable inflation was generally higher than non-tradable inflation. Since February 2012, however, this trend reversed, partly as the result of the slow pace of nominal currency depreciation.

Tighter monetary policy in 2011/12 contributed to the inflation decline, although the monetary stance has loosened in 2012/13. Ethiopia is targeting base money (or reserve money) as a nominal anchor for monetary policy to control inflation. Accordingly, broad money growth has been kept relatively low since the beginning of 2011/12. A temporary discontinuation of direct financing of the budget by the National Bank of Ethiopia (NBE) and sales of foreign exchange (to reduce domestic liquidity) were the means to achieve this. As a result, the growth in base money has decelerated since June 2011 and contracted by 4.4 percent in 2011/12. In the first half of 2012/13, however, base money growth increased by 17 percent. In addition, the Government has resumed borrowing from NBE in the current fiscal year.

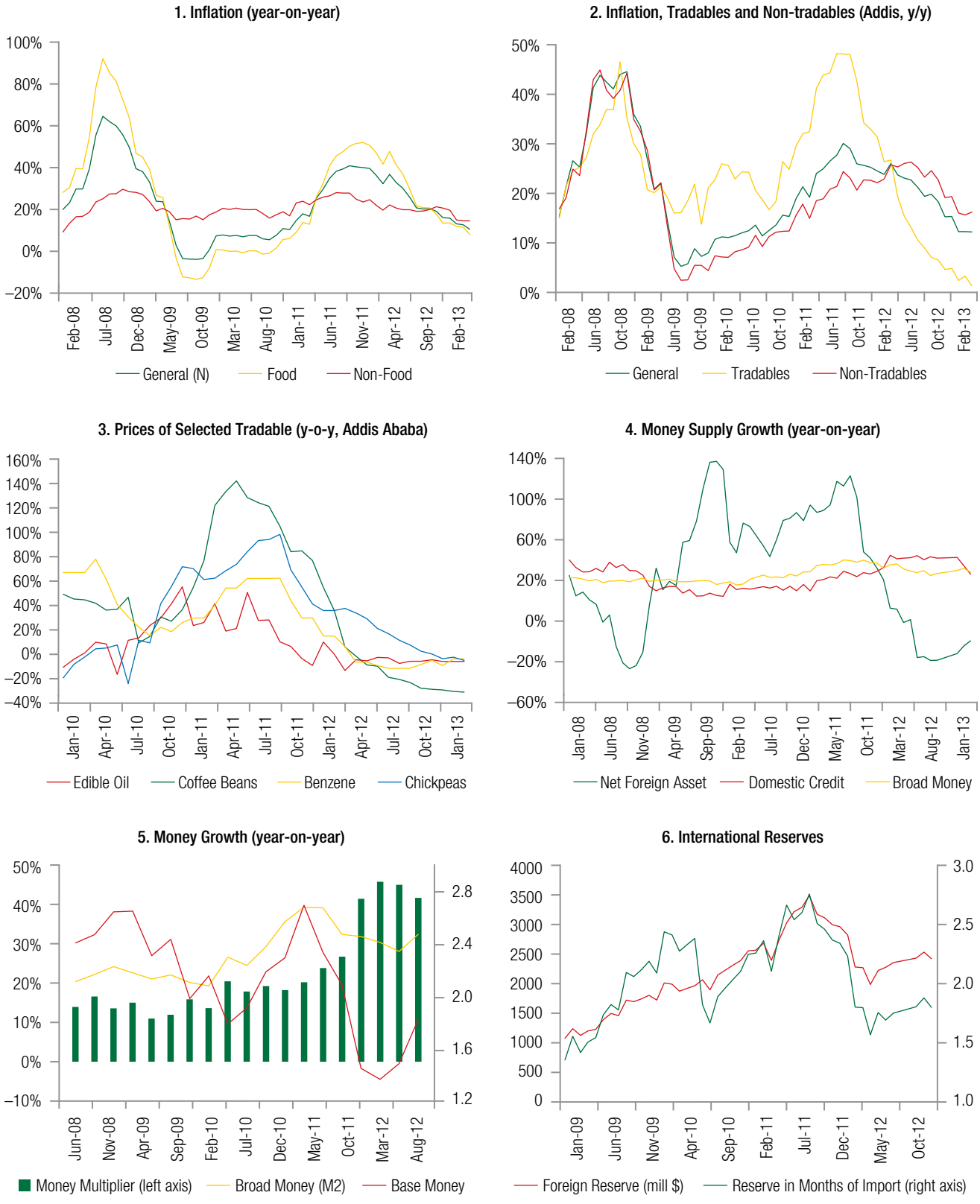
Changing bank reserve requirements can also potentially undermine the effect of the development of base money. Successful targeting of broad money (M2) through a base money nominal anchor depends on the steady relationship between base money and broad money. The NBE lowered the reserve requirement ratio in January 2012 from 15 percent to 10 percent, and in March 2013 lowered it further to 5 percent, shifting the relationship between the two. The lowering of the reserve requirement ratio in January 2012 increased the banks' capacity to extend credit and increased the money multiplier (broad money divided by base money), thereby weakening the tightening effect of the base money contraction in 2011/12 (Figure 2.5).

The recent reduction in the reserve requirement to 5 percent, in particular, may need to be accompanied by a change in the base money target to avoid potential unwarranted monetary stimulus. Given that banks are expected to deposit the additional money in interest bearing (3 percent) certificates of deposit, the measure is not expected to directly affect the liquidity position of commercial banks. However, the measure lowers the value of reserve money (the target of monetary policy) without changing the liquidity in the banking system. As a result, monetary stimulus could potentially be introduced if the base money target is kept unchanged, unless base money supply growth is kept below the target.

Despite low base money growth, the expansion of domestic credit kept broad money supply growth high. Broad money supply (M2) growth is declining slightly compared to 2011/12, although it remains

[4] Owing to considerable data processing requirements, this point is illustrated using data for Addis Ababa only. Historically, there has been a very high correlation between Addis Ababa and other cities on these variables.

FIGURE 2: Monetary Sector



Source: 2.1 CSA. 2.2: Own calculations based on CSA data. 2.3: World Bank. 2.4–2.6: NBE.

at high levels (29 percent in January 2013). This is relatively high compared to the money supply growth target of the Growth and Transformation Plan (GTP), and is consistent with the real GDP growth and annual inflation targets, which is less than 20 percent.[5] Broad money growth is driven by domestic credit growth (27 percent in January 2013). Meanwhile, net foreign assets declined by 15 percent over the same period, reflecting the deficit in the overall balance of payments.

In conclusion, while attainment of single digit inflation is a commendable achievement, there is a risk that this could become a short-lived experience. Monetary policy has loosened over the past six months, including: (a) stronger reserve money growth; (b) a return to direct central bank financing of budgetary outlays; and (c) the impact of changing reserve requirements on base money targeting. This, combined with an expansionary consolidated fiscal policy stance (discussed later), makes it challenging to maintain single digit inflation.

Going forward, the monetary authorities may also wish to rethink their current monetary policy strategy. The attainment of single digit level inflation (provided that it can be maintained) offers an opportunity to rethink the current monetary policy framework. The introduction of the monetary base as a nominal anchor was the right strategy at a critical moment in time, when inflation was a serious macroeconomic challenge. The strategy has also strengthened the central bank's reputation for being able to control inflation. The current tool kit, however, is essentially limited to foreign exchange market interventions. A new strategy could pursue a more indirect conduct of monetary policy operations, in line with experiences in modern central banks around the world. Open market operations based on an effective interbank market, as well as short-term credit facilities to balance commercial bank balances with the central bank, are effective instruments seen elsewhere, but are largely absent in Ethiopia.

The eventual introduction of an inflation-targeting regime is, in the long term, one possible option, but preparations need to be made now. In order to establish inflation expectations as a target of monetary policy in Ethiopia, the institutional framework for the public to form inflation expectations would need to be strengthened. The NBE would need to start publishing credible short- and medium-term inflation forecasts. In addition, other private and public institutions, as well as academia and think tanks, would have to play their role to publish independent views on the future inflation outlook. At the same time, the central bank could continue its analysis of monetary and credit developments, which then could be fed into the overall mechanisms to inform the public on the future outlook on inflation.

Financial Sector

Financial intermediation is relatively low in Ethiopia and it is on a declining trend. Financial intermediation is a driving force for economic development, but Ethiopia is falling behind its peers in this area (Figure 3.1). In 2011, credit to the private sector in Ethiopia was equivalent to about 14 percent of GDP, compared to the regional average of 23 percent of GDP. Moreover, while the worldwide trend has been an increase in private sector credit, Ethiopia has experienced a decline of about five percentage points since 2004. An expansion in credit to the private sector enables firms to invest in productive capacity, thereby laying the foundation for a sustainable growth path.

The macroeconomic environment has contributed to the declining depth of the financial sector. Historically high inflation resulted in steeply negative real interest rates. Low nominal deposit rates, which do not respond to inflation because of excess liquidity of commercial banks, erode the real value of deposits, discourage savings, and dampen demand

[5] This comparison is based on the quantity theory of money ($\Delta M=\pi target+\Delta Y-\Delta V$) which states that for a constant velocity of money ($\Delta V=0$), money supply growth (ΔM) at rates faster than real GDP growth (ΔY) plus expected inflation rate ($\pi target$) will induce inflation above the targeted inflation rate.

for broad money. Moreover, in April 2011 the monetary authorities issued a directive requiring private banks to purchase NBE bills equivalent to 27 percent of any new loan disbursements.[6] These bills have a low-interest earning of 3 percent and a maturity of 5 years. This directive, while not affecting the level of liquidity in the system, appears to have had an additional negative impact on private banks' intermediation activities. In particular, it has encouraged banks' purchases of Government bonds (T-bills and NBE bills), while reducing the growth rate of loans. Figure 3.2 compares the 15 month period before and after the introduction of the directive. It shows that the investment of private banks in Government bonds increased by 127 percentage points, while loans increased by 20 percentage points in comparison.

Government-owned banks dominate Ethiopia's banking system. This makes Ethiopia an exception within sub-Saharan Africa and across the developing world, where banking systems have much higher shares of private and foreign participation. As of December 2012, public banks represented over 70 percent of total banking sector assets and provided 77 percent of total loans to the economy, with the remaining 23 percent being divided among the 15 private banks. By comparing the 15 months before and after April 2011, the percentage of new loans from public banks to the private sector has been reduced by half, from 21 percent to 10 percent (Figure 3.3.)

Despite the overall disintermediation trend, the Ethiopian financial sector continues to have the potential to be a driver of growth. The banking sector remains stable, well capitalized, and continues to be highly profitable. Figure 3.4 shows that the Ethiopian banking sector ranks higher than the SSA average in terms of profitability, measured on the basis of Return on Equity (ROE). High profitability is also explained by limited competition. Although the total number of banks operating in Ethiopia has increased from 11 in 2006 to 18 in 2012, the bank assets concentration index (focusing on the three biggest banks) shows that Ethiopia's banking sector is much more concentrated than the SSA and Low Income Group averages (Figure 3.5). Finally, according to NBE, the non-performing loan ratio is at very low levels of 1.4 percent (Figure 3.6).

Fiscal Sector

The General Government fiscal balance registered a surplus of Birr 11.3 billion during the first half of 2012/13 as a result of revenue growth and spending restraint.[7] By comparison, a fiscal surplus of Birr 7 billion was registered during the same period of 2011/12. While caution should be exercised in interpreting fiscal results prior to the closure of the fiscal year, this performance suggests prudent fiscal management at the General Government level.

Total revenues and grants are growing at a slightly slower pace than output in real terms. Total revenues reached Birr 67.5 billion during the first six months of 2012/13, which represents a 23.5 percent increase in nominal terms, compared to the same period of the previous fiscal year. When discounting for consumer price inflation, real revenues increased by only 5.4 percent.

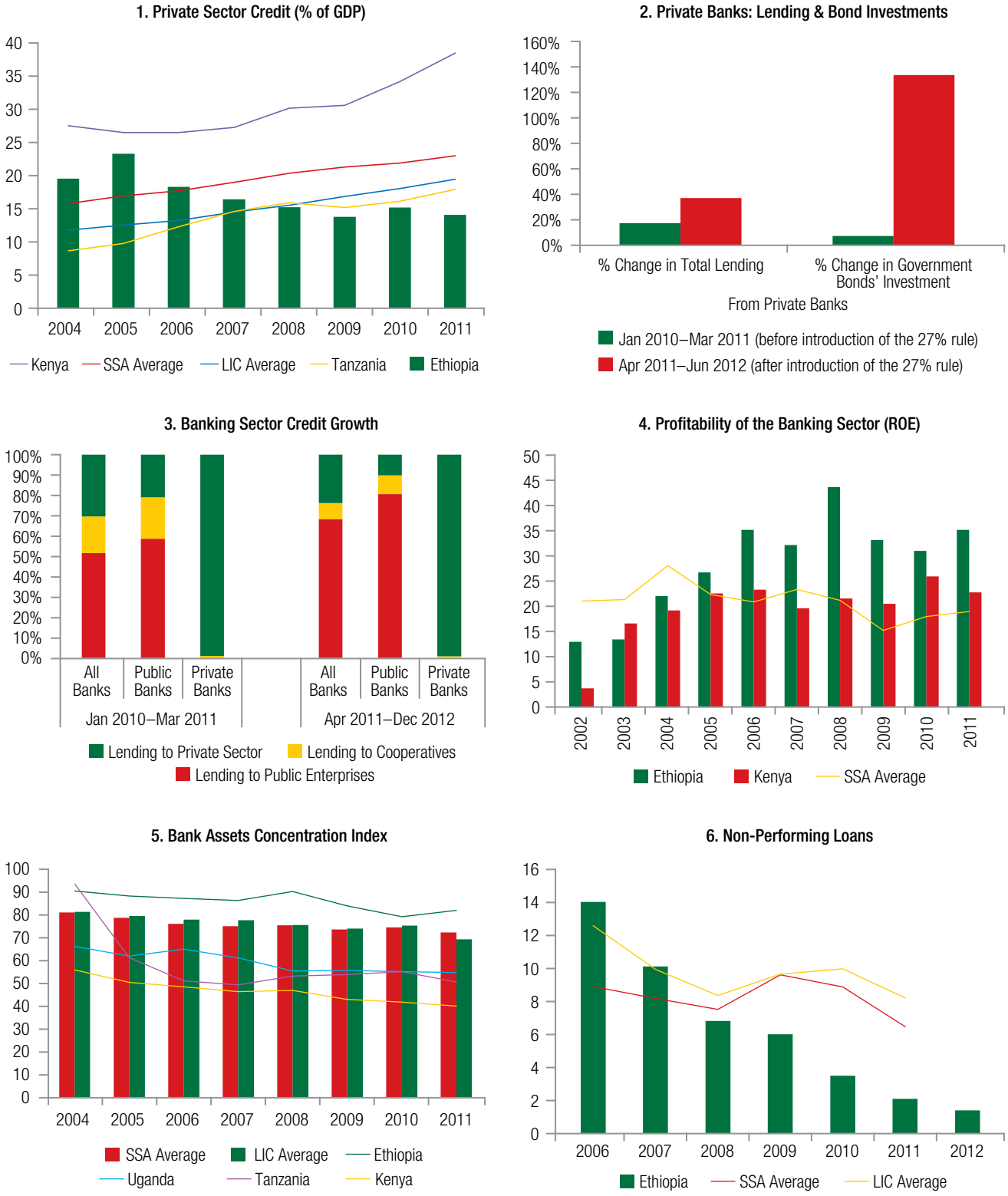
Increased government revenues are attributed mainly to higher tax collection. Tax revenues increased by 9.3 percent in the first half of 2012/13, as a result of solid performance in direct tax and domestic indirect tax collection, while revenues from foreign trade were unchanged in real terms. Non-tax revenues, on the other hand, declined by 15 percent in real terms.

General government exercised spending restraint as total expenditures increased by less than 1 percent in real terms. Total expenditures reached Birr 56.2 billion in the first half of FY12/13,

[6] This measure was introduced with the purpose of ensuring long term finance to the private sector. The proceeds of NBE bills are directed to the Development Bank of Ethiopia (DBE), which lends mainly to the private sector. Data constraints on DBE lending activities and loan term composition would have facilitated a more comprehensive analysis of whether the objective of the measure is being achieved.

[7] The results reported here refer to those of the General Government, which exclude State Owned Enterprises.

FIGURE 3: Financial Sector



Source: 3.1: World Bank (FinStats 2013) & NBE; 3.2 and 3.3: Own calculations based on monetary survey; 3.4 and 3.5: World Bank (FinStats 2013); 3.6: World Bank (FinStats 2013) & NBE.

which was 18 percent higher than in the same period of FY11/12 in nominal terms. Given high inflation, however, this represents a 0.8 percent increase in total spending in real terms. Capital expenditures increased by 2.6 percent in real terms, while recurrent expenditures declined marginally in real terms (Table 1 refers). Capital spending is expected to rise during the second half of FY12/13.

The federal government did not make use of direct central bank advances during the first half of the fiscal year. In July 2011, the central bank ceased providing new credits to the government for budget financing, as part of the Government's efforts to reduce inflation. It is therefore encouraging that the Government continued this good practice during the first semester of FY12/13. During the second half of FY12/13, however, the Central Bank has advanced Birr 2 billion out of a planned Birr 9 billion. Going forward, this practice should be limited as much as possible in order to maintain the commendable results achieved in taming inflation.

Despite Federal Government prudence, the consolidated public sector fiscal stance continues to be expansionary. A key challenge in analyzing the fiscal sector in Ethiopia is the lack of consolidated public sector fiscal data, which also includes the balance of State Owned Enterprises. In the absence of such numbers, the IMF and the World Bank, in the most recent Debt Sustainability Analysis (DSA, see Box 1) prepared estimates of the consolidated public sector fiscal balance. The results suggest a primary balance deficit averaging 5.4 percent of GDP in the period 2011 to 2013, compared to a central government primary balance of 2 percent of GDP over the same period. The difference reflects substantial investments by State Owned Enterprises as a part of the overall growth strategy of promoting public investment (as discussed in Section B). However, even this estimate may be on the low side when analyzed from the domestic and external financing side. Improved data availability on State Owned Enterprise activity would go a long way in strengthening the fiscal analysis.

External Sector

The trade deficit increased by 15 percent as import growth outpaced export growth.

TABLE 1: Federal Government Fiscal Performance

	FY11/12 1.Semester (Birr Million)	FY12/13 1.Semester (Birr Million)	Nominal Change (%)	Real Change (%)
Total revenues & grants	**54,659**	**67,497**	**23.5**	**5.4**
Tax revenues	42,102	53,930	28.1	9.3
Direct taxes	15,328	19,903	29.8	10.8
Domestic Indirect taxes	10,363	14,775	42.6	21.6
Foreign trade	16,411	19,253	17.3	0.1
Non-tax revenue	7,436	7,410	–0.3	–15.0
Grants	5,121	6157	20.2	2.6
Total expenditures	**47,611**	**56,243**	**18.1**	**0.8**
Recurrent	22,638	26,219	15.8	–1.2
Capital	24,973	30,024	20.2	2.6
Balance	**7,048**	**11,254**	**—**	**—**

Source: MOFED. Note: Average inflation was 17.2 percent between the two periods.

BOX 1: Debt Sustainability and the IDA Non-Concessional Borrowing Policy

Ethiopia's risk of external debt distress remains low, according to the most recent Joint IMF World Bank Debt Sustainability Analysis (DSA). In the latest DSA, published in October 2012, external debt burden indicators under the baseline and shock scenarios are projected to rise, but remain below the country-specific indicative thresholds. Under the baseline scenario, the present value of public and publically guaranteed external debt is projected to rise from 14 percent of GDP in in 2011/12 to a peak of 18 percent of GDP in 2016/17. Similarly, the present value of debt as a share of exports will peak at 107 percent in 2016/17. The debt service-to-exports ratio will peak at 9 percent in 2018/19 (see IMF Article IV Report for Ethiopia for more details).

According to the 2012 DSA, Ethiopia's overall public sector debt dynamics appear sustainable, although sensitive to several alternative scenarios. Public sector debt ratios are projected to rise over the medium term, suggesting that close monitoring of borrowing by public sector enterprises remains a necessity. The present value of the public debt to GDP ratio is projected to increase from 29 percent in 2012 to 35 percent in 2015. Alternative scenarios, including growth shocks or an unchanged fiscal balance, result in a rising debt trajectory.

As a recipient of MDRI (Multilateral Debt Relief Initiative) support, the Government of Ethiopia has committed itself to prudent fiscal and debt management to avoid a renewed excessive buildup of external public debt. An important instrument in this respect is the *IDA Non-Concessional Borrowing Policy*, which applies to MDRI recipients, including Ethiopia.

In April 2013, IDA authorized a US$1 billion ceiling for Ethiopia for FY13 and, in principle, a similar ceiling for FY14 and FY15. This implies that Ethiopia can borrow up to US$1 billion per year from other creditors, on non-concessional or commercial terms, as long as these loans are used to finance projects that are growth enhancing. According to the IDA Non-concessional Borrowing Policy, a loan counts at the point of signing the loan contract (irrespective of the disbursement profile). The decision was informed by the above-mentioned DSA analysis, which demonstrates that such a ceiling is consistent with the maintenance of low risk of external debt distress.

During the first seven months of 2012/13, goods exports increased by 7 percent while goods imports increased by 13 percent. Both items experienced slower growth compared to the previous year, where export growth reached 15 percent and import growth 33 percent.

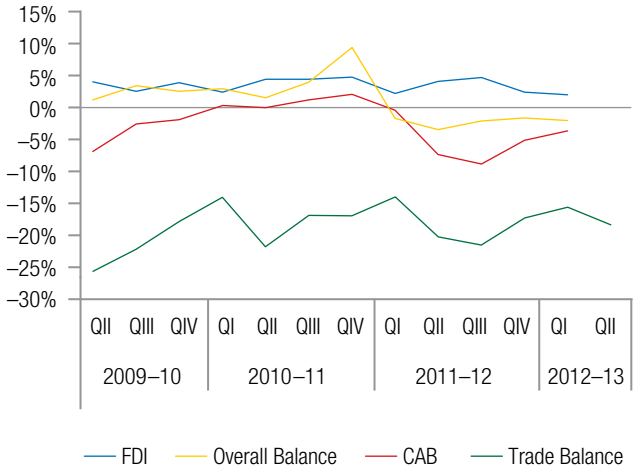
The deteriorating trade balance is partly explained by the appreciation of the real effective exchange rate. Although the Birr has nominally depreciated by 0.4 percent per month over the past two years, domestic inflation has exceeded foreign inflation by a wide margin. As a result, the real effective (i.e., trade weighted) exchange rate has appreciated by about 40 percent since September 2010. To illustrate, a monthly nominal depreciation of 1.7 percent would have been necessary to maintain the real effective exchange rate constant over the past two years. Real exchange rate appreciation encourages imports, as they become relatively cheaper, while discouraging exports, which become relatively more expensive (or yield lower local currency revenues, if export prices are quoted in dollars). The rising black market premium is indicative of currency misalignment (Figure 4.4).

A weak external environment also contributed to poor export performance. As previously mentioned, economic activity in key export markets is not conducive, as illustrated by low cut flower demand in the EU. Declining international prices were also detrimental.

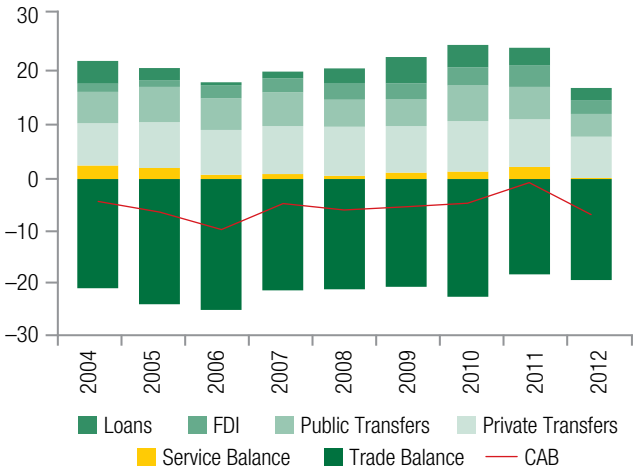
A widening trade balance adds to the structural current account deficit that Ethiopia is facing. Goods imports are about four times larger than goods exports, giving rise to a structural trade deficit. Although services exports are about the same size as goods exports, a similar amount of services imports imply that the services balance is relatively small. As a result, the trade balance is the major driver of the goods and services deficit. The latter, in turn, is financed through a combination of private transfers (remittances and NGO transfers), public transfers (official development assistance), FDI, and

FIGURE 4: External Sector

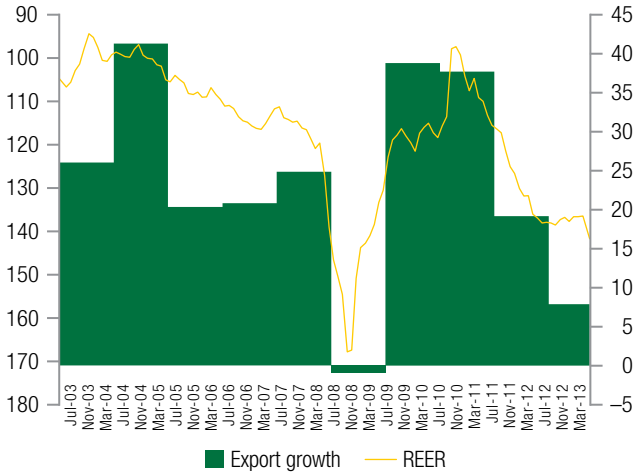
1. Quarterly Balance of Payments (Percent of GDP)



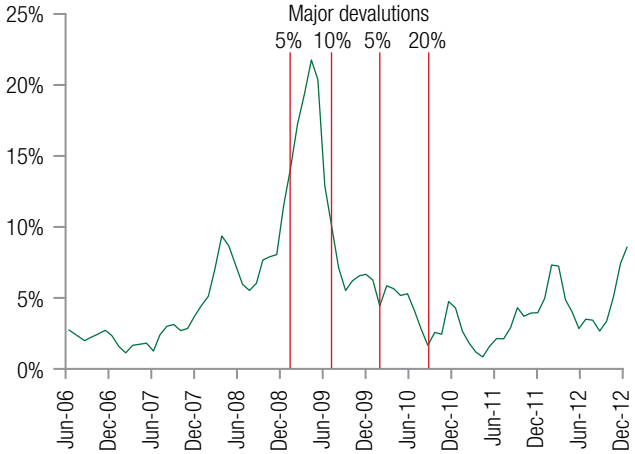
2. Annual Balance of Payments (Percent of GDP)



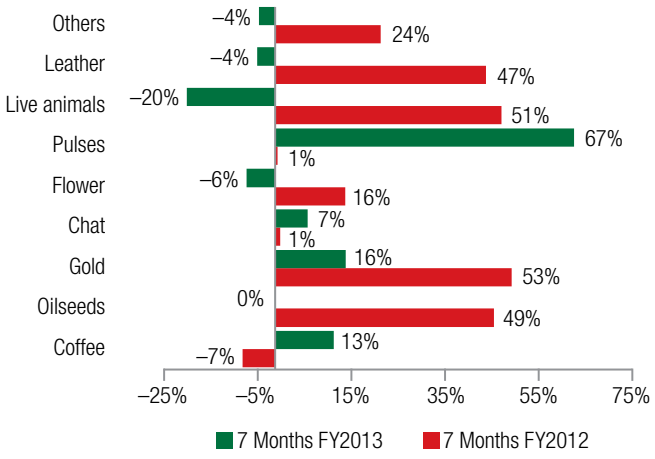
3. Export Growth and Real Effective Exchange Rate



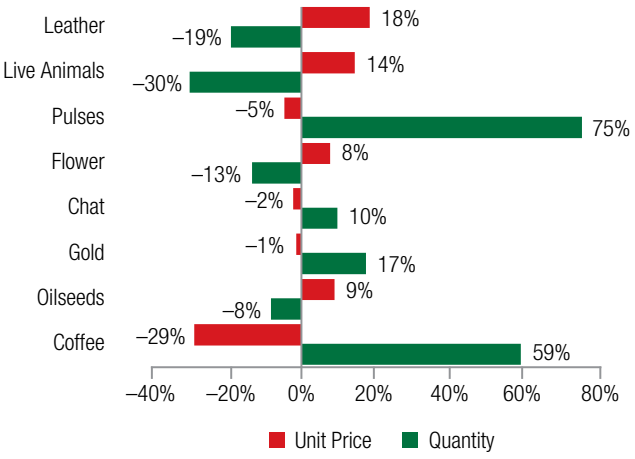
4. Exchange Rates: Black Market Premium (Pct.)



5. Growth in Export Value by Commodity (percent)



6. Export Price and Quantity Effects, 7m of FY2013



Source: National Bank of Ethiopia and IMF (REER).

external borrowing (Figure 4.2). Official development assistance (ODA) finances about half of the current account deficit, which averaged 10.8 percent of GDP in 2004–12 without ODA, and 5.2 percent of GDP when including ODA.

A slower goods export during the first seven months of 2012/13 can be explained by a decline in most products, except coffee and chat. A product-by-product analysis of volume and price effects yield the following (products are ranked by their share of the export basket):

- **Coffee** experienced increased value growth as rising volumes more than compensated for a sharp drop in prices.
- **Gold** and **chat** experienced modest value growth, on account of higher volumes in the context of unchanged prices.
- **Oil seeds** exports were stagnant following strong growth in 2011/12, as rising volumes compensated the price decline.

Imports of public capital goods explain most of the observed increase in goods imports. Eighty-seven percent of the increase in imports during the first seven months of the current fiscal year can be explained by an increase in capital imports. Given that public investment is almost three times larger than private investment, most of this can be attributed to public investment activity. The import of consumer goods, meanwhile, actually declined by 9 percent over the period.

