



National Study

INFRASTRUCTURE FINANCING FOR SUSTAINABLE DEVELOPMENT IN GEORGIA

The study was developed under a United Nations Development Account project entitled “Financing strategies for inclusive, equitable and sustainable development in Asia and the Pacific”, which is implemented by the Macroeconomic Policy and Financing for Development Division, ESCAP. The views expressed in this document are those of the author and do not necessarily reflect the views of the United Nations Secretariat. The report benefited from extensive comments from Mathieu Verougstraete, Economic Affairs Officer, Financing for Development Section, UNESCAP. This publication has been issued without formal editing.

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Abbreviations

| | |
|--------|----------------------------------------------------------------------------------------|
| AA | Association Agreement between Georgia and European Union |
| ADB | Asian Development Bank |
| BSTDB | Black Sea Trade and Development Bank |
| BSTN | Black Sea Transmission Network |
| CAD | Current Account Deficit |
| CIS | Commonwealth of Independent States |
| DCFTA | Agreement on Deep and Comprehensive Free Trade Area between Georgia and European Union |
| EBRD | European Bank on Reconstruction and Development |
| ESCAP | United Nations Economic and Social Commission for Asia and the Pacific |
| EFTA | European Free Trade Association |
| ESCO | Electricity System Commercial Operator |
| EU | European Union |
| FDI | Foreign Direct Investment |
| FTA | Free Trade Agreement |
| GDP | Gross Domestic Product |
| GEL | Georgian national currency |
| GGTC | Georgian Gas Transportation Company |
| GNEWRC | Georgian National Energy and Water Regulatory Commission |
| GOGC | Georgian Oil and Gas Company |
| GR | Georgia Railway |
| GSE | Georgian State Electrosystem |
| HPP | Hydro Power Plant |
| ICT | Information and Communication Technologies |
| IFI | International Financial Institutions |
| JICA | Japan International Cooperation Agency |
| KFW | Kreditanstalt Für Wiederaufbau (German Development Bank) |
| MOESD | Ministry of Economy and Sustainable Development |
| MoF | Ministry of Finance of Georgia |
| PEFA | Public Expenditure and Financial Accountability |
| PIM | Public Investment Management |
| PPP | Public-Private Partnership |
| SOE | State Owned Enterprises |
| UWC | United Water Company |
| WB | World Bank |

Executive Summary

The development of infrastructure is important for Georgia in order to exploit its strategic location, stimulate economic growth and improve social conditions. This study aims to provide recommendations to support the government in meeting its ambitious infrastructure plans for the next 4-5 years while recognizing the accomplishments of the country.

The study starts with an overview of the country situation and provides information on the macroeconomic conditions as well as a description of the transport, water, energy and ICT sectors in Georgia. The overview also highlights the progress achieved in terms of governance.

The study then examines the possible infrastructure financing strategies. It reviews first the use of donor finance and concessional loans, which are the main source for infrastructure development. It also determines that fiscal constraint impedes the Government from borrowing and elaborates on the importance of finding financing room through mobilizing additional revenues and adjusting public expenditures.

As state-owned enterprises contribute to infrastructure development, the improvement of their financial positions is also considered as an option for closing infrastructure financing gaps. In addition, an even more important source of financing can be to attract more private investments through public-private partnerships (PPP). The successful implementation of PPP requires though a strong institutional framework and the study devotes due attention to this topic.

The study also emphasizes that enhancing the efficiency of infrastructure spending is as equally important as finding additional sources of financing. In this respect, the study describes existing practices for project selection and discusses the current efforts to strengthen institutional capacity. The IMF's Public Investment Management Assessment (PIMA) methodology is also presented as it is considered as a useful instrument to identify potential weaknesses in public investment management.

Finally, the concluding section summarizes the findings of the study and notes that fiscal prudence, improved public investment management and sound PPP framework are necessary conditions for efficient infrastructure investments from public and private sources.

1. Introduction

1.1. Purpose of the study

The socio-economic role of infrastructure is widely recognized. Infrastructure development is an important precondition for economic development, quality of life improvement, poverty alleviation, reduction of inequality as well as for tackling climate change challenges.

The shrinking government's fiscal room is however making infrastructure investments challenging. The challenge is particularly acute as rising urbanization and regional connectivity increase the demand for infrastructure in the region. Also, as governments gradually appreciate the sustainable development goals (SDGs), they realize the need to further boost investments.

Recognizing this challenge, the ESCAP secretariat has been working with a series of countries to improve understanding among policy makers of financing sources and modalities for achieving sustainable infrastructure development and build their capacity to prepare national financing strategies that mobilize domestic and international resources. Having ambitious plans for infrastructure development, Georgia was selected by ESCAP as a pilot country.

1.2. Infrastructure financing needs

Georgia is a small open economy that has been implementing impressive reforms to create a business friendly environment. Unfortunately, economic growth rates fall short of country's ambition, largely due to external shocks. Government also considers that underdeveloped infrastructure is preventing the country to reach its full economic potential and capitalize on its strategic location for playing a transit role in the region, which can be a key factor for building Georgia's economic and geopolitical strength.

For instance, the lack of adequate road infrastructure is a major bottleneck for one of the fastest growing sectors of the economy – tourism. Likewise, connecting roads from rural areas to cities are often in poor condition thereby creating barriers for market access and social services. This affects both economic development and living standards for half of the Georgia's population leaving in rural areas. Hence, the government intends to allocate significant funds for road development.

Power is another sector where large investments are expected. Although annual balance of electricity is close to zero, estimations of future demand for electricity, as well as the country's sensitivity about energy security, suggest large amounts of investment in transmission lines and Hydro Power Plants (HPPs).

Yet another area where infrastructure development needs are large is the water sector. Twenty-four hour water supply is still a problem not only in rural areas but also for major cities. Sewerage systems have also degraded and waste water is often released untreated (WB, 2015).

To tackle these issues, Georgia has an ambitious plan for the next 4 years to develop its infrastructure. The plan to accelerate infrastructural projects was announced in the beginning of 2016 by Prime

Minister Kvirikashvili as a key element of country's development. The rationale is very clear: infrastructure is a bottleneck for economic growth, delayed implementation of infrastructure projects does not save money rather just postpones the benefits. These investments have, however, to happen at the time of constrained public finance and the Government is cognizant about the effect of public debt acceleration and budget deficit. By the end of 2016, it came up with compensative measures allowing to reduce primary current spending from 25 percent of GDP in 2016 to 21.4 percent in 2020 and to increase revenue by 1.4 percent of GDP (net effect).

The aim of the Government is to achieve rapid economic growth and the main catalyzer of economic growth is strong and competitive private sector. In order to achieve these goals, the Government initiated a 4-point reform plan. One of the four items of the reform plan is development of infrastructure. In next 4 -5 years government plans to invest USD4 billion in roads; USD800 million in transmission lines with the expectation of additional USD3.3 billion investment from private sector in energy generation. In addition, USD500 million will be invested in water infrastructure and USD350 million in tourism infrastructures.

2. Country overview

2.1. General overview

Georgia is a small country with 3.7million inhabitants, which is located along one of the silk roads connecting Europe with Asia.

