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South-South Integration and the SDGs:
Enhancing Structural Transformation in Key Partner Countries of the Belt and Road Initiative

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Firew Bekele Woldeyes
Lead Researcher, Macroeconomics Policy Studies Centre
Policy Studies Institute, Addis Ababa

Debt Sustainability and Management in Ethiopia Lessons from China

Abstract

Ethiopia's risk rating in terms of external debt sustainability is high, despite a public debt to GDP ratio lower than IMF thresholds. Its external debt risk is associated high external debt levels and external debt service to export ratios. While Ethiopia has grown strongly over the last decade and a half, much of this growth was in the non-tradable sectors, such as construction, and is driven to a large extent by public investment. While Ethiopia still has an infrastructure deficit in many areas, the management of public investment is important to benefit from the resources allocated for investment. Ethiopia has suffered from cost and time overruns of public projects. The poor investment performance has contributed to the trends towards lack of sustainability of external debt.

Key words: Debt sustainability, finance for development, public investment

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1. Introduction

Ethiopia has experienced rapid growth in GDP starting 2004, averaging 10.3 percent per annum. Growth was volatile and averaged at 2.7% between 1982 and 2003, which was in the same ballpark as the population growth rate. Hence, income per capita remained stagnant in real terms in the first period and more than quadrupled in the second period (see Figure 2), standing at 2,320 USD as of 2019. To put things in context, sub-Saharan Africa has recorded a 3.1 percent average growth rate pre-2003, which has increased by 1.6 percentage points to 4.7 percent post-2003. Despite the high growth period in Ethiopia, per capita income is below the sub-Saharan African average, showing the importance of maintaining fast growth.

Figure 1: GDP growth rate in Ethiopia from 1982 to 2019

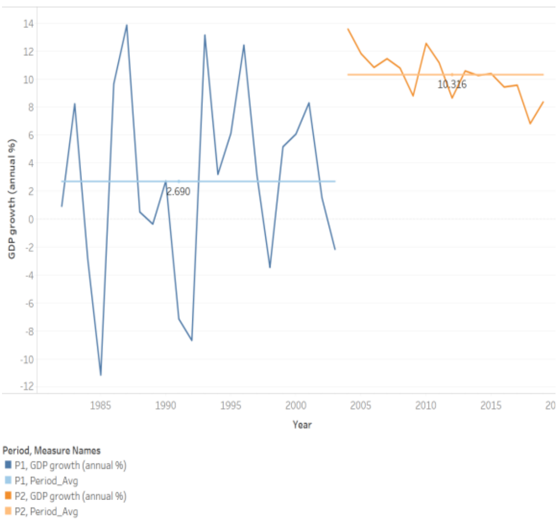
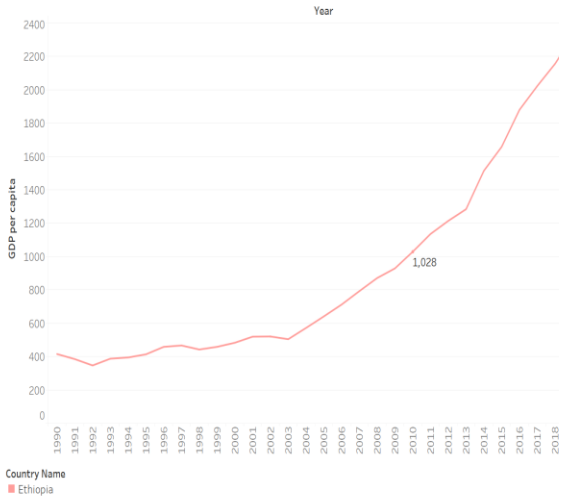


Figure 2: GDP per capita PPP USD from 1990 to 2019



Source: World Development Indicators

While agriculture growth was the driver at the take-off stage, the service and, later on, the construction sectors have registered faster growth (See Moller & Wacker, 2015). Both capital accumulation and productivity improvements have contributed to the growth spurt in Ethiopia post-2003 accordingly Moller and Wacker (2015).

Investment as a share of GDP has more than doubled in the 2010s compared to the pre-2000 period. The public sector was responsible for a big chunk of the investment in Ethiopia in the early years. In particular, public expenditure on infrastructure and human capital was the priority for the government. Private sector investment only started trending upwards after 2010.

Figure 3: Total investment in Ethiopia from 1982 to 2019

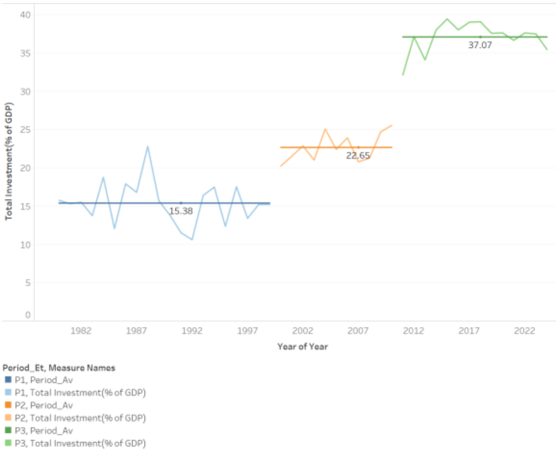
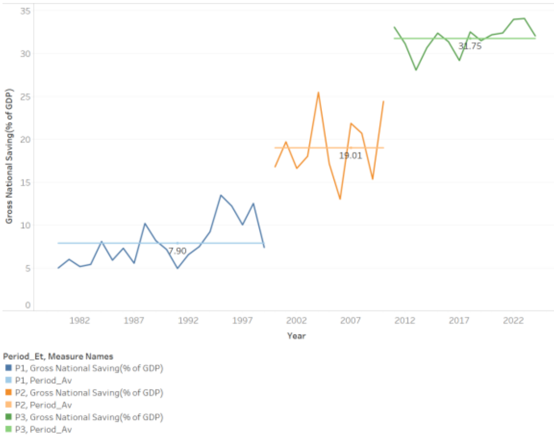


Figure 4: National Savings in Ethiopia



Source: World Development Indicator

To benchmark Ethiopia against China, we have considered decades where the two countries were at a similar level of development. Accordingly, the 1980s and 1990s in China correspond to the 2000s and 2010s in Ethiopia. Hence, when comparing China with Ethiopia, we will examine the 1980s and 1990s for china compared to the 2000s and 2010s for Ethiopia.

China has been on a high growth path for about four decades report Lu (2020). Accordingly, GDP per capita based on PPP (purchasing power parity) USD has reached 16,804 as of 2019 from around 983 in 1990.

Figure 5: GDP growth rate in China from 1962 to 2019

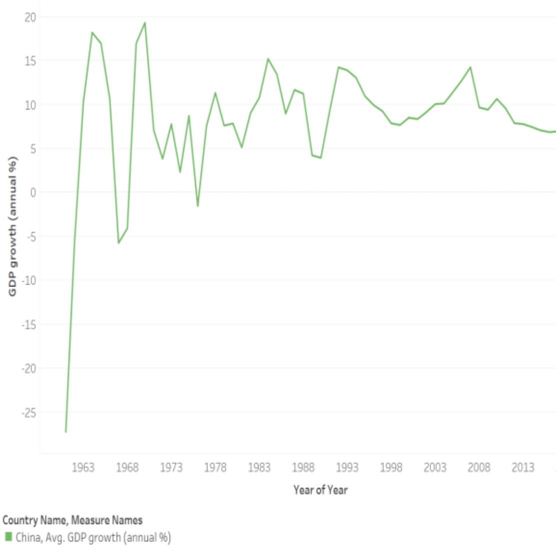
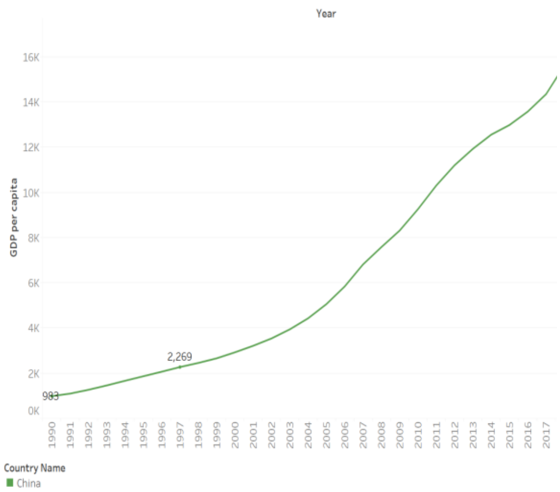


Figure 6: GDP per capita PPP in China from 1990 to 2019



Source: World Development Indicator

Capital accumulation explains a significant part of the growth in China. Both the public and the private sector spent resources on capital goods. Capital accumulation has created a conducive environment for productivity improvement, which resulted in sustained growth. The growth has

led to improved disposable income, which has led to higher demand and investment, a multiplier effect (See Lu, 2020).
China has maintained high investment as a share of GDP during the four decades of growth, as shown below.