The Long View

Middle Income Status by 2025: Is Ethiopia on Track?

Ethiopia has experienced strong economic growth over the past decade. Economic growth averaged 10.7 percent per year from 2003/04 to 2011/12,[8] compared to the regional average of 5.4 percent (Figure 5.1). Since a rising population contributed to economic growth, output per capita growth more accurately reflects the underlying economic performance. Still, at 8.3 percent per capita growth, Ethiopia outperformed the average for sub-Saharan African countries (3.3 percent). Growth was induced through a mix of factors, including agricultural modernization, the development of new export sectors, strong global commodity demand, and government-led development investments.

The overarching aspiration of the Government of Ethiopia is to achieve middle-income status by 2020–23. This aspiration raises several questions: Would a continuation of the historically high growth performance be sufficient to reach this goal? Does Ethiopia need more of the same type of growth, or is a change in the sources of growth warranted?

A narrow interpretation of the middle-income aspiration is to examine whether Ethiopia will pass the relevant World Bank income threshold by 2025. Currently, the World Bank classifies countries into four groups, depending on their Gross National Income (GNI) per capita: low income (less than US$1,025), lower middle income (US$1,026–4,035), upper middle income (US$4,036–12,475), and high income (above US$12,475). With a GNI per capita of US$370 in 2011, Ethiopia was classified as a low-income country and one of the ten poorest countries

[8] This report uses GDP growth rates as reported by the Government of Ethiopia (GoE). According to the IMF, however, alternative arms-length methodologies suggest that Ethiopian historical annual growth rates could be overestimated by as much as three percentage points in recent years. The IMF has indicated that the official methodology improved considerably in 2011/12.

in the world. The regional average is US$1,270 (US$920 excluding South Africa).

When examining the potential attainment of middle-income status, it is important to realize that the threshold increases over time. While the current threshold is US$1,025, this has not always been the case. In 1987, for instance, the threshold was US$480. This is mainly the result of the fact that this is a nominal threshold, which is affected by inflation. By applying the historically observed annual nominal growth rate (3.2 percent) to the threshold, we derive an unofficial and approximate expected threshold by 2025 of US$1,430. In sum, Ethiopia would have to surpass a GNI per capita of US$1,500 by FY 2025 to be classified by the World Bank as a lower middle-income country.

If Ethiopia can repeat its recent historical growth performance of 10.7 percent per year, it would classify as a middle-income country by 2023. This projection is based on a modified historical scenario, calculated using the real GDP growth rate achieved in the 2003/04–2011/12 period: 10.7 percent per year. Additional assumptions (not historically observed) include (annual rates): single digit inflation (9 percent), currency depreciation (7 percent), and a population growth rate of 2.5 percent.[9] Figure 5.2 illustrates the projections.

To sustain such a high pace of economic growth, it is also important to consider its sources. As discussed next, the sources of growth in Ethiopia have gradually shifted over the decade: (a) from agriculture to services, and (b) from private consumption to public investment.

Sources of Growth and Structural Change

Ethiopia's recent high growth has been the result of an expansion of the services and agricultural sectors. Fifty percent of the growth in value added between 2003/04 and 2011/12 is attributed to the services sector. The agriculture sector, meanwhile, accounted for 42 percent of value added growth. Industrial sector performance was relatively meager with a value added contribution of just 8 percent (Figure 5.3).

In fact, the service sector is now larger than agriculture in terms of value added. Over the past decade, the economy has been undergoing a shift from agriculture production towards increased reliance on services. Between 2003/04 and 2011/12, the value added contribution of agriculture fell from 51 to 44 percent, while the services sector increased from 38 to 45 percent. The value added growth of the industrial sector remained relatively unchanged at 9–10 percent (Figure 5.4).

Public investment has become the growth engine in recent years, according to a demand side analysis of national accounts.[10] Between 2003/04 and 2011/12, 71 percent of output growth was explained by private consumption, while public investment contributed by 23 percent. Over the past three years, the public investment share in contributing to growth has increased from 31 to 63 percent, however. In other words, almost two-thirds of the 8.5 percent growth in 2011/12 can be attributed to public investment (Figure 5.5).

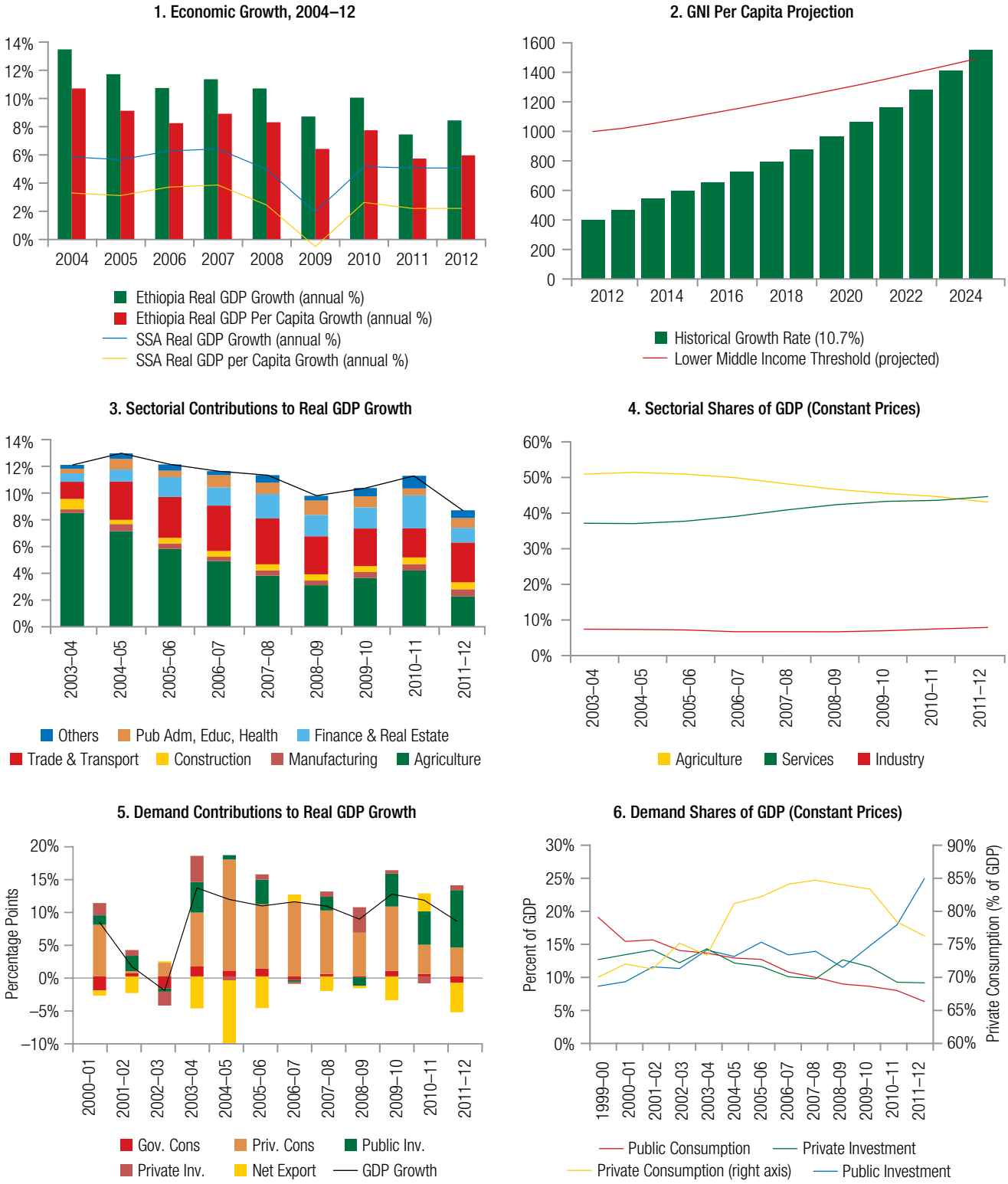
Consequently, the public investment share of GDP is increasing, while other demand components are declining. Between 2007/08 and 2011/12, public investment increased from 14 to 25 percent of GDP. Private consumption, on the other hand, declined from 85 to 77 percent of GDP. Public consumption fell from 11 to 7 percent of GDP; while private investment fell from 13 to 10 percent of GDP, with the residual being explained by net exports (Figure 5.6).

In sum, Ethiopia has achieved high economic growth in recent years through a "big push" in public investment, aimed at creating the conditions for

[9] The historical values for the nominal exchange rate depreciation and inflation, 9.1 and 18.4 percent, respectively, were not considered realistic for a forward projection, hence the modification.

[10] National account estimates in Ethiopia can be derived from either the supply side (by economic sectors) or the demand side (expenditure components). These two approaches are theoretically and methodologically consistent. All data used here are from the National Accounts Directorate of the Ministry of Finance and Public Credit. As explained in footnote 1, some caution must be exercised in interpreting demand side statistics given the quality of data.

FIGURE 5: Ethiopia: Economic Growth and its Sources



Source: 5.1: MOFED and IMF. 5.2: Staff calculations based on WB data. 5.3–5.6 Staff calculations based on MOFED data. *Note*: The demand composition of GDP growth is based on staff estimates using the GDP deflator for individual demand components. Source: IMF, World Bank, MOFED.

self-sustained growth. The Government of Ethiopia is pursuing this strategy so that the private sector can ultimately become the key driver of growth. In that sense, public investment is intended to be an enabler of growth. For that reason, the next section takes a more detailed look at the long-term trends in public, private, and total investment over the past 25 years. The analysis, in turn, provides an appropriate context for the more detailed analysis of savings in the next chapter.

Public Investment: Ethiopia's Growth Engine[11]

Long-term trends

Ethiopia has the third highest public investment rate in the world. In 2011, Ethiopia's public investment to GDP ratio was 18.6 percent. This number was exceeded only by Turkmenistan (38.6 percent) and Equatorial Guinea (24.3 percent), as shown in Figure 6.1. On the other hand, the private investment rate in Ethiopia is the sixth lowest in the world at 6.9 percent. Only Angola (2.8 percent), Azerbaijan (3.9 percent), Swaziland (5.2 percent), South Sudan (6.6 percent), and Malawi (6.6 percent) had lower private investment rates in 2011. (Figure 6.2). In spite of this, Ethiopia registers a total investment rate which is higher than expected, given its level of development. Total investment (public and private) equaled 25.5 percent of GDP in 2011, as illustrated in Figure 6.3. Encouragingly, this level of total investment is in line with levels recommended by the Commission on Growth and Development (2008) for a country to achieve high and sustained economic growth.

The total investment rate increased by almost ten percent of GDP since 1987, mainly as a result of an expansion in public investment. The total investment rate increased from 16.4 to 25.5 percent of GDP between 1987 and 2011 (Figure 6.4). Over this period, public investment rose by 14.2 percent of GDP, while its private counterpart declined by 4.8 percent of GDP. The relative importance of the public and private components of total investment has therefore reversed over the past 25 years. In 1987, private investment amounted to 16.1 percent of GDP, while public investment equaled 11.7 percent of GDP. By 2011, public investment was three times larger than private investment (Figure 6.5).

The public investment strategy initially succeeded in raising the total investment rate, but coincided with declining private investment in recent years. In the decade from 1994 to 2004, total investment increased from 16.4 to 25.5 percent of GDP. This was driven by a public investment increase of 10.6 percent of GDP and a relatively moderate decline in private investment by 1.6 percent of GDP. Since 2004, however, total investment remained stagnant. The decline in private investment intensified between 2004 and 2011 with about 3 percent of GDP. Increases in public sector investment could only keep the total investment rate constant, but not increase it any further (Figure 6.6).

Types of public investment and sources of financing

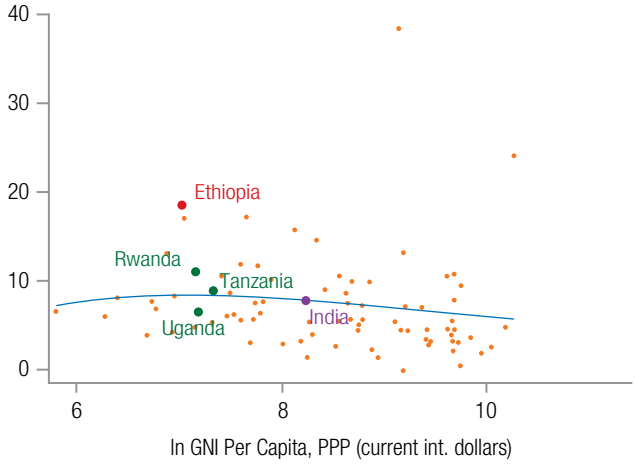
The increasing public investment is financed through a combination of restraint in government consumption, as well as through borrowing. Public investment has essentially two sources: budgetary and non-budgetary, where the latter refers to investment of State Owned Enterprises. An expansion of the budgetary component was enabled through a shift in budgetary priorities, as well as aid and domestic/external borrowing. State Owned Enterprises investments, in turn, benefitted from domestic and foreign borrowing.

Initially, higher public investment was accompanied by increased government consumption, but the latter has been decreasing since 2000.

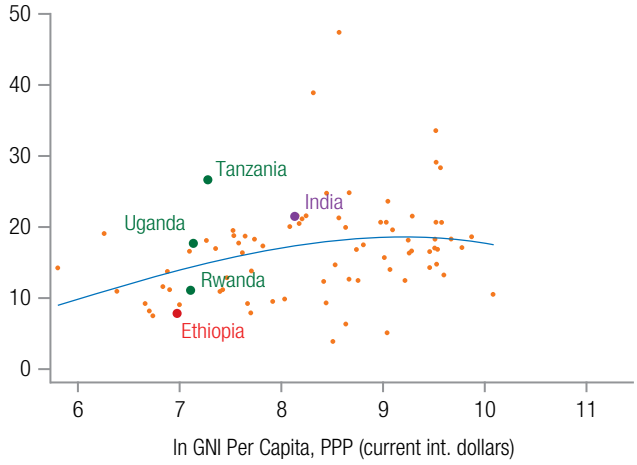
[11] This report uses the national accounts definitions of the Ministry of Finance and Public Credit. Investment is defined as the sum of fixed capital formation and change in inventories. Public investment is the sum of investment by federal and regional governments as well as public enterprises. Private investment includes investment by households, private enterprises and non-profit institutions serving households. Total investment is the sum of private and public investment.

FIGURE 6: Public and Private Investment Trends

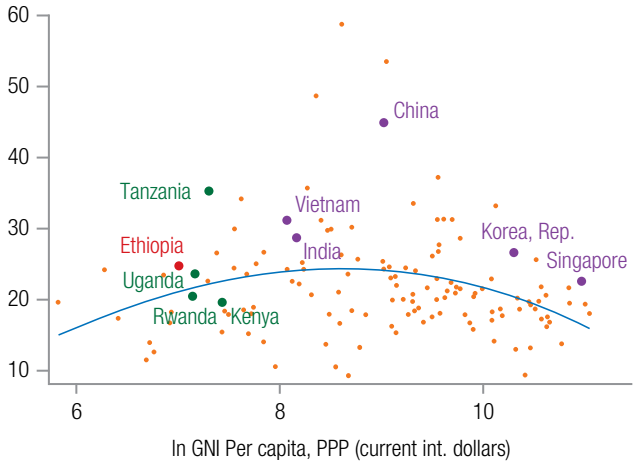
1. Public Investment Rate by Income, 2011



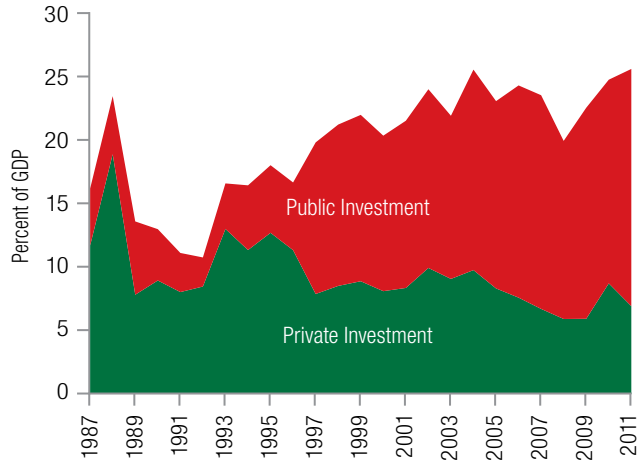
2. Private Investment Rate by Income, 2011



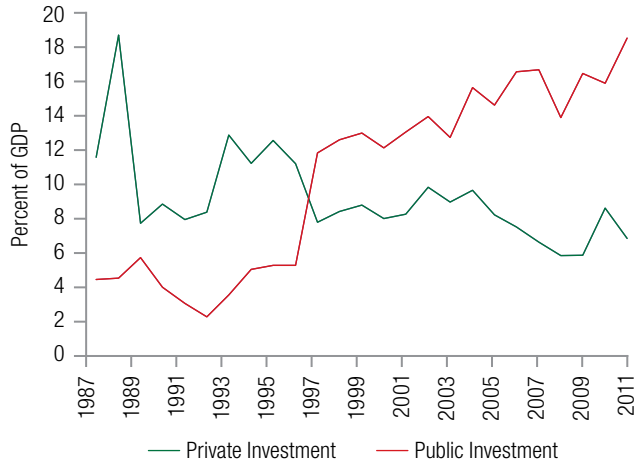
3. Total Investment Rate by Income, 2011



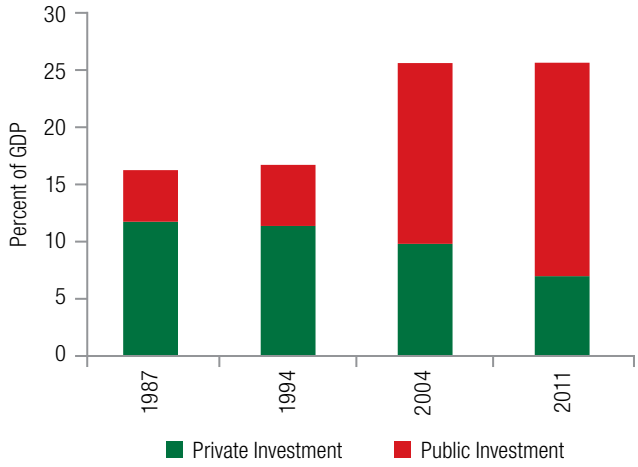
4. Ethiopia: Total Investment, 1987–2011



5. Public and Private Investment, 1987–2011



6. Public and Private Investment 1987–2011



Source: 6.1–6.6. World Bank (WDI).

Between 1987 and 2000, the Government was able to increase both recurrent and capital spending as overall budgetary resources increased with higher foreign aid and taxes. Since 2000, however, the budget envelope has remained largely unchanged (as a share of GDP). As a result, the continued increase in public investment has been financed through lower government consumption (including recurrent expenditures, such as the public wage bill) (Figure 7.1).

Budgetary and non-budgetary public investments are approximately similar in size. Between 2006 and 2011, budgetary public investment and off-budgetary public investment through State Owned Enterprises each amounted to about 6 percent of GDP. In the decentralized fiscal system, budgetary public investment is financed from both the central and regional levels of government. The central level assumes the greater share of the investment (two-thirds) and regional levels assume the remainder (one-third). (Figure 7.2).

Public investment is primarily financed from domestic sources. About three quarters of public investment (budgetary and non-budgetary) is financed from domestic sources through the budget or the domestic banking system with the remainder financed through external borrowing (Figure 7.3).

State Owned Enterprises are increasingly absorbing domestic banking sector credit. In the six-month period from June 2011 to December 2011, 71 percent of new loans were directed towards public enterprises. This share increased to 89 percent during the second half of 2012. A substantial share of the available foreign exchange is similarly diverted towards public investment.

Finally, it is important to emphasize gross domestic savings, transfers, and external borrowing as sources of finance for public investment. Figure 7.5 illustrates this point for total investment. Given the size of public investment in total investment in the 2000s, it is clear that private and official transfers played an increasing role in financing public investment over this period (11.7 percent of GDP per year, on average, in the 2000s).

Policy options

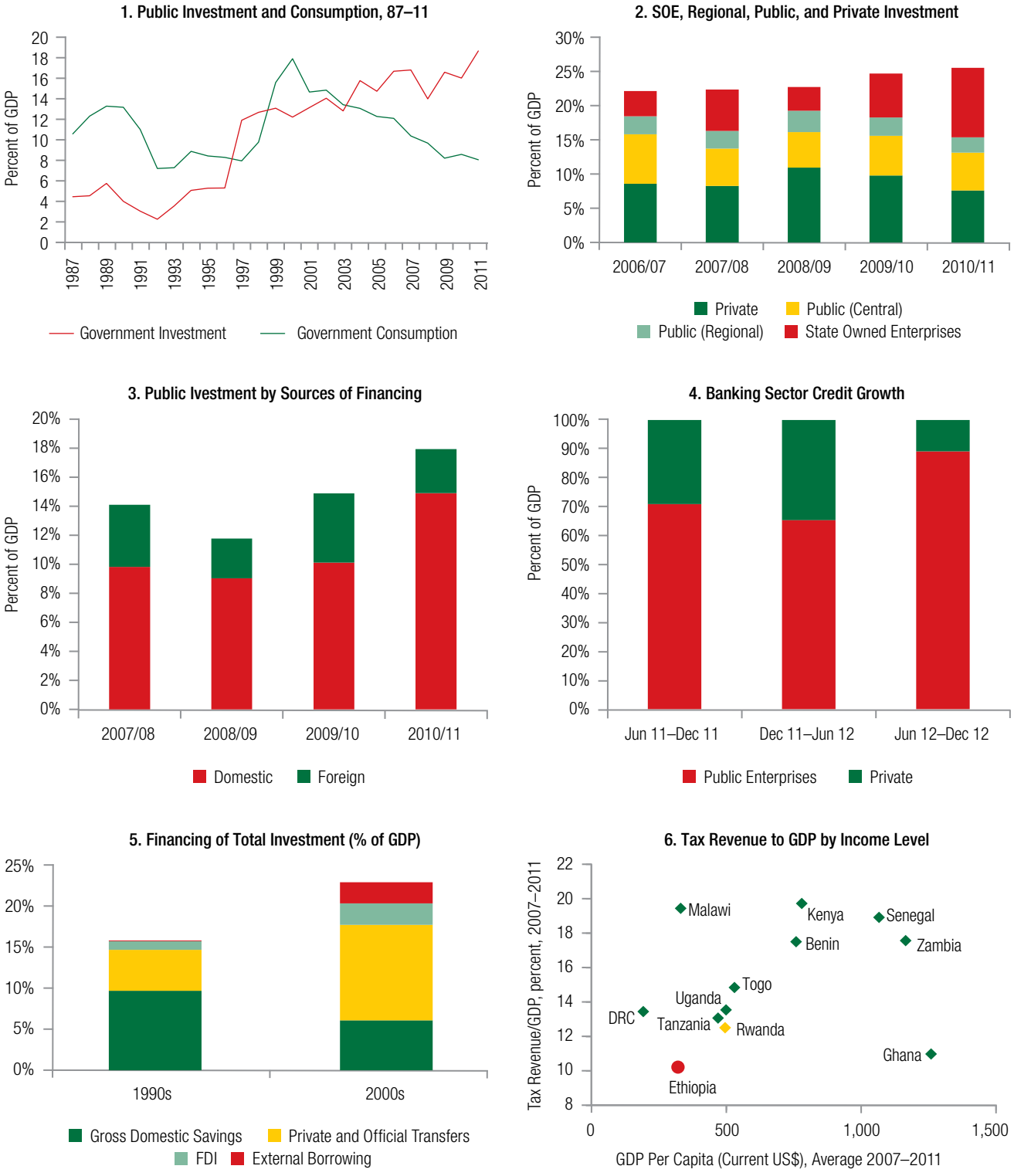
International experience underscores the relevance of emphasizing public investment as key element of a growth strategy. According to the Growth and Development Commission (2008: 36): "No country has sustained rapid growth without also keeping up impressive rates of public investment—in infrastructure, education, and health. Far from crowding out private investment, this spending crowds it in. It paves the way for new industries to emerge and raises the return to any private venture that benefits from healthy, educated workers, passable roads, and reliable electricity ... Unfortunately, we discovered, infrastructure spending is widely neglected."[12]

In order to achieve its impressively high public investment rate, the Ethiopian Government has implemented a number of macroeconomic policies. These include: (a) low nominal interest rates to reduce the cost of financing; (b) a gradual real appreciation of the exchange rate to keep capital import costs low; (c) channeling banking system credit and foreign exchange primarily towards public enterprises; (d) restraining recurrent public expenditures to create sufficient fiscal space to finance public capital outlays; and (e) maintaining low external foreign exchange reserves to finance high yielding public investment.

Policies that promote public investment in Ethiopia, meanwhile, also affect other policy objectives. The same set of macroeconomic policies that are fostering high public investment and economic growth may simultaneously make it difficult to achieve other policy goals. Whether the right balance is currently being struck is ultimately a political decision. This analysis aims to highlight the important policy trade-offs associated with it. To illustrate: (a) low nominal interest rates can be associated with low levels of saving—thus limiting the foundation for investment and sustained economic growth (see

[12] The commission, headed by Nobel Laureate Michael Spence (2008),based its recommendations on the experience of 13 high growth economies (9 from East Asia).

FIGURE 7: Public Investment: Sources and Financing



Source: 1.1 World Bank (WDI), 1.2: Staff calculations based on MOFED data. 1.3: MOFED. 1.4: IMF, 1.5. Staff calculations based on WDI data. 1.6: World Bank.

chapter 2); (b) a strong currency (in real terms) makes it difficult to maintain external competitiveness and thereby achieving high export growth, which is key to economic growth; (c) the imperative of prioritizing some sectors and activities in terms of credit and foreign exchange has meant other sectors have less access to such resources, thereby constraining their development; (d) recurrent public expenditure restraint, including on the public wage bill, may have implications for public sector effectiveness; and (e) low foreign exchange reserves increase external vulnerability, as this policy reduces an important buffer against external shocks.

The current policy mix makes it difficult for private investment, private consumption, and exports to flourish. The analysis presented here suggests that private sector-led activities appear to be constrained by the policy choices favoring public investment. This is illustrated by the low levels of private investment, slow private consumption growth, and declining export growth observed in recent years.

While the ultimate objective is for high public investment to "crowd-in" the private sector, some "crowding-out" may inevitably occur in the process. In the case of Ethiopia, public investment projects "crowd-in" private activity in two ways. In the short term, private contractors of public investment projects may benefit from this additional activity. This largely benefits the private, non-tradable sector. In the medium to long term (following the completion of the project), the private sector will benefit from the existence of the enhanced public infrastructure. On the other hand, in the process of providing additional public investment, the private sector in Ethiopia is crowded out through the credit and foreign exchange allocation systems.

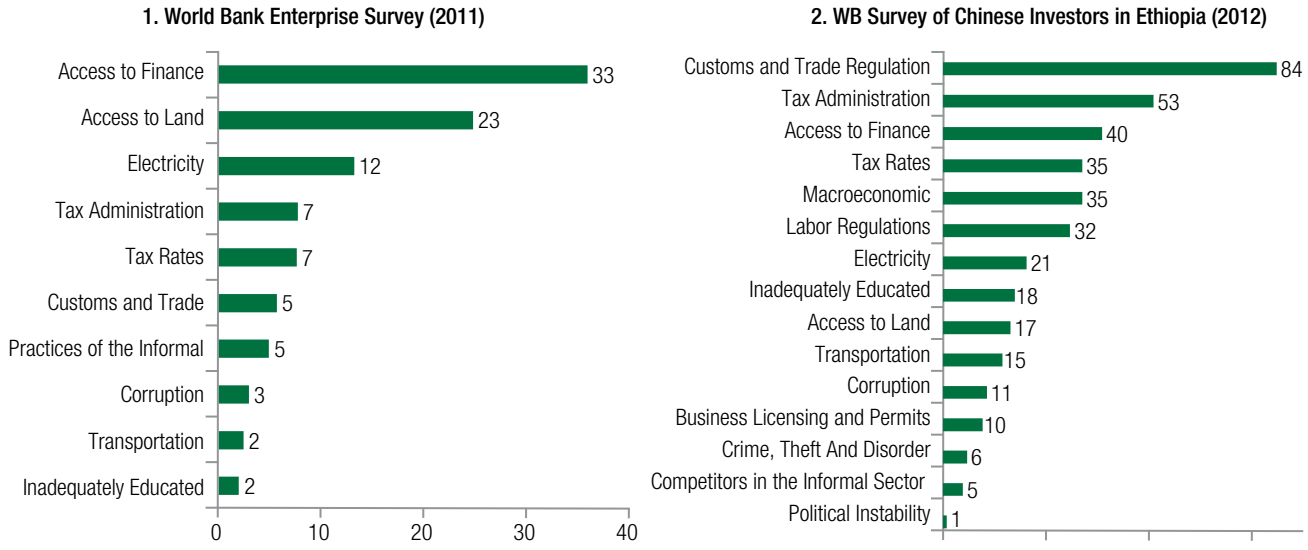
To nurture private activities, Ethiopia may need to reduce the pace of building public infrastructure investments. Ideally, Ethiopian policy makers should maximize the "crowding-in" effect and minimize the "crowding-out" effect that high public investment can have on the private sector. If public investment proceeds too rapidly, the crowding out effect can hurt private businesses. A weaker private sector, in turn, reduces the ultimate "crowding-in" effect that the Government is aiming to achieve in the end. By adjusting existing policy levers accordingly, it should be possible to contribute to a stronger private sector already today instead of waiting for it to be ready when the public infrastructure is in place tomorrow. This also has the advantage of making the growth strategy more sustainable, as it facilitates export competitiveness and enhances the savings base. Policy options include increase credit and foreign exchange to the private sector, a faster pace of nominal currency depreciation, and a gradual rise in the nominal interest rate.