*Georgia at a Glance*¹



Area: 69 700 sq. km

Population: 3,7 million (2017)

GDP 2016: USD 14.3 billion

GDP Per Capita 2016: USD 3,852.5

GDP Real Growth 2016: 2.7 percent

The country chose years ago to be among the world's most liberal economies in terms of foreign trade and plans to further enhance this status. Currently, Georgia has Free Trade Agreements (FTAs) with all CIS countries and Turkey. In 2014, Georgia signed an Association Agreement with the EU, including Deep and Comprehensive Free Trade Area (DCFTA) that gives access to the EU's internal market in selected sectors. DCFTA offers enormous opportunities to all the companies operating in

¹ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

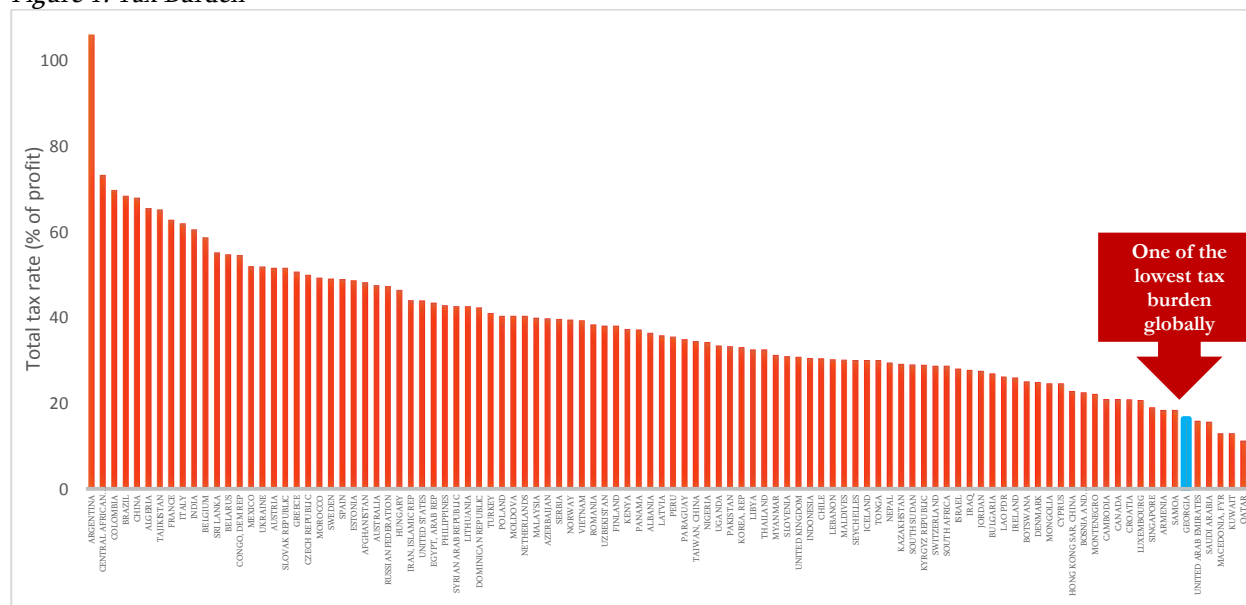
Georgia to export to the world's richest market uniting more than 500 million consumers. Georgia also concluded negotiations on FTA with the European Free Trade Association (EFTA – Norway, Liechtenstein, Switzerland and Iceland). One more important FTA with China is waiting for ratification and FTA negotiation with India is expected for 2017.

In addition, there is favorable investment climate in Georgia, including:

- ✓ Ease of doing business;
- ✓ Corruption free government;
- ✓ Free capital and profit repatriation;
- ✓ Business friendly tax system etc.

In particular, the country has one of the lowest tax burdens in the world as it shown by the Doing Business ranking. There are only six flat taxes in the country with no payroll or social contribution tax, or wealth tax. Electronic services are also widely applied in the tax administration system.

Figure 1: Tax Burden



Source: WB; Doing Business

The accomplished reforms are reflected in various international ratings, including Doing Business rating, Heritage Foundation index of economic freedom, etc. In the “Ease of Doing Business” ranking Georgia was ranked 100th among 155 countries in 2006 and has made impressive progress since then to reach the 16th position out of 190 countries in 2017.

Table 1: Doing Business Ranking 2017

| | Rank |
|-----------------------------------|-----------|
| Ease of Doing Business | 16 |
| Starting a Business | 8 |
| Dealing with Construction Permits | 8 |
| Getting Electricity | 39 |
| Registering Property | 3 |
| Getting Credit | 7 |
| Protecting Minority Investors | 7 |
| Paying Taxes | 22 |
| Trading across Borders | 54 |
| Enforcing Contracts | 16 |
| Resolving Insolvency | 106 |

Table 2: Index of Economic Freedom

| | Rank |
|------------------------------|-----------|
| Economic Freedom | 13 |
| Rule of Law | |
| Property Rights | 77 |
| Judicial Effectiveness | 34 |
| Government Integrity | 31 |
| Government Size | |
| Tax Burden | 36 |
| Government Spending | 68 |
| Fiscal helath | 40 |
| Regulatory Efficiency | |
| Business Freedom | 16 |
| Labor Freedom | 25 |
| Monetary Freedom | 92 |
| Open Markets | |
| Trade Freedom | 9 |
| Investment Freedom | 21 |
| Financial Freedom | 39 |

Source: WB²

Source: Heritage Foundation³

Significant improvements have also been achieved with regard to the fight against corruption. These achievements resulted from the desire for changes in the public opinion, strong political will and a well-planned communication campaign to consolidate support from the society. Among different measures, the Government took steps to minimize interaction between citizens and the state by introducing e-governance, deregulating businesses, privatizing, reforming tax policies and implementing other measures (WB, 2012). These improvements have translated into international ranking such as the Transparency International Corruption Perception Index where the country climbed up from 130th place in 2005 to 44th in 2016. Georgia has also improved its position in all the components of the World Governance indicators and is among the most reformed economies in the sub-region as shown by EBRD's Transition Indicators.

² <http://www.doingbusiness.org/rankings>

³ <http://www.heritage.org/index/pdf/2017/countries/georgia.pdf>

Table 3: Transition Indicators (scale is 1 to 4+)

| | Armenia | Azerbaijan | Georgia | Kazakhstan | Kyrgyzstan | Russian Federation | Tajikistan | Turkmenistan | Uzbekistan |
|-----------------------------------------|---------|------------|---------|------------|------------|--------------------|------------|--------------|------------|
| Large scale privatization | 3.7 | 2 | 4 | 3 | 3.7 | 3 | 2.3 | 1 | 2.7 |
| Small scale privatization | 4 | 3.7 | 4 | 4 | 4 | 4 | 4 | 2.3 | 3.3 |
| Governance and enterprise restructuring | 2.3 | 2 | 2.3 | 2 | 2 | 2.3 | 2 | 1 | 1.7 |
| Price liberalization | 4 | 4 | 4.3 | 3.7 | 4.3 | 4 | 4 | 3 | 2.7 |
| Trade & Forex system | 4.3 | 4 | 4.3 | 3.7 | 4.3 | 3.7 | 3.7 | 2.3 | 1.7 |
| Competition Policy | 2.3 | 1.7 | 2 | 2 | 2 | 2.7 | 1.7 | 1 | 1.7 |

Source: EBRD⁴

Reforms conducted by successive governments aimed to make Georgia an attractive destination for doing business and capitalize on the country's transit potential by demonstrating easy and transparent border crossing procedures. Government acknowledges though that these reforms have to be accompanied by infrastructure investment to deliver their results.