Figure 7: Investment in China from 1990 to 2019

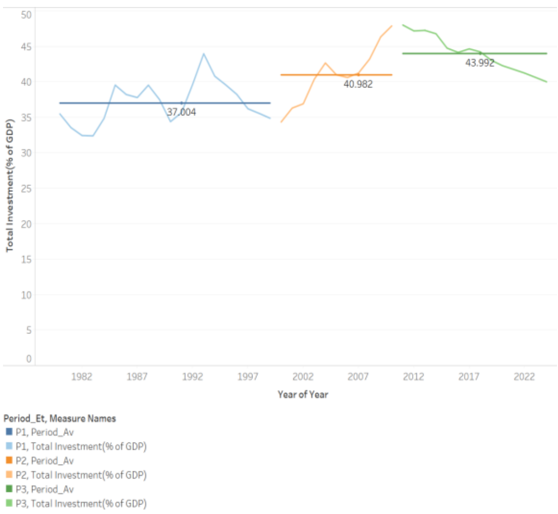
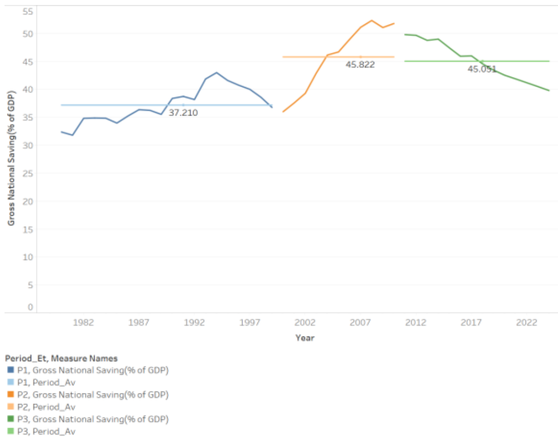


Figure 8: National Savings in China



Source: World Development Indicator

In summary, we can see that increasing investment was critical for growth. Ethiopia likely needs to maintain a high investment share to continue to grow.

The questions we would like to address in the subsequent discussions are a) how to sustainability finance investment, and b) what lessons can we draw from China.

As can be seen from the graph, the savings by the nationals is below the investment required in Ethiopia. In China, the domestic savings is either equal to or above the investment required. Hence, the demand for external financing is limited.

In subsequent sections, we will discuss

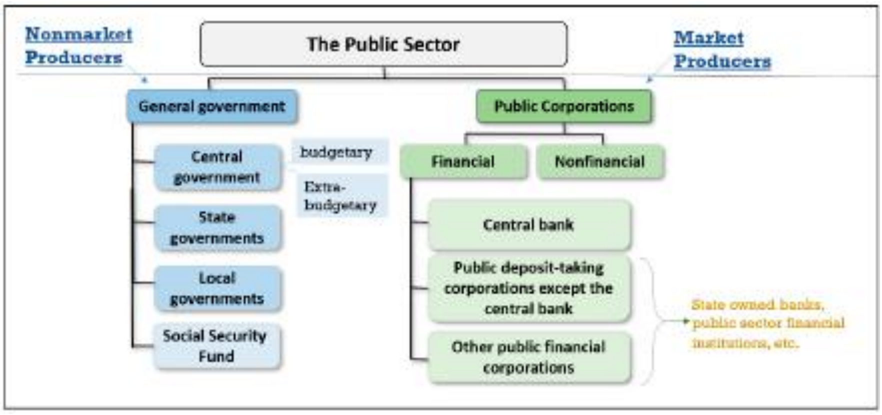
1. How Ethiopia and China financed their development and the implication on debt sustainability.
2. To the extent possible, we will discuss specific institutions and policies in debt management.

2. The Scope and Context of Development Financing

Ethiopia's saving is not sufficient to finance its development. Hence, external borrowing to finance the investment is unavoidable. Even if the borrowing is to finance productive investment, there is no guarantee that it will be sustainable. Following controversial papers by (See C. M. Reinhart et al., 2012; C. Reinhart & Rogoff, 2010) aimed at identifying debt threshold beyond which debt has a growth-reducing effect, researchers have explored the possibility of how much debt will be a sustainable level. Pescatori et al. (2014) argue that debt trajectory (debt management) is also a critical factor in determining the impact of debt on growth.

Following the literature, we will focus on debt levels and debt management to draw lessons from China. We will start by defining the scope of debt. The discussion in the paper is mainly about the public sector. Therefore, we are primarily interested in public sector debt. The public sector debt includes the general government's and public corporations' debt. Figure 9 below presents what we mean by the public sector.

Figure 9: The Public Sector

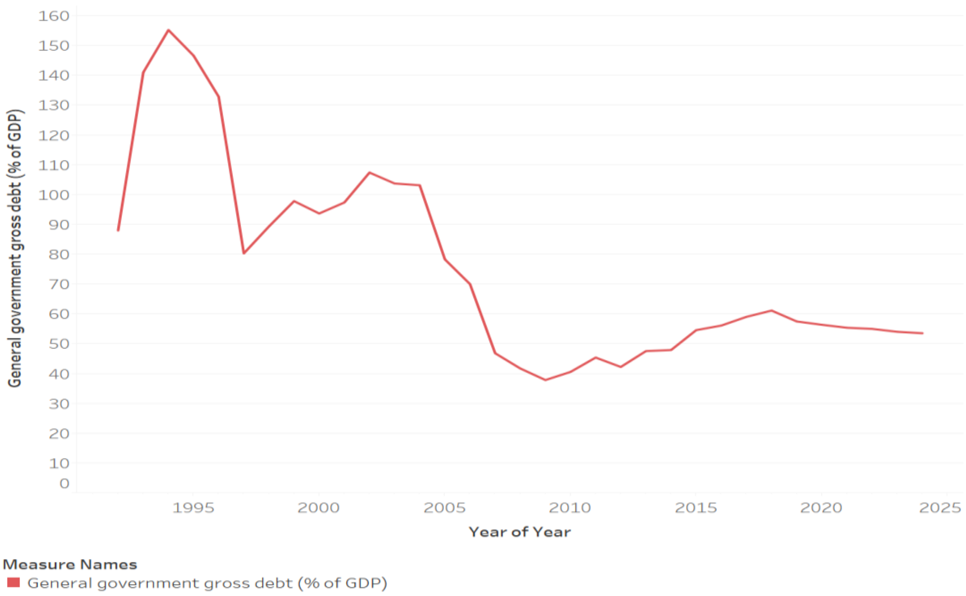


Source: International Monetary Fund and World Bank (2020)

From the point of Ethiopia, external public and publicly guaranteed debt is also of interest considering the country is struggling to generate enough foreign exchange to meet its forex demand. While external borrowing increases the availability of foreign exchange in the short term, it will require more foreign currency later on.

Unfortunately, comparable and long-time series data on public sector debt across countries are not available. The comparison will be further complicated by debt relief. Therefore, we will present the data along with the context.