The development of a strong and vibrant private sector in Ethiopia will eventually be needed to sustain high growth. In addition to the change in the policy mix discussed above, this would also require an improvement in the general business environment (see Figure 8), especially in the area of trade logistics (discussed in Chapter 3). It could also include industrial policy, as already practiced by the Government of Ethiopia, including the development of industrial zones.

A stronger private sector would also expand the taxable base and therefore provide additional resources to finance public investment. The tax to GDP ratio in Ethiopia is one of the lowest in the sub-Saharan Africa region (Figure 7.6). According to IMF data, general government revenue (excluding grants), increased from 12 percent of GDP in 2008/09 to 14.2 percent of GDP in 2011/12 compared with the low-income regional average of 18.9 percent in 2012. There is considerable potential for Ethiopia policy makers to increase the tax base in the medium term, because of a thriving private sector.

The jobs agenda offers an additional motivation for policy makers to strengthen the private sector. Between 2 and 2.5 million young people are entering the labor market every year. This contrasts with the 2.5 million people in paid employment in 2011, of which only 1.5 million were employed in the

FIGURE 8: Private Sector Constraints in Ethiopia

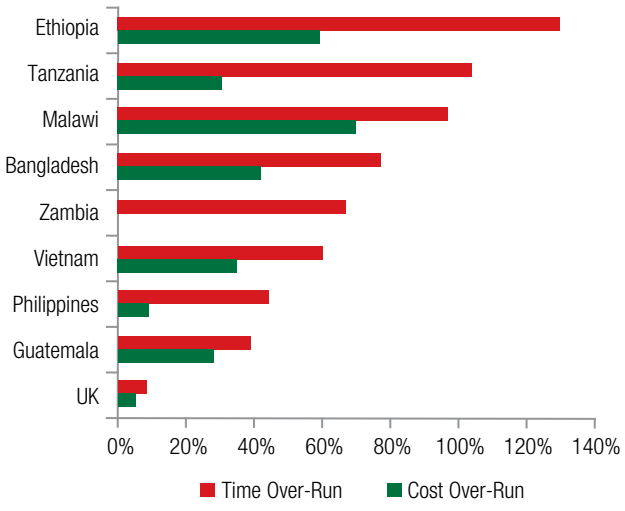


Source: World Bank Enterprise Survey (2011) and World Bank Survey of Chinese Investors in Ethiopia (2012). Note: Based on interviews with private sector enterprises. The numbers indicate the share of respondents identifying the problem.

formal private sector. While new entrants to the labor market have to find some kind of job to sustain their livelihoods, typically in the informal sector, the policy challenge is to generate as many high-quality jobs as possible. Given the typical budgetary constraints faced by the Government of Ethiopia, the private sector plays the most important role in addressing this policy challenge.

Finally, in addition to ensuring a better balance between public and private sector development, it is critical to ensure that public investment management is of high quality. Since weakness in public investment management can negate the core argument that impressive rates of public investment are necessary for a country to sustain rapid economic growth, attention to the processes that govern project selection and management is critical (see Box 2). Figure 9 illustrates some of the challenges often faced by countries, in terms of infrastructure project costs and time overrun, both of which appear relatively high in Ethiopia, in the sample of countries for which such data was available.

FIGURE 9: Infrastructure Project Costs and Time Overrun, Cost Baseline Sample



Source: World Bank (forthcoming).

BOX 2: A Diagnostic Framework for Assessing Public Investment Management

If well-managed, public investment can be a critical driver for growth. On the other hand, there are important risks to be aware of in the public investment management process. International experience offers many examples of low efficiency of public investment in a number of dimensions, including: (a) poor project selection, including wasteful "white elephant" projects, (b) delays in design and completion of projects, (c) corrupt procurement practices, (d) cost over-runs, (e) incomplete projects, and (f), failure to operate and maintain assets effectively.

In this context, World Bank (2010) identifies eight key "must have" features of a well-functioning public investment system along with some diagnostic questions for evaluating efficiency. A summary is provided below to give a flavor of the issues, although readers are encouraged to consult the source for a comprehensive treatment of the topic.

1. Investment guidance, project development, and preliminary screening
   - Is there well-publicized strategic guidance for public investment decisions?
   - Is there a well-established screening process? How many projects are rejected?
2. Formal project appraisal
   - Does a formal process exist? If yes, is it mandatory?
   - What proportion of projects is formally appraised for costs and benefits?
3. Independent review of appraisal
   - Are reviews undertaken independently? What is the quality of such appraisals?
4. Project Selection and budgeting
   - Are donor-financed projects subject to the same rules as government projects?
   - Are appraisals screened by an external agency?
   - Is final project selection part of the budget process?
5. Project implementation
   - What is the completion rate of the public investment program? This is defined as the annual public investment budget divided by the estimated cost to complete the current investment program.
   - Do ministries undertake procurement plans in line with good practice (e.g., competitive tenders)?
6. Project adjustment
   - Has the government undertaken a rationalization of its public investment management program in the recent past? Did the rationalization improve prioritization? Did it result in cancelation or closure of the public investment program?
7. Facility operation
   - Are projects commissioned to private contractors and, if so, are contracts awarded using competitive bidding? Are international firms permitted to bid?
8. Project Evaluation
   - Is the actual Net Present Value (NPV) of completed projects measured? Is a project end evaluation undertaken to review the nature of differences relative to the estimated NPV at appraisal?

Source: Rajaram, et. al (2010).

Annex: Selected Economic Indicators

TABLE 2: Ethiopia: Selected Economic Indicators (High Frequency)

	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13
Inflation (Year-on-Year): %	18.9	15.9	15.7	12.9	12.5	10.3	7.6	6.1
Food	17.6	13.2	13.4	11.8	11.3	7.9	5.2	1.6
Non-Food	21.0	20.4	19.4	14.7	14.4	14.3	10.5	11.5
Inflation in AA (Year-on-Year): %	18.3	15.3	15.4	12.4	12.4	12.3		
Traded Goods	6.8	4.9	5.1	2.7	3.6	1.7		
Non-Traded	22.5	19.1	19.2	16.0	15.6	16.2		
Monetary Growth (Year-on-Year): %								
M2	27.4		30.5	32.3	29.1	28.7		
Domestic credit	36.8		41.3	35.7	27.4	29.3		
Net Foreign Assets	–29.2		–25.6	–19.4	–15.1	–15.4		
Reserve Money	–2.7		12.2	10.7	16.9	23.8		
Gross reserves (Mill. $)	2,315	2,404	2,465	2,564	2,461	2,725		
Exchange Rate								
Exchange rate (Birr/$)	17.9	18.0	18.1	18.1	18.2	18.3	18.4	18.5
Real Exchange rate	135.0	133.9	134.8	133.7	133.8	133.6	135.5	
Black market premium (%)	3.4	2.6	3.3	5.0	7.4	8.6		
Trade Deficit: Cumulative (Growth: y-on-y) (%)	32.4	36.2	23.8	17.9	15.1			
Export	–7.3	0.2	3.8	5.0	7.1			
Import	19.3	25.0	18.2	14.5	13.0			
International Prices								
Crude oil, average ($/bbl)	106.3	103.4	101.2	101.2	105.1	107.6	102.5	
Coffee, arabica (cents/kg)	394.6	382.1	352.5	336.7	346.8	329.5	330.2	
Gold ($/troy oz.)	1,745	1,747	1,722	1,685	1,672	1,628	1,593	
World Growth (quarterly: y-o-y) %								
China	7.4			7.9				
Euro area	–0.6			–0.9				
US	2.6			1.6				
OECD-Total	1.2			0.7				

TABLE 3: Ethiopia: Selected Economic and Social Indicators (Annual Frequency)[a]

Fiscal year ending July 7	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12p	Avgerage 2003/04–2011/12
Income and Economic Growth										
GDP growth at factor cost (annual %)	11.7	12.6	11.5	11.8	11.2	10.0	10.6	11.4	8.5	11.0
GDP growth at constant market price (annual %)	13.7	11.7	10.8	11.4	10.8	8.7	12.7	11.2	8.5	10.7
Atlas GNI per capita, US$	140	160	190	230	280	330	360	370	400	273
GDP per capita, PPP (current international $)	562	636	711	798	883	951	1035	1116	n/a	836
Private Consumption, nominal (annual %)	7.2	33.8	25.9	26.9	51.8	35.7	15.3	28.6	41.8	32.1
Gross Fixed Investment (% of GDP)	29.2	26.1	27.7	24.3	24.6	25.0	27.2	27.9	34.6	27.4
Money and Prices										
Inflation, consumer prices (annual %, end of year)	1.7	13.0	11.6	15.1	55.3	2.7	7.3	38.1	20.8	18.4
Inflation, consumer prices (annual %, period average)	8.6	6.8	12.3	15.8	25.3	36.4	2.8	18.1	33.4	17.7
Treasury bill rate (91-days maturity, annual average)	0.5	0.1	0.0	0.8	0.6	0.9	0.9	1.3	1.9	0.8
Nominal Exchange Rate (End of period)	8.6	8.7	8.7	9.0	9.6	11.3	13.5	16.9	17.8	10.8
Real Exchange Rate Index (2005=100)	94.3	100.0	107.2	111.2	136.7	126.0	107.7	113.2	134.0	112.0
Fiscal										
Revenue (% of GDP)	16.1	14.6	14.8	12.7	12.0	12.0	14.1	13.5	14.6	13.8
Expenditure (% of GDP)	23.7	23.3	22.3	20.7	18.9	17.2	18.6	18.4	17.6	20.1
Current (% of GDP)	13.8	12.4	11.6	10.0	9.2	8.1	8.4	8.0	7.3	9.9
Capital (% of GDP)	9.5	10.7	10.7	10.7	9.7	9.1	10.3	10.4	10.3	10.1
Overall Fiscal Balance including grants (% of GDP)	–3.0	–4.4	–3.9	–3.1	–2.9	–0.9	–1.3	–1.6	–1.2	–2.5

(continued on next page)

TABLE 3: Ethiopia: Selected Economic and Social Indicators (Annual Frequency)[a] *(continued)*

Fiscal year ending July 7	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12p	Avgerage 2003/04–2011/12
Overall Fiscal Balance excluding grants (% of GDP)	–7.6	–8.7	–7.4	–8.0	–6.9	–5.2	–4.6	–4.9	–3.1	–6.3
Primary Fiscal Balance including grants (% of GDP)	–1.7	–3.4	–3.1	–2.4	–2.4	–0.6	–0.9	–1.3	–0.9	–1.9
Total Public Debt (% of GDP)	105.6	78.9	66.8	43.9	38.5	35.5	39.0	37.4	34.2	53.3
External Accounts										
Export growth (%, yoy)	24.4	41.1	18.1	18.7	23.1	–1.0	38.3	37.1	14.8	23.0
Import growth (%, yoy)	39.4	40.4	26.4	11.6	32.8	13.4	7.7	–0.9	34.0	19.9
Merchandise exports (in % of GDP)	6.1	7.0	6.7	6.2	5.5	4.6	6.8	8.7	7.4	6.5
of which coffee exports (in % of GDP)	2.3	2.8	2.4	2.2	2.0	1.2	1.8	2.7	2.0	2.2
Merchandise imports (in % of GDP)	26.2	30.0	30.8	26.6	25.8	24.4	28.5	26.3	25.9	27.3
Services, net (in % of GDP)	3.1	2.3	1.0	0.8	0.5	1.3	1.8	2.4	0.4	1.6
Private transfers, net (in % of GDP)	7.8	8.4	8.2	8.8	9.0	8.5	9.3	8.7	7.6	8.6
Current account balance before grant (in % of GDP)	–9.8	–12.6	–15.1	–10.7	–10.6	–10.1	11.0	–6.6	–10.7	–10.8
Current account balance after grant (in % of GDP)	–4.1	–6.1	–9.3	–4.5	–5.6	–5.1	–4.4	–0.7	–6.6	–5.0
Foreign Direct Investment (in % of GDP)	1.5	1.2	2.4	2.5	3.1	2.8	3.3	4.0	2.5	2.6
External debt, total (in % of GDP)	74.5	49.7	37.8	12.0	10.5	13.7	19.3	24.9	20.8	30.3
External debt, total (% of GDP)	73.3	48.9	37.3	11.8	10.4	13.5	18.1	22.0	19.2	28.3
Multilateral debt (% of total external debt)	63.5	82.7	81.1	51.6	55.7	46.7	48.6	46.0	45.1	57.9
Debt service ratio (% of goods and NFS)	11.1	9.1	8.4	3.6	2.9	2.4	3.2	4.3	6.8	5.7

(continued on next page)

TABLE 3: Ethiopia: Selected Economic and Social Indicators (Annual Frequency)[a] *(continued)*

Fiscal year ending July 7	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12p	Avgerage 2003/04–2011/12
Population, Employment and Poverty										
Population, total (millions)	72.5	74.3	76.0	77.7	79.4	81.2	83.0	84.7	86.4	79.5
Unemployment Rate (urban except 2004/05)		5.4	17.0			20.4	18.9	18.0	17.5	16.2
Poverty headcount ratio at national poverty line (% of population)		38.7						29.6		34.2
Poverty headcount ratio at $1.25 a day (PPP) (% of population)		39.0						30.7		34.8
Poverty headcount ratio at $2 a day (PPP) (% of population)		77.6						66.0		71.8
Inequality – Gini Coefficient		0.300						0.298		0.30
Population Growh (annual %)	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.0	2.3
Life Expectancy	54.4	55.2	56.0	56.7	57.5	58.1	58.7	59.2	n/a	55.5
Other:										
GDP (current LCU, billions)	85	105	130	169	244	330	377	506	737	298
Nominal GDP (current US$, billions)	10	12	15	19	26	32	29	31	43	24
Doing Business (rank)[b]			101	97	102	116	107	104	111	105
Human Development index ranking[c]		170	170	169	169	171	157	174	173	169

[a] This report uses the national accounts definitions of the Ministry of Finance and Public Credit. Investment is defined as the sum of fixed capital formation and change in inventories. Public investment is the sum of investment by federal and regional governments, as well as public enterprises. Private investment includes investment by households, private enterprises, and non-profit institutions serving households. Total investment is the sum of private and public investment.

[b] This indicator is ranked out of 175 countries in 2007, 178 in 2008, 181 in 2009 and 183 in 2010 and 2011.

[c] 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; in 2011, to 187 and in 2012 186 countries.

SAVINGS[13]

2

Introduction

Ethiopia's domestic savings rate is low compared to the fast pace of capital accumulation observed between 2004 and 2011. Ethiopia has been experiencing single-digit domestic saving rates while economic growth was in double digits, supported by investment rates beyond 25 percent of GDP. Consequently, Ethiopia is confronted with a persistent and wide domestic saving and investment gap, which has been financed by external sources. As discussed in the previous chapter, the Government of Ethiopia has very ambitious public investment plans. Given the current levels of domestic and external savings, however, it may be difficult to finance this investment plan.

The risks associated with external sources of financing offers an additional motivation for increasing domestic savings. Those risks include that external transfers—private and official—may decline in the future. Moreover, resorting to external borrowing, in order to finance high levels of investment, will result in a gradual build-up of debt which could eventually weaken Ethiopia's current record of low levels of debt distress.

The two most common definitions for savings refer to Gross Domestic Savings (GDS) and Gross National Savings (GNS). These concepts are derived from the national accounts. Gross Domestic Product (GDP) and Gross National Disposable Income (GNDI) can be expressed as:

$$GDP = C + I + G\ (X - M)$$
$$GNDI = GDP + Y_f + Tf$$

Where C is private consumption, I is investment (gross capital formation), G is government consumption, X is exports, M is imports; Y_f is net factor income from abroad, and, T_f is net foreign private and official transfers.

The relationship between Gross Domestic Savings (GDS) and Gross National Savings (GNS) can then be written as:

$$GDS = GDP - (C + G)$$
$$GNS = GNDI - (C + G) = GDS + Y_f + T_f$$

Hence, Gross Domestic Savings (GDS) and Gross National Savings (GNS) differ substantially if a country has large current transfers in the form of public (e.g., official aid) and private transfers (e.g., remittances) from abroad, such as in the case of Ethiopia.

The effort to mobilize domestic savings is a subset of a broader set of efforts to mobilize domestic resources, which include: taxation, increasing access to financial services, and deepening financial sectors. Countries pursue the latter at various stages of their development with the aim of supporting long-term growth (Mavrotas: 2009). Domestic savings mobilization is a complement to domestic resources mobilization, but it is not a substitute for it. Alternative sources of financing and investment, including taxation, FDI, aid, and remittances remain equally important and should be pursued as simultaneous options.

This chapter examines the trends in the Gross Domestic Savings (GDS) rate over the past three decades. It sheds light on the causes of the low rate observed and discusses possible measures to increase it. Cross-country comparisons are made to distill useful

[13] In preparing this report, MOFED requested the Bank to include successful examples from other countries that could be used in Ethiopia. Hence, this chapter tries, wherever possible, to make reference to other country experiences.

lessons for Ethiopia. The chapter also discusses recent government measures to boost the saving rate.

The chapter is structured as follows: Section B provides an overview of trends in saving and investment in Ethiopia and the World, including a decomposition of saving into its private and public components. Section C establishes the determinants of savings in theory and practice. Section D describes current government policies in the area of saving mobilization. Finally, Section E offers policy recommendations.

The Savings Rate in Ethiopia and the World

The remarkable recent growth performance was supported by robust investment—but not matched by similarly high savings rates. As illustrated in Figure 10.1, the gap between Gross Domestic Savings (GDS) and the investment rate widened over the past three decades. Investment rose from 15.7 percent of GDP in the 1980s to 23 percent in the 2000s, while Gross Domestic Savings declined from 10.5 percent to 6.1 percent of GDP over the same period. Recent revisions in the national accounts of Ethiopia indicate a growing savings rate again over the past years.[14]

Investment financing has shifted gradually away from gross domestic savings towards net income transfers, foreign direct investment, and external borrowing. In the 1980s, gross domestic savings mostly financed investment. In the 2000s, an expansion of investment was made possible by an increase in net income transfers and a larger current account deficit (financed, in turn, by FDI and external borrowing). Figure 10.2 refers.

A large drop has driven the decline in Gross Domestic Savings (GDS) rates in Ethiopia in both private and public savings. The private component of gross domestic savings declined by more than nine percentage points in the 1980s to less than five percentage points in the 2000s. Public savings fell from 4.2 to 1.4 percent of GDP over the same period (Figure 10.3).

Rising private savings have driven increases in GDS in countries such as China and Vietnam. Figure 10.4 compares Ethiopia's savings rate with sub-Saharan Africa (SSA), China, and Vietnam over the past three decade. In SSA, the ratio of public saving to GDP is stable across decades and constitutes major portion of gross domestic savings. In China and Vietnam, on other hand, the share of public saving in gross domestic savings is small and increases in gross domestic savings are mostly attributable to increases in private saving.

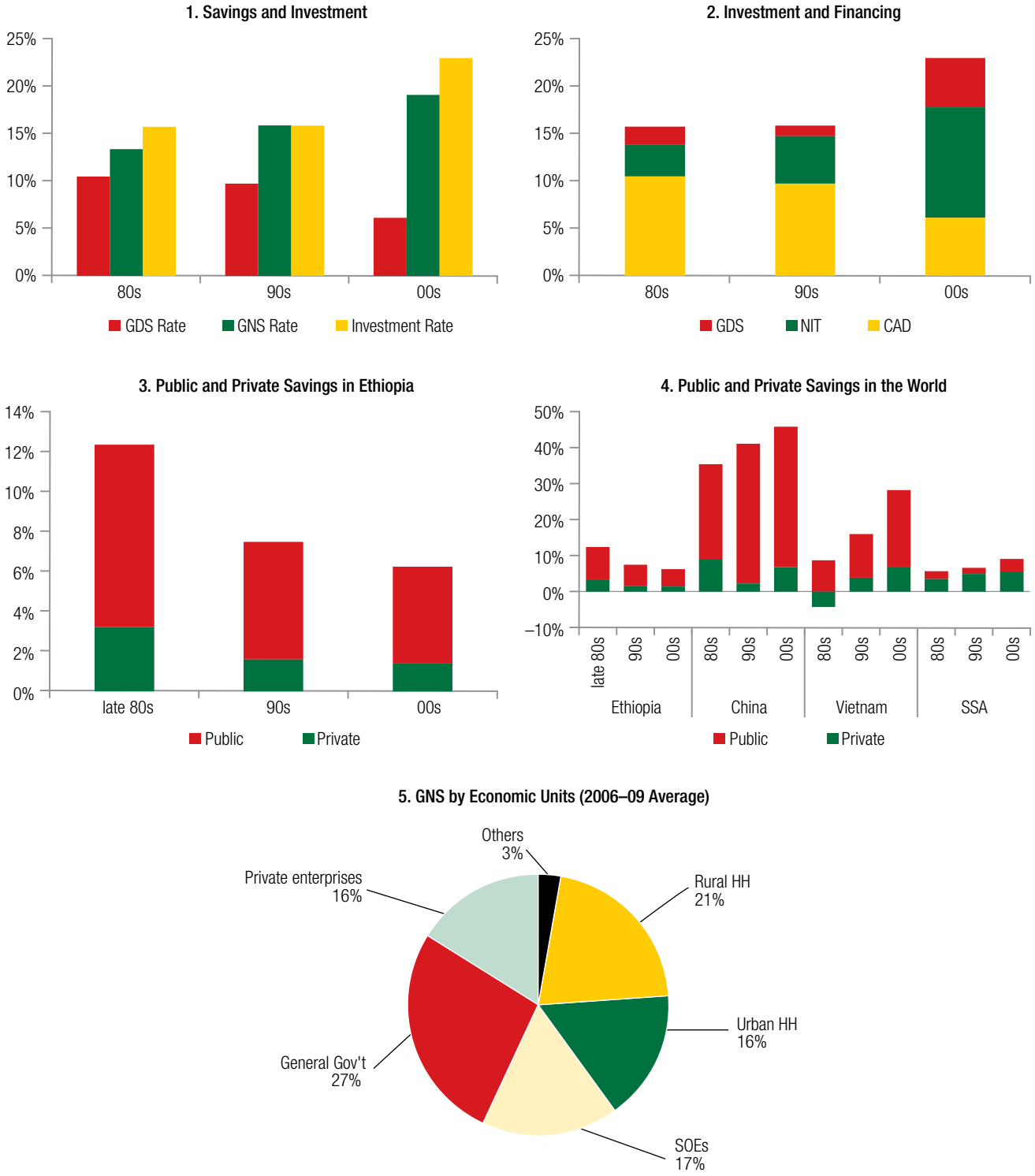
When remittances are excluded, Ethiopian households dissave[15] in the aggregate. Table 4 gives an overview of the contribution to Gross Domestic Savings by economic units, based on work carried out by the Ethiopian Development Research Institute (EDRI, 2010). On average, rural and urban households had a negative domestic savings rate of –4.5 percentage points of GDP in 2006–09. The leading domestic contributors to savings are State Owned Enterprises, central government and private enterprises, with a combined effect of ten percent of GDP over this period. The government saving increased over time through a combination of factors, including improved tax revenue collection.

Public and private enterprises account for a third of gross national savings and general government for a quarter. The remainder is explained by the remittances received by households (37 percent) and private enterprises (see Figure 10.5). This is not an unusual pattern, and somewhat similar to what was observed in East Asia. In China, enterprise savings (including SOEs) rose sharply from 35 to 50 percent of Gross National Savings in 1992–2008 (Chamon, et al., 2011). Similar figures for both government savings and corporate

[14] The Government of Ethiopia has recently carried out a revision of its national account methodology, including the introduction of a new base year. This resulted in slightly higher saving and investment rates for the two years. Using the new savings and investment data, and applying it pro-rata over the past decade leads to only minor discrepancies between the new and the old series.

[15] If consumption is greater than income, dissaving takes place.

FIGURE 10: Savings and Investment in Ethiopia and the World (Percent of GDP)



Source: World Bank staff calculations, based on World Development Indicators (WDI) and EDRI (2010) in the case of 9.5. *Note*: NIT = Net Income Transfers (i.e., a summation of net income from abroad and current transfers). CAD = Current Account Deficit. Note: Late 80s refers to the period 1986–1989.

TABLE 4: National Savings vs. Savings from Purely Domestic Sources (% of GDP)

	Saving from Domestic Source Only					Gross National Saving				
	2006	2007	2008	2009	Average	2006	2007	2008	2009	Average
Rural HH	0.2	–0.2	–0.6	–1.3	–0.5	5.2	4.9	4.4	3.6	4.5
Urban HH	–4.3	–3.6	–3.9	–4.0	–4.0	3.5	3.9	3.3	3.1	3.5
SOEs	2.9	3.9	3.9	2.9	3.4	3.3	4.2	4.2	3.0	3.7
General Gov't	3.2	2.8	2.8	3.8	3.2	4.0	5.2	5.1	6.7	5.3
Private enterprises	3.3	3.6	3.8	3.0	3.4	3.1	3.5	3.7	2.9	3.3
Quasi Govt	0.0	0.4	0.3	0.3	0.3	0.0	0.4	0.3	0.3	0.3
Oils stab. Fund	–1.4	–0.5	–2.0	–0.2	–1.0	–1.4	–0.5	–2.0	–0.2	–1.0

Source: Staff calculations based on EDRI (2010).

profits were observable in South Korea (henceforth referred to as Korea between 2000 and 2008. In the Philippines (2000–08), a declining household savings rate was fully compensated by increases in corporate and government contributions, in order to keep the gross national savings constant at just below 20 percent of GDP (Prasad, 2011).

The trends in savings in Ethiopia are distinct from most other countries. Middle and low-income countries raised their saving rate in the 1990s and the 2000s (Figure 11.1). Most middle-income countries achieved positive per capita GDP growth in the 1990s, whereas all low-income countries, including Ethiopia, experienced more rapid and substantial economic growth in the 2000s. However, Ethiopia is one of few countries in low-income SSA that reduced its gross domestic savings rate during its rapid growth period of the last decade.

Savings rates in East Asia increased to much higher levels over the past three decades whereas in East Africa they remained stagnant. Saving rates for NIEs and ASEAN increased substantially both from 15 percent of GDP in the 1960s to 35 percent and 30 percent in the 1980s, respectively, following similar paths of their GDP. China and Vietnam started from a level of initial per capita real GDP in the 1980s, which was similar to Ethiopia's, while Korea had a similar level of per capita income in the 1960s. China's saving rate is remarkable in terms of its high initial rate of 35.4 percent in the 1980s and continuing rise to 41.2 percent in the 1990s and 45.8 percent in the 2000s (Figure 11.2). Vietnam and Korea followed similar paths: for Vietnam, a substantial increase in saving rate from an initial rate of 4.4 percent in the 1980s to 28.3 percent in the 2000s; and for Korea, from 8.6 percent in the 1960s to 30.9 percent in the 1980s (Figure 11.3).

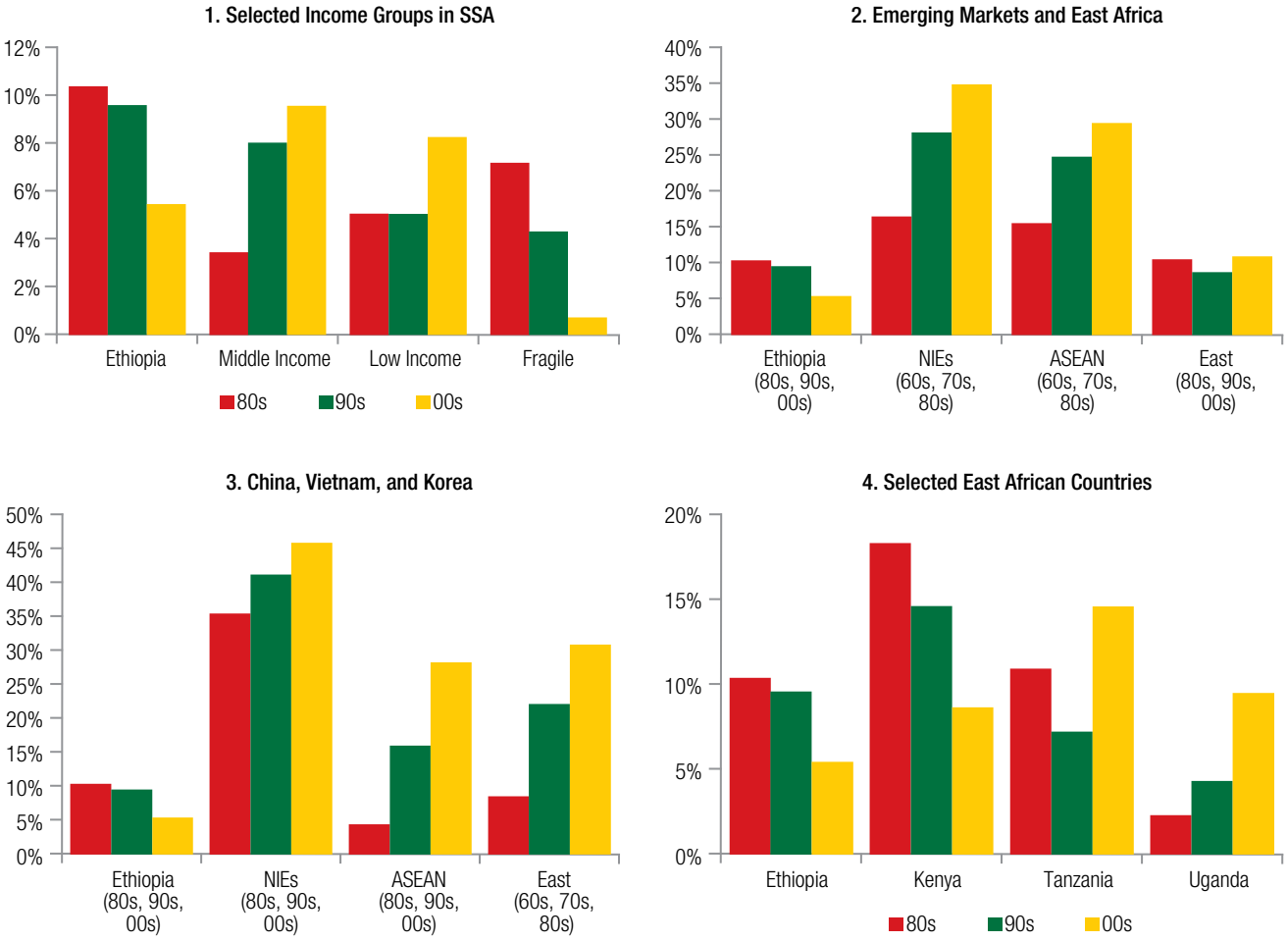
Kenya and Ethiopia followed a similar declining trend in GDS rates over the past three decades. Figure 11.4 shows trends of saving rates in neighboring East African countries. Kenya follows a similar trend to Ethiopia, lowering its saving rate from 18.3 percent in the 1980s to 8.7 percent in the 2000s. Unlike Ethiopia and Kenya, Tanzania shows a reversion of the saving rate from 7.2 percent in the 1990s to 14.6 percent in the 2000s and Uganda shows an increase in the saving rate from 2.3 percent in the 1980s to 9.5 percent in the 2000s.