2.2. Macroeconomic overview

Adverse external shocks such as low oil prices and global slowdown have affected economic growth rates, but the economy proved to be resilient. With 2.9 and 2.7 percent respectively in 2015 and 2016, the growth in Georgia has been higher than those of all trading partners, except China and Turkey. The economic growth is expected to pick up in the coming years reaching 5.5 percent in the medium term based on the impact of fiscal reforms and already implemented growth-friendly measures (IMF, 2017).

In 2015, the relative poverty in Georgia was 20.1% (25.3% in rural areas and 14.7% in urban areas) and the GDP per capita is at USD 3,852 (the country is classified as an “Upper-middle income” country by the World Bank). The Gini coefficient, representing the degree of inequality in wealth distribution, is at 41% (low numbers represent greater equality).⁵

In 2015, unemployment rate in Georgia decreased by 0.4 percent and reached 12 percent, which is the lowest rate ever reached. Increase in employment was mainly due to hired employment (i.e. non-

⁴<http://www.ebrd.com/what-we-do/economic-research-and-data/data/forecasts-macro-data-transition-indicators.html>

⁵ National Statistics Office of Georgia www.geostat.ge

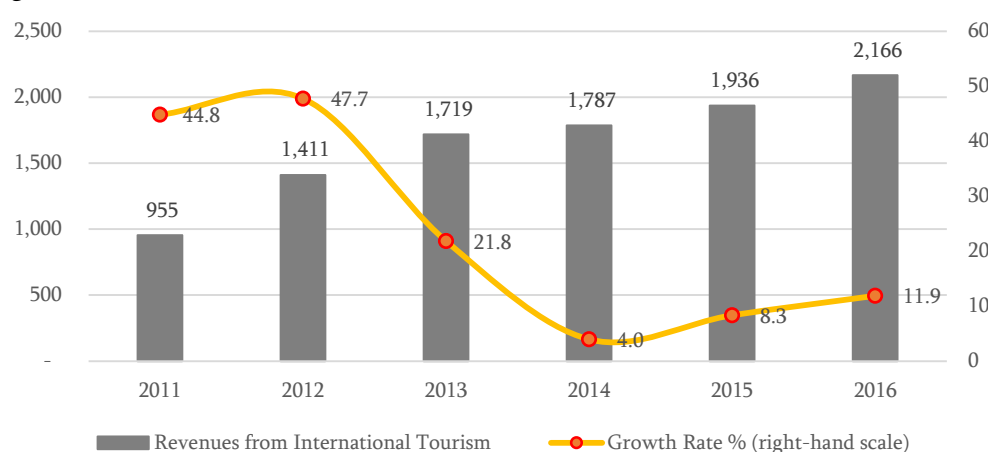
self-employment) as self-employment has decreased slightly although its share in total employment is still very high at 57 percent.⁶

Trade balance

External imbalance is one of the major structural weaknesses of the Georgian economy. Country has been running a double digit Current Account Deficit (CAD). Although high CAD is worrisome, it should be noted that the main part of CAD is driven by FDI.

Tourism sector is playing key role in addressing this problem. During the last five years tourism has formed as one of the important sectors of the economy. Between 2011 and 2016 tourism revenues in USD terms have more than doubled and exceeded USD 2 billion in 2016.⁷

Figure 2: Tourism Revenues (USD million)



Source: National Bank of Georgia; Balance of Payment

Georgia is also considered to be well-positioned between Europe and Asia to play a transit role. In 2016, volumes of transit of goods across the country are almost of the same size as Import and Export goods combined.

Table 4: Transit Through Georgia; Export and Import (2016)

| 000' Tons | Except Transit through Railway | Transit through Railway | Transit Total | Export | Import |
|-----------|--------------------------------|-------------------------|---------------|--------|--------|
| January | 124.4 | 429.5 | 553.9 | 116.5 | 448.9 |
| February | 214.6 | 652.1 | 866.7 | 149.2 | 667.5 |
| March | 243.5 | 548.9 | 792.4 | 145.7 | 653.9 |
| April | 267.1 | 461.4 | 728.5 | 155.3 | 680.8 |
| May | 251.1 | 475.7 | 726.9 | 151.1 | 705.3 |

⁶ National Statistics Office of Georgia www.geostat.ge

⁷ Georgian National Tourism Administration <http://gnta.ge/statistics/>

| | | | | | |
|--------------|----------------|----------------|----------------|----------------|----------------|
| June | 230.6 | 476.3 | 707.0 | 137.7 | 614.6 |
| July | 235.5 | 507.7 | 743.2 | 166.1 | 552.0 |
| August | 270.6 | 764.2 | 1,034.8 | 169.2 | 584.2 |
| September | 256.2 | 624.8 | 881.0 | 187.3 | 526.3 |
| October | 301.6 | 587.2 | 888.8 | 119.0 | 649.1 |
| November | 295.1 | 456.1 | 751.2 | 227.4 | 561.2 |
| December | 231.8 | 437.3 | 669.1 | 210.3 | 687.3 |
| TOTAL | 2,922.2 | 6,421.1 | 9,343.3 | 1,934.8 | 7,331.1 |

Source: MoF

Fiscal Policies and Public Finance

Georgia has extremely liberal tax policies. Through reforms, the number of taxes and tax rates were reduced significantly. Currently Georgia has only 6 taxes instead of 27 initially and all of them are flat. Tax reduction was coupled with improved tax administration, removal of administrative barriers and fight against corruption. These efforts led to improved tax compliance. As a result, tax revenues to GDP increased from 11 percent in the beginning of 2000s, to 26 percent in 2016. Georgia is considered to have one of friendliest taxation system and administration in the region. Nevertheless, Tax Administration Diagnostic Assessment Tool (TADAT) performance assessment report finds room for increased efficiency in revenue management, particularly in revenue forecasting, adequacy of the accounting system and tax refund processing (IMF, 2017).