Figure 10: General government gross debt (% of GDP) in Ethiopia from 1982 to 2019

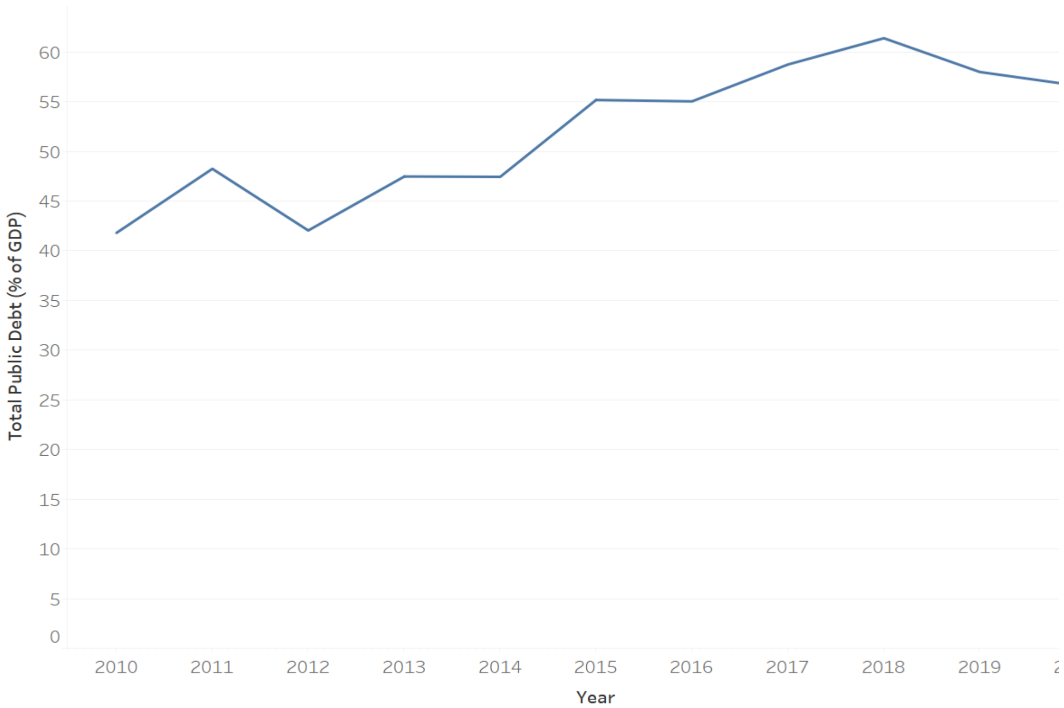


Source: World Development Indicator

During the military regime (1974-1991), Ethiopia has accumulated a significant debt burden, and it has reached a peak of 150 percent of the GDP in the 1990s. The debt was mostly (54%) contracted for defense purposes, according to African Forum & Network on Debt & Development (2006). The accumulation of the debt during the military regime has not contributed to the productive capacity improvement, and the country was in civil war. The economy was not well-positioned to service the debt without significantly impacting expenditure on poverty alleviation because of low growth. Accordingly, Ethiopia has become eligible for debt relief under the Heavily Indebted Poor Countries, and the assistance to Ethiopia amounted to approximately 1.3 billion USD or 47.2 percent of the external debt.

Debt as a share of GDP started climbing back again after 2009, according to the data from the World Bank. Our review of the debt dynamics in Ethiopia will focus on the period where Ethiopia started to accumulate debt in recent years.

Figure 11 Public debt in Ethiopia as a percentage of GDP



Source: MoF

The Debt to GDP ratio has climbed from 42 percent in 2010 to 61 percent of GDP in 2018. However, it has been on a decline since 2018 and is at 57 percent as of 2020. Considering real GDP has been expanding on average at 10 percent per annum, the expansion of public debt was rapid pre-2018. External debt, which stood at 32 percent in 2018, has declined to 29.5 percent by 2020. Ethiopia's external debt position, while sustainable, is at a high debt distress rating. In particular, debt to export and debt service to export ratios are responsible for the threshold breaches that lead to high debt risk ratings (See The World Bank, 2020).

World bank's International Debt Statistics show that China's external debt stock increased from 3 percent of GNI in 1981 to 19 percent by 1993, and it has declined to 13 percent by early 2001. Today, China's External loan stands at 15 percent of GNI. China has not relied on external sources of financing in the 1960s and 1970s, and when China opened up beginning the late 1970s, China's external borrowing expanded (See Platte, 1993).

3. Investment Priorities and Project Management

In 1991, the Ethiopian People's Revolutionary Democratic Front (EPRDF) took power after a lengthy civil war ousting the military government, which led the country between 1974 and 1991. The new government took measures to liberalize the economy, discontinued central planning, and adopted an Agriculture Development Led Industrialization (ADLI) strategy. However, growth performance was dismal in the 1990s. In the early 2000s, it introduced a three-year plan to guide public investment, and it is referred to as Sustainable Development and Poverty Reduction Program (SDPRP). Ethiopia has been implementing a series of five-year plans since and, in 2020, Ethiopia has introduced a ten-year plan. The plans are the primary document that ensures that public investment projects are in line with government objectives. Ethiopia's period of sustained growth also coincides with the decision to scale up public investment in road, power, housing, telecommunication, education, and health.

Table 1: Multi-Year Plans

Program	Period
Sustainable Development and Poverty Reduction Program	2002/03 – 2004/05
Plan for Accelerated and Sustained Development to End Poverty (PASDEP)	2005/06 – 2009/10
Growth and Transformation Plan I	2010/11 – 2014/15
Growth and Transformation Plan II	2015/16 – 2019/20
Development Plan: Road map for prosperity	2020/21 – 2029/30

Source:(Growth and Transformation Plan 2010/11 - 2014/15, 2010; Growth and Transformation Plan II (GTP II) (2015/16-2019/20), 2016; Plan for Accelerated and Sustained Development to End Poverty (PASDEP), 2006; MOFED, 2002)

Accordingly, physical capital has expanded dramatically over the last two decades. Below, I list some of the improvements in public capital stock (MOFED, 2002; PDC, 2020).

- The road density increased for 29km/1000 km2 in 2000 to 125.3km/1000km2 by 2018.
- Electricity generation capacity has expanded from 327 to 4478 Megawatts between 2002 and 2020
- The number of universities and hospitals have expanded rapidly.

Projects that match the process of industrialization were prioritized in China, according to Lu (2020). During the last two decades, Ethiopia followed the approach of guiding public investment through three or five-year plans. The system will ensure the prioritization of projects that matches the development strategies of the country.

However, public investment in several countries suffers from inefficient management. Some of the drivers of public investment management inefficiencies include weak coordination between the different agencies, projects driven by political consideration, poor budget management, and cost escalation and delays in large infrastructure projects (Rajaram et al., 2014).

The development and utilization of a project management tool will provide information for decision-makers to prioritize feasible projects. Moreover, it will help those that initiate public projects to design viable ones. After abandoning the central planning done by the Ministry of Planning and Development in the previous regime, public investment projects were managed by the Ministry of Finance and Economic Development (MoFED). In 2006, MoFED developed a tool to guide the preparation, appraisal, monitoring, and evaluation of public sector projects (Shiferaw et al., 2012).

The project preparation and appraisal process depend on the means of financing. If a project is financed through the treasury, the respective government body will share a concept note of the project with MoFED. Once the MoFED approves the project concept, the responsible organization will prepare a detailed project document for submission to MoFED. After examining the project proposal, the MoFED will either accept, request an amendment, or reject it. If, on the other hand, the project requires assistance or loans, the MoFED will check the proposal alignment with the government strategy and send it to the Council of Ministers and the after to the House of People's Representatives (HPR) (See Shiferaw et al., 2012).

However, Shiferaw et al. (2012) finds that not all projects pass through the process described above. Some projects are considered urgent and bypass the procedure described above. The acceptable threshold for the number of projects that will be deemed urgent in a given period is not specified.

In 2020, the Ethiopian government passed the federal government public projects administration and management system. The law was passed to improve the management of public projects. Accordingly, the law aims to ensure that projects are completed on time and with the planned budget and quality.