Determinants of Savings Rates: Theory and Evidence[16]

There is a common division of determinants of savings into policy and non-policy determinants.

[16] The result of an empirical analysis that supports the theoretical considerations is shown in *Annex Savings Rate 1*. There, the analysis follows Loayza, et al. (2000) by employing Generalized Method of Moments (GMM) estimators applied to dynamic models using panel data. These

FIGURE 11: GDS Rates in Ethiopia and Relevant Peer Groups (Percent of GDP)



Source: World Bank staff calculations, based on World Development Indicators (WDI). *Note:* NIEs are Hong Kong, Korea, Singapore and Taiwan. ASEAN includes Indonesia, Malaysia and Thailand. East Africa includes Kenya, Tanzania and Uganda.

Non-policy determinants are: persistence of saving rate, the level and growth of GDP, and demographic changes. Policy determinants, in turn, include: financial liberalization and development, government saving, and macroeconomic stability. This section provides a detailed analysis from both macro and micro perspectives using panel and country-specific econometric methods. The methodology used relies on the insights from Hevia, Ikeda and Loayza (2010).

estimators allow the control of unobserved country-specific effects and potential endogeneity between savings rates and other macroeconomic variables.

The saving decision can be regarded as intertemporal allocation of consumption to maximize utility. The theories of saving and consumption are based on the life-cycle approach (Modigliani, 1970) and the permanent income hypothesis (Friedman, 1957). The life-cycle model argues that households seek to smooth out consumption over time because of precautionary motives. The permanent income hypothesis predicts that households smooth out the consumption path based on anticipation on future income. Both the precautionary motive for saving and the anticipation of future income determine saving behavior through a number of channels, as discussed below.

This section uses scatter plots to contextualize the Ethiopian experience with other country experiences.[17] To capture growth-saving episodes in each country, periods analyzed for each country correspond to those when the country experienced rapid economic growth. For Ethiopia, SSA, China, and Vietnam, the periods analyzed are from 1981 to 2011 whereas for NIEs and ASEAN the periods are from 1961 to 1989 during which the GDS rate rose sharply, exceeding or reaching close to 40 percent of GDP. In subsequent graphs, the following labeling is used: Ethiopia (red diamonds); low-income SSA (green triangles); and Asia (blue circles). Regression lines for low-income SSA (light blue) and for Asia (red).

It takes time to change savings behavior. Lagged values of saving rate remain strongly significant even after controlling for a large set of policy and non-policy determinants. As a result, a change in any determinants of savings requires a number of years before it has an impact. The long-run response is approximately twice as large as the short-run response (Loayza *et al.*, 2000).

Ethiopia's saving rate of 5.5 percent of GDP in the 2000s is approximately five percentage points lower than the one predicted for low-income SSA countries. In Figure 12.1, the horizontal axis displays the average saving rate for a given decade *T*. The vertical axis displays the average saving rate in the next decade (*T*+1). In order to compare Ethiopia with the relevant countries at the appropriate stage of development, the decade *T* differs by country of region. In particular, *T* covers the 1990s for Ethiopia, SSA, China, and Vietnam. For NIEs and ASEAN countries, it covers the 1960s. Figure 11.1 is used to illustrate whether the savings rate rises or declines over time in different countries or comparator groups. If a country is located above the 45-degree line, it implies that its savings rate increased, and vice versa. All Asian countries and most low-income SSA countries lie above the 45-degree line, indicating that their savings rate increased over time.[18] Ethiopia lies below the low-income SSA regression line, indicating that savings are on the decline.

Income, Income Growth, and Terms of Trade

Saving rates increase as countries grow richer.[19] The impact of higher income on savings also depends on the level of income (Loayza et al., 2000). Changes in real per capita income in developing countries have larger impact on saving than in advanced countries. This implies that policy actions targeted to increase income through, for instance, improving total factor productivity, are indirect but effective ways to raise the saving rate. Figure 12.2 plots the savings rate and log of real per capita GDP across countries, showing strong positive correlation for both Asia and SSA.

The relationship between saving and income growth is unclear in the empirical literature. Some show that there is causality between saving and growth (i.e., that higher savings induce more growth). Others try to examine the question of how income growth affects saving. Aghion, et al. (2009) find that a higher saving rate predicts higher income growth in developing countries. Loayza. et al. (2000) find that one percentage point increase in income growth increases Private Sector Savings (PRS) rate by roughly the same amount. Rodrik (2000) concludes that a permanent increase in the saving rate induces a temporal increase in output growth, whereas a permanent increase in income growth is followed by a permanent increase in saving rate.

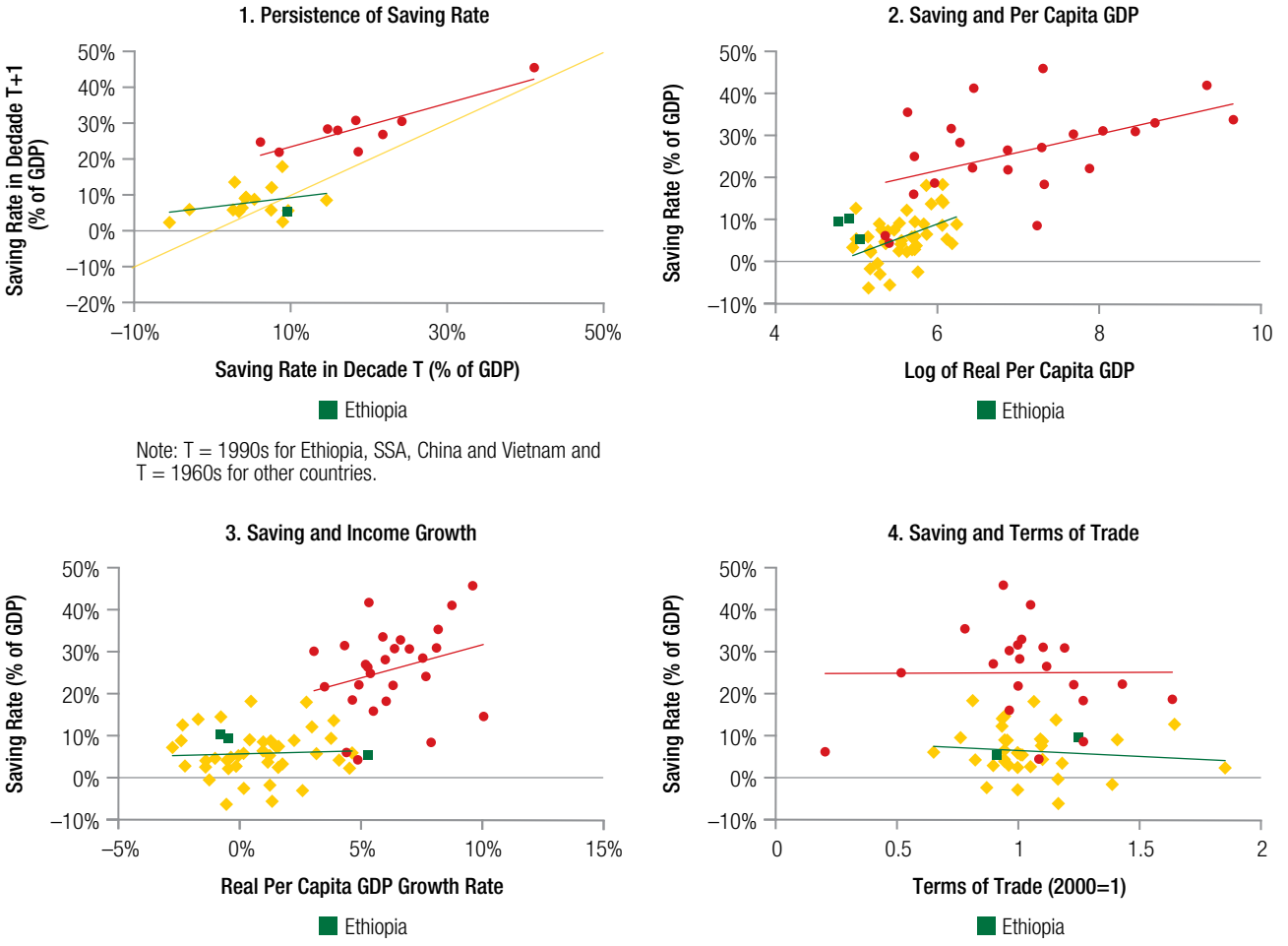
Economic theory does not offer conclusive results either. The life-cycle model predicts that aggregate savings will increase in response to an increase in income growth, through an increase in the saving of active workers relative to the dissaving of retirees. The consumption habit theory reinforces this view, indicating that household consumption adjusts slowly

[17] Asian countries considered are those in NIEs, ASEAN, China, and Vietnam.

[18] For instance, saving rates for Korea and Indonesia in the 1960s are 8.6 percent and 6.2 percent, respectively, which are lower than Ethiopia's saving rate in the 1990s (9.6 percent). In the 1970s, saving rates for Korea and Indonesia were 22.1 and 25 percent, respectively.

[19] Notable examples in the literature are: Edwards (1996), Dayal-Gulati and Thimann (1997), Loayza, et al. (2000), Metin-Ozcan and Ozcan (2004), Chaturvedi, et al (2009).

FIGURE 12: Determinants of Savings: Persistence, GDP per Capita, Income, and Terms of Trade



Source: Staff calculations based on World Development Indicators (WDI).
Note: The horizontal axis (period T) contains the average saving rate over the period 1990–1999 for Ethiopia, SSA, China, and Vietnam and the period 1960–1969 for NIEs and ASEAN countries. The vertical axis (period T+1) is the average saving rate in the next decade (i.e., the period 2000–2009 for Ethiopia, SSA, China, and Vietnam and the period 1970–1979 for NIEs and ASEAN countries).

to increase in income.[20] Therefore, increase in income leads to increase in saving. Contrarily, the permanent income hypothesis predicts that households dissave against anticipated future higher income.

The argument on the causality of saving and growth has profound policy implications. If saving causes growth, saving-enhancing policies are likely to induce growth whereas if the direction is opposite, such policies may fail to promote permanent growth. These policies may promote growth in the short run by fueling investment through saving. In the long term, however, they may fail to realize permanent growth because returns to capital diminish and saving itself does not affect total factor productivity (e.g., the long-term determinant of economic growth).

Ethiopia is one of few countries in the world that achieved higher income while lowering its saving rate. Figure 12.3 plots saving and income growth, showing rapidly growing Asia with a positive correlation, while low-income SSA exhibits no correlation. In Asia, a one percentage point increase in per capita

[20] See Carroll and Weil (1994) and Carroll, et al. (2000).

GDP is associated with a 2.5 percentage point increase in the saving rate. Economic growth positively affects saving rates in SSA. In both regions, the income level positively affects the savings. Ethiopia and East African countries are exceptions, possibly because the income level is so low that it is hard to increase savings. To illustrate, the income levels in Ethiopia and East African countries in the 2000s are lower than the level in ASEAN in 1960s.

Most empirical studies find that improvements in the terms of trade have a positive impact on the saving rate. Improvement in the terms of trade increases real income through increase in purchasing power. Therefore, improvement in the terms of trade is predicted to have positive impact on saving as income does. Figure 12.4, however, does not show such a positive correlation between the terms of trade and saving rate for any of the regions analyzed. This may reflect the existence of omitted variables that correlate with both. The multivariate model presented in *Annex Savings Rate 1*, suggests the strong importance of terms of trade: a one percentage point improvement in the terms of trade raising domestic saving rate by 0.08 percentage point.

Demographics, Urbanization, and Public Savings Rates

The life-cycle theory predicts that saving follows a hump-shaped pattern.. In other words, the young workers dissave against their future income, the middle-aged workers save for their retirement and the elderly dissave upon their retirement. Therefore, demographic changes have a significant impact on household saving patterns. Both the microeconomic and macroeconomic literature confirms that an increase in youth and old dependency ratios tend to lower the gross domestic and private saving rates. Muhleisen (1996) claims that the age dependency ratio, sum of aged and young, dominates the behavior of the private sector saving rate.[21]

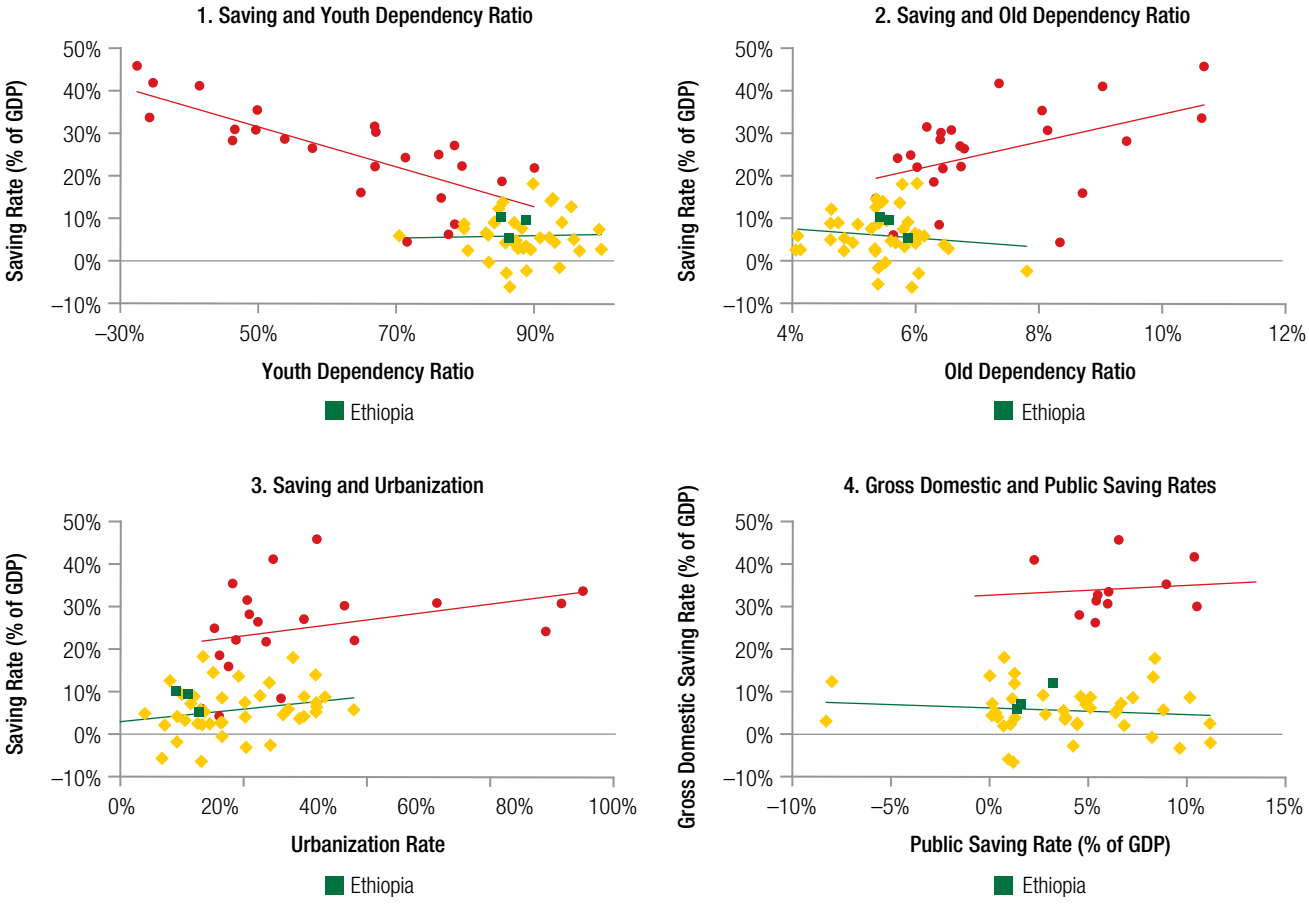
Demographic effects have yet to unfold and affect savings in Ethiopia. In Asia, a ten percentage point increase in the youth dependency ratio is associated with five percentage point decline in domestic saving rate, on average. Figure 13.1 shows a strong negative correlation between the savings rate and the youth dependency ratio for Asia and no correlation for SSA. In all decades, Ethiopia's saving rates lie around the low-income SSA regression line with youth dependency ratio ranging from 85 percent in the 1980s to 86 percent in the 2000s. Therefore, an increase in youth dependency ratio by one percentage point in Ethiopia is negligible, compared to the average decline in youth dependency ratio by 27 percentage points in Asia. Ethiopia has not experienced a demographic transition, and is unlike emerging Asia during the period of rapid economic growth. As Ethiopia goes through the demographic transition in the coming decades, savings are expected to increase.

There is a positive correlation between the saving rate and the old dependency ratio for Asia, and negative correlation for low-income SSA and Ethiopia. This finding contradicts the life-cycle theory (Figure 13.2). The strong positive correlation for Asia may be explained by the existence of a third variable: the level of income. This is because life expectancy increases with the level of income, and income is positively correlated with the saving rate. The old dependency ratio is low for Ethiopia and Asia**.**

Urbanization is also considered as a proxy of uncertainty and demographics. The reason for this is that rural income is substantially more volatile than urban income, leading rural households to save a large portion of their income in case of poor harvest for precautionary motive. Therefore, in the more urbanized society, households tend to save less because their income is more foreseeable. Figure 13.3 shows a positive correlation between the saving rate and the urbanization ratio. As in the case for the old dependency ratio, the level of income may be a possible

[21] Empirical estimates suggest that a one percentage point increase in aged dependency ratio lowers the gross domestic savings rate by 0.5 to 1.6 percent whereas an increase in the youth dependency ratio reduces savings by 0 to 0.7 percent.

FIGURE 13: Determinants of Savings: Demographics, Urbanization, and Public Savings



Source: World Bank staff calculations, based on World Development Indicators (WDI).
Note: The horizontal axis (period T) contains the average saving rate over the period 1990–1999 for Ethiopia, SSA, China, and Vietnam and the period 1960–1969 for NIEs and ASEAN countries. The vertical axis (period T+1) is the average saving rate in the next decade (i.e., the period 2000–2009 for Ethiopia, SSA, China, and Vietnam and the period 1970–1979 for NIEs and ASEAN countries).

explanation. Income level is strongly correlated with the degree of urbanization and income level again correlates with saving rate.

Public saving shows a negative correlation for low-income SSA and a positive correlation for Ethiopia (Figure 13.4). The permanent income hypothesis predicts that changes in the timing of taxation do not affect household consumption behavior. Given a sequence of public expenditures, it does not matter when the government raises taxes to finance these expenditures. The theory predicts that changes in public savings fully crowds out private sector savings, leaving domestic saving unchanged (Ricardian equivalence).[22] Most empirical studies show that the Ricardian equivalence holds only partially.[23] However, estimates on the degree of increase in domestic saving vary across studies. Loayza, et al. (2000) report that a one percentage point increase in public saving leads to a decline of 0.3 percentage points in the private savings rate in the short run and 0.6 percentage points in the long run. Alternatively, one percentage point increase in public saving leads to 0.7 percentage points increase in gross national savings in the short run and 0.4 percentage points in the long run. This

[22] Note that if the change in public saving is due to changes in public expenditures, the change has impact on domestic saving.
[23] Refer Edwards (1996), Dalai-Gulati and Thimann (1997), Loayza, et al. (2000) and IMF (2005).

suggests that public saving can be an effective policy instrument to raise gross national savings.

Macroeconomic Stability and Financial Development

Real interest rates—or alternatively the inflation rate under a given nominal interest rate—affects saving by affecting the rate of intertemporal substitution of consumption. Balassa (1986) claims that a stable and substantial level of domestic saving can be achieved by keeping real interest rate stable and sufficiently high. Alternatively, Balassa proposes that low and stable inflation, supported by a small budget deficit, encourages saving. In theory, however, the net impact of the real interest rate on saving is ambiguous due to the income and substitution effects moving in opposite directions. In a situation of rising real interest rates, the income effect could lead to a decline in saving given the increase in interest income (the income effect). Contrarily, the substitution effect could lead to increases in saving because saving is more attractive by increasing future consumption.[24] Figure 14.1 shows a negative correlation for Asia, where decade-average real interest rate never falls below zero. This suggests that the income effect dominates the substitution effect (i.e., that higher real interest rates reduce savings).

Negative real interest rates lead the saving rate to deviate from the equilibrium saving rate. This could partly explain why the gross domestic savings rate declined in Ethiopia at a time when the country experienced persistent high inflation—and negative real interest rates—over many years in the 2000s (Figures 14.2, 14.3, and 14.4). Empirically, for countries with low real interest rates, the substitution effect dominates the income effect (i.e., higher real interest rates increase savings). For countries with low real interest rates, the opposite is the case. Therefore, real interest rates and saving rate are related in a hump-shaped (inverted-U shaped) form. This implies that higher real interest rates can be conducive to savings, as long as the real interest rate is not too high.

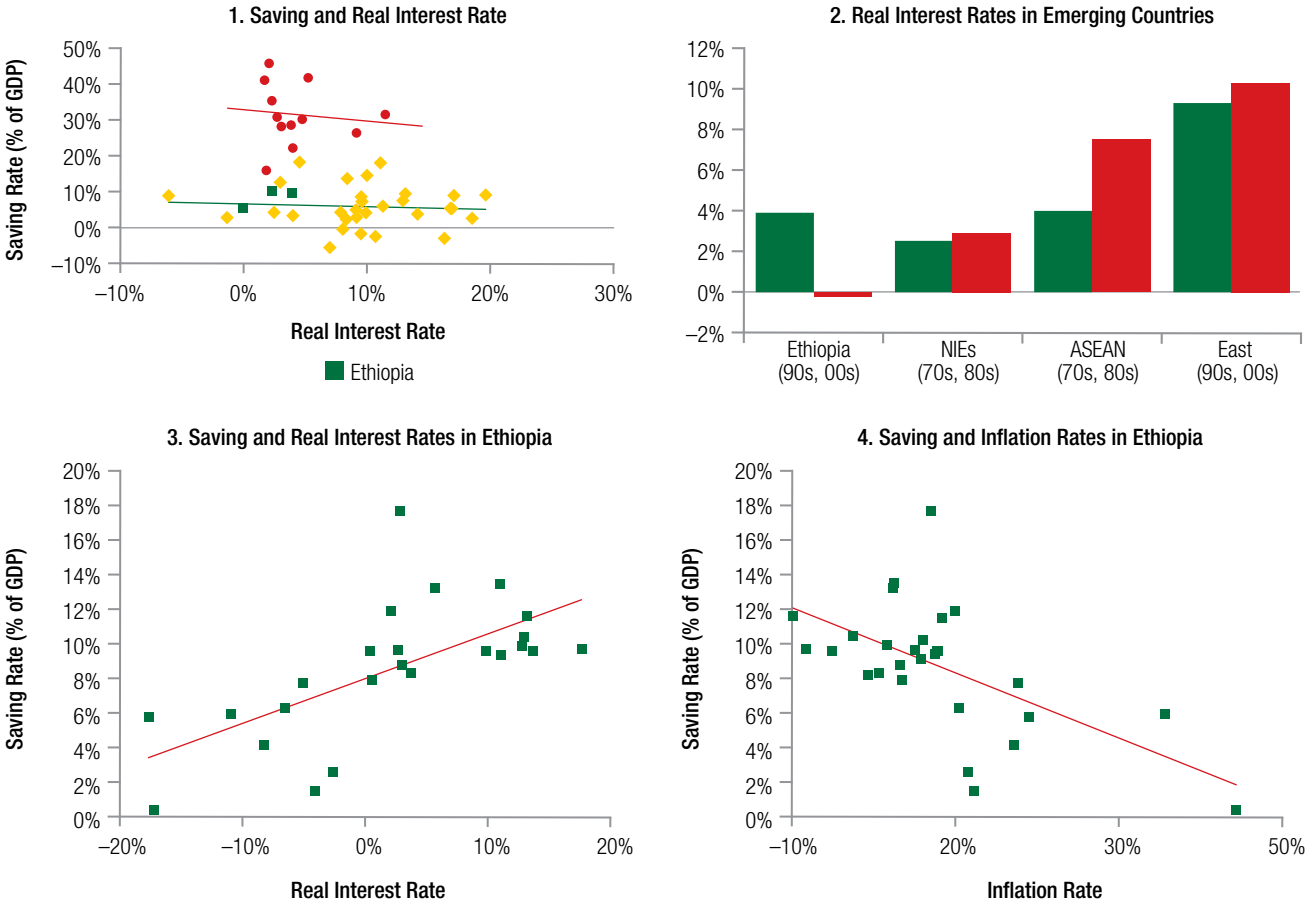
In Ethiopia, there is no evidence for overconsumption by high-income group during periods of inflationary pressure. One hypothesis for this analysis is that the low savings rate may be the result of higher income groups not increasing their saving behaviors the way one would typically expect. Part of the reason, as the original hypothesis states, may be that there are insufficient alternative monetary saving instruments available that would allow them to save. As a consequence the analysis tried to find evidence that higher income groups tend to "over-consume" in Ethiopia as compared to other East African countries. However, the analysis carried out based on household data from Ethiopia, Kenya, Uganda, and Tanzania did not provide evidence for such overconsumption, which may explain the low savings rate in Ethiopia.

The theory of precautionary saving predicts that an increase in economic uncertainty, often measured by inflation rate, leads to higher savings rates in the absence of complete financial markets. The logic behind this is that risk-averse households, which cannot perfectly insure risks, increase buffer savings to avoid large adjustment in consumption in the face of uncertain events. However, the inflation rate also reflects macroeconomic stability, which indicates that high inflation rate reduces saving. This is observed in Ethiopia. In fact, the empirical literature disagrees on the effect and extent of impact of inflation on the saving rate, reflecting the contrasting views above.[25]

[24] McKinnon (1973) and Shaw (1973) discuss that the real interest rates capture the extent of financial repression under which real interest rates are artificially kept low by government. Financial liberalization raises real interest rate and provides opportunities for saving and borrowing. McKinnon and Shaw claim that higher real interest rates raise saving for low-income financially repressed countries due to improved saving rate and opportunity. Empirical studies disagree about the impact of real interest rates. Loayza, et al. (2000) finds negative impact whereas Edwards (1996), Masson et al. (1998) and IMF (2005) find no impact and Masson, et al. (1995) shows the impact is positive.

[25] Loayza, et al. (2000) find a positive and significant effect of inflation on savings. Chaturvedi, et al (2009) also reports a positive and significant effect of inflation on savings in South-East Asian and South Asian countries, as shown by Ferrucci and Miralles (2007) for a large group of emerging market economies. Other studies, however, find that the inflation rate is not significantly associated with private savings (e.g., Edwards, 1996) or even negatively associated with it (e.g., Dayal-Gulati and Thimann, 1997).

FIGURE 14: Determinants of Savings: Real Interest and Inflation Rate



Source: World Bank staff calculations, based on World Development Indicators (WDI).

Figure 15.1 shows that inflation has a marginally negative correlation with saving for Asia, whereas it is positively correlated for SSA.

The impact of financial development on saving is complex. It can be divided into direct, short-run impact and indirect, long-run impact. The direct, short-run impact, which is predicted as negative, is further decomposed into price and quantity channels. Through the price channel, higher interest rates lead to income and substitution effects, which affect savings in the opposite directions. Contrarily, through the quantity channel, Jappelli and Pagano (1994) find that elimination of credit ceiling at both corporate and consumer levels has a negative impact on saving. Wang, Xu, and Xu (2011) provide theoretical analysis that shows the impact of financial sector development on savings rate is hump-shaped and finds such an empirical relationship. In order to capture the nonlinear relationship between savings rate and financial development, the empirical analysis below incorporates the square of financial development indicators. Figure 15.2 shows no correlation between the savings rate and private credit flow for Asia, and a positive correlation for low-income SSA. Private credit flows are strongly associated with income level, which negates the predicted negative correlation between saving and private credit flow.

The indirect impact of financial development—which is predicted as positive—is realized through improved financial intermediation. Countries with efficient financial intermediation can enhance domestic resource mobilization, leading

to income growth. As described above, income growth is associated with higher saving. Therefore, in the end, financial development and saving rate is expected to show a positive correlation.[26] Empirical studies analyzing the long-term impact of financial development use the stock of private credit or broad money (M2) as proxies for financial depth. Figure 15.3 shows a positive correlation between the savings rate and M2.