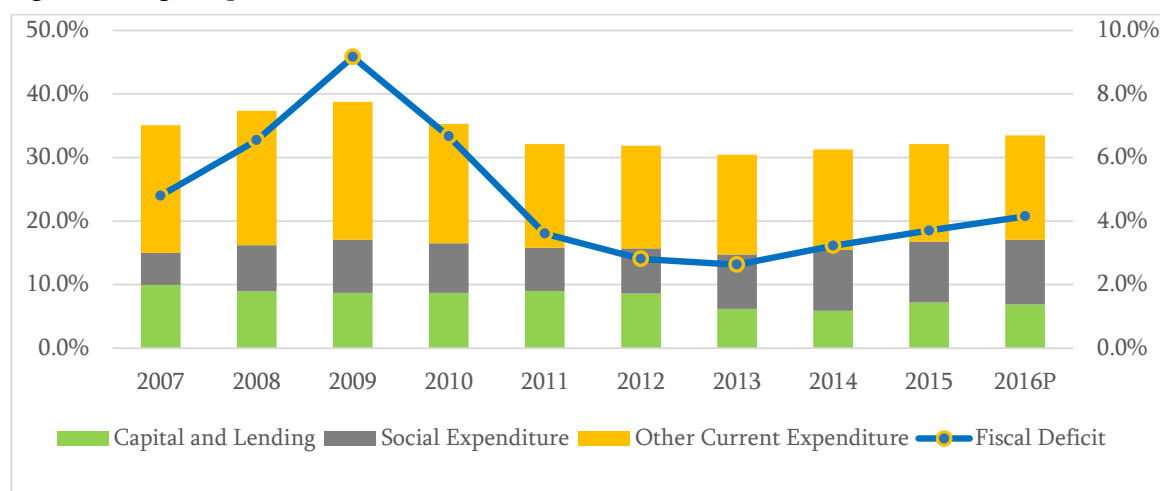
Table 5: Georgia's Tax Reform

| | Before- 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010- 2016 | 2017 -after |
|---------------------------------------------|-----------------|------|------|------|------|------|---------------|-------------------------------------|
| Number of Taxes | 21 | 7 | 7 | 7 | 6 | 6 | 6 | 6 |
| VAT (%) | 20 | 20 | 18 | 18 | 18 | 18 | 18 | 18 |
| Personal Income Tax (%) | 12-20 | 12 | 12 | 12 | 25 | 20 | 20 | 20 |
| Social Tax (%) | 33 | 20 | 20 | 20 | | | - | - |
| Corporate Income Tax (%) | 20 | 20 | 20 | 20 | 15 | 15 | 15 | 15 (distributed earning only) |
| Dividend and Interest Income Tax (%) | 10% | 10 | 10 | 10 | 10 | 5 | 5 | 5 |

Source: MoF

With regard to the fiscal position of Georgia, the budget deficit increased to 9.2 percent of GDP in 2009 following the dual shock of the war with Russia and the global financial crisis. For the coming years, IMF expects the budget deficit to decrease gradually to 2.5 percent of GDP starting with 4.1 percent of GDP in 2017 (IMF, 2017).

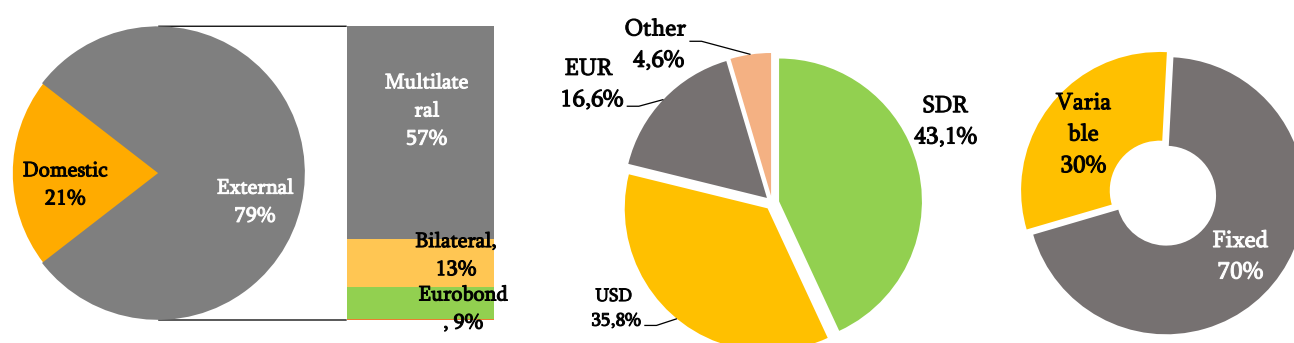
Figure 3: Budget Expenditures and Fiscal Deficit (% of GDP)



Source: MoF / Fiscal Deficit is on the right-hand side (rhs)

The stock of public debt at the end of 2016 increased to 44.9% of the estimated GDP (of which external debt – 35.5%), mainly as a result of Georgian Lari (GEL) depreciation as 80 percent of the debt is denominated in foreign currency. The market value of public debt as of December 2016 was 32%⁸, as most of the public debt is borrowed under concessional terms. Georgia's Public Debt Structure is favorable in terms of currency diversification and share of fixed rate debt.

Figure 4: Public Debt Structure



Source: MoF

In Georgia, there is a fiscal rule limiting budget deficit to 3% of GDP, public debt to 60% of GDP, and expenditures and increase in non-financial assets to 30 percent of GDP. Interesting peculiarity of

⁸ MoF calculations

Georgia's fiscal rule is a restriction on tax rate increase. No tax increase (*except excise and property tax*) is allowed unless it is supported by a public referendum.

Debt Sustainability Analysis (DSA) shows that under different shock scenarios the public debt remains well below 60 percent of GDP (threshold established by the fiscal rule), but the biggest risk is the foreign currency denominated debt. In the medium term, it is projected to maintain the public debt to GDP ratio below 45% level.

3. Infrastructure Sector Overview

Global Competitiveness Report (GCI) (2016-2017) ranks insufficient supply of infrastructure to be the third largest impediments for doing business in Georgia, with only adequately educated workforce and access to finance ranking higher. The overall quality of infrastructure Georgia stands at 75th position among 138 countries. To provide a better picture, the following sections review the main sectors in detail.

3.1. Transport

Among the different transport sub-sectors, the quality of railroad is at the rather favorable 38th position in international comparisons. With the ambition to be a transit and logistics hub, the country still need to further improve the quality of its transport infrastructure, a fortiori for road, port and air transport, which stand respectively at the 78th, 71st and 88th position in global ranking.⁹

Therefore, it is no surprise that the Government is prioritizing transport investments. Development of transport infrastructure aims at achieving multiple goals: take advantage of Georgia's transit potential; facilitate economic growth; improve access from rural to urban areas; and boost tourism development.

Regarding road transport, Georgia's entire network is about 21,800 km, including around 1,500 km of international roads, 5,300 km of secondary roads and 15,000 km of local roads. The central government is responsible for international and secondary roads, while local roads are managed by the local authorities. Regarding the quality of the network, 86 percent of international roads (2014) are in good or fair condition. The same ratio increased for secondary roads from 30 percent in 2004 up to 60 percent in 2015 (WB, 2016). Such increase was made possible due to a significant rise in road maintenance spending. Following the breakdown of the Soviet Union there were practically no rehabilitation or maintenance works done until 2001. Maintenance and rehabilitation expenditures increased though from GEL26.8 million (equivalent to USD13.5 million) in 2000 to more than GEL250 million (equivalent to USD 140 million) on average for the last 10 years, peaking at GEL400 million (equivalent to USD220 million) in 2010. However, 84% of people living in the highlands still complain about the quality of roads.

⁹ *World Economic Forum, Global Competitiveness Indicators (2016-2017)* http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf

Overall, road sector expenditures on construction, rehabilitation and maintenance for international and secondary roads have grown from 0.7 to 2.30 percent of GDP during 2004-2015. The largest expenses were directed to the construction of the East-West Highway Corridor – the main transit route. Out of the USD4 billion planned investments, half of them will be spent on East West highway. Two South-North corridors are also envisaged to improve regional connectivity. Currently, Georgia doesn't use tolling on its roads, but the construction of alternative bypassing routes in some of the major highway sections may allow toll collection. The introduction of tolling and private sector's participation in the sector could ease burden on the state budget (WB, 2016).

Besides roads, the Government also plans investments in building ports, airports, and railways, including through the private sector. For example, the management of seaports and major airports are given to private companies under long-term contracts. Likewise, the construction of a deep-sea port in Anaklia is envisaged through a PPP arrangement. The new port will have the capacity of 100 million tons annually and be capable of accommodating Panamax type cargo vessels. The cost of the project is estimated at USD 2.5 billion. Also, the government is willing to develop an international airport in Kutaisi as well as other local airports that are operated by the state-owned United Airports of Georgia (ADB, 2016).