The law classifies projects into large, medium, and small, and it also identifies the formulation, implementation, and post-implementation cycles. The project formulation cycle involves the idea identification, pre-feasibility and feasibility studies, independent project feasibility review, and project prioritization and selection. The project implementation and post-implementation involve monitoring and evaluation during implementation and post-implementation evaluation. There is an escape clause that allows urgent projects to proceed to implementation without following the regular procedure. The details of what could suspend the normal project cycle are left to be decided by the regulation. There is a report that the new law is not taken seriously, and the political decision is replacing feasibility studies (See The Reporter, 2021). The practice of what was considered urgent, is not defined.

The above discussion is pertinent to public projects undertaken by the general government. However, the public sector includes public corporations (see Figure 9). Although there is no readily available data on the breakdown of public investment by the general government and public corporations, it is safe to assume the public corporations play a significant role in public investment. In Ethiopia, state-owned enterprises provide several essential services. These services are telecommunication, electricity, transport and logistics, financial services, manufacturing, mining, industrial infrastructure, agriculture, agro-processing, construction, trade and, other services. In some cases, the enterprises are the sole providers of the service. As we will see later on, state-owned enterprises are responsible for a large change in the public sector debt.

The Public Enterprise Proclamation No. 25/1992 of Ethiopia provides the legal framework for a public enterprise. According to the law, a public enterprise is wholly owned by the government. Moreover, it must be established by proclamation and is a commercial entity. The Public Enterprise Holding and Administration Agency (PEHAA) supervises all public enterprises in Ethiopia. A public enterprise will be led by a board and will have management. The board is responsible for approving its strategic and annual plans. As of 2018, there were 21 public enterprise groups that the PEHAA oversees, including the Ethiopian Airlines, Ethio-telecom, and Commercial Bank of Ethiopia. There are also state-owned enterprises that are not regulated by the PEHAA. Public enterprises that are converted to share companies for privatization purposes and state-owned enterprises step up under the commercial code by the council of ministers are examples (See Ashagrey & de Visser, 2019).

As stated above, the government-appointed board members and chairperson approves significant decisions, and issue a directive to the company when needed. According to Ashagrey & de Visser (2019), the abovementioned channels ensure that the government's control over the state-owned enterprise. Although the PEHAA has a broader oversight over several state-owned enterprises, it does not cover all SOEs. Even for those under the PEHAA, the focus is on ensuring sound governance of the SOEs. Hence the aligning investment with the development objective of the country maybe ignored.

In summary, there are laws, tools, and institutions for public investment management. However, there are gaps in ensuring the laws and tools are adhered to in the case of general government project management. Second, there is a lack of a system that ensures public investment carried out by SOEs is aligned with the country’s development objectives. Our review of government documents indicates that public investment decisions are made by the board of each enterprise.

4. The financing mechanisms

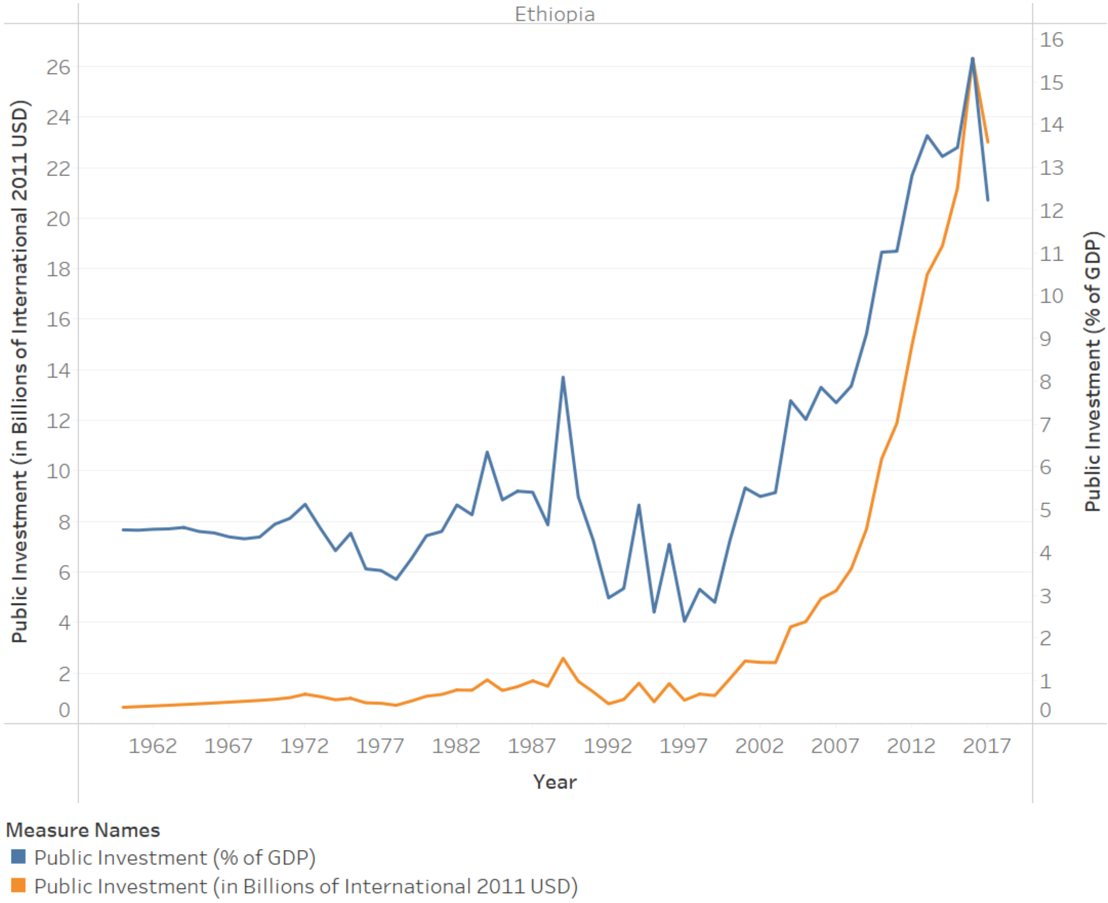
In China, public investment increased sharply starting mid-1980s and continued until the late 1990s. A key feature of the Chinese Economic reform since 1978 is the devolution of the control of the economy to subnational governments (See Jin, 2003). Lu (2020) finds that Chinese local governments have historically been active in raising funds for investment projects. Lu (2020) concludes that if local governments are provided the right incentive and autonomy, they can be a driving force for economic growth. According to Lu (2020), the reason for the success of local governments is access to information and connection to local institutions.

Asian Development Bank (2014) finds that the local governments account for about 85% of the public spending and are responsible for most public services. However, they receive around half of the total tax revenue and a transfer from the central government. To fill the gap, the local government has used different tools to meet their financing needs. As a result, local government debt has rapidly increased and has reached 18.6% of GDP. As a result, some laws targeted curbing local governments' debt (See Asian Development Bank, 2014).

We find a similar story of a sharp increase in public investment in Ethiopia, in levels and as a percent of GDP after 2000. According to Manyazewal (2019), the government recognizes the importance of investment for growth. Hence, there has been a rise in investment. Unlike China, the role of local government in raising funds is limited. As a result, they use their resources to pay wages(See World Bank, 2010). Some of the reasons for the limited role of local governments in financing investment are weak revenue mobilization capacity and restrictive laws.

Moreover, domestic saving in Ethiopia is below the financing needs. Savings is lower than needed despite the improvement, as Ethiopia started from a low level. As a result, external financing is necessary to fill the financing gaps.

Figure 12: Public Investment in Ethiopia



Source: IMF

Ethiopia has a federal system consisting of the federal government, ten regional states (as of 2019/20), and two city administrations. The constitution requires the state governments to adequately empower the local governments (See Ayele, 2008). The states are divided into zones, and then into districts (wereda). Similarly, the city administrations have districts. The constitution has left for regional states constitution to allocate responsibilities to local governments, and accordingly, the districts (wereda) have their responsibilities.