Ethiopia is demonetizing, while its peers are doing the opposite, and this negatively affects savings. In phases with high inflation rates, as the nominal GDP becomes large, the ratio M2/nominal GDP declines and a country demonetizes.[27] Additionally, high inflation increases the velocity of money and hence M2/GDP declines even further. The decade-averages in Figure 15.4 initially lead to the conclusion that the degree of monetization in Ethiopia increased over the three decades under observation. However, a closer look at the annual figures in Figure 15.5 reveals that it has been continuously falling from 44.3 percent in 2003 to 22.9 percent in 2009 in Ethiopia. Such a demonetization is observed only for Ethiopia. The decline in the degree of monetization seems a key factor in explaining the low saving rate in Ethiopia.

In sum, this section identifies four key determinates of savings: real per capita GDP and its growth rate, the old dependency ratio, the degree of monetization and macroeconomic stability. Their impact on the actual developments of the savings rate in Ethiopia varies: (1) The level and growth rate of income (real GDP) is a key determinant of savings worldwide. However, Ethiopia and East African countries are exceptions, possibly because the income level is so low that it is hard to increase savings. (2) Demographic changes have a significant impact on household saving patterns and this can be observed in Asia. In Ethiopia, however, demographic effects have yet to unfold. (3) The effects of the degree of monetization and financial development on savings are complex; however, in the long run, financial depth, measured through the ratio of M2 to GDP, are expected to show a positive correlation to savings. However, Ethiopia is demonetizing and this negatively affects savings. (4) Macroeconomic stability, measured by developments in real interest rates (or alternatively inflation rates) affects savings through its impact on the rate of intertemporal substitution of consumption. Negative real interest rates observed in Ethiopia over much of the 2000s can partly explain the decline in savings during that time.

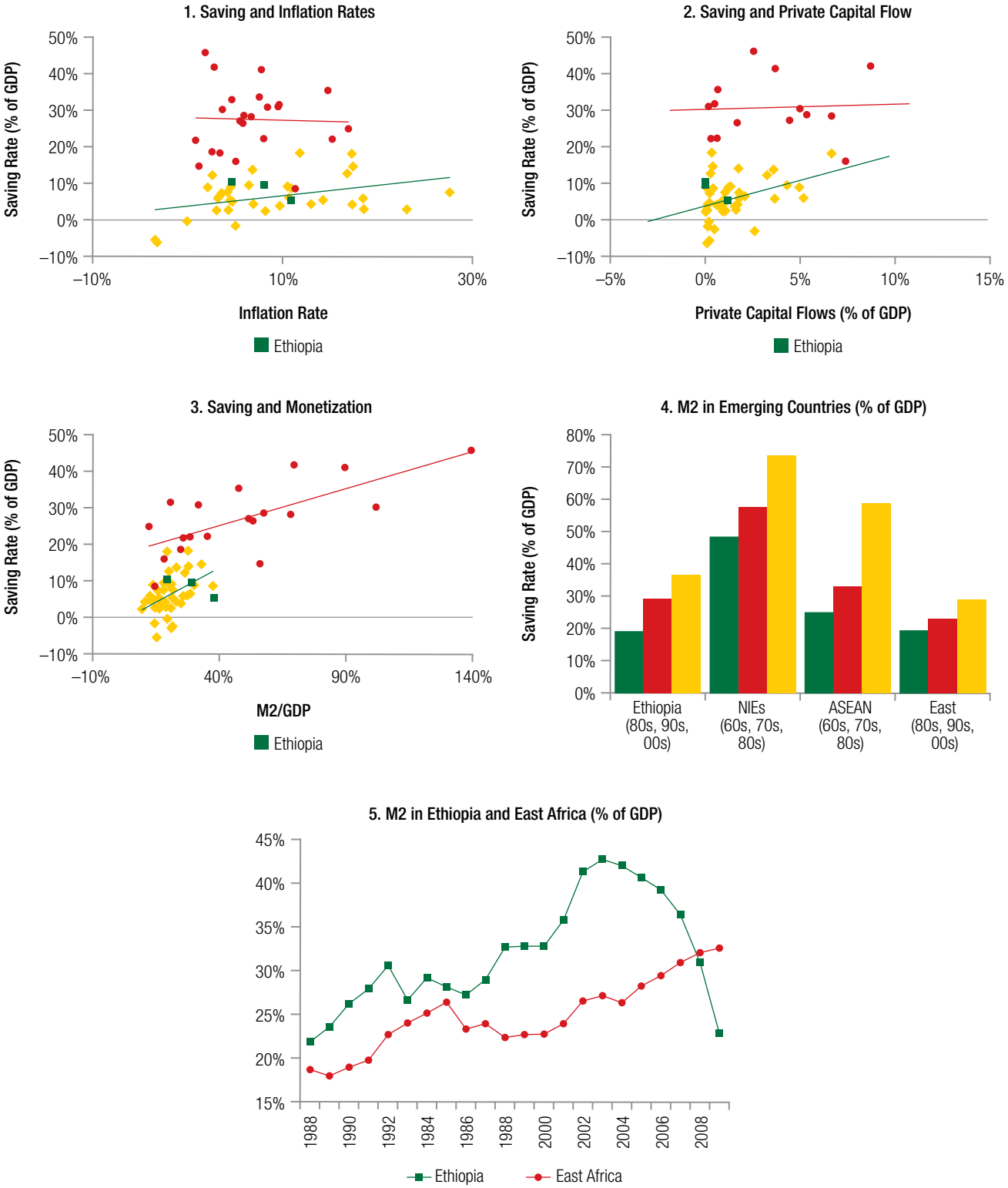
Recent Initiatives to Increase the Savings Rate in Ethiopia

The Government of Ethiopia has taken various measures to increase savings. These measures range from schemes to increase household savings through improving financial sector accessibility, to attracting funding from the large Ethiopian diaspora, to maintaining macroeconomic stability. Concretely, five main measures are in place:[28]

- **Pension scheme**: The government has established a pension scheme for employees of private companies and NGOs.
- **Expanding bank branches**: In an attempt to increase access to financial services from 20 to 67 percent at the end of the GTP period, the commercial banks continue their expansion of the branch network. The number of branches for all banks increased from 681 at the end of FY10 to 1,286 at the end FY12 (an increase of 89 percent).
- **Micro-financing:** Microfinance institutions are being promoted and their clients and deposits are increasing over time. More than 2.6 million clients

[26] See Levine, et al. (2005) and Levine (2000).
[27] Other monetary variables (measured in percent to GDP), such as money in circulation and monetary base, follow a similar declining trend since 2005/06.
[28] There is also a planned housing saving scheme, which has yet to be implemented. The scheme aims to encourage low- and middle-income earners to deposit money from their income for a given period with the aim to reach sufficient savings to allow for buying a home. By the time the savings will have reached 40 percent of the housing cost, the savers will be entitled to a house where the remaining cost of the house be covered through long term, possibly subsidized loans.

FIGURE 15: Determinants of Savings: Inflation Rates, Financial Sector Development



Source: World Bank staff calculations, based on World Development Indicators (WDI).

of MFIs contributed 4.5 percent to domestic savings in the country in 2012.

- **Diaspora bonds:** The purpose of these bonds has been to raise savings domestically and abroad to finance investments of EEPCO, in general, and the construction of the Grand Renaissance Dam, in particular.
- **Housing saving scheme:** A new scheme is being implemented in the city of Addis Ababa since June 2013.

The Pension Scheme

The share of the pension fund to domestic savings is small (net of pension payments), but the contribution to gross national saving is increasing. The current pension system in Ethiopia was established in 1963 with the aim of providing pension social security to public servants and state owned enterprises. Yet, even today, the overwhelming majority of the Ethiopian population has no coverage of the social security system of any kind. Nevertheless, for those who have access, their contributions are on the rise. The targets set forth by government are to increase the contributions of civil servants from five to seven percent of employees' gross salaries over three years (FY12–14) and the government contribution from seven to 11 percent employees' gross salaries, respectively. For the subset of military and policy services employees, the target is to increase the employee contribution to seven percent and the employer contribution to 25 percent of employees' gross salaries. The share of the pension fund to saving is small (net of pension payments), but the contribution to gross national savings is increasing (Figure 16). However, the relative share of the pension fund in gross domestic saving is declining because the former is not growing as fast as the latter.

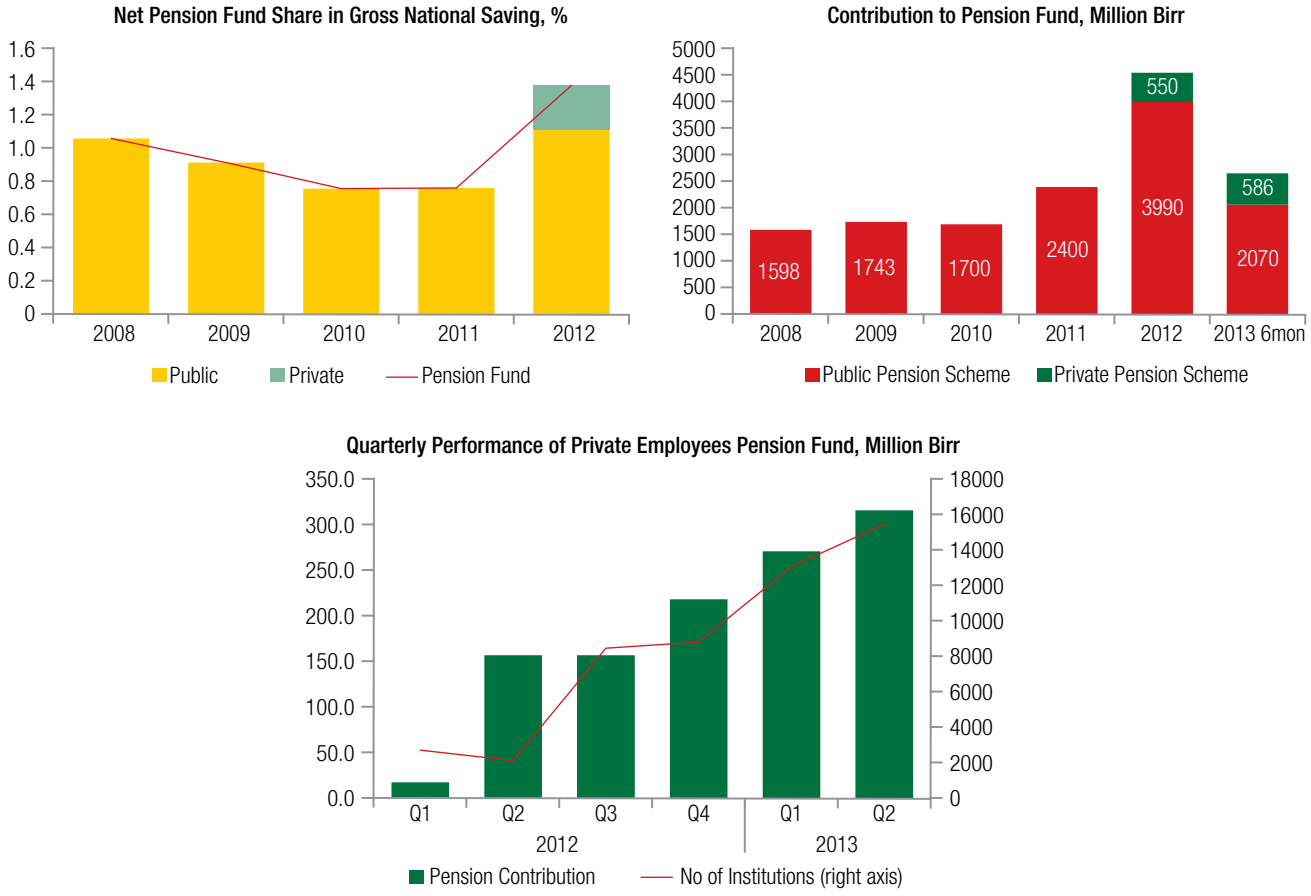
The newly established Private Organization Employee Pension Scheme is a potential source for increased domestic savings in the economy. Large portions of the urban labor force are engaged in the private sector. A new law introduced in FY12 requires any private employees—with the exception of domestic workers, diplomatic, and international organization staff—to register to the private pension scheme. The total number of employees covered with the new scheme reached about 360,000 at the end-December 2012. The employee contribution rates started at five percent of gross salaries in 2012, and will reach seven percent in FY14. The employers' contribution should reach up to 11 percent of gross salaries by FY14, similar to the scheme for civil servants. In the first year of its operation, the private employees' pension scheme managed to collect about 0.5 billion Birr (0.3 percent of gross national savings); ongoing collection in FY13 points to an increased collection level in FY13.

Expanding Bank Branches

Ethiopia's financial intermediation is small relative to other African countries. In 2011, private sector credit in Ethiopia was equivalent to about 14 percent of GDP compared to the regional average of 23 percent of GDP. Likewise, the banking value added in share of GDP is only 1.7 percent. It is therefore far lower than, for instance, in South Africa (18.7 percent) and Kenya (7.2 percent). Ethiopia's economy is characterized as a large agrarian society with poor infrastructure and relatively weak financial system coverage. Under these circumstances, the expansion of the banking sector to rural areas might be costly. On the other hand, the deposit mobilization of the banking sector has been increasing over time. The average saving deposit by individuals in the formal banking system has increased from 27 Birr in 2004 to 316 Birr in 2012. Yet, the share of per capita saving deposits that is channeled into the formal banking sector is small, and accounted for only to about 4.5 percent in 2012 (in relation to a per capita income of US$380, or about 7000 Birr).

The past two years saw a substantial increase in the number of bank branches in Ethiopia. In an effort to increase access to financial services from 20 to 67 percent at the end of the GTP period, the commercial banks continued their drive to open significant numbers of branches across the country. As an effect, the number of commercial bank branches

FIGURE 16: The Pension System and Savings in Ethiopia



Source: Pension and social security agency and private employees' social security agency.

in operation increased by 90 percent in the last two years, from 680 in 2010 to 1,289 in 2012 (Table 5). The majority of the increase comes from the state-owned Commercial Bank of Ethiopia (CBE), which increased its branch network by 167 percent during the first two years of the GTP. Private banks show a slower increase in their bank branch network, which is a reflection of their smaller size and ability; the latter is constraint given the 27 percent rule that limits the availability of funds to onlend and hence the ability to expand. CBE also promotes deposit mobilization through the provision of lottery coupons for additional new saving made by depositors and for those who opened new accounts (with a fixed minimum amount).

Looking at micro data indicates that the expanded bank branch network has had an effect on the savings behavior in Ethiopia. Based on nationally representative data collected via the Urban Employment and Unemployment Survey (UEUS)[29] an econometric analysis provides insights into the question of the likelihood of saving in banks (*Annex Savings Rate 2*).[30] The survey data consists of questions related to bank saving, individual characteristics

[29] UEUS is designed to provide data on employment and unemployment at national and regional urban levels. It follows a household approach and covers all urban areas of the country except nomadic areas of the 3 zones of Afar and 6 zones of Somalie regions.

[30] The UEUS data used in the analysis was collected in 2006, 2009 (Due to quality concerns, the multivariate analysis excludes the 2009 sample), 2010, 2011, and 2012. It also covers more than 70,000 individuals except in 2006 where there are about 60,000 respondents. Since there is no information on the amount of saving the outcome variable is discrete which takes a value of one when an individual has a bank account and zero otherwise.

TABLE 5: Bank Branch Expansion[a] Data by Region in Ethiopia, 2006 to 2012

Region	2006	2010	2011	2012
Addis Ababa	148	265	352	430
Tigray	26	43	76	94
Afar	3	5	5	9
Amhara	69	88	132	190
Oromia	115	182	262	354
Somalie	7	10	16	24
Beneshangul	1	2	4	7
SNNPR	38	59	95	143
Gambela	1	2	4	6
Harari	4	10	10	12
Diredawa	9	14	17	20
Total	**421**	**682**	**973**	**1289**

Source: National Bank of Ethiopia (NBE).
[a] The number of bank branches includes is given as the sum of all banks in a given region. Hence, it includes both public (e.g., Commercial Bank of Ethiopia) and private banks (e.g., Dashen Bank).

of savers (e.g., age, gender, marital status, education), and employment status. The analysis is possible through matching the UEUS data with data on the number of bank branches in each of the 11 regions,[31] which is provided by the National Bank of Ethiopia.

The branch expansion in all regions of Ethiopia has led to a significant increase in the likelihood of saving in banks by individuals. The analysis shows the increasing importance of bank deposits as financial instruments used by individuals. Expanding bank branches is therefore a major saving-supporting policy measure in Ethiopia. This is because the number of branches has a positive and significant impact on improving the access of individuals to formal saving opportunities. King and Levin (1993) show that bank expansion and economic growth are positively correlated in cross-country data while Burgess and Pande (2005) show that branch expansion in to rural, unbanked locations in India significantly reduced poverty.

International experience indicates that expanding the bank network will maximize effects if an overall saving-conducive macroeconomic environment accompanied it. In situations where the overall environment is right for savings, (i.e., the inflation rate is low, the real interest rate is moderate, and the dependency rate is not changing over time) then the improved access through an increase in the branch network can unfold its full effects to increase saving. A similar idea for getting the environment right comes from reviews of compulsory saving schemes. For instance, Husain (1995) and Faruqee and Husain (1998) find that compulsory saving schemes in Malaysia and Singapore are offset by a reduction in voluntary savings and are insignificant in terms of impact on private saving. Rather, they find that demographic change and per capita income account for strong saving performance in Malaysia and Singapore.

Micro Financing

Microfinance is a dynamically developing sector in the financial industry in Ethiopia. As per the

[31] These are Addis Ababa, Tigray, Afar, Amhara, Oromia, Somalie, Beneshangul, SNNPR, Gambela, Harari and Diredawa.

end of 2012, there were 31 licensed microfinance institutions (MFIs) operating in Ethiopia. Their deposits amounted to 5.5 billion Birr and represented the savings of 2.6 million clients (Table 6). In 2012, MFI savings constituted around 4.5 percent of GDS. Some MFIs are sizeable financial institutions in their own rights and bigger than some of the commercial banks. The sector is highly concentrated, with the five largest MFIs (owned by regional governments and operating in different regions without competing with each other) corresponding to 89 percent of total sector assets and 83 percent of total borrowers. The predominant loan methodology is group loans, but some MFIs have started to offer individual loans and this development could be expanded to support the development of micro and small enterprises. Strengthening the microfinance policy framework and supervision through NBE and the inclusion of large MFIs in key strategic NBE projects, such as the payment system and the credit information center, are key priorities going forward.

However, access to financial services remains highly limited all over Ethiopia with only 1.97 commercial bank branches and 0.33 ATM per 100,000 adults. This is compared to, for instance Kenya where there are 5.17 commercial branches and 9.46 ATMs per 100,000 adults. Access to finance also remains a major constraint for enterprises. The recently published data of the 2012 Ethiopia Enterprise Survey confirms that access to finance remains a major constraint for enterprises. This is perceived as the main business environment constraint by both small (38 percent) and medium (29.5 percent) enterprises in Ethiopia, compared to an SSA average of 21.2 and 15.2 percent respectively. The same survey 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 three percent of small enterprises and 23 percent of medium have a loan or a line of credit. These low percentages can be explained by (among other factors) the extremely high value of collateral needed for a loan, corresponding to 249.3 percent (253.5 percent) of the loan amount for small (and medium) enterprises, against a SSA average of 160 percent.

MFIs provide financial intermediation mostly for communities with low access to formal financial institutions. Low access is often the case due to the absence of banking institutions, limited capacity of beneficiaries, and lack of provision of small loans without collateral. Thus, MFIs serve as a social

TABLE 6: The Development of Micro-Finance Institutions in Ethiopia, 2003 to 2012

Year	Number of MFI	Number of Clients	Total Saving in ETB	MFI Savings as % of GDP	MFI Savings as % of GDS
2003	22	746,136	323,503,677	0.45	6.3
2004	22	622,650	411,234,819	0.48	3.3
2005	26	939,585	583,664,099	0.56	6.2
2006	27	1,299,896	799,356,324	0.62	7.9
2007	28	1,700,396	1,172,879,769	0.69	5.8
2008	27	2,172,823	1,489,128,630	0.61	7.0
2009	30	2,197,688	2,223,443,931	0.67	7.3
2010	30	2,325,914	2,555,729,721	0.68	7.7
2011	31	2,480,810	3,696,016,796	0.73	5.7
2012	31	2,637,625	5,474,346,625	0.74	4.5

Source: National Bank of Ethiopia (NBE); and Adapted from AEMFI (2012) Performance Analysis Report, Table 3; p. 8.

function by filling the gap where formal financial institutions failed to reach the majority poor people. MFIs in Ethiopia initially started as semi-financial institutions with the support of government and donors, but they have since transformed into deposit taking institutions. Integrating them fully to the formal intermediaries such as banks will greatly help the government's plan to mobilize savings for investment purposes. As a policy, the current developmental phase of MFIs in Ethiopia requires intervention of development financing agencies such as the Development Bank of Ethiopia (AEMFI, 2012).

Expanding the activities of MFIs is one of the key instruments to support the poor and vulnerable and to meet the saving mobilization objectives of the five-year GTP. However, the regulations are rather restrictive and thereby prohibit growth to fully meet demand and to allow the provision of flexible and responsive services to clients where they are needed. They could also be provided with extra loanable funds by government since current loan volumes are insufficient to meet demand (Amha, 2012).

In addition to participating in MFIs, many individuals in Ethiopia save either in Savings and Credit Cooperatives (SACCOs) or via Rotating Savings and Credit Associations (ROSCAs), which are often preferred to formal saving institutions. Contrary to ROSCA, which are informal groups, SACCOs are usually supervised by the Federal Cooperative Agency (or its regional branches); informal surveys suggest that SACCOs hold around 13 million ETB in their accounts through 450 rural cooperatives and 30,000 members. The members of ROSCA are usually neighbors in a given community, friends, and employees of a given organization. In a ROSCA, these members come together and make regular contributions to what is referred to as the ROSCA pot or fund. Members meet in cycles on a daily, weekly or monthly basis. The fund is collected by a ROSCA judge who is selected by members as a responsible person to organize the ROSCA meetings and keeping records. The ROSCA fund is given to one member in each of meeting cycle. For example, a group of 10 individuals may contribute US$100 per month for 10 months.

The ROSCA fund is collected each month and given to one member either by a random draw[32] or via a bidding process. After having received the ROSCA pot when it is his or her turn, the winning member continues his or her monthly contribution until the last member of the ROSCA receives the pot at the end of the ten months. After one ROSCA cycle is completed, the members decide to continue saving by starting another cycle with a similar or different level of contribution. Alternatively, they may disband the ROSCA and stop the informal saving altogether. ROSCAs mobilize large sums of money, which can be used by participants for a variety of purposes such as insurance against shocks, to buy durables, to start up a business, to expand a business, and to buy commercial vehicles.

ROSCAs satisfy the financial needs of the majority of the Ethiopian population and have relative merits compared to banks. The funds contributed to ROSCAs can be instantly drawn on, and the institutions are useful for information sharing and social interaction. The winner of the ROSCA pot has a possibility repaying the loan to other members of ROSCAs over an extended period. Members can join ROSCAs with limited or no collateral, membership entails low transaction costs, and there are no restrictions on what members spend their money on. In ROSCAs, there are no form filling procedures, excessive waiting time for withdrawals and loan approval delays. Since membership is usually not anonymous and is based on close social networks, there is trust among participants and few reported defaults. The characteristics of members participating in them are significant determinants of participation in these informal schemes (Kedir and Ibrahim, 2011; Kedir, et al 2011). Since some of the big ROSCAs already keep their deposits in banks, further effort

[32] Random ROSCAs are the most common in Ethiopia. Sometimes funds are also released based on the financial need of a given member and the judge decides to allocate the funds to the person in need.

to encourage them to use formal banking facilities will support the existing strong saving mobilization effort of the Ethiopian government.

Diaspora Bonds

The government introduced two sets of diaspora bonds over the past 3 years. The first one was called the "Millennium Corporate Bond" in 2009, and was used for raising funds to finance hydropower dam plans for the Ethiopian Electric Power Corporation (EEPCO). The second one, which consolidated the "Millennium Corporate Bond" was the "Renaissance Dam Bond" launched in 2011 to finance the building of the "Grand Renaissance Dam." The idea behind the diaspora bonds is simple and has been tried out in countries like Israel and India. With those bonds, which are marketed in developed countries to reach the emigrated diaspora, poor countries try to create a formal instrument for emigrants to invest back in their country of origin. Advantages of reaching out to a diaspora are that they are often patriotic and hence benevolent, they are patient, and they are less prone to follow irrational market sentiments (*The Economist*, 2011).

India and Israel combined have both raised about US$40 billion by reaching out to the wealth of their diaspora communities. Diaspora bond issuance by the Development Corporation for Israel (DCI) has been a recurrent feature of that nation's annual foreign funding program, raising well over US$25 billion since 1951. The State Bank of India (SBI) has issued diaspora bonds on just three occasions: in 1991, following the balance of payments crisis; in 1998, after the country conducted nuclear tests; and in 2000. The SBI has raised US$11.3 billion. Jewish diaspora investors paid a steep price premium (perhaps better characterized as a large patriotic yield discount) when buying DCI bonds. Indians living abroad purchased SBI bonds when ordinary sources of funding for India had all but vanished (Kethkar and Ratha, 2009).

"Millennium Corporate Bond" issuance has not met the expectations thus far in attracting savings from the diaspora. Sales were slow during the first months of offering despite the efforts of the Commercial Bank of Ethiopia, and the embassies and consulates, to sell them. Some risks that the diaspora perceived were (Plaza, 2011): perceptions on the payment ability of EEPCO on its future earnings from the operations of the hydroelectric power; lack of trust in the government as a guarantor; and political risks. The issuance of the "Renaissance Dam Bond" was designed to overcome some of the weaknesses observed in the first diaspora bond. The government took considerable additional marketing and awareness-raising campaigns to encourage the diaspora to buy it. The minimum denominations were lowered to US$50, so more Ethiopians could have access. Additionally, the bond can be transferred to up to three people and it can also be used as collateral in Ethiopia. Finally, the Commercial Bank of Ethiopia committed to cover any remittance fees associated with the purchase of these bonds (Plaza, 2011). Still, at the end of FY2011/12 the consolidated diaspora bonds in EEPCO's books reached a mere US$888,000. A domestic component to the "Renaissance Bond," however, is reported to have around US$500 million in pledges and US$200 million in actual collection by April 2013 according to the Council for the Coordination of Public Participation on the Construction of the Grand Ethiopian Renaissance Dam.

Housing Saving Scheme[33]

The Government started to implement a new housing scheme in June 2013, in the city of Addis Ababa, through the Commercial Bank of Ethiopia. The scheme aims to encourage low- and middle-income earners to deposit money for a given period, with the goal of reaching sufficient savings to allow for buying a home. By the time the savings will have reached a predefined percent of the estimated housing cost, the savers will be entitled to a house.

[33] At the time of report, preparation of the scheme was too new to facilitate an evaluation.

The new scheme allows for three main choices for the individual saver: the "10/90", the "20/80" and the "40/60" options. Accordingly, an individual saves ten percent (or 20 percent or 40 percent) of the housing cost in closed saving accounts at Commercial Bank of Ethiopia branches. Upon eligibility, which varies according to each option, the Government facilitates long term loans to cover the remaining balance:

- The 10/90 scheme targets low income groups where the potential house owners will save a fixed monthly amount of up to ten percent of the estimated house price. After three years, the Government's long-term loan will kick in for the remaining 90 percent.
- The 20/80 scheme targets lower middle-income households.[34] Savers will deposit a predefined amount for five years until the amount reaches 20 percent of the estimated total housing cost before the long-term loan is triggered.
- The 40/60 scheme targets the upper middle-income group of the population. Registered individuals are expected to save for five years before the long-term loan is arranged for 60 percent of the estimated housing cost (the quality of houses is supposed to be best in this scheme, due to better building material). An alternative approach in this scheme is that individuals can pay upfront a 40 percent down payment and the housing agency will arrange for loan for the remaining balance.

Policy Recommendations

The following recommendations emerge from the analysis of this chapter:

- **First, establishing a stable macroeconomic environment with low, but positive real interest rates and low levels of inflation, is among the main policy tools to increase the saving rate in Ethiopia.** The analysis showed that macroeconomic variables such as real interest and inflation rates are key determinants of savings in the World and in Ethiopia.
- **Second, pursuing a strategy of monetization, while keeping inflation under control could be an efficient means to increase the saving rate**. Ethiopia is the only country in sub-Saharan Africa that experienced a major decline in the degree of monetization in the late 2000s (captured by M2/GDP). Monetization would need to be accompanied by appropriate financial deepening with a vibrant banking sector that supports both public and private real sectors of the economy. More competition in the financial sector could increase saving products through innovation and lead to a larger customer base—and savings.
- **Third, the importance of official transfers and remittances for government and households to save offers the opportunity to implement policy measures that help channel and formalize those transfers into the economy.** While the reliance on external funding causes some concern as to the dependency of the saving rate in Ethiopia on variables outside the control of policymakers, three concrete steps could help formalize these transfers (RMA, 2010):
  - **Establishing formal savings products for remittances.** Ethiopia's banks and other RSPs have not yet made much concrete progress in using remittance transfers as an entry point for formal financial products. This is the case partly because of the relatively underdeveloped state of Ethiopia's financial system. Allowing banks to better serve remittance receivers in Ethiopia would help banks to formalize remittances.
  - **Increasing transparency of remittances-related fees.** Making information on remittance

[34] This scheme complements a mechanism (i.e., the raffle for condominium houses). There, however, the winners of the raffle are expected to settle 20 percent of the cost of the house up front at the time of the hand over the house. The new scheme is expected to use a similar raffle mechanism to ration the availability of the housing option. Savers cannot withdraw money from accounts once deposited.