3.2. Energy

3.2.1. Oil and Gas

Georgia is a transit country for four international pipelines: two gas pipelines – North-South Caucasus Pipeline (NSCP) and South Caucasus Pipeline (SCP); and two oil pipelines – Western Route Export Pipeline (WREP) and Baku-Tbilisi-Ceyhan (BTC) oil pipeline.

NSCP is operational since 1994 and delivers gas from Russia to Armenia. While Georgia was receiving 10% of the transited gas for free, the country will receive cash payments instead as from the second half of 2017.

WREP is operated by British Petroleum (BP) under a 50-year concessional agreement. The pipeline transports oil from Baku to Supsa terminal in western Georgia. The rehabilitation/reconstruction conducted by the private consortium led by BP costed USD 600 million. Annually Georgia receives about USD 8 million for oil transportation through this pipeline.

BTC is used for transportation of Caspian crude oil to deep sea port in Ceyhan, Turkey. The pipeline became operational in 2005. Annual income received by Georgia is roughly USD 35 million per year. SCP follows the same route as BTC. SCP is operational since 2006, however works are on-going to expand the pipeline's capacity. Expansion works will be completed in 2018 and USD 2 billion will be spent in Georgia. In exchange for transit, Georgia will receive cash payment which in turn can be used to purchase gas under the same agreement at below market price.

There are also discussions regarding new projects that aim to deliver oil and gas from Caspian basin to Europe. International pipelines passing through Georgia bring not only revenues to the country but also political dividends.

3.2.2. Power

The quality of electricity supply has significantly improved in Georgia over the last 15 years after strong deteriorations following the collapse of the Soviet Union in the nineties (power generation in the year 2000 was only half of 1990 level). Although transmission lines were reaching 95 of population, power outages for several days were a common phenomenon (WB, 2012). However, the period of week-long blackouts affecting a large part of the population is over. Currently, the system average interruption frequency index (SAIFI) shows two outages per year with the duration index (SAIDI) at 3.6 hours per year (WB, 2017). This improvement was possible due to a major privatization in the sector, followed by investment in infrastructure and improved bill collection from 20 percent to nearly 100 percent (WB, 2014). In the nineties, many citizens considered that guaranteed employment and income of the households was an obligation of the government. Thus, many didn't want to pay for electricity and used illegal connections while electricity meters were out of order. The willingness to pay for electricity was further hindered by the frequent interruptions. Investments in transmission infrastructure were necessary to improve the situation. Likewise, the installation of meters (collective meters for the community initially and individual meters for households subsequently) was critical.

The electricity balance of the country is close to zero but the country still depends on import during winter and the energy independence is a sensitive issue for Georgia due to historical reasons. In that context, the government intends to achieve self-sustainability around the year and increase the power generation capacity of the country, which mostly depends on private investment in HPP.

Georgia has ample hydro resources, of which only 18% is utilized for power generation, and has a liberal regulatory framework with simplified one-stop shop access for all investment-related matters (OECD/IEA, 2015). It is expected that HPPs worth USD3.3 billion will be constructed by the private sector but the Government is likely to have to build the transmission lines for connecting HPPs to the grid. In addition, private investors usually request power purchase agreements and a guaranteed access to the transmission lines to be able to export the generated electricity to Turkey. Currently there is only one line connecting to Turkey. This line uses back-to-back station that allows power synchronizing between the Georgian and Turkish grids. Although the line is currently not overloaded, there is a chance that with more power generated the line capacity might not be sufficient to entirely evacuate surplus power to Turkey – a country which has high demand for electricity. Hence, private investors require guarantees from the State that electricity will be sold either within Georgia or there will be enough capacity to allow export to Turkey.

Overall, power generation is expected to increase by 2.3 times from 11.37 billion KWh in 2016 to 26.3 billion KWh in 2027 as indicated in the Ten Year Network Development Plan of Georgia (2017-

2027) (GSE, 2017). The power generation target is 60 percent higher than the forecasted consumption in 2027, leaving room for exports.

For building the required transmission lines, the Government will on-lend funds obtained from donors to the state-owned enterprise: Georgian State Electrosystem (GSE). Around USD800 million of investment is required in transmission lines for the next 8 years in order to meet the requirements of the 10-year plan. Construction of transmission lines aim at strengthening the transmission system, guaranteeing easy evacuation of electricity from newly constructed HPPs and allowing trade with the neighboring countries.

3.3. Water

Infrastructure development needs are large in the water sector as the sector has suffered from underinvestment. 24-hour water supply is still a problem not only in rural areas but also for major cities. Central water supply is available to only 41% of rural population. Only about 35 percent of Georgia's population is served via sewage systems (WB, 2015). In certain cities there were infrastructure rehabilitation works conducted in water supply and sanitation, but as a whole, quality and coverage of services remain suboptimal (WB, 2015).

The financial sustainability of the sector is low with tariffs covering only about 40 percent of operational expenses while the remaining 60 percent has to be financed through public subsidies (WB, 2015). The government benefits from donor assistance (WB, ADB, KfW, EIB) to improve country's basic water supply and sewerage infrastructure. Donor financed projects often include covenants designed to improve the system sustainability, for example through gradual adjustment in tariffs with due consideration to water supply quality and affordability. For instance, a loan agreement with ADB obliges a water company to gradually reduce the ratio of operating expenses to operating revenues below 1 by 2019.

To improve the sector situation, the Ministry of Regional Development and Infrastructure has developed a sector development plan, under which continuous and reliable water supply and access to improved sanitation is planned to be achieved for all urban residents by 2020. On top of 19 on-going projects in the water sector, 46 projects are planned to be implemented mostly in cities to improve water supply and sanitation. As a result of these projects, 500,000 subscribers (almost half of Georgia's population) will be supplied with 24-hour uninterrupted water.

3.4. ICT

Significant improvements have been observed with Georgia's GCI ranking in this sector rising from 103rd to 48th position. Progress was particularly noticeable in mobile services – the sector in which there are only private operators. During the last six years, subscriptions have doubled. Fixed broadband subscriptions also increased from 1.06 (per 100 people) in 2007 to 14.6 in 2015 (WB, 2016). The Government acknowledges that ICT development is an important factor for ensuring inclusive growth and providing economic opportunities. For instance, the Government has created

the “Georgian Innovation and Technology Agency” that is promoting innovation and IT use in businesses across the country. The use of ICT in the industry is though limited compared to international standards. Only half of businesses surveyed in 2013 had their own website (versus 66 percent in Tunisia and 84 percent in Poland).

Government’s involvement in this sector is typically limited and doesn’t go beyond regulatory function. However, there is one important ongoing project with government’s participation that intends to cover entire Georgia with broadband services. The project is being implemented by the State but financed by the charity fund “Cartu” (the cost of it is about USD150 million). The project will enable private operators to provide internet service to customers in 2000 villages and is expected to be finalized in 2018.

4. Infrastructure Financing Strategies

To implement the Government’s plan to accelerate infrastructure investments, capital spending will increase to around 10 percent of GDP from the current 6.5 percent. Due to these investments Ministry of Finance expects GDP to grow by three percentage points during next four years.