The fiscal system of Ethiopia is highly centralized, and there is a concentration of fiscal-decision making power at the center (Moges, 2008). The composition of expenditure shows that the federal government has controlled a large share of the expenditure. The public expenditure review of the world bank shows the federal government controls up to 60% of the total expenditure, while regions and districts execute 15 and 25 percent, respectively (See World Bank, 2016). There also are disparities among regions.

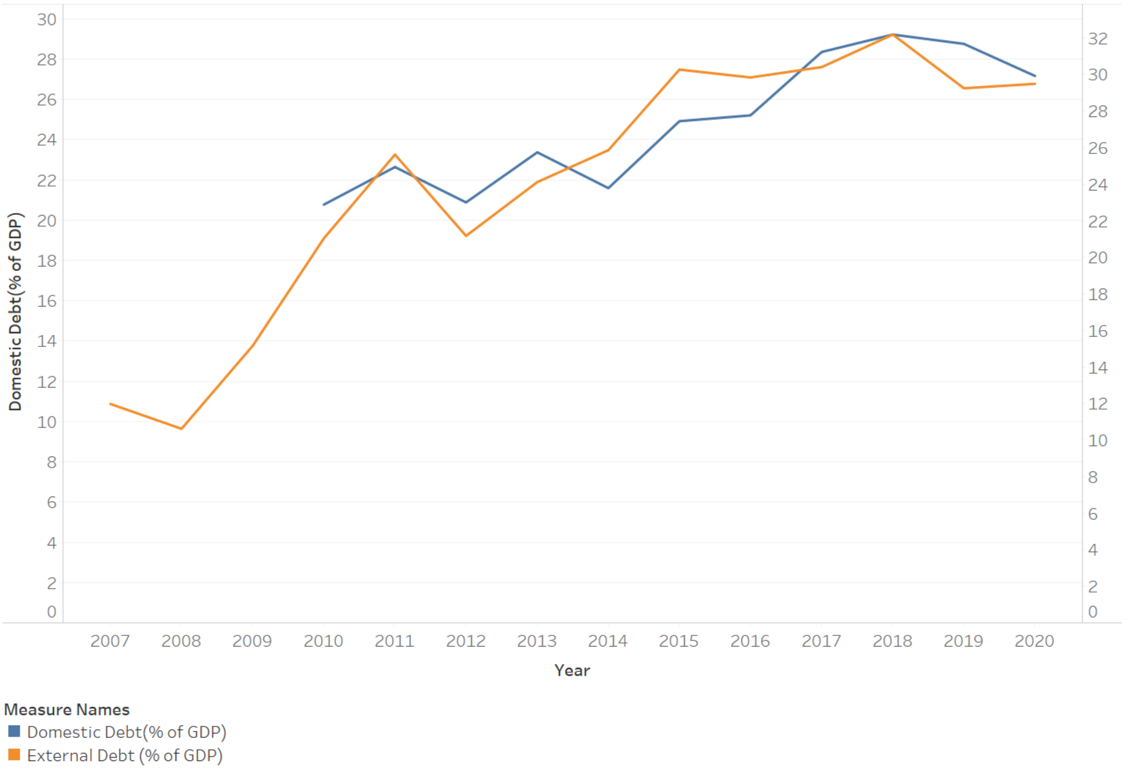
The Ministry of Finance plays a crucial role in mobilizing and allocating government finance. In particular, it is responsible for supervising the finance of the federal government. It also ensures harmonization of the fiscal relationship between the federal government and regional governments. MoF prepares the federal government budget and subsidies for regional governments based on a formula approved by the House of Federation (FDRE, 2009). MoF uses the Macroeconomic and Fiscal Framework (MEFF) for estimating the resource envelope for three years, and the MEFF covers internal and external resources.

The MoF uses the MEFF to estimate revenues by item for three years, estimate expenditure by each public body disaggregated into recurrent and capital and economic sectors, and estimate the subsidies to regional governments. The financial administration proclamation of the federal government states that the authority for borrowing and issuing guarantees on the behalf of the government lies with the Ministry of Finance. The Ministry can authorize other officials of the federal government to sign loan agreements on the behalf of the Ethiopian government. (FDRE, 2009). The MoF also determines the amount regional government can borrow, considering the national fiscal macroeconomic policies. The decision is based on information provided to MoF by the regional governments, and they are required to provide sufficient information on their foreign currency needs (FDRE, 2009). On external financing, and Ethiopia's strategy was focused on mobilizing grants followed by concessional loans, preferably budget support.

However, the government plans also include projects that do not have a budget. According to Manyazewal (2019), the practice of including projects without financing started in 2010. For projects with no finance, the bid process instructs prospective contractors to come up with the finance.

The approach of securing financing from prospective contractors may have created the opportunity for implementing projects that would have been left out because of the lack of finances. However, the approach might have also contributed to a sharp rise in external financing, as multinational companies have better financial access. Accordingly, between 2008 and 2011, external debt has increased from 11 to 26 percent of GDP (see Figure 13).

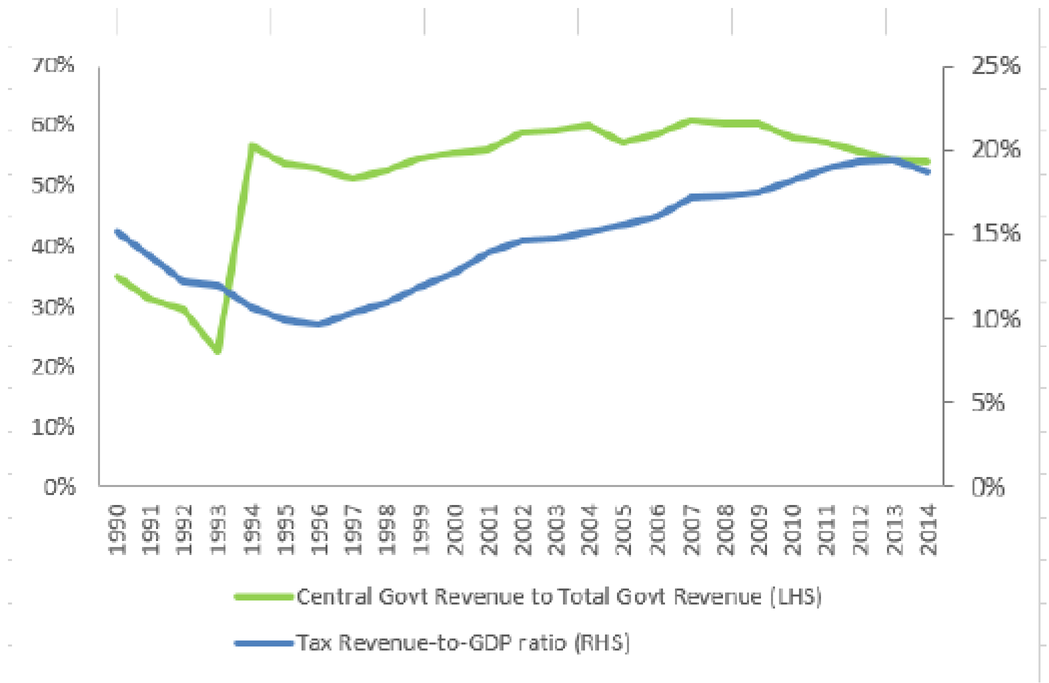
Figure 13: External and Domestic Public Debt (% of GDP)



Source: MoF

Another concern is the negative impact on revenue collection of asking prospective contractors to come up with finance. China's tax to GDP ratio declined from 15 percent of GDP in 1991 to 9.7 percent in 1996, which has prompted the government to reform the tax administration system (See Brondolo et al., 2016). According to Brondolo et al. (2016), China started a modernization program in 1994. The modernization included splitting the tax agency into two separate organizations: a national tax service (to collect central and most shared taxes) and local tax services (to collect local government taxes and some shared taxes). The focus of the reforms includes designing and implementing new organizational arrangements, tax administration processes, and information systems. Accordingly, tax to GDP started picking after 1996 and is close to 20 percent by 2014.