BOX 3: Policy Recommendations on Savings

Policy Area	Recommendation
Macro-economic policy	1. Macroeconomic stability with positive real interest rates. 2. Pursue a strategy of monetization
Financial sector measures	3. Facilitate remittance transfers, including establishing formal savings products, increasing transparency, and reducing costs. 4. Continue bank branch network expansion. 5. Enhance Micro Finance Institution (MFI) capacity. 6. Integrate informal savings schemes with formal. 7. Develop mobile banking. 8. Improve financial literacy.

transfer fees publicly available to both potential senders and receivers enhances market transparency among the market's Remittances Service Providers (RSPs) and can further increase the remittance inflows sent through formal channels.

- **Reducing cost through new technology.** The development of new technologies and products for the delivery of cross-border remittance inflows, such as mobile money transfers and card-based technologies, could further reduce the cost of remittance transfers and further boost competitiveness among RSPs in Ethiopia's remittances services market.

- **Fourth, the branch network expansion policy should be continued and furthered with more efforts targeted also to reach the rural areas where saving is mainly in kind.** Due consideration is needed to facilitate bank branch expansion also of private commercial banks. Since trust and risk aversion is one of the key factors leading households to save in informal schemes, formal saving institutions such as banks can provide credible deposit guarantees to further strengthen the growth trend in bank saving. One important consideration is also to focus in some areas of the country where the saving culture is not strong. For instance, the Southern part of Ethiopia is mainly rich in cash crops. Therefore, saving in formal institutions is weak compared to areas in the Northern part of the country where households face years of droughts and other calamities, which caused them to be risk averse and develop a thrift culture. Policy making that recognizes this heterogeneity could be more flexible in incentivizing saving mobilization where the impact promises highest returns.
- **Fifth, the capacity of MFIs to access loanable funds should be facilitated with government support.** MFIs are entrusted with the responsibility of being the key institutions that implement the MSE Development Strategy of Ethiopia, employment creation, and poverty reduction. So far, they have raised large sums of savings especially in the last two years, but this covers only half of their loanable funds and additional support could help to further MFI penetration in Ethiopia. Strengthening the microfinance policy framework and supervision through NBE and the inclusion of large MFIs in key strategic NBE projects, such as the payment system and the credit information center are key priorities going forward.
- **Sixth, given the great importance of informal saving, efforts must be channeled into integrating the informal and formal sectors.** There is limited integration between the informal and formal financial sectors. An attempt to link the two could potentially lead to getting the saving mobilization into the open at an integrated market price (Senbet, 2012). Policy can also focus on encouraging Rotating Savings and Credit Associations (ROSCAs) and community saving cooperatives to hold their saving deposits in banks to formalize and secure otherwise informal savings. Policies could aim to link informal schemes that operate in rural areas with excess liquidity

to more stable and regulated deposit taking MFIs, which are in need of deposits to expand.

- **Seventh, establishing mobile banking drawing upon successful examples in neighboring countries.** To illustrate, "Branchless Banking" is practiced in Kenya via M-PESA, payment method using mobile phones. Tanzania will soon launch a similar approach, called Z-PESA. Ethiopia is a latecomer to permit mobile banking in Africa. With most of the population "unbanked" (in 85 million total population), mobile banking is a lucrative venture. Approval of the currently considered legislation for mobile banking in Ethiopia could help kick start the development of the sector. In addition, the mobile banking business model in other countries benefited from deregulation of mobile money services (e.g., Kenya, Tanzania, and Uganda). Multiple mobile operators help to push the price down for the services.
- **Finally, to benefit from branch expansion and use of money transfer technologies, individuals' financial literacy levels need improvement.** A recent cross-country study showed that a number of key ingredients are commonly seen in successful financial literacy programs and it includes the following recommendations to improve the financial education for consumers: (1) start with awareness building rather than with traditional numeracy skills; (2) leverage social networks and peer effects; and (3) identify and target vulnerable populations. Women, youth, the elderly, and those with lower incomes and educational attainment are less likely to be financially literate and targeting those promises the most success (World Bank, 2012e).

Annex: Savings Rate

Annex Savings Rate 1

Empirical analysis of the determinants of savings

This annex provides an empirical analysis of the saving determinants for SSA countries and emerging Asian countries. The analysis follows Loayza, et al. (2000) by employing Generalized Method of Moments (GMM) estimators applied to dynamic models, using panel data. These estimators allow control of unobserved country-specific effects and potential endogeneity between savings rates and other macroeconomic variables.[35]

The reduced form estimating equation is given by:

$$s_t = \alpha s_{t-1} + \theta' X_t + \varphi + \varepsilon_t, \qquad (1)$$

Where is savings rate; denotes a set of determinants potentially affecting saving rate; represents a set of unobserved, time-invariant, country-specific effect; and is the error term. All the determinants analyzed in the previous section enter linearly, and squared real interest rate, and broad money enter to capture possible nonlinear relationship in the above equation.[36]

Table 7 shows the estimation results for GDS and PRS, respectively. GMM estimation results are satisfactory and broadly consistent with the determinants highlighted in the main text and the literature. Key insights on the determinants of the saving rate are as follows:

- **Persistence:** The presence of inertia in saving is evident as the coefficient of the lagged saving rate is positive and statistically significant across all samples. The coefficients of the lagged GDS and PRS rates for SSA are 0.63 and 0.50 respectively, implying that the factors affecting saving rate have 2.70 and 2.01 times larger long-term impact than their short-term impact. This outcome is consistent with findings by previous literature, where the lagged private savings rate has a coefficient of 0.59 (Loayza, et al., 2000).
- **Income Level And Growth:** The estimation reveals that the level of income is positive and statistically significant—weakly for SSA and strongly for Asia only for PRS. The coefficient on the growth rate of income is positive and significant for SSA. This indicates that there is a virtuous circle from higher growth to higher saving. Previous literature incorporating instrumental variable method and various causality tests also confirm the virtuous circle (Loayza, et al., 2000).
- **Macroeconomic Stability:** The coefficients on squared real interest rate are negative and significant for all specifications, suggesting a nonlinear, hump-shaped relationship with saving rates. In other words, the real interest rate has a positive impact on domestic savings up to certain threshold, but its impact turns negative as real interest rate rises beyond such a threshold. This indicates that the substitution effect overwhelms the income effect up to the threshold while the income effect dominates the substitution effect beyond the threshold.[37]
- **Financial Development:** Coefficients on M2/GDP ratio are insignificant for SSA but significant for Asia, indicating financial development leads to higher saving in Asia. However, this does not necessarily mean that monetization does not promote saving in SSA. As IMF (2010b) points out, monetization and financial deepening are the dynamos for economic growth. Furthermore,

[35] Interested readers may refer to Hauk and Wacziarg (2009) which overcomes issues of endogeneity, small sample and measurement errors by simulating data from a true economic growth model. This said, they show that both fixed effect and Arellano-Bond GMM models lead to similar results as simple OLS estimation.

[36] The analysis drops the inflation rate because of its high correlation with real interest rate.

[37] Loayza, et al. (2000) also find a similar negative impact of real interest rate on private savings. In general, the results regarding real interest rates and savings in developing countries should be taken as given, because the real interest rate measure may reflect more the action of nominal interest rate controls and financial repression than the intertemporal rate of substitution of consumers.

TABLE 7: Saving and its Determinants

	Gross Domestic Savings		Private Savings	
Saving Determinants	SSA	Asia	SSA	Asia
Lagged saving rate	0.625***	0.503***	0.503***	0.330***
	(14.28)	(7.11)	(12.18)	(5.70)
Real per capita GDP	0.053	0.013	0.111*	0.053***
	(0.96)	(0.75)	(1.78)	(3.10)
Per capita GDP growth	0.310***	0.066	0.226***	–0.048
	(4.63)	(1.48)	(3.11)	(–1.01)
Real interest rate	–0.112***	0.025	–0.055	0.009
	(–2.92)	(0.75)	(–1.36)	(0.25)
Squared real interest rate	–0.296***	–0.560**	–0.224***	–0.742***
	(–3.42)	(–2.22)	(–2.65)	(–2.58)
M2/GDP	–0.181	–0.062**	0.130	–0.080***
	(–1.38)	(–2.41)	(0.88)	(–2.94)
Squared M2/GDP	0.088	0.011*	–0.114	0.016***
	(0.76)	(1.77)	(–0.99)	(2.54)
Terms of trade	0.094***	0.074**	0.060***	0.039
	(4.23)	(2.41)	(2.79)	(1.27)
Urbanization ratio	0.173	–0.094	0.047	–0.171**
	(1.08)	(–1.21)	(0.26)	(–2.23)
Old dependency ratio	–0.133	–0.016	–2.134*	–0.684**
	(–0.12)	(–0.05)	(–1.74)	(–1.98)
Youth dependency ratio	0.117	–0.232***	0.128	–0.274***
	(1.52)	(–3.57)	(1.49)	(3.51)
Public saving	—	—	–0.760***	–0.668***
	—	—	(–9.86)	(–8.34)
Number of observations	460	195	394	183
Number of countries	19	8	19	8

Note: figures in brackets are t-statistics. *, ** and *** indicate statistical significance at 10%, 5% and 1% level, respectively.

as examined above, higher income significantly raises saving. Therefore, one should be careful to not underestimate the impact of monetization on saving via economic growth channel.

- **Terms of Trade:** The coefficient on terms of trade is positive and significant with a one percentage point improvement in the terms of trade raising domestic saving rate by 0.08 percentage point. The effect of temporal improvement in the terms of trade on saving is important for SSA countries that export limited variety of primary commodities sold in highly volatile market.
- **Demographics:** The coefficient on old dependency ratio is significant with signs for PRS consistent with prediction of the life-cycle theory. The magnitude of coefficients tends to be larger for old dependency ratio than youth dependency ratio as previous literature finds. Loayza, et al. (2000) argue that this reflects the fact that the labor force effectively includes a non-negligible proportion of the young workers in many countries. A rise in the old dependency ratio contributes to dampen the positive impact of increases in per capita income on the saving rate.
- **Public Saving:** The impact of public saving on PRS is strongly negative across country groups, confirming that public saving crowds out PRS. Specifically, for SSA, the private sector reduces its saving rate by 0.76 percentage points for each percentage point increase in the public saving rate within the same year the policy change occurs. An important issue, especially regarding on policy implications, is if the coefficient is statistically different from –1. One can reject the hypothesis that public saving fully crowds out private saving in the short run, indicating that the government can raise the GDS rate by increasing public saving. However, for sustainable country-led economic growth in Ethiopia, public saving may not be an appropriate policy tool given public saving has a negligible impact on GDS rate in the long run.

Annex Savings Rate 2

TABLE 8: Probit Model Predicting the Probability of Having a Bank Account, UEUS 2006–2012

	Variable			
Variable	**2006**	**2010**	**2011**	**2012**
No of Bank Branches	0.0006 *** (0.0001)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Female	–0.180*** (0.021)	–0.086*** (0.018)	–0.092*** (0.017)	–0.086*** (0.017)
Age	0.020*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.005*** (0.001)
No schooling	–0.215*** (0.062)	–0.262*** (0.074)	0.034 (0.070)	0.082 (0.063)
Primary	0.220*** (0.044)	0.103*** (0.037)	0.127*** (0.035)	0.105*** (0.035)
Secondary	0.080*** (0.029)	0.186*** (0.025)	0.311*** (0.027)	0.302*** (0.028)
Married	–0.135*** (0.028)	–0.058*** (0.022)	–0.075*** (0.022)	–0.031 (0.021)
Divorced	–0.356*** (0.042)	–0.207*** (0.034)	–0.153*** (0.032)	–0.225*** (0.033)
Wage employed	0.342*** (0.029)	0.973*** (0.028)	1.087*** (0.028)	1.049*** (0.027)
Self employed	0.032 (0.030)	0.854*** (0.032)	0.945*** (0.031)	0.810*** (0.029)
Employer	0.445*** (0.121)	1.497*** (0.106)	1.679*** (0.093)	1.781*** (0.081)
Unemployed	–2.538*** (0.915)	–0.930*** (0.035)	–0.841*** (0.032)	–0.810*** (0.030)
Pseudo R-squared	0.21	0.25	0.26	0.25
No of observations	60,282	74,777	72,697	70973

Notes: ***, **, *= significant at 1%, 5%, and 10% levels.

In recent years, the government has supported the expansion of branch networks of Commercial Bank of Ethiopia (CBE). This led CBE to triple its branch network in less than two years and more than doubled its deposits (Amha and Alemu, 2012).

A similar analysis was also undertaken that included an additional variable on income. In the data set used, however, income is individual-based and not household based. Still, an analysis was carried out to test the influence of such an income variable, and it was found that the variable is insignificant. Much more, the number of branches variable is still statistically significant and positive. In addition, the coefficient on variable "branches" is very small compared to others such as employed, self-employed and employer dummies. Since the latter may be proxies for income levels (in monetary form), they may influence the overall result in favor of the significance of the branch network extension.

TRADE LOGISTICS[38]

3

Introduction

Trade logistics efficiency plays an important role in competitiveness and trade facilitation. This is because it can lead to important reductions in the time and costs of trading. A challenging task lies ahead for trade logistics in sub-Saharan Africa (SSA), as summarized by the following fact: "Shipping a car from China to Tanzania costs US$4,000, but getting it from there to nearby Uganda can cost another US$5,000" (*The Economist,* 2013). The emphasis of trade policy reforms across the regions is often placed on trade liberalization through tariff reductions to enhance international integration and strengthen competitiveness. While this generally leads to reductions in time to trade and lower costs, and thereby promotes exports, more needs to be done in lowering non-tariff barriers. Hence, the focus on trade logistics.

Advances in trade logistics to facilitate trade supported the dramatic transformation of successful emerging economies, such as China and India. According to a comprehensive global survey of international freight forwarders, India and China undertook aggressive reforms over the past decade to improve their logistics performance in support of economic transformation (World Bank, 2012). At the same time, many countries in sub-Saharan Africa (SSA) have experienced limited improvement in their logistics performance and this ultimately hampers economic development. Trade logistics are also instrumental for attracting Foreign Direct Investment (FDI), especially of the export-seeking kind that is so important for small economies (Delvin and Yee: 2005). Ongoing discussions at the World Trade Organization (WTO), as part of the Trade Facilitation Agreement negotiations, have the potential to trigger improvements in the area, as could regional fora, such as COMESA and bilateral trade agreements with Ethiopia's main trading partners.

The issue of trade logistics is particularly pertinent in the case of Ethiopia. This is so because there is consensus among most observers that the current system is not functioning optimally. The substantial delays in shipping containers are one of many indicators hereof. Global indicators of logistics performance also give cause for concern: Ethiopia's relative ranking in the World Bank Logistics Performance Index dropped from 123 in 2010 to 141 in 2012 (out of 155 countries surveyed, Figure 17.1). The recent introduction of the multimodal system, in particular, has stimulated substantial public debate.

This chapter addresses some of the following questions: What is Ethiopia's trade logistics performance compared to its peers? How has this changed over time? Why is trade logistics such a big challenge in Ethiopia? What are the implications of being landlocked? Is the multimodal system a part of the problem or the solution? What can Ethiopia learn from other countries? In addressing the problem, where should policy makers start?

The chapter is structured as follows: Section B offers an overview of Ethiopia's trade logistics performance compared to relevant peers. Section C presents a diagnostic of the Ethiopian trade logistics system by analyzing three policy dimensions: (a) structure and performance of the transport and trade logistics

[38] In preparing this report, MOFED requested the Bank that this analysis cover issues and policy recommendations along the whole supply chain and problems related to policy implementation of trade logistics. The team was also asked to place due consideration on specific issues arising from Ethiopia's status as a landlocked country.

system; (b) customs, border control and other trade related regulations; and (c) logistics and distribution services. Finally, Section D derives the policy recommendations arising from the analysis.

Trade Logistics for Trade Development: Ethiopia's Performance

Poor trade logistics penalize importing and exporting firms. To illustrate, poor trade logistics can add about ten percent to production cost in light manufacturing in East Africa (World Bank, 2012c). It can also cause long and uncertain delays, which are not acceptable to most global buyers, especially in time-sensitive industries. As a result, production is often confined to small market niches. For instance, Ethiopia exports only small volumes of low-value apparel products even though the Free-On-Board (FOB) price for an Ethiopian polo shirt (US$3.20) is more than 40 percent lower than the FOB price of an equivalent Chinese polo shirt (US$5.50). The higher Chinese price results from higher-quality shirts and the premium that global buyers put on China's ability to offer greater choice, bigger volumes, and shorter, more reliable delivery times (World Bank, 2012c).

Trade costs and transit times are very high in Ethiopia. Importing a container in Ethiopia rather than in Tanzania adds an additional cost of US$1,095 for an Ethiopian importer (Figure 17.2). This difference can go up to US$2,060 when comparing Ethiopia with Vietnam or be as low as US$310 compared to Kenya. On the other hand, importing a container into Uganda is even more expensive than in Ethiopia, as both are landlocked countries. Similar relations are observable when looking at the cost of exports. Moreover, the transit time taken to import and export is about twice as long for Ethiopia as it is for China, Vietnam, and Kenya (Figure 17.3). Comparing Ethiopia with other landlocked countries such as Rwanda, Uganda, and Zambia, however, shows that Ethiopia's relative performance is better.

The key drivers of high trade costs are related to inland transportation and handling, and document preparation.[39] Figure 17.4 breaks down the cost to export a container by cost category. Ethiopia shares the high cost of inland transportation with other landlocked countries (Rwanda, Uganda, and Zambia). In the apparel sector, for instance, higher inland transport costs adds more than a two percent production cost penalty and a ten-day delay, due to longer distances, inadequate transport infrastructure, and a lack of competition in the trucking industry (World Bank, 2012c). The cost of document preparation is also an additional cost penalty on exporters. Here Ethiopia stands out, also in relation to other landlocked countries. The cost of apparels increases by an estimated two percent as a result, according to World Bank (2012c). In Ethiopia, commercial banks charge three percent of the value of the shipment on imports and a two percent advisory fee on exports (compared with less than one percent in China).

Trade logistic costs are further increased by the high cost of obtaining foreign exchange and the cost for shipping to and from Africa. The National Bank of Ethiopia charges a 1.5 percent foreign exchange commission fee on the dollars needed to import the inputs. Waiting for the National Bank's authorization can take up to six months when foreign exchange is scarce. In fact, the time needed for approvals and verification for foreign exchange cascades through the whole logistics chain. It starts at the beginning where pre-import permits require foreign exchange-related documents. Moreover, it goes down the chain to post clearance where there is a need to close the documentation loop with the national bank. As such, foreign exchange regulations add even more

[39] Documents considered in this category of the Doing Business Report for Ethiopia include: Bank permit, bill of lading, commercial invoice, customs-export declaration, export permit, health and fumigation certificate, packing list. It also includes, consistent with standard procedures in the Doing Business analysis, the time and cost related to obtaining a letter of credit through the local financial system. For more details, please refer to the Ethiopia overview on the Doing Business Report website: http://doingbusiness.org/data/exploreeconomies/ethiopia#trading-across-borders.

FIGURE 17: Ethiopia's Trade Logistics Performance

Source: World Bank Doing Business Report, Trading Across Borders (2012), World Bank (2012), World Bank Logistics Performance Index (2012).
Note: Logistics Performance Scale from 1 (low) to 5 (high score). Data for Uganda and Zambia are not available for 2012.

complexity to documents and trade procedures causing further delays in the system. At the same time, it costs 60 percent more to ship to the United States from Djibouti than from China, and about the same to ship to Europe, despite the much greater distance from China (World Bank, 2012c). Reasons include the relative low traffic in Djibouti, as well as the structure of exports and imports. A domination of heavy imports and largely low-scale, small exports complicate logistic matters. Therefore, fully loaded ships with heavy goods for Ethiopia into Djibouti are not necessarily at full capacity when they leave the port again.

The overall logistics performance is low in Ethiopia compared to relevant peers. The World Bank Logistics Performance Index (LPI) provides a comprehensive measure of the state of trade logistics in a country facilitates comparisons with other countries.[40] Ethiopia ranks at the lower end of the surveyed countries (141 out of 155 countries in 2012). It is not only below the average for sub-Saharan Africa in all the six key dimensions of logistics performance measured, but also lags behind in the direct comparison with neighboring Kenya and Tanzania; yet it is only slightly lower performing as landlocked Rwanda (Figures 17.5). Ethiopia is generally considered "logistics unfriendly." The difference from individual countries in East Asia such as China, Korea, and Vietnam, as well as the grouping of East Asia and Pacific, is even starker.

The logistics system in Ethiopia is not improving over time. In fact, recent studies show even a worsening situation relative to other countries. According to the LPI, the ranking of Ethiopia shows a relative deterioration between 2007 and 2012. In the first LPI of 2007, Ethiopia still ranked 104 out of 150 economies; in 2010, it ranked 123 out of 155 economies; and in the most recent version in 2012, Ethiopia reached only 141 out of 155. The situation gets even more worrisome if one includes in the consideration Djibouti, Ethiopia's only gateway to the world in terms of land transportation. Djibouti ranked 145, 126, and 154, respectively for 2007, 2010, and 2012.

Looking at costs and time, Ethiopian trade logistics are stagnant. Figure 17.6 provides a summary of trade costs and the number of days required for trading in Ethiopia.[41] While there are slight improvements in the time to export since 2010, the time to import is getting longer since 2009 and without any change for the last four years. In terms of costs, there are modest savings in exporting costs while the cost of importing increased since 2009 owing to the positive correlation between trade costs and delays. Overall, the situation is best described as stagnant.

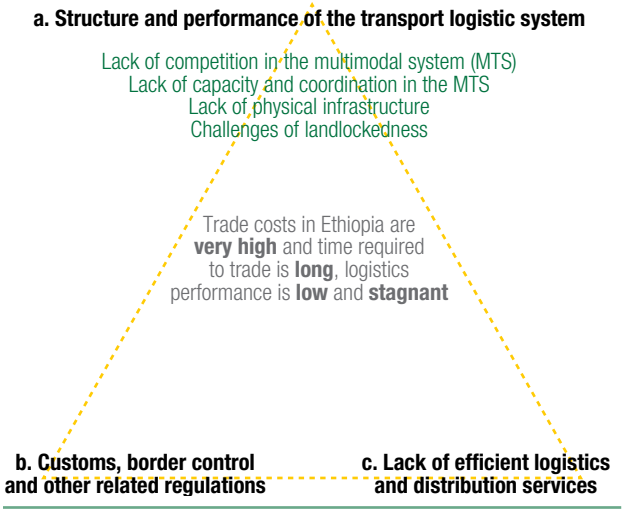
A low level of general infrastructure development, which hampers Ethiopia's overall competitiveness amplifies the low trade logistics. In the 2012/13 World Economic Forum (WEF) World Competitiveness Report, Ethiopia's infrastructure development is ranked 119 out of 144, far behind Vietnam and China (95 and 48, respectively), but relatively better than Tanzania and Uganda (132 and 133, respectively).

Diagnosing Ethiopia's Trade Logistics Challenges

Ethiopia's trade logistics challenges can be grouped into three major policy areas: (a) Improving the structure and performance of the transport and logistics system; (b) strengthening customs, border control and other trade related regulations; and (c) enhancing the efficiency of logistics and distribution services. Policy area (point a) addresses issues related to "inland transportation and handling" while (point c) captures "document preparation" (see Figure 17.4). Figure 18 illustrates these three policy dimensions and the rest of the chapter is structured accordingly.[42]

[40] For a description of the LPI, please refer to the *Logistics Performance Index Website*.
[41] World Bank (2013) Doing Business Report, Washington D.C.
[42] The analysis in this chapter is delimited to land and sea trade logistics as these are the modes for the highest volume imports and exports. With the introduction of the MTS system both modes are also the source of the largest challenges.

FIGURE 18: Policy Dimensions of Ethiopia's Trade Logistics Challenges



Source: Staff elaboration.

Structure and Performance of the Transport and Logistics System

The Multimodal Transport System (MTS)

The Government of Ethiopia has identified the logistics system as a priority strategic issue to improve the competitiveness of the economy. A first major step was taken in November 2011 with the introduction of a multimodal transportation system. As a result, the Ethiopian Shipping and Logistics Enterprise (ESLSE) was established by combining operations of the three major State-Owned Enterprises (SOEs) of Ethiopian Shipping Lines, Ethiopian Maritime and Transit Services, and Ethiopian Dry Port Service Enterprise. The new system was enacted to enable importers to save time and cost giving the mandate to one agent to take charge of transiting and transporting shipments until delivery to the importer.

The multimode system is a well-recognized international concept that can potentially lead to substantial improvements in trade logistics. International multimodal transport is defined as the "carriage of goods by at least two different modes of transport on the basis of a multimodal transport contract from a place in one country at which the goods are taken in charge by the multimodal transport operator to a place designated for delivery situated in a different country."[43] According to the UN Multimodal Convention, the Multimodal Transport System (MTS) is the usage of multiple modes of transportation for the delivery of goods in a single contract with a carrier for it to assume all responsibilities for the transportation of cargo between two countries. MTS is a system of transporting goods from source country directly to inland dry ports or buyers' warehouses instead of delivering only to border posts. The multimodal scheme has a number of advantages. It eliminates delay and dwell time in the port, minimizes the risk of damage or theft, negates the need to pay storage fees for the sale of goods at auction due to delays, and avoids numerous nonphysical barriers to movement in transit to inland dry ports (Gelalcha, 2009). If implemented appropriately, it leads to low costs of operations because it uses the most economical combination of available transport systems, with the least possible environmental damage. The MTS will lead to efficient trade logistics if two issues are addressed. The first issue is operational, and is directly linked to the transport policies and infrastructure of a given country and the region it is located. The second issue has to do with documents and execution of responsibilities by various stakeholders[44] responsible for the movement of goods.[45]

The efficient usage of a multimodal transport system depends on the actual implementation within the country context. In Ethiopia, there are mixed experiences so far. On the one hand, the recent Ethio-Djibouti Multi Modal Transit and Transport Agreement (EDMTA) is one of the few functioning accords in Africa. As per the agreement it would

[43] Article 1 of the United Convention on International Multimodal Transport of Goods. MTS is also referred to as "door-to-door" and "intermodal" transport system. MTS has gained attention in the last 10 years among private operators as well as governments.
[44] These include the owners of the merchandise (shippers), freight-forwarders, carriers, insurers and terminal operators.
[45] Zuidwijk (2003) "A multimodal transport perspective" provides more information on MTS.

be possible to achieve excellent transport and trade facilitation. On the other hand, the low cost argument in favor of MTS has not been realized due to a series of implementation problems. The sole MTS operator, ESLSE, is currently overwhelmed with the task at hand. Lack of adequate transport infrastructure, unclear tariff structure, ad-hoc transport policies, and the severe clearance bureaucracy are all detrimental to the MTS concept. There is a serious congestion problem in the dry ports which has, in turn, resulted in substantial operating costs for ESLSE. Supporters of the new system argued before its implementation that there would be savings on scarce foreign currency, warehousing costs, and port fees; this was also the case in the initial piloting, where the MTS was only obligatory for government cargo. However, these benefits are yet to be realized for the large scale implementation that was rolled out to cover all cargo shortly thereafter. In fact, there are signs that delays and costs have increased over the implementation period, rather than decreased.

Lack of competition, capacity and coordination

Competition in the Ethiopian trade logistics system was absent even prior to the introduction of the multimodal concept. When importers financed operations through one of the state banks, the bank required the importer to use either Ethiopian Shipping Line (ESL) or Ethiopian Airlines to transport cargo into Ethiopia. As such, even in in the old system, ESL was the de facto default carrier from over 30 destinations. To overcome capacity constraints, ESL often contracted service to other shipping lines and charged a mark-up per container on imports. This is still the case, even though the recent restructuring increased the fleet size and reduced the mark-up. A similar system, which increases trade cost, also impacts air cargo on the Ethiopian Airlines side.

The multimodal scheme is operated solely by the Ethiopian Shipping and Logistics Services Enterprise (ESLSE), which is facing substantial implementation challenges.[46] Despite its potential to streamline the logistics chain, the multimodal scheme has not led to better logistics management in Ethiopia. Implementation of the system may have been over ambitious. For instance, ESLSE undertook a number of restructuring activities in parallel to the management of the new logistics services system, which led to capacity constraints. Moreover, the system is very complex and may require a multi-stakeholder effort to improve management, however private public partnerships are currently limited to the unimodal framework. The pilot implementation of the MTS, which focused only on 8 percent of government cargo, was prematurely scaled up to full operational mode. Better sequencing of implementation might have led to better results.

A gradual introduction of more market-based implementation of the MTS would potentially be relevant in Ethiopia. In many African countries freight rates are relatively high, due to anti-competitive cargo reservation policies, and Ethiopia is no exception (Teravanithorn and Raballand, 2008). The multimodal scheme has protectionist tendencies because other operators are not allowed to take part—except ESLSE. However, according to research on African countries, such a monopolistic approach to logistics management hampers trade (Mbuli, 2013). ESLSE enjoys monopolistic privileges, which are reflected in its pricing behaviors. Effectively importers have become price takers and ESLSE, as a multimodal operator, has been assigned responsibility for bringing cargo from most ports of origin, via Djibouti, to the dry ports and temporary storage facilities. There are currently no competitors for this single contract service offered by ESLSE and mandated for use through the Ministry's Directive (IFC, 2012). Experiences from other countries show, however, that the gradual creation of competition in markets is key for economic

[46] Previously, the Ethiopian Shipping Lines Share Company (ESLSC), the Maritime and Transit and Services Enterprise (MTSE) as well as the Dry Port Service Enterprise (DPSE) were the principal service providers in the maritime sub-sector.