Table 6. Consolidated Government Operations

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|----------------------------------|------|------|------|------|------|------|------|------|------|
| Revenue and grants | 28 | 28.1 | 28.6 | 29.3 | 28.6 | 28.5 | 28.6 | 28.6 | 28.6 |
| o.w. Tax revenue | 25.1 | 25.1 | 26 | 26.2 | 25.8 | 25.9 | 26.1 | 26.4 | 26.5 |
| Expenditures | 31 | 31.9 | 32.7 | 33.4 | 32.4 | 32.4 | 32.2 | 32.1 | 32 |
| Current expenditures | 25.4 | 24.9 | 26.2 | 25.3 | 24.3 | 23.5 | 22.8 | 22.5 | 22.4 |
| Capital spending and net lending | 5.6 | 7.0 | 6.5 | 8.0 | 8.1 | 8.9 | 9.4 | 9.6 | 9.5 |
| Overall balance | -2.9 | -3.8 | -4.1 | -4.1 | -3.8 | -3.5 | -3.1 | -2.8 | -2.5 |
| Public debt | 35.6 | 41.4 | 44.9 | 45.5 | 46.7 | 47.2 | 46.9 | 46.2 | 45.1 |

Source: IMF¹⁰

¹⁰ <http://www.imf.org/en/Publications/CR/Issues/2017/04/13/Georgia-Request-for-Extended-Arrangement-Under-the-Extended-Fund-Facility-and-Cancellation-44834>

4.1. Leveraging External / Donor Finance

External Debt

Historically large infrastructural projects were financed through donors and concessional loans. About 60% of the public debt is formed as a result of borrowing for infrastructure projects. The largest multilateral lender is the World Bank followed by ADB. Among bilateral lenders, Germany (KfW) and Japan (JICA) have provided the largest amount of concessional financing for infrastructure.¹¹ USAID and EU are providing large amounts of grant assistance (EU grants are mainly through budget support and their contribution in infrastructure development is impossible to track). EBRD has invested about €2.98 billion in the country but mostly in the private sector (91 percent). Similarly, IFC has invested USD1.7 billion in energy, ports and airports (IMF, 2017).

Figure 5: Public Debt Stock by Creditors

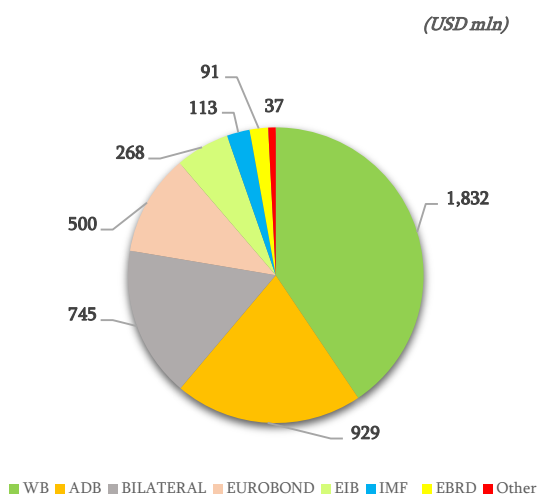


Figure 6: Grants Disbursement by Years (USD million)



Source: MoF

In 2008 government of Georgia issued its first ever US Dollar-denominated Eurobonds at London Stock Exchange. The offering of the 5-year Eurobonds of US\$500 million with the yield of 7.5 percent was met with high interest from wide range of investors. This created a benchmark for investors in Georgia. In 2011, the Government refinanced its Eurobonds maturing in 2013 with the issuance of 10-year Eurobonds at the yield of 6.785 percent. Despite high interest from investors for new issuances, the Government is reluctant to tap international markets as it has access to concessional borrowing from IFIs. Eurobonds maturing in 2021 create a pick in smooth debt service schedule and government may have to go back to the market to refinance its Eurobonds.

¹¹ Public Sector Debt Statistical Bulletin, MOF <http://www.mof.ge/en/4807>

Ongoing Projects

The on-going donor financed projects amount currently to USD4.4 billion.

Figure 7: Donor Financing of On-going Projects

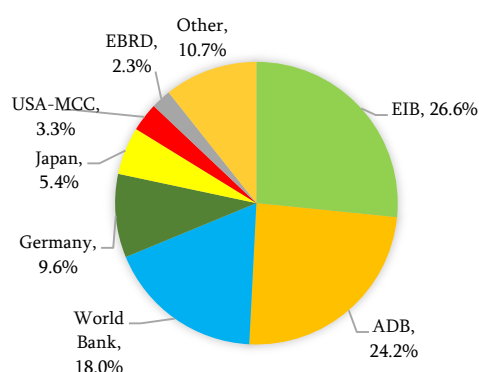
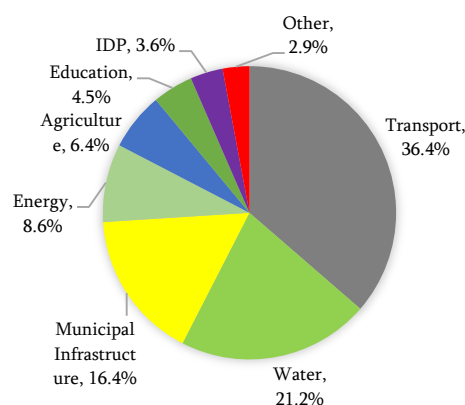


Figure 8: Donor Financed Projects by Sector



Source: MOF; April, 2017

Capital spending and net lending in the next five years is expected to be more than GEL 18 billion (equivalent to USD7.5 billion). For most of the upcoming infrastructure projects preliminary discussions have been held with donors and agreements in principle have been reached. More than GEL10billion (equivalent to USD4 billion) is expected to be coming from development partners in the next five years (IMF, 2017).

Table 7. Donors Providing Largest Financial Assistance by Sector

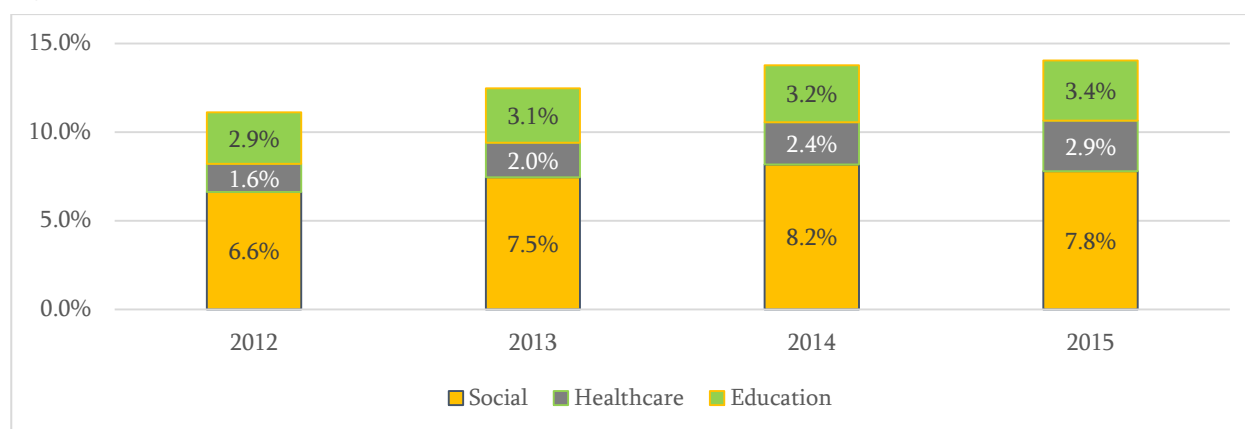
| | Roads | Energy | Water and Sanitation |
|------|-------|--------|----------------------|
| WB | X | X | X |
| ADB | X | X | X |
| EBRD | | X | X |
| EIB | X | X | X |
| KfW | | X | X |
| JICA | X | X | |

Although there are arguments for infrastructure expenditures to be treated differently from current expenditures, financing infrastructure with borrowed funds affects budget deficit and increases debt. Considering government's commitment to gradually reduce the budget deficit it might have to finance part of the infrastructural projects from its own revenue resources.