Figure 14: Tax to GDP and Central Government Share in Total Revenue in China



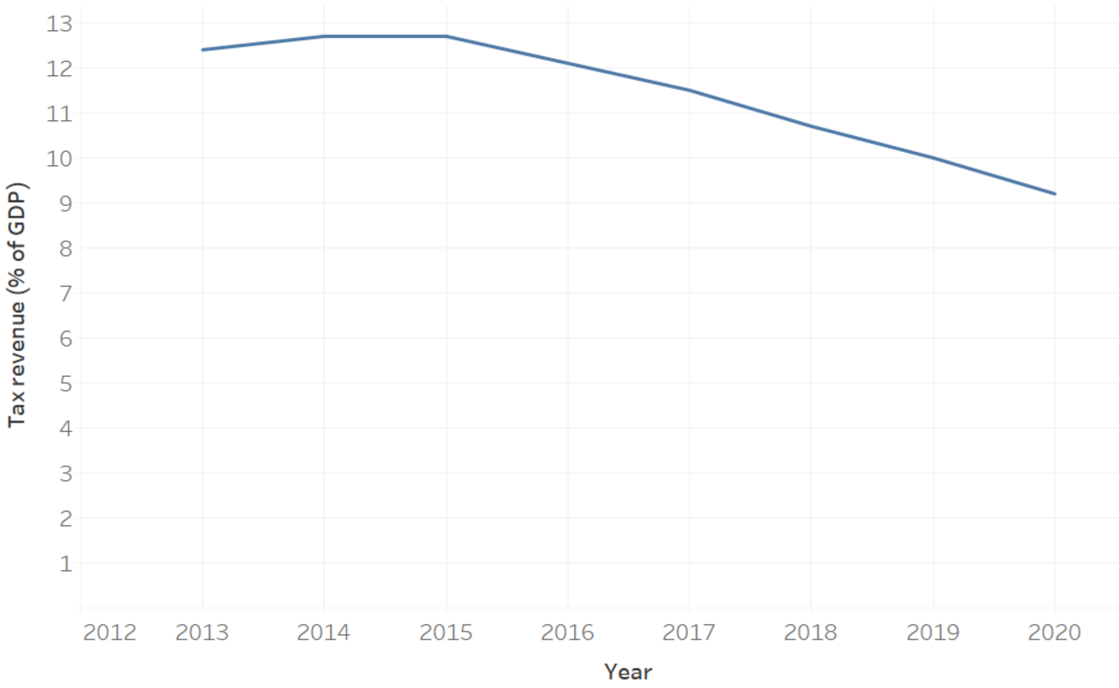
Source: (Brondolo et al., 2016)

Ethiopia follows a federal system of government, where the tax collection is allocated to the federal government, regional governments, and concurrent responsibilities. Around 2003, Ethiopia started reforming the tax policy and administration. It has introduced the value-added tax and modernized the tax administration system, such as the adoption of an IT system, mandatory use of electronic sales registry machines, etc. (See Ali et al., 2017). The reform has helped reverse the declining trend in tax revenue as a percentage of GDP observed between 2000 to 2008. However, the improvement was short-lived, as the tax to GDP ratio has once again started declining in 2015. Considering the already low level of tax collection performance, this is an area of concern. PDC (2020) reports that the government plans to increase the tax to GDP ratio from the current 9.2 percent of GDP to 17% by 2030.

The issue of tax compliance is identified as having a significant gap in Ethiopia. Shimeles et al. (2017) find that taxpayers may understate their tax obligation on average by 38 percent. There is also a significant revenue loss because of preferential tariff treatment as industrial policy, which is not compensated by a tax collection from domestic sources (See Woldeyes et al., 2019).

Following the change of government in 2018, Ethiopia has started implementing reforms to increase tax collection. In particular, the government has reformed the excise tax rule and has made a tariff revision.

Figure 15: Tax Revenue as a percentage of GDP in Ethiopia



Source: MoF

5. The role of financial institutions in development finance

In China, policy and commercial banks have played a role in providing finance to the local governments through the local government financing vehicle. Chen et al. (2018) report that the Ministry of Finance passed a regulation that will enable local governments to finance investment projects using budgetary revenue, land revenue, and funds borrowed by local government financing vehicles. Lu (2020) identify the six biggest lenders to the local government financing vehicle are the China's Development Bank (CDB), Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB), Agricultural Bank of China (ABC), Bank of China (BOC) and Bank of Communications (BoCom).

In Ethiopia, the financing of government debt is was done by both commercial and policy banks. However, the participation of the private commercial banks and policy banks followed a complicated channel as a result of the central bank policy.
The banking sector in Ethiopia is at a low level of development compared to other countries at a similar status with eighteen banks (sixteen private and two public banks), and the bank capital

to GDP ratio is 3.3 as 2020. The banking sector is dominated by state-owned banks, with 57.3 percent of the total deposit (NBE, 2020a). The modes of financing include direct advances, treasury bills, bonds for the central government, and bonds and loans for state-owned enterprises.

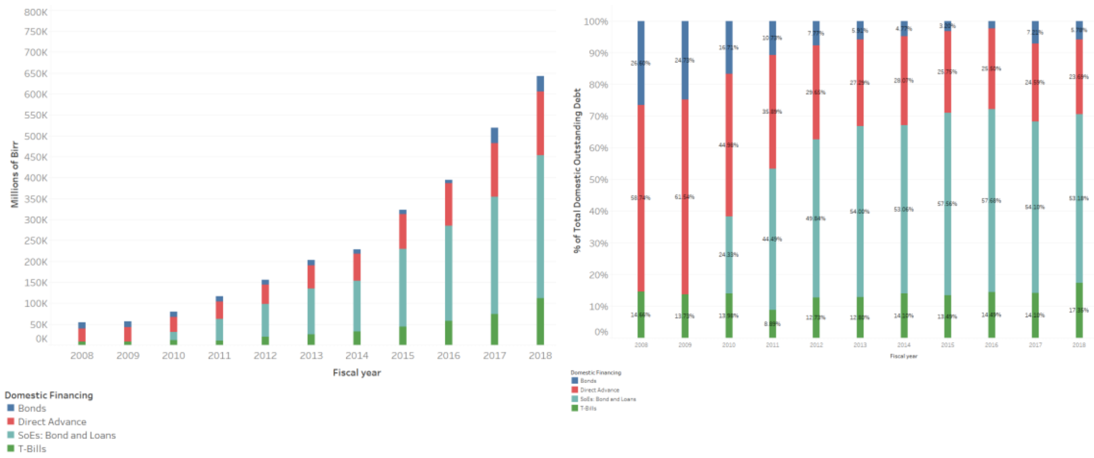
The National Bank of Ethiopia (the central bank) has a gross claim on the central government of 230.2 billion (or 7.2 billion USD) in 2020 (See NBE, 2020a). Previously, a significant portion of the NBE claim on the government was direct advances, as shown below. The remainder is mainly what is referred to as the NBE bill mobilized through the 27 percent rule. The 27 percent rule obliges private commercial banks to buy 5-year NBE bonds (referred to as NBE bills) worth 27 percent of each loan disbursed. The money mobilized was then lent to the Development Bank of Ethiopia (DBE). DBE will then extend loans to the priority sectors. However, DBE was unable to use all the money and invested in 364 days-treasury bills. The money DBE managed to loan out faces a high level of non-performing loans (See World Bank, 2019). The lacklustre performance has led the government to repeal the 27 percent rule in 2019(See NBE, 2020b).

In 2020, the government converted the debt taken through direct advances to bonds. And as of 2020, of the NBEs claim on the government, 86.5 percent is in bonds, and 13.5 is in direct advances. The literature review reveals that the most advanced countries do not allow for the central bank financing of government expenditure. In several emerging and developing countries, governments allow short-term financing to deal with fluctuations in tax revenue. The terms and conditions of such credit to the government are established by law in several countries. For example, a cap on the maximum amount that the central bank can finance, the use of market interest rates, and the debts maturing in the same year are common laws (See Matamoros-Indorf et al., 2012). However, in Ethiopia, there is a lack of transparency in the NBE financing of the government.