BOX 4: State Capitalism in East Asia – Bringing Competition to Markets

The rise of many of the East Asian countries has led to a new model of capitalism that is often labeled "state capitalism" (Economist, 2012). The development evolution from (often) planned economies to market economies that was largely gradual in East Asia brought about a plethora of combinations between the two theoretical extremes of pure planning and pure market control (Pyle, 1997; Feltenstein et al., 1998; De Brauw et al., 2002; and So, 2003). "State capitalism" is not a new concept, however, and neither is it confined to experiences in East Asia. In fact, various forms of "state capitalism" have existed ever since capitalism came into existence. In reality every rising power has relied on the state to kick start growth, or at least to protect fragile industries. Even Britain, the crucible of free-trade thinking, created a giant national champion in the form of the East India Company (Economist, 2012).

East Asia's new "state capitalism" has its origins in Singapore. "Singapore's experience illustrates an approach to economic planning which admits possibilities other than just "the market" or "the plan", and shows that this is not a polarized debate" (Huff, 1995). In other words, Singapore followed both a strategy of opening up to market forces and pursuing government-led industrial policies. This created a system where state owned enterprises operated under market forces and hence could realize profits and losses; it is noteworthy that the model implied that unsuccessful companies on the market would be dissolved (Huff, 1995; and Chia, 2005).

China's reforms closely followed the Singapore model, which was built on the ideas of establishing competitive forces in the market, bringing foreign companies into the country, and using special economic zones to take advantage of the then new phenomenon of globalization. With this approach China embraced "corporatism" that required state-owned enterprises to be modeled and managed according to private corporation standards and to operate in a market environment. Over the three-decade reform period, Chinese SOEs started to face intense competition and efficiency pressures. Contributing factors were not only the rise of the growing domestic private sector, but to a large extent the opening up and invitation to foreign-owned enterprises to enter the Chinese market and compete. The gradual approach was preserved, and opening up after the WTO accession was phased. While key sectors gradually transformed, the trend of introducing more competition in the Chinese market remained one of the key success factors over the reform period (Ralston et al., 2006; and Economist, 2012).

development; in fact, competition is so important that the actual ownership—domestic or foreign,[47] state-owned or private—may not matter (see Box 4 on East Asia's experience with state capitalism that introduced competition in former monopoly markets).

While introducing more competition is relevant across the MTS, implementation could focus around three relevant subsystems. (1) For international shipping into Djibouti some lessons learned from air transportation and the management of Ethiopian Airlines. Ethiopian Airlines is state owned, but operates on a fully commercial basis and faces competition from international airlines that serve Addis Ababa—strongest in the passenger segment, but also in cargo shipments. This is in contrast to international shipping into Djibouti, where choices are more constrained, largely due to strict regulations that require ESLSE as operator for government procured imports. (2) Port and terminal services are being managed by professional companies around the globe, and Ethiopia has relevant experience with management contracts from other sectors, for instance in telecoms, that could be applied. ESLSE's current considerations for a management contract with a foreign operator are therefore a welcome development. (3) The lack of competition in inland transportation is probably the most pressing issue in the current situation, being where the majority of delays and costs arise. Allowing additional operators to take part in the MTS, described in the preceding paragraph, could help alleviate the pressing challenges in this sub-sector.

A limited understanding of, and the capacity of the Djibouti port and the dry port(s) to efficiently work, the multimodal system aggravate

[47] The *Investment Law* and the *Investment Incentives and Investment Areas Regulation*, both of 2012, provide a general framework for investments in Ethiopia. While the trade logistics area is not specified as one of the permissible areas for foreign investors, the regulation states that foreign investors may be allowed to invest in areas other than the ones specified (paragraph 4.2).

implementation limitations. Congestion problems and consignment tracking complications at dry ports are among the most serious issues in implementing the MTS. Towards the end of December 2012, ESLSE made repeated requests to traders to collect their containers on time. Non-collection is an increasing problem, and possibly related to issues such as tracking problems, financial constraints, and the incentives of traders to use dry ports as a means of storage. Another important complication is the failure to track consignments. In fact, the congestion problem developed in such a serious way that ESLSE decided to exempt its clients from paying demurrage costs, including provision of credit and containers, for those with severe financial and transportation problems. Waiving fees and providing credit for importers of containerized cargo is only temporary, and not a long-term solution to the logistics problem. In a similar vein, the build-up of emergency storage sites cannot be more than a temporary solution.

Trade logistics in Ethiopia are complicated by a plethora of actors. There are, for instance, over 25 stakeholders involved in the trade logistics supply chain in Ethiopia (IFC, 2012). The large number of stakeholders leads to confusion about who deals with what and poses a coordination challenge. It may not be apparent for traders who to approach and what procedures to follow, since there are frequent and unpredictable changes in rules and regulations. For instance, inspection is frequent and highly susceptible to rent seeking. Valuation of imported cargo is contentious.[48] Often inspection is handled by more than one agency, and this obviously contributes to delays. The lack of coordination in inspection is also due to non-use of risk management for border clearance. While ERCA use some risk management for clearance, other border control agencies do not. As such, this leads to agencies making independent control decisions, including for inspections. Simultaneous or joint inspections could help overcome this problem.

Coordination issues and ad hoc implementation of regulations to solve the current challenges add to the complexity of the situation. One recent example of such a coordination issue is the case of the Ethiopian Maritime Affairs Authority (EMAA), which prepared a directive, for the approval by the Ministry of Trade, to penalize traders that do not collect their items within 45 days. However, the recent offer by ESLSE for traders to collect their goods for free does not tally with this tendency. Hence, no one knows which directive is valid at a given point in time. This creates confusion among traders and their relationship with the various logistics agencies. It also indicates the potential arbitrariness of handling the trade logistics problem and coordination failure among ESLSE, EMAA, and MoT.

Lack of physical infrastructure

As discussed in Chapter 1, the Government is making substantial progress in providing physical infrastructure. The area of trade logistics is an illustrative example of the need for this public investment, particularly in roads and railways. Many initiatives are under way but could need a final push for completion. For instance the road from Addis Ababa to Nazareth is almost completed. This route will be useful to reduce the congestion at Modjo dry port which is very close to Nazareth. Another project underway is the railway line on the Djibouti-Dire Dawa corridor. Now it is under renovation and this should be fast tracked to circumvent the current congestion problem. For high volume goods, rail transport can be low cost and more effective than land transport, and could be given similar priority as road construction projects, especially to improve transport from Djibouti to Addis Ababa.

[48] While using the "transaction value" is recommended by the WTO—the agreement stipulates that customs valuation shall, except in specified circumstances, be based on the actual price of the goods to be valued, which is generally shown on the invoice—Ethiopia is not a member of WTO. As such, Ethiopia is under no obligation to use "transaction value", but the proposed updated customs code is supposed to conform to international best practice. Moving swiftly to implementation of the newly proposed code would help overcome inconsistencies in the current valuation approach.

Lack of sufficient road connectivity across the border is a particular concern for cross-border transportation. A specific concern is the situation of the roads from Addis Ababa to Djibouti. There are two roads to Djibouti: Addis Ababa-Awash-Djibouti and Addis Ababa-Dredawa-Dewole-Djibouti. The first route is fully paved. However, on the second one, the part that connects Dredawa to Djibouti via Dewole is unpaved and in need of upgrading. This results in hazardous conditions on this major route, especially for the bulky project imports that are transported. Furthering joint investment planning between Ethiopia and Djibouti could help to address these issues in developing cross-border road links. Additionally, the government could consider opening up new routes with potential to reduce the distance to Djibouti (e.g., Meison-Djibouti). Opening this route could reduce the distance from Addis to Djibouti by more than 100km.

The existing railway network between Ethiopia and Djibouti is outdated and slow. Narrow tracks and steep grades accommodate only small trains, which slow down transportation times on the railway. While this is partly attributed to the extremely rugged topography of the line, the situation has been aggravated through years of negligence. Poor maintenance led to the deteriorating tracks that to a large extent can only be replaced but not be repaired anymore. To add to these challenges, the axle load of the railway line is limited and a number of bridges need rehabilitation (Ranganathan and Foster, 2011; Aschenaki, 2004).

The inadequate quantity, capacity, and quality of trucks, particularly at Djibouti port, are a key challenge: There is just a fraction of the trucks needed available. The structure of Ethiopian imports has changed over time, from finished and light weight products to a combination of light finished products and project-bound bulky cargo. This structural change has not been accommodated by a change in the design of the logistics system, however. The upgrading of the road network needs to go hand in hand with the acquisition of trucks of the right length and quality. There are much fewer trucks, both private and state-owned, than the required weight of goods to be lifted. Table 9 quantifies the excess demand for transporting trucks currently at Djibouti port. The available number of trucks range from 800 to 1,500, significantly below the total required number of vehicles (i.e., 13,055) for transporting the existing and expected bulky cargo.[49]

The majority of heavy imports are destined to the various infrastructure projects of the government. However, the existing trucks that are old and light in weight do not match the heavy and bulky cargo. As a consequence the existing trucks are overloaded, which leads to the destruction of roads and bridges. The solution is, in addition to strengthening enforcement of axle load limits, to upgrade the capacity of the road system and bridges; but more importantly to facilitate the expansion and construction of a functioning railway system, to provide an alternative to road transport. In the meantime, the government could introduce initiatives to increase the number of trucks with the appropriate specifications required for both the cargo and the roads.

One Stop Border Posts

The concept of OSBPs between two countries is linked to developing procedures that allow all exit and entry formalities to be performed in sequential order in one facility, enabling clients to stop once at the border in either direction. The concept entails the performance of border clearance extraterritorially, through the creation of a designated common control zone where border agencies share facilities with the aim of eliminating duplication of procedures. The essence of establishing OSBP facilities at borders is to streamline border agencies work, enhancing effective agency collaboration, sharing of facilities, and generally putting in place mechanisms for joint

[49] The finding of a lack of trucks is in contrast to statistics of the Ethiopian Road Transport Authority that show that overall there is a sufficient number of trucks available in the country (more than 30,000 vehicles for the transport of dry cargo of various sizes). If so, the heart of the problem may well be in the management and deployment of the existing fleet, rather than the number of trucks and vehicles.

TABLE 9: Demand for Trucks for Recent Imports of Bulky Cargo, May 2013

	Bulky Cargo Being Unloaded		
Type of Cargo	Quantity	Importer	Demand for Trucks
Coal	64,833,335	Ethiopian Petroleum Enterprise	1,621
Steel	94,618,406	Various importers	2,365
Fertilizer	16,802,000	Agricultural Input Supply Corporation	420
Petroleum coke	2,509,000	NORC AGRO & IND	63
Petroleum coke	6,265,000	NOC	157
Wheat	38,867,900	World Food Program	972
Wheat	62,629,400	Ethiopian Grain Trade Enterprise	1,566
Wheat	36,869,000	Ministry of Agriculture	922
Wheat	156,000	Catholic Relief Society	4
Total	**323,550,041**		**8,090**
Bulky Cargo on vessels that arrived and are queuing to be unloaded			
Wheat	48,600,000	Ethiopian Grain Trade Enterprise	1,215
Bulky Cargo on vessels soon to arrive at Djibouti port with expected date in parentheses			
Fertilizer (6 to 9 May)	50,000,000	Agricultural Input Supply Corporation	1,250
Wheat (May 7)	33,000,000	World Food Program	825
Fertilizer (May 12)	13,500,000	Agricultural Input Supply Corporation	337
Fertilizer (May 17)	13,500,000	Agricultural Input Supply Corporation	338
Wheat	40,000,000	Ethiopian Grain Trade Enterprise	1,000
Grand Total	**522,150,041**		**13,055**

Note: As of May 7 2013, there were 9,306 containers at Djibouti port out of which 7,059 weighed 20 ton each while the remaining 2,247 weighed 40 ton each. These require about 5,747 trucks that can load 40 ton each given the maximum load allowed by law in Ethiopian roads.

customs controls/clearance and inspections, and stopping only once when crossing into a partner state and once when exiting.

Several African countries are making remarkable progress in building One Stop Border Posts (OSBPs) to facilitate trade intra-Africa and with the rest of the world. Progress is facilitated by membership of a regional integration bloc with an operational free trade area (FTA). Tanzania agreed to implement the OSBP facilities in its borders with Kenya, Uganda, and Burundi, within the framework of the East African Cooperation (EAC), and with Zambia on the basis of a bilateral agreement. OSBPs reduce trade costs and transit times for persons and goods by at least 30 percent. One of the unique features of the Tanzanian projects is that they are driven by local stakeholders through the National OSBP Committee and Steering Committees. These are elements Ethiopia could potentially replicate to initiate a bilateral agreement with Djibouti and other potential transit neighbors.

Challenges of being landlocked

Ethiopia is a landlocked country and therefore needs to critically rely on trade and border logistics to develop a thriving and diverse export sector. A landlocked economy faces a number of specific challenges. The most important ones include higher trade costs, increased delays due to extended supply chains, expensive and unreliable access corridors with multiple

clearances, vulnerability to instability of their transit neighbors, and cumbersome administrative practices (e.g., high transit and custom charges). Interestingly, these challenges are related more to operational inefficiencies due to cross-border relationships than to infrastructure capacity per se (Arvis, et. al. 2011). Table 10 details some of the key challenges for LLDCs in their extended supply chain.

The cost of being landlocked is exacerbated because goods have to be shipped through transit countries. Higher transaction costs are generated because importing countries (e.g., Ethiopia) are at the mercy of the administrative practices and political stability of the transit country (e.g., Djibouti). The associated fees include the costs for documents, administrative fees for customs clearance and technical control, terminal handling charges, and inland transport. Not surprisingly, export costs and import are ranked among the highest for most landlocked countries, as previously illustrated in Figure 16.

For Ethiopia, relying only on one trade corridor makes the management of the political economy of logistics particularly vulnerable to the relationship with the partner country Djibouti. In fact, Ethiopia is the only landlocked African country that depends on one single corridor (Arvis et al, 2011). This provides unnecessary risk to the trading companies, domestic and foreign, and adds to the overall impediments of engaging into trade business out of Ethiopia.

Customs, Border Control and other Trade Related Regulations

The other key components of Ethiopia's trade logistics problem are linked to customs, border control and other trade related regulations. New regulations should be considered to increase transparency and help facilitate custom processes. Where new regulations are drafted (e.g., in the case of the customs code), implementation of the new law is critical as it would allow for many trade logistics procedures and practices to be modernized. Trade transactions are getting increasingly difficult to manage due to border related costs (e.g., policies, language, currency, information, security, working time differences between Djibouti and Ethiopia), and logistics costs (e.g., transport time, freight transport, and pre-shipment inspection).

TABLE 10: Supply Chain Sequence and Bottlenecks, LLDCs

Step	Participants	Typical Issues
Unloading; declaration and initiation of transit	Port authority, terminal operator, forwarder, customs	Excessive time to clear transit, sometimes longer than for local clearance, cumbersome transit declaration
Loading on truck	Forwarder, trucking company, handling company	Overregulation of trucking industry, Inadequate market structure, Formal or informal queuing system
Loading on multimodal facility	Terminal operator, transport or railway company	Lack of coordination between port and transport operators, Inefficient transport operators and long lead time
Control en route	Road Agencies; customs	Convoys, Multiplication of checkpoints, formal or not, and payments; Weak link or congestion on the corridor
Border crossing	Forwarder's agent or broker, Customs, Other border agencies, Road agencies	Duplication of controls on each side of the border, Waiting time, Inconsistency of procedures, Fragmentation of brokerage services across borders
Transit in destination country and final clearance	Forwarder, Customs	No continuity of procedures or portability of documents, Improper use of ICT for transit, Lack of capacity (IT risk management) for proper clearance at destination, Inefficient discharge of transit increases the cost of guarantee

Source: Adapted from Arvis et al (2011) Table 2.2, page 19.

BOX 5: Informal Cross Border Trade (ICBT)

Informal Cross Border Trade (ICBT) is legal, but unregulated or informal trade. ICBT is the least researched area, mainly due to the lack of reliable data. Surveys suggest that informal cross border trade represents a significant proportion of regional cross border trade in Africa. Ethiopia engages in informal trading with neighboring countries such as Sudan, Somalia, and Kenya, involving the exchange of goods such as live animals, oilseeds, and small manufactured items. Women play a key role in informal trade. For example, it is estimated that 70 percent of informal cross-border trade in southern Africa is by women (UNIFEM, 2009; Afrika and Ajumbo, 2012). ICBT is mainly conducted by individual traders and micro, small, and medium-sized enterprises, and often consists of small consignments (Lesser and Moise-Leeman, 2009). Despite the evident contribution of women in informal cross-border trade to the economy, mainstream trade policies and institutions tend to neglect them (Masinjila, 2010; UNIFEM, 2010; Ndaiye, 2010). The implication of ignoring this segment of the trading population is significant. It means that policy decisions are being made in response to incomplete data and information, and those informal businesses may be "missed" in policy decisions and not offered the support they need to expand.

Ethiopia is a major participant in ICBT. The country loses revenue given the high incidence of ICBT. COMESA (of which Ethiopia is a member) estimates that US$ 35 million worth of goods are traded informally annually. This is in contrast to the limited formal trading which is US$ 19.2 million per year (Njiwa et al., 2010). A large number of cross border traders resort to ICBT due to various fees and regulations in formal crossings. Ethiopia is a source of non-processed tradable goods for Kenya and South Sudan. In Eastern Africa, Ethiopia and all other countries in the region (except South Sudan) are also involved in re-exports.

By learning from other countries, Ethiopia can lower the incidence of ICBT by reducing documentary and other trade logistics requirements in the formal sector. A cross-border case study between Kenya and Tanzania indicates that the documentary requirements in the formal sector push traders to go informal (e.g., case of the Arusha-Namanga Border). Encouraging informal traders to come to the formal route by addressing the trade logistics problems of the formal sector is essential because ICBT can have detrimental consequences on health and safety of consumers (e.g., through smuggling expired food and medical supplies via informal crossings without checks). Therefore, Ethiopia can improve border infrastructure such as cross border storage facilities, stalls in key border markets, and check points, and also prioritize a gender based approach to ICBT to address some of the problems that affect women (Afrika and Ajumbo, 2012). A starting point for addressing the issue could be introducing the COMESA simplified trader regime (STR) for small traders (see *COMESA STR Website*).

There are up to 103 procedures and document requirements at different stages of the chain to obtain border clearance. These are illustrated in the Annex to this chapter.[50] There are also many official fees due to the number of agencies involved. For instance, although the trader or the clearing agent can submit the custom declaration electronically through ASYCUDA++[51] in a pilot initiative, the Ethiopian Revenue and Customs Authority (ERCA) requires its submission in hard copy along with supporting documents. This requirement undermines the benefits of electronic automation. In fact, ERCA is preparing to invest significant resources to automate trade transactions. Two large projects are planned: On the one hand, an upgrade of the existing customs processing system; and on the other hand the introduction of an electronic Single Window. Successful implementation of these projects is likely to impact the trade transactions system positively. Furthermore, simplification of processes can contribute to a formalization of trade, with all its positive implications (see Box 5).

Customs clearance is an important part of the issues observed in excessive documentation and complicated trade logistics. There are at times 21 documents required for custom clearance, which is a huge transaction cost for the business community (IFC, 2012). ERCA is clearly aware of issues in the customs area with a recent reform study,[52] which is important to effectively address shortcomings. For

[50] The illustrative process map reflects both observed procedures (final clearance and technical control) and procedures recorded on the basis of interviews in April 2012. Some of the steps may have changed since then.

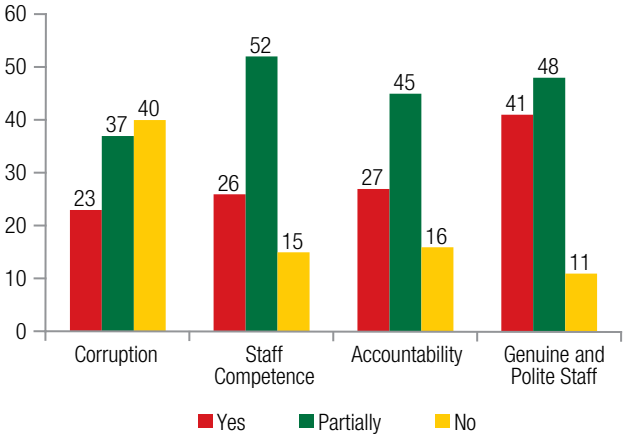
[51] The Automated System for Customs Data is a computerized system designed by the United Nations Conference on Trade and Development (UNCTAD) to administer a country's customs.

[52] ERCA (2013) A study about improving/reforming custom clearance procedures, Ethiopian Revenue and Customs Authority (in Amharic), Addis Ababa, Ethiopia.

instance, the clearance of imported goods proceeds after completion of transit, and this leads to excessive storage of goods in warehouses. Also, not allowing subsequent imports without finishing clearance of previous imported items severely limits the activities of importers, especially productive importers that contribute to the growth of the economy. According to ERCA, many stakeholders in the import clearance system (i.e., traders, as well as public officials) are found to be ill disciplined and in fact prone to the temptations of rent-seeking/corruption[53] (Figure 19). The agency's reform study also indicates that there is lack of staff with sufficient experience in custom procedures, and those who are in office have a low capacity for decision making. Often, ERCA's senior staff members pass matters to their superiors even if the issue at hand is trivial, and this problem is prevalent at each level of the decision-making hierarchy. The lack of decision-making initiative is even more prevalent in the Djibouti custom office, which leads to delays in releasing imported items that have completed all the required documentation and payments.

The trade supply chain is burdened with the prevalence of hardcopy documents for information exchange both between the private sector and government actors and between government actors themselves. Overall, there is no legal framework in place to recognize documents exchanged electronically in relation to e-commerce, e-signatures, and e-payments. In fact, current Ethiopian laws require paper receipts to be issued for all transactions, although the Government is reviewing legislation and assessing, among other things, the recognition of electronic format. Most stakeholders in the trade transaction process also lack automation systems, and where they exist (Customs, ESLSE) their implementation levels could be further improved. Documents, forms, laws, and regulations are not always available online while data sharing electronically is completely lacking between agencies. Modernization efforts are underway, as ERCA plans to upgrade its customs processing system and implement an electronic Single Window (eSW).

FIGURE 19: Moral, Professionalism and Competence of ERCA Staff



Source: ERCA's Customer Satisfaction Survey 2012/13. Note: the bars indicate the percentage of survey respondents who respond to the question. For instance, 41 percent of respondents indicated that ERCA staff are genuine and polite.

ERCA has given special attention to custom clearance for importers and exporters that are working on areas of industrial and economic development. There are a number of planned initiatives for this specific group of customers. (1) They will be served in separate "custom clearance units." (2) They will get clearance prior to the arrival of the goods (i.e., pre-arrival clearance). However, there should be some caution depending on the nature of imports (e.g., chemical products). (3) They will benefit from the use of transaction value to value their imports. If there are valuation disagreements, they will be resolved by letter guarantees instead of holding goods as hostage; (4) They can have their items inspected at the gate of the factories/establishments; (5) They will be given full custom clearance on the industrial zones and at factor sites; (6) They will benefit from a "Simplified Clearance" procedure; and (7) Though it is risky, they will benefit from differed payment. The special treatment for strategic sector producers may be appropriate in the context of the

[53] Recent reports about ERCA officials being accused of corruption allegations in May 2013 support this point.

developmental state economic strategy pursued by the Government. However, it is not clear how the importers and exporters are selected. Other institutions can also enjoy some of the privileges listed above. For instance, any government entity, other organizations with a permit for a "Simplified Clearance" procedure, and users of the multimodal scheme are allowed to benefit from pre-arrival clearance.

While ERCA has accepted risk management as a key element of its strategy and a structure has been put in place to enable its adoption, implementation of risk management still needs considerable strengthening. Other border control agencies are still in infancy in their understanding or use of risk management as a tool to facilitate and strengthen their operations. As such, cargo undergoes multiple inspections by different agencies, at different points of time, through the supply chain. This has a bearing on inspection levels and on the speed, cost, and efficiency of clearance of cargo—thereby slowing down the trade logistics system. The impact on both the business community and on government resources is costly and detracts from the need to facilitate legitimate trade while concentrating enforcement resources on non-compliant businesses. Scaling up the usage of "trusted" economic operators, which appears to be part of the currently discussed yet not yet passed new customs law, could potentially help better the current situation in the short-run.

Efficient Logistics and Distribution Services

Encouraging measures have been taken by ERCA, but there are outstanding challenges related to incomplete transit activities, and insufficient alignment to international working procedures. In addition, they are not supported by modern technology. There are four transit types: inward transit, through transit, interior transit, and outward transit. ERCA designed separate procedures for the four transit types, with a reduced number of inspection posts. Ethiopia has a number of transit completion sites such as custom posts, permitted warehouses, industrial zone(s), permitted project sites, dry ports, and any other location identified and approved by ERCA. Having different sites is one of the many measures already taken by ERCA to improve the transit system in Ethiopia. ERCA also designed a system whereby items are processed only with insurance guarantees, without the requirement of tax payment, and reduced the number of inspection posts along the transit route. Follow-up and implementation is needed for plans to reduce or eliminate road blocks. Equally some road checkpoints could be allowed to work for 24 hours per day in order to speed up the movement of cargo from Djibouti to dry ports. Based on the Ethio-Djibouti transit protocol agreement, ERCA designed a separate transit arrangement for goods that are transported via the multimodal as well as the unimodal schemes. There is a plan to conduct joint inspection of goods at the Djibouti-Ethiopia border, with reduced frequency and without a need for repeated inspection both by Djibouti and Ethiopian authorities. The implementation of this plan depends on a joint agreement between the two countries.

Inspection of goods in warehouses is not supported by appropriate technology. The warehouses do not have the necessary modern facilities that support efficient service provision. Further, the working procedures in place in each warehouse are not appropriate to the type of warehouse. ERCA believes that there are no competent warehouse operators of the scale required. On the other hand, inspection capacities are also very low (ERCA 2013). Inspection institutions often fail to assign the right personnel to match the required inspection activity in warehouses. And in the most extreme cases, inspection authorities either send inspectors with long delays or fail to send even one inspector. There is also concern about the lack of acceptable floor surface (e.g., for food items and medicine) when goods are unstuffed and inspected out of containers in dusty dry ports such as Modjo and Bekelcha. There are four steps and documentary requirements to put goods in warehouses and five steps and documentary requirements to get goods out of warehouses, all of which contribute to delays. The fundamental recent changes in warehousing are related

to allocation of goods to different types of warehouses, and designing a different system of airport warehousing of goods in recognition of the unique feature of air transport.

The lack of technology or investment in warehousing and related logistics facilities is also due to the lack of adequate private participation in this space. For instance, in neighboring countries such as Kenya there has been increasing investment in value added logistics services—that are steadily improving the state of logistics. Taking advantages of the positive and innovative forces of broad private participation in the logistics arena of Ethiopia could enhance the system at large.

There are particular problems associated with establishing efficient linkages of other public agencies working with ERCA and also challenges in relation to operations. These include problems with freight forwarders, warehouse operators, transit operators, inspectors, and organizations responsible for granting permits. Freight forwarders often fail to disclose the required information about items and passengers (i.e., "cargo passenger manifest"). Warehouse operators perform their duties without the support of modern technology. They lack equipment for moving goods (e.g., high-tech cranes) and hence delay movement of goods and containers. Here there is scope for foreign or local private participants to provide the necessary warehousing equipment and devices for moving goods.

There is insufficient automated and technologically supported exchange of information among the various agencies and duplication is common. The recent customer satisfaction survey report, produced by ERCA,[54] shows that there is an absence of a service provision mentality or proper customer handling spirit. An example of unnecessary duplication of efforts is linked with the inspection of one item by more than one agency. Transit operators generally lack knowledge about customs rules and procedures, and fail to settle the required payment with agents in Djibouti. To make matters worse, ERCA itself fails to inform the trading community of the current rules and procedures, but this could be rectified if committed efforts were to be made in the short run. Transit operators fail to provide information about custom declaration, and do not respond to questionnaires sent to them by ERCA. Operators responsible for checking the weight of vehicles are often slow, and delay the movement of goods. Informal evidence suggests that there is also widespread corruption, allowing the movement of vehicles loaded beyond the legally permitted cargo weight.

Limited dialogue between government agencies involved in trade logistics and private actors dampens the prospects for rapid diagnosis of problems or development of solutions to issues at hand for the trading community. While the Government introduced some discussion fora,[55] a lack of clarity and predictability on rules, regulations, and policy changes is still prevalent in the trading community. Increasing substantial dialogue between the parties involved could lead to great advances. In relation to open and candid engagement with the private sector, it is important for ERCA to assess the level of satisfaction of its clients with the service it is providing. In line with this approach, ERCA conducted a customer satisfaction survey from July 2012 to January 2013. "*Develop the Tax Payers Awareness and Customer Care Attitude of the Staff*" is one of the priorities listed under the "Way forward" agenda of ERCA.

[54] ERCA (2013). Customer Satisfaction Survey report, 2nd draft (unpublished), Addis Ababa, Ethiopia.

[55] Current fora for dialogue include: (1) The Ethiopia Public Private Consultative Forum (EPPCF), chaired by the Ministry of Trade in collaboration with the Chamber of Commerce. This initiative started in February 2012 and is established to allow the private sector to engage with the government on urgent trade logistics issues. According to the Government, the forum since then has been institutionalized on a regular schedule. (2) The Customs and Logistics Subcommittee, chaired by the Director General of ERCA. The committee, set up two years ago, deals with customs and logistic issues and is empowered to pass decisions to improve the situation in these areas. There is a steering committee (SC) and a technical committee under this mechanism. The SC consists of the following members: Ministers/State Ministers of Finance and Economic Development, Industry, Transport, Trade, and Agriculture. The technical committee includes members from priority industry sectors like textiles, leather, and others. In-depth reviews and evaluations may be required to assess the effectiveness of the two fora so to enhance the future dialogue through these channels.