4.2. Mobilizing State Budget Resources

The 2016 revenues for the general government amounted to 29.1% of GDP. Tax revenue was equivalent to 26.4 percent of GDP while current expenditure amounted to 26.6% of GDP. Major items of the current expenditure have upward trends and this dynamic is not expected to change, especially with an aging population, unless corrective policy measures are taken.

Figure 9: Major Items of the Current Expenditure as Percent of GDP



Source: MOF

Problem is further aggravated with slowed economic growth in general in the region that affects Georgia as well.

Figure 10: Average GDP Growth Rates



Source: IMF; WEO and author's calculation

In 2016, the government announced a tax reform to be introduced from January 2017 onwards. The essence of the reform was to eliminate corporate income tax for retained earnings and tax only distributed earnings. The tax revenue loss was estimated at 1.5 percent of GDP. Together with accelerated infrastructure spending, this would lead to a widening fiscal deficit if no compensatory measures are taken.

By the end of 2016 the government came up with a package of revenue and expenditure measures with a total impact of 2.9 percent of GDP out of which 2.2 percent of GDP were revenue measures (IMF, 2017). This was commendable given the limited flexibility imposed by the fiscal rule, which doesn't allow tax rate increases for most taxes. Revenue measures included increase of excise taxes on tobacco, alcohol and fuel as well as increase in taxation of gambling. On the expenditure side, cuts applied to wage bill and administrative spending. Expenditures on healthcare programs were also streamlined.

4.3. Reforming State Owned Enterprises (SOEs)

Privatization process in Georgia is considered completed to a large extent. There are now 266 state enterprises in total including the ones under the supervision of the central government as well as the ones supervised by the local authorities. 137 enterprises are managed by the National Agency of State property (NASP) at the Ministry of Economy and Sustainable Development of Georgia. The list includes small, inactive companies. In order to optimize state-owned enterprises, NASP is taking appropriate measures. The number of enterprises supervised by NASP has been reduced from 1315 as of 2009 to 137 in 2016. Privatization, liquidation, restructuring or bankruptcy procedures are applied to inactive or loss-making enterprises as per NASP' action plan for 2017. The ultimate objective is to get rid of SOEs except the ones which have strategic importance (NASP, 2017).

Privatization can also be explored in sectors traditionally considered of strategic importance. The North America, Japan and UK's experiences of private or partly private ownership of railways provide interesting lessons for review. The Latin American countries all keep public ownership of their rail infrastructure, but they have successfully outsourced operations under concession contracts (OECD, 2007). Likewise, Brazil, Philippines and some other countries can serve as examples of private participation in an area which was not common ten years ago, namely transmission line construction.

In order to improve oversight of the SOEs, the Ministry of Finance of Georgia created a single register of state corporations. Fiscal risk assessment of the SOEs is performed annually and it accompanies the state budget submission to the parliament. Introduction of IFRS requirements for SOEs is another step to strengthen transparency. On-going assistance from IFIs led by the IMF is also expected to result in greater profitability of SOEs. Improved performance of SOEs should include more efficient supervision by the government, better control of quasi-fiscal risks and adjustments to tariff setting rules for regulated companies.

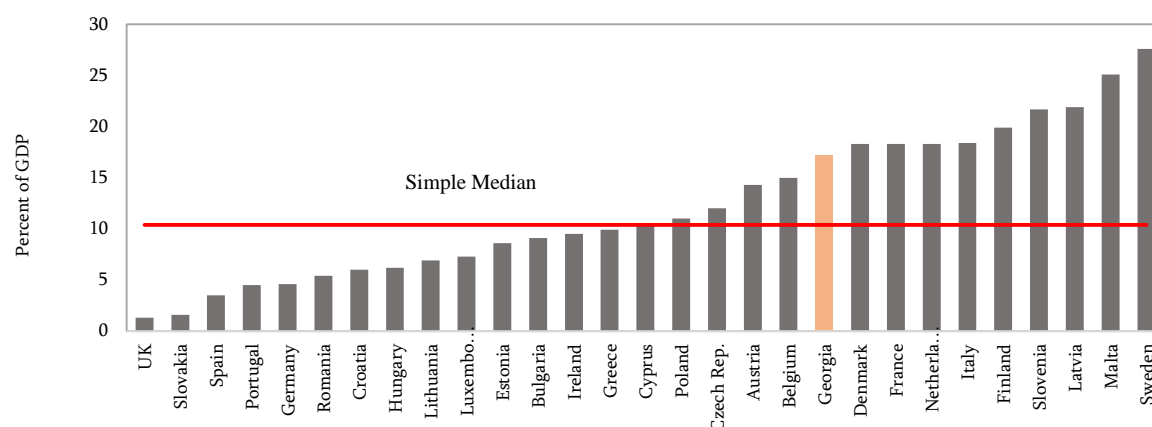
In the power and water sectors, tariffs are regulated so that investment costs are supposed to be covered by user fees. For this reason, government is reluctant to cover investment costs from the state budget. Still, investments are usually conducted with donor financing. Donors usually lend to the Ministry of Finance who on-lends these funds (usually on the same conditions as it has borrowed from donor) to the SOEs operating in the sector. This arrangement is favored by donors and government against direct borrowing by SOEs. On one hand, the donors feel safer when the borrower is the State and they are often not willing to lend directly to the SOEs. On the other hand, the Government feels

responsible for SOEs' liabilities and prefers sovereign borrowing given the lower interest rate. With this structure, borrowed amount is also fully reflected in the public debt statistics.

Yet, SOEs are not always capable of servicing the debt and the Ministry of Finance still has to reimburse the matching loan. On-going reform of tariff setting rules may lead to improved financial conditions of SOEs. The ADB's Multitranches Financing Facility for Urban Services Improvement Investment Program (USIIP) focus, among other things, on developing the capacity of water sector regulators to regulate tariffs (ADB, 2016). ADB's intention to study alternative business-models for electricity transmission state operators may also lead to improved financial health of the largest indebted companies.

Instead of borrowing from donors and on-lending to SOEs, the Government could provide a state guarantee for SOEs' borrowing. It could work in case of healthy SOEs as debt statistics would improve (although in a medium-term Georgia will have to reflect SOE debt in the debt statistics). Also, interest payment would not be much different from sovereign borrowing. However, Georgia doesn't issue state guarantees in practice and changing this practice might open a Pandora box unless there is a strict process with regard to state guarantees issuance. According the Georgian legislation if a guarantee is issued by the state, the borrower has to pay an insurance fee equal to five percent of the borrowed amount. This makes state guarantee unattractive for the SOEs. As a result of on-lending operations, total outstanding debt to SOEs amounted to 17 per cent of GDP in 2015. This is somewhat higher than the median for state-owned enterprises in Europe.