The other and regular market for financing of the central government is the treasury bill market, and the market is for short-term financing (See UNDP, 2016). Pre-2019, NBE auctions treasury bills at a fixed interest rate ranging from 0.8 for the 28 days to 5 percent for the 364 days (See Chauffour & Gobezie, 2019). With the inflation rate averaging 14 percent since 2004, the negative-real interest meant the treasury market was not attracting voluntary participants. Until 2019, treasury bills were sold to private and public social security agencies and the DBE. As discussed above, the DBE used the money it gets from NBE bills to buy treasury bills as it was not able to lend the whole amount. Private and public social security agencies are mandated to invest in treasury bills, and Chauffour & Gobezie (2019) calls it a captive domestic market for government debt.

In December 2019, the government has introduced a market-based auction for the treasury bills. The introduction of market-based auctions increased the interest rate significantly, but the implication of this policy change on the fiscal space was not discussed. The average yield increased from 1.7 % to 4.8% between 2019 and 2020. The total outstanding T-bill has also significantly gone down (See NBE, 2020a).

Figure 16: Types of Domestic Debt Outstanding



Source: MoF

Finally, SOEs' bonds and loans make up 63 percent of the domestic debt as of 2020. The share of the Ethiopia Electric Power in outstanding corporate bond was 74.6 percent, followed by Railway corporation with 14 percent, City Government of Addis Ababa 11.3 percent, and regional governments 0.13 percent (See NBE, 2020a). The Commercial Bank of Ethiopia is the only purchaser of these bonds with liquidity injection from the National Bank of Ethiopia (See Chauffour & Gobezie, 2019; UNDP, 2016).

Table 2: Outstanding bond by Client

Clients	Outstanding debt in Millions of Birr for 2020	Share
Ethiopian Electric Power	302,345.73	74.6
City Government of Ethiopia	45,686.69	11.3
Railway Corporation	56,686.98	14.0
Regional governments	516.02	0.1

(See NBE, 2020a)

6. Debt management and sustainability

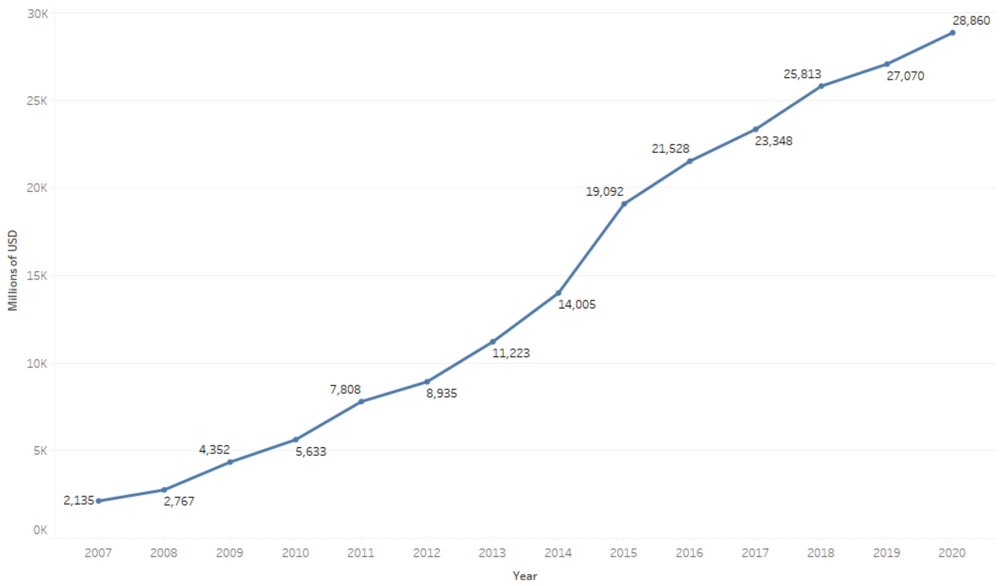
6.1 Debt management

The Ethiopian government has issued a regulation on the financial administration of the federal government in 2010 (FDRE, 2010), which calls for a debt management strategy to be developed by the Ministry of Finance. The debt management strategy aims to guide the government to borrow the appropriate amount at the right time. Ultimately, the debt management strategy will limit the negative impact of unsustainable debt on the economy. Accordingly, Ethiopia formulated a debt management strategy in 2012.

After completing the GTP I, the Ministry of Finance updated the debt management strategy for 2016 to 2020. The strategy is a formal step to manage the cost and risk trade-off of debt accumulation. By so doing, it helps the country to avoid macroeconomic instability and debt overhang. Ethiopia's external debt stock has reached 29 billion USD as of 2020, from about 2 billion in 2007.

For external financing, the government's medium-term strategy for 2016 to 2020 plans to rely mainly on concessional financing. However, concessional finances alone will not be available at the desired amount. Moreover, such finances are usually attached to specific projects. Therefore, the government will use semi-concessional financing to meet the financing requirement for strategically viable projects with high returns. Apart from such projects, the government will only borrow on concessional terms, and new loans will be considered if the grant element is above 35 percent (MoF, 2019).

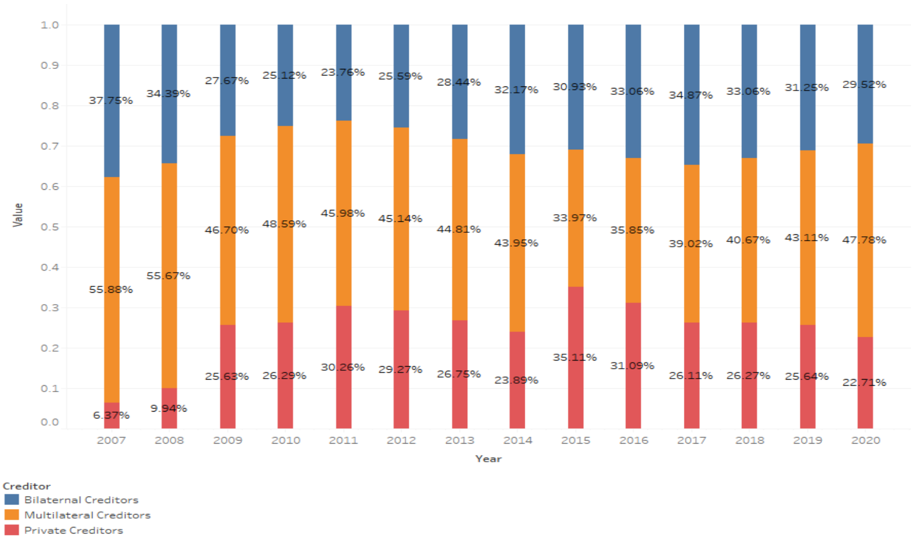
Figure 17: External Debt Stock (Millions of USD)



Source: MoF

In terms of the composition of the creditors, multilateral borrowing tends to be concessional. Semi-concessional borrowing is mostly from bilateral sources (MoF, 2019). As of 2020, debt from multilateral creditors makes up 48 percent of the total debt stock.

Figure 18: External Debt Composition by Creditors



Source: MoF

If we zoom in further into bilateral creditors, China is by far the largest individual creditor to Ethiopia. This is known in sense that most of the infrastructure investment was financed by

China. However, after 2016 the share of China's disbursement has come down quickly. This could be the result of restricting non-concessional borrowing.