Policy Recommendations

The following policy recommendations emerge from the analysis:

1. **Develop a national trade logistics strategy.** On a general level, there is an urgent need for the Government to develop such a strategy to facilitate all efforts in the area of trade logistics. This study has shown the complexity of the current trade system in Ethiopia, the numerous actors involved, manual processing systems, lack of clarity on regulations, and a plethora of other interdependent factors. In this context, the lack of a national trade logistics strategy to provide an overarching framework is acutely felt by all stakeholders. The Government is therefore encouraged to prioritize the development of such a strategy, work on which has already started in collaboration with UNDP.
2. **Strengthen the multimodal system by encouraging increased competition.** The efficiency of the multimodal transport system could be enhanced by encouraging the participation of other operators, including the private sector. More competition and additional operators in a market-based system are needed along the whole multimodal transport system, but implementation could focus on relevant subsystems such as international shipping into Djibouti, port and terminal services, and inland transportation. In fact, the lack of competition is felt most acutely in the latter, where the majority of delays and costs arise. To illustrate, the existing private sector operators are not providing the trucks required for import cargo. With enhanced competition, individual actors would have better incentives to make such investments. There are several examples in Ethiopia, where the introduction of increased competition has improved sector performance. For instance, the introduction of private banks in Ethiopia improved the performance of the government owned banks, due to the competitive spirit generated to provide good financial services by multiple banks. Enhanced competition should be supported by measures to increase the capacity of key players and their understanding of the multimodal system; this applies in particular to the management and operation of Djibouti port and the dry port(s).
3. **Address the infrastructure challenges: roads, trucks, and railways.** The Government is keenly aware of physical infrastructure challenges, and is making good progress in this area. The nearly completed Addis Ababa—Nazareth road is expected to reduce congestion at the Modjo dry port. An upgrade of the Dire Dawa—Dewle road to a higher standard could reduce the transport distance by about 100km compared to current alternatives. The acquisition of specialized trucks for bulky imports is also a priority identified in the report. Finally, it should be emphasized that for some goods railway is a more cost effective means of transport. In light hereof, the Government should give this transport option due attention. In fact, the Government has already put due emphasis on railway development, with the current plan of building a new link between Addis Ababa and Djibouti. Other railway projects are in the pipeline. Still, some fast-tracking of current renovation work, for instance on the Djibouti-Dire Dawa railway line could reduce congestion in the short-run.
4. **Develop multiple trade corridors.** Potential alternatives to the current exclusive reliance on Djibouti could be ports such as Berbera, Mombasa, Port Sudan, and Lamu. Detailed feasibility studies would be needed, however. Many other landlocked countries have more than one exit route for their trade. To illustrate, Uganda, Rwanda, Burundi, and Zambia have 2–4 transit neighbors, which lead to the use of multiple trade corridors linked to ports. Multiple corridors would diversify Ethiopia's options and thus improve its negotiating power with transit corridor(s). They would also introduce competition among transit neighbors, which could keep costs down; it would

also provide some level of insulation against social, political, and economic ups and downs of transit neighbors. Caveats to using multiple corridors may relate to multiple infrastructure costs and diseconomies of scale in logistics services. The involvement of PPPs would help address these caveats.

5. **Reform customs procedures with new technologies and Public Private Partnerships.** The proposed ERCA custom clearance reform, including the implementation of an electronic Single Window, is key in this respect. These modernization efforts need to be coordinated nationally to ensure that the government adopts a coherent e-government strategy as part of the larger national logistics strategy agenda. For ICT transformation of ERCA, private public partnerships can be vital by introducing improvements in the custom clearance, and by learning from other African countries. Ghana, for instance, made effective use of PPP initiatives for the transformation of its custom authority (Calvin 2013). Before considering the implementation of PPPs, however, it is important to review all concerned business processes, in order to be able to map out clear requirements to address the issues at hand.
6. **Improve transparency and the predictability of regulations and communicate better with the business community.** There is a need for improvements in administrative procedures of ERCA and the manner in which changes in rules and regulations are communicated to the business community in Ethiopia. Arbitrary and ad hoc changes in rules and procedures, lack of predictability, and lack of transparency should not be norms. This recommendation applies also to the various directives coming from the Ministry of Transport (MoT). Furthermore, it is feasible to make use of the already existing mobile phone technology to communicate with traders as a possible solution to tracking consignments.
7. **Train ERCA staff to improve their efficiency and professionalism.** Training options depend on the actual content. For instance, import valuation is a fairly complex issue, and training for ERCA is best provided through international expertise. Support could possibly be mobilized through International Organizations like the World Bank Group, WCO, and through visits to best practice countries, as efforts intensify to promote South-South exchange. Other options include using the private sector for training purposes. The private sector could for instance provide training to ERCA staff at low cost on other key issues of concern such as customer care and handling. There should also be effective legal instruments to make corrupt staff accountable for their actions.
8. **Equip warehouses with modern technology and build more terminals.** It is necessary to buy and provide more port and warehouse management equipment. One of the problems in Djibouti and hinterland dry ports (e.g., Modjo and Kaliti) is the lack of high tech cranes. There are only a few technically advanced cranes and other logistics equipment in the country. If one or more fails to work, excessive delays can occur. Increasing private participation in the area of warehousing and related logistics facilities would support modernization and the introduction of innovative service products and management techniques. There are not enough terminals in Modjo. The three terminals under construction need to be finalized before the start of the rainy season to avoid damage and further delays in logistics. The same is true to accommodating loading trucks in Djibouti that are fully packed in a dusty terminal.
9. **Implement sound risk-based control systems at the agency and inter-agency level to facilitate trade and ensure effective safety controls with optimal levels of inspections (including joint inspections).** Inspection is frequent and highly susceptible to rent seeking. Valuation of imported cargo is contentious. Often inspection is handled by more than one agency and this obviously contributes to delays. The lack of coordination in inspection is also due to non-use

BOX 6: Policy Recommendations on Trade Logistics

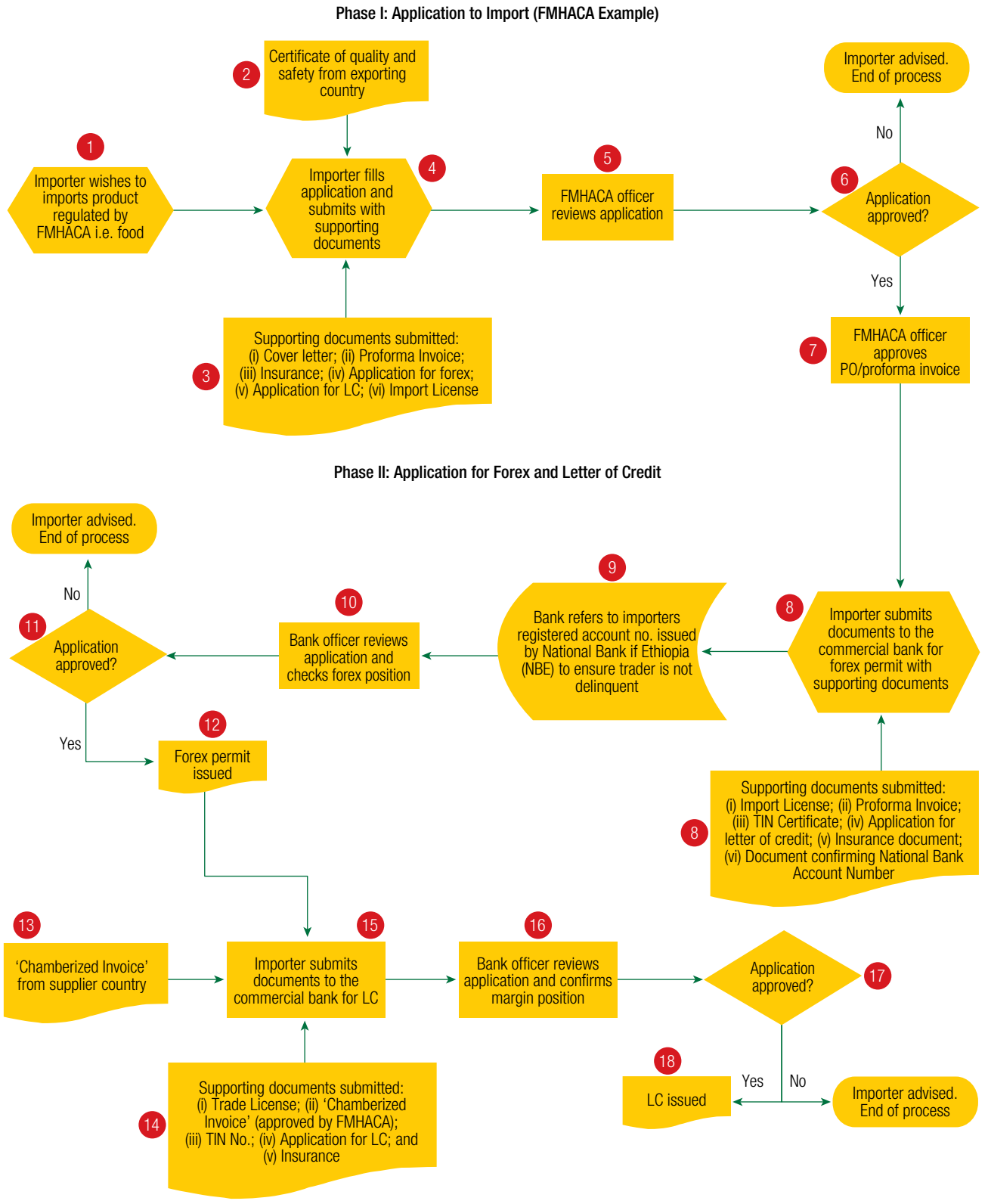
Policy Area	Recommendation
General	1. Develop a National Trade Logistics Strategy
Structure and performance of the transport and logistics system	2. Strengthen the multimodal system by encouraging increased competition 3. Address the infrastructure challenges: roads, trucks, and railways 4. Develop multiple trade corridors
Customs, border controls and other trade-related regulations	5. Reform customs procedures with new technologies and Public Private Partnerships 6. Improve transparency, predictability of regulations and communicate better with the business community
Efficient logistics and distribution services	7. Train ERCA staff to improve efficiency and professionalism 8. Equip warehouses with modern technology and build more terminals 9. Implement sound, risk-based control systems, with optimal levels of inspections (including joint inspections)

of risk management for border clearance. While ERCA use some risk management for clearance, other border control agencies do not. As such, this leads to agencies making independent control decisions including for inspections. Simultaneous or joint inspections could help overcome this problem.

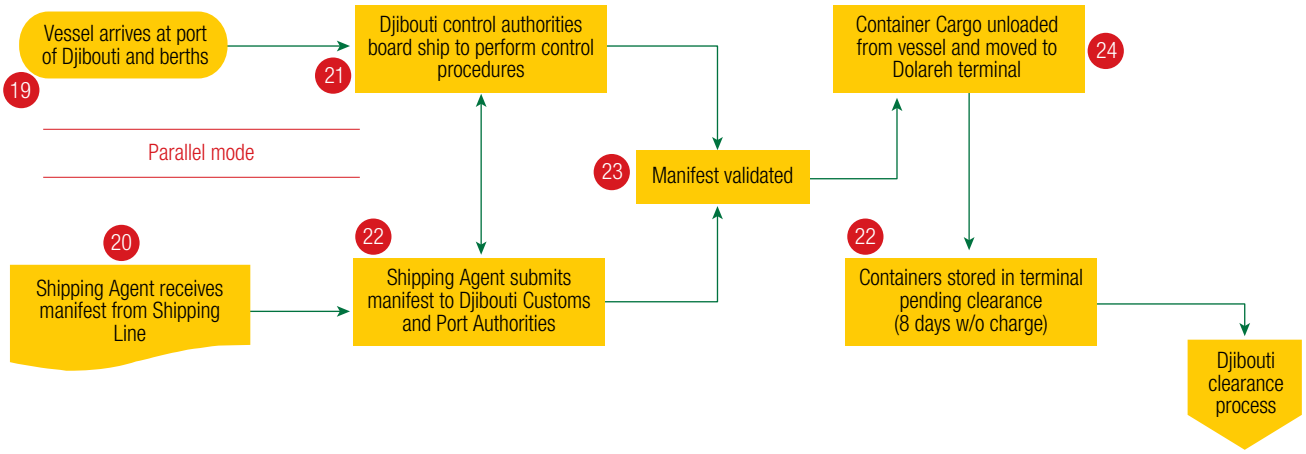
10. **Finally, when considering policy recommendations, it is important to consider the fiscal cost of their implementation.** Although no formal costing exercise was undertaken as a part of the study, it is still possible to roughly classify policy recommendations in terms of their costs. A good number of the recommendations listed in Box 6 would be relatively cheap to implement, including: National Trade Logistics Strategy (#1), transparency and predictability of policy (#6), and risk-based control systems (#9). In principle, introducing competition (#2) could also be relatively fiscally neutral, because higher revenues of another SOE or taxation of potential private operators could compensate for lower ESLSE revenues; PPPs could also play an important part in this. A second set of recommendations would have some fiscal cost, including: reforming customs procedures (#5), training ERCA staff (#7), and equipping warehouses with modern technology (#8). Finally, there are a couple policy options with substantial cost implications: addressing infrastructure challenges (#3) and developing multiple trade corridors (#4). Policy recommendations with a fiscal cost would need to be considered in the context of competing spending needs and priorities.

Annex: Trade Logistics

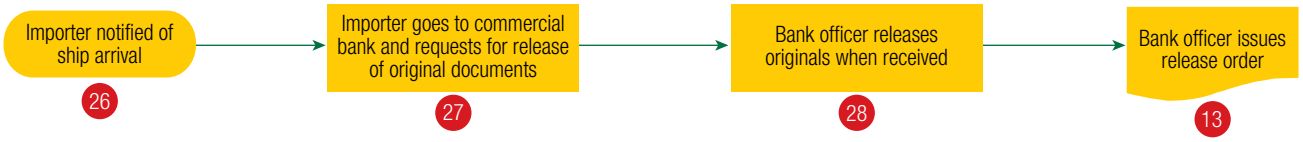
FIGURE 20: Process Map for Border Clearance in Ethiopia (Illustrative)



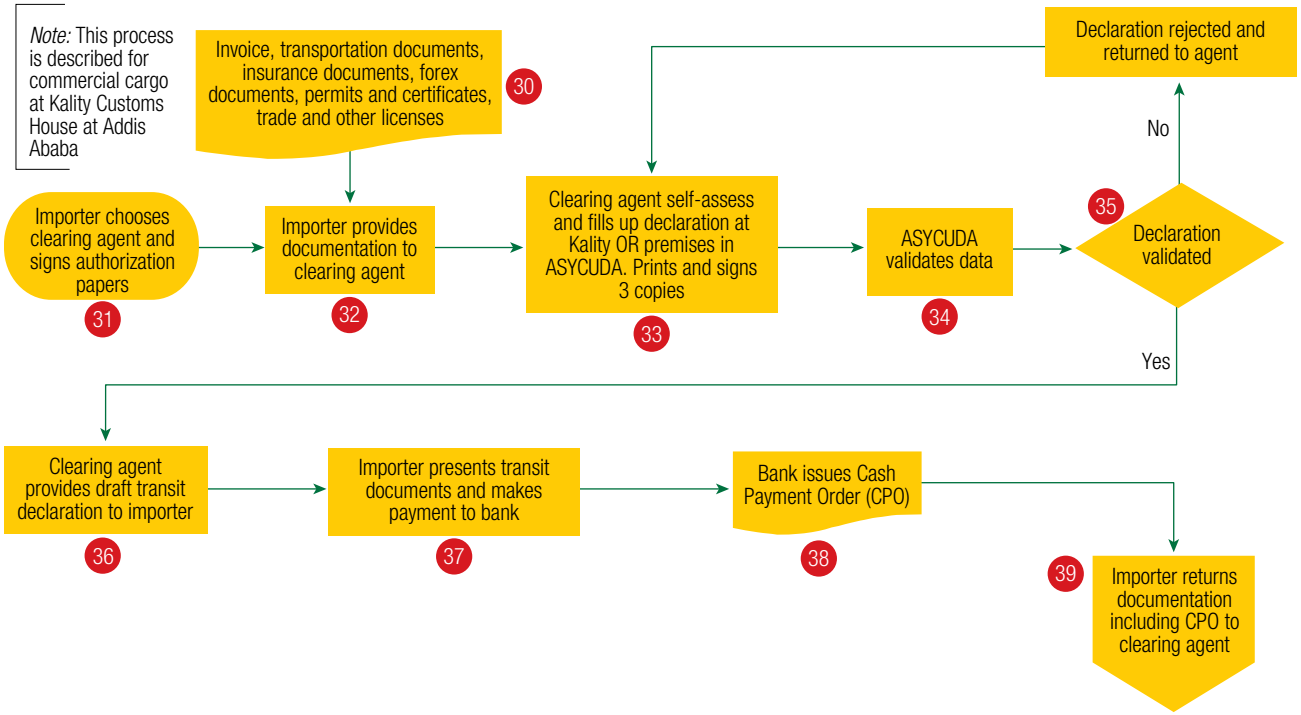
Phase IIIA: Vessel Arrival, Cargo Discharge and Temporary Storage



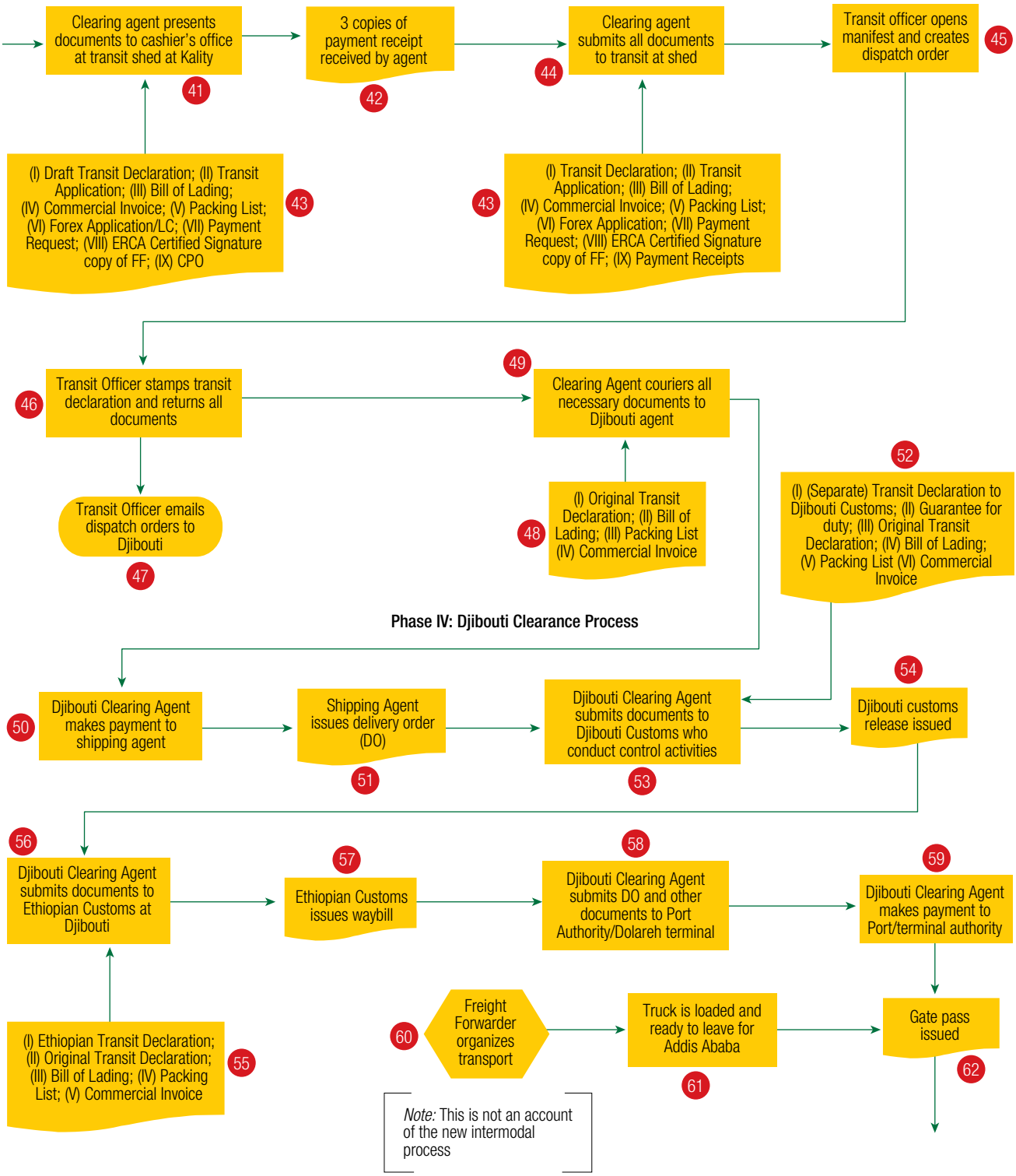
Phase IIIB: Release of Original Documents from the Bank

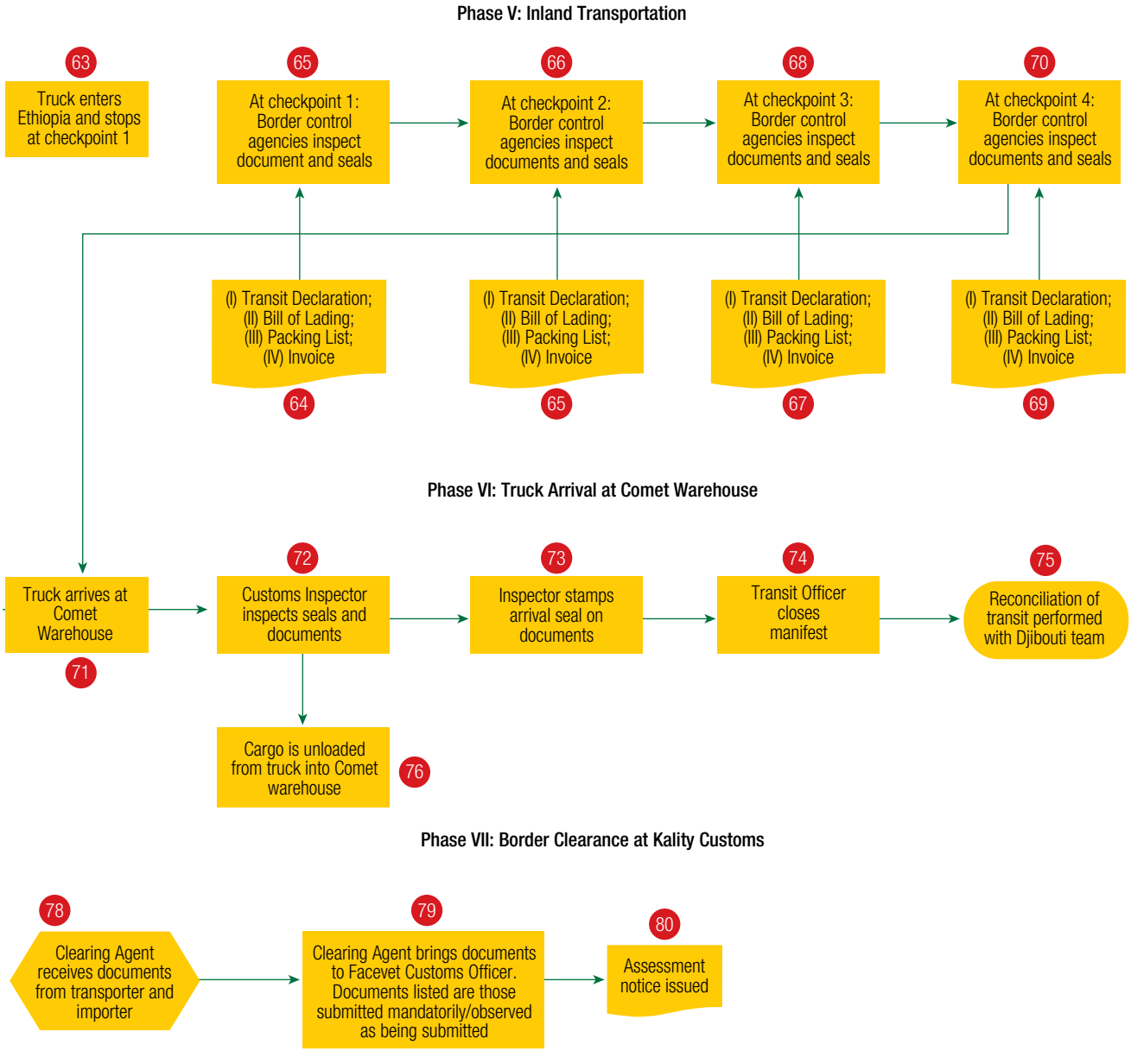


Phase IIIC: Transit Clearance Process in Ethiopia

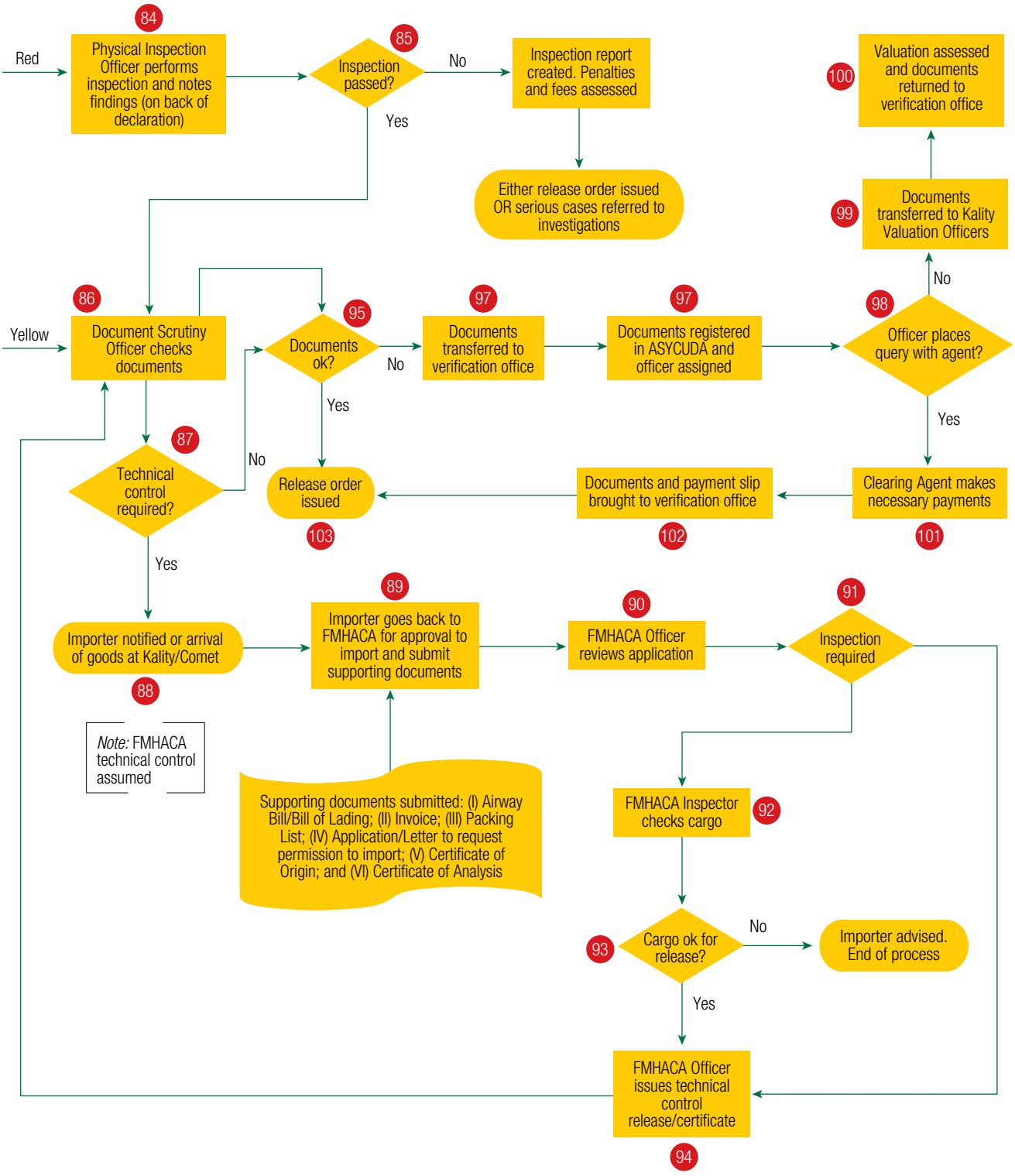


Phase IIIC: Transit Clearance Process in Ethiopia (*continued*)




Phase V: Inland Transportation
63
Truck enters Ethiopia and stops at checkpoint 1
65
At checkpoint 1: Border control agencies inspect document and seals
66
At checkpoint 2: Border control agencies inspect documents and seals
68
At checkpoint 3: Border control agencies inspect documents and seals
70
At checkpoint 4: Border control agencies inspect documents and seals
(I) Transit Declaration; (II) Bill of Lading; (III) Packing List; (IV) Invoice
64
(I) Transit Declaration; (II) Bill of Lading; (III) Packing List; (IV) Invoice
65
(I) Transit Declaration; (II) Bill of Lading; (III) Packing List; (IV) Invoice
67
(I) Transit Declaration; (II) Bill of Lading; (III) Packing List; (IV) Invoice
69
Phase VI: Truck Arrival at Comet Warehouse
Truck arrives at Comet Warehouse
71
72
Customs Inspector inspects seals and documents
73
Inspector stamps arrival seal on documents
74
Transit Officer closes manifest
75
Reconciliation of transit performed with Djibouti team
Cargo is unloaded from truck into Comet warehouse
76
Phase VII: Border Clearance at Kality Customs
78
Clearing Agent receives documents from transporter and importer
79
Clearing Agent brings documents to Facevet Customs Officer. Documents listed are those submitted mandatorily/observed as being submitted
80
Assessment notice issued

Phase VII: Border Clearance at Kality Customs (*continued*)



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