Figure 11: Comparison of Liabilities of State-owned Enterprises Across European Countries



Source: MOF¹²

¹² <http://mof.ge/images/File/biujetis-kanoni2017/damtkicebuli/SFR-2016-Total-bind.pdf>

Transport

Forty-two percent of SOE's turnover is generated in the transportation sector, with Georgian Railway (GR) being the largest company in the sector. GR is responsible for the operation of the railway system as well as for the maintenance and construction of the rail infrastructure.

The company is implementing two major projects. The first one is about modernizing the main rail route Tbilisi-Batumi in order to increase capacity and train speed. Another project is to construct the Tbilisi Bypass that would free up capital city from the on-surface rail system that prevents urban development.

Railroad transportation in Georgia is an unregulated natural monopoly and has some flexibility for tariff setting although tariffs for certain businesses are regulated by international agreements. In 2016 GR carried 2.2 more transit than other land transport (ADB, 2013). However, ADB still considers that transport charges are not optimal leading to the inadequate division of freight between roads and rail, the latter carrying less freight than it should (ADB, 2013). For passenger transportation the tariffs are designed to be competitive with other modes of transport.

Oil and Gas

Georgian Oil and Gas Company (GOGC) is responsible for gas import in the country and pipeline rental. It also receives in-kind gas for gas transportation between Russia and Armenia. The company also invests in power generation to construct combined cycle power plant and intends to construct a gas storage facility. The project is estimated at USD 250-280 million. The storage will increase Georgia's energy independence as well as will help to get price benefits from seasonality.

Georgian Gas Transportation Company (GGTC) is the operator of the main gas pipeline system in the territory of Georgia. GGTC has been constructing low pressure gas pipelines on behalf of the government.

Power

The most significant exposure of the Ministry of Finance is to Georgian State Electrosystem (GSE), which had an outstanding debt to the government of GEL 836 million as of 31 December 2015. GSE is responsible for electricity transmission within Georgia as well as the transmission of imported and exported electricity.

The major high voltage transmission investment projects have been undertaken by Energotrans, a subsidiary of GSE. The Black Sea Transmission Network (BSTN) project was completed in 2012, which has enabled the transmission of electricity to Turkey. Enabling export of surplus power to Turkey was instrumental to provide comfort and attract foreign direct investment in hydropower plants. New capital expenditure projects aim to facilitate electric power trade between Georgia, Russia and the other Southern Caucasus countries.

Water

The United Water Company (UWC) provides water and wastewater services throughout whole Georgia for urban settlements excluding Tbilisi, Mtskheta, Rustavi and the Autonomous Republic of Adjara. The main activities include infrastructure development. Several projects are currently underway and funded through concessional loans on-lent to UWC by the Ministry of Finance. The company's total liabilities amount to GEL 509 million.

Water tariffs are set by the Georgian National Energy and Water Regulatory Commission (GNEWRC). The current rates are not in line with the company's costs, which delay the company's profitability. However, the methodology for determining tariffs is being revised to bring it in line with good international practice. Another problem for financial stance of the company is collections rate, which is around 65-70% for households. Often, loans from donors are accompanied by covenants that usually foresee institutional changes to enhance the sector sustainability.

Partnership Fund

In 2011, Georgia decided to create the state-owned fund “JSC Partnership Fund (PF)”, which was created by consolidating the ownership of large Georgian SOEs operating in the transportation and energy sectors (e.g. Georgian Railway, Georgian Oil and Gas Corporation (GOGC), and Georgian State Electrosystem). These SOEs account for 71 per cent of the total turnover of all SOEs in Georgia. Dividends received from SOEs and borrowing are the sources for PF's investments.

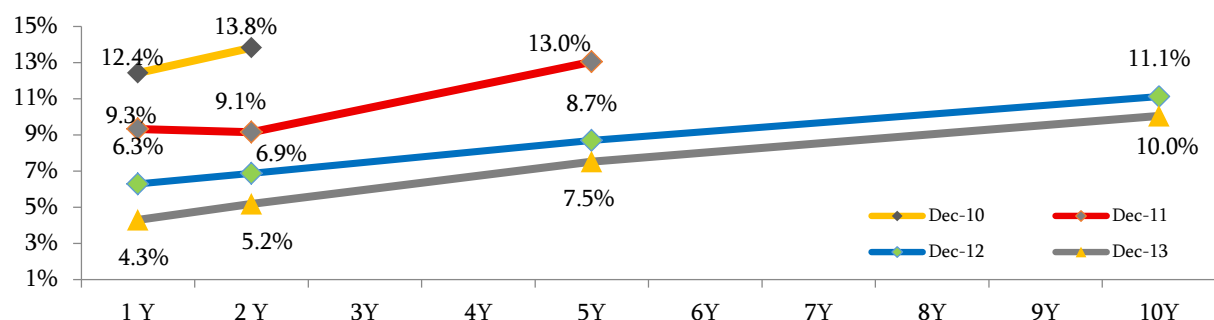
PF's main objective is to promote investment in Georgia by providing co-financing (equity, mezzanine, etc.) in projects at their initial stage of development. The fund can only invest in Georgia and its equity investment cannot exceed 50% (the minority investment limit is to safeguard against selecting non-viable projects). PF invests alongside private companies and is particularly active in the energy sector. PF currently is engaged in projects worth USD2.5 billion. PF's participation in these projects is USD300 million with rest coming from partners and banks. Among these projects, the largest share is for the power generation sector (USD1.3 billion) with ports (USD600 million) on the second place.

4.4. Tapping Domestic Capital Market and the Financial Sector

Capital Markets

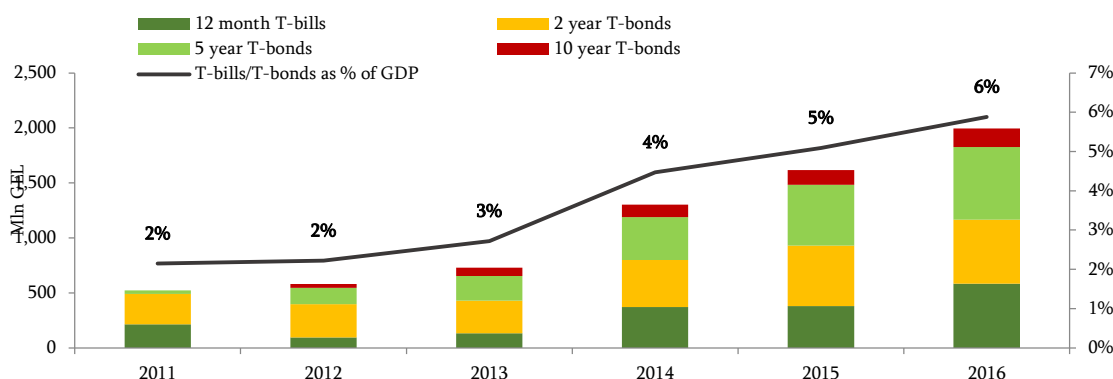
Capital market development is a priority as the local market is currently underdeveloped. Practically, the only asset class traded is government bonds and these bonds are mostly owned by commercial banks (with few exceptional holdings by institutional investors). The secondary market is shallow. Government has gradually increased the issuance of government papers and extended maturities as market conditions allow.

Figure 12: Yield Curve Development



Source: MoF

Figure 13: Georgia's Treasury Bills Market Development