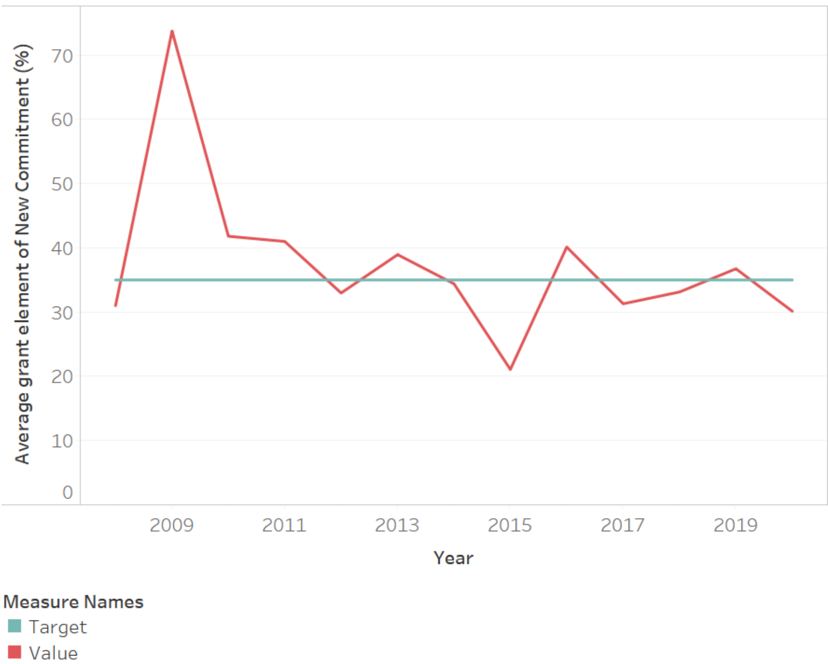
Table 3 Share of Creditors in Disbursement

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total (Million USD)	5,945.27	3,523.73	2936.69	3511.96	2803.40	3279.22
Bilateral (% of total disbursement)	23.96	48.16	31.83	20.28	14.91	14.80
Paris Club (% of total disbursement)	0.23	2.07	2.33	1.68	2.56	3.70
Non-Paris Club (% of total disbursement)	23.72	46.09	29.58	18.40	11.25	10.74
China (% of total disbursement)	22.48	36.38	25.26	17.96	11.03	10.50

Source: MoF

Checking the strategy against the actual debt management performance, even the average grant element in commitment was above the target of 35 percent in 2016 and 2019.

Figure 19: The Average Grant element of New Commitments (%), total



Source: MoF

If we examine the grant element separately for the central government and other public sector, we see that other public sector loan is the one which breaches the target (Figures 20 and 21). Hence, this raises the question of how overall public sector borrowing is managed becomes a critical point.

Concerning borrowing from domestic sources, the strategy is to issue treasury bills and bonds at the ratio of 80:20 (MoF, 2019). The aim is to reduce the risk of refinancing. However, there have been no treasury bonds so far. The strategy is mute concerning corporate bonds. China has significant corporate bonds driven by SOEs borrowing. However, the non-performing loans of SOEs are much lower than the private sector (Lam & Schipke, 2017).

Figure 20 Average grant element of new commitments (%) for the public sector, other

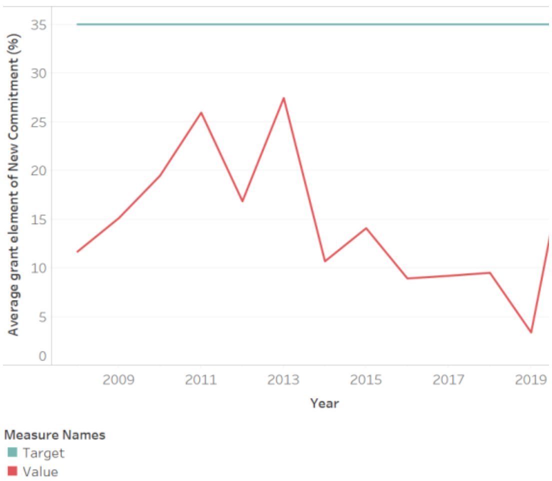


Figure 21 Average grant element of new commitments (%) for central government

Source: MoF

6.2 Debt Sustainability

The Debt Sustainability Analysis (DSA) for 2020 concluded that Ethiopia's risk rating is high. The high-risk rating is associated with threshold breaches of PV of external debt to export, external debt service to revenue (under an alternative scenario), and external debt service to export ratios (The World Bank, 2020). While Ethiopia has registered strong growth over the last decade and a half, growth was high in the non-tradable sectors, e.g., the construction sub-sector. It is also driven to a large extent by public investment. Ethiopia has suffered from cost and time overruns of public projects. The poor investment performance has contributed to increasing weak sustainability of debt.

Another factor that contributed to the lack of sustainability is weak performance in the export sector. Moreover, tax collection has also been underperforming since 2009. As a result, the debt sustainability analysis rating has been worsening.

To bring the risk rating to moderate level, Ethiopia has benefited from the G20's Debt service suspension initiative (DSSI) initiated during the Covid-19 pandemic in 2020. Accordingly, Ethiopia is also seeking debt treatment under the G20 Common Framework.

The external debt to export ratio declined because the debt service payment declined, and exports increased between the fiscal year 2019 and 2020. However, the changes are not significant enough to improve the DSA ratings. For example, there is a long way to go before the debt service to export ratio falls below the 15 percent threshold that the DSA by the IMF and World Bank has set for countries with medium composite index measuring debt carrying capacity. The GoE should also note that the debt carrying capacity is also subject to change, as Ethiopia's growth rate and international reserve changes.

Table 4: Debt sustainability indicators

Debt sustainability Indicators	FY 2019	FY 2020	DSA Threshold
PV of PPG debt to GDP	19.4%		40%
PV of External Debt to Export (%)	244.9%		180%
External Debt Service to Export (%)	26.74%	25.90%	15%
External Debt service to revenue (%)	16.63%	16.08%	18%

Source: IMF, MoF and authors calculation

The growth in exports that we started witnessing since 2019 is critical for meaningful improvement in DSA risk rating in the long-term. In the medium-term, the debt treatment under the G20 common framework, if successful, will ensure the moderate risk ratings. So far only three countries have requested debt treatment under the G20 common framework and Ethiopia is one of them.

External debt service to revenue also declined as the revenue expanded faster than debt service in Ethiopia in nominal terms.[1] However, the improvement is driven by the slow growth in debt service rather than faster revenue growth. Hence, addressing the long-standing challenges of declining revenue as a percentage of GDP will become critical.

7. Lesson from China

In terms of the selection of investment projects in China, the role of local government was significant. Lu (2020) puts local government as an important driver of economic growth. In Ethiopia, local government involvement in public investment projects is limited. The only exception is the City of Addis Ababa. Research suggests that the local government's role is limited to paying salaries for civil servants. The main issue here is the revenue-raising capacity of local governments is lacking in Ethiopia. Addis Ababa could raise significant revenue as it is the commercial hub of the country. Moreover, the City of Addis Ababa has borrowed from the

1 Although debt service declined in USD, it has increased in ETB.

domestic market by issuing debt. A large part of this was determined by the federal government decision (the Ministry of Finance) to allow the City of Addis Ababa to borrow and facilitate the credit through the state-owned commercial bank of Ethiopia. One area the Ethiopian government can learn from China is the local governments' participation in economic growth.

Concerning the financing mechanism, the source of financing can be domestic or external. Ethiopia relies on external finances as the domestic saving has not been sufficient to meet the financing requirements. To make matters worse, the tax revenue collection performance has been dismal. In China, the main source of financing is domestic (loans from domestic sources: policy and commercial banks). This difference can explain the challenges the Ethiopian economy faces in managing its debt and being classified in high debt distress. This is despite the public debt to GDP ratio is still lower than the threshold of the debt sustainability framework of IMF and WB.

China has also managed to increase reform the tax administration to raise government revenue. So far, effectively improving tax collection has remained elusive in Ethiopia.

Concerning the role of domestic financial institutions, NBE's financing of government expenditure is less transparent, and the rule is not specified, which is one area the government of Ethiopia can take lessons from emerging and developing countries. Moreover, the financing of the policy bank has not delivered the right result. Efficiently running state-owned policy banks is one area where Ethiopia can draw lessons.

Finally, while state-owned enterprises are critical for development,t their debt has to be managed. Ethiopia's debt management strategy in practice does not extend to state-owned enterprises. Ethiopia should learn from China how it managed to keep SOEs' non-performing loans low.

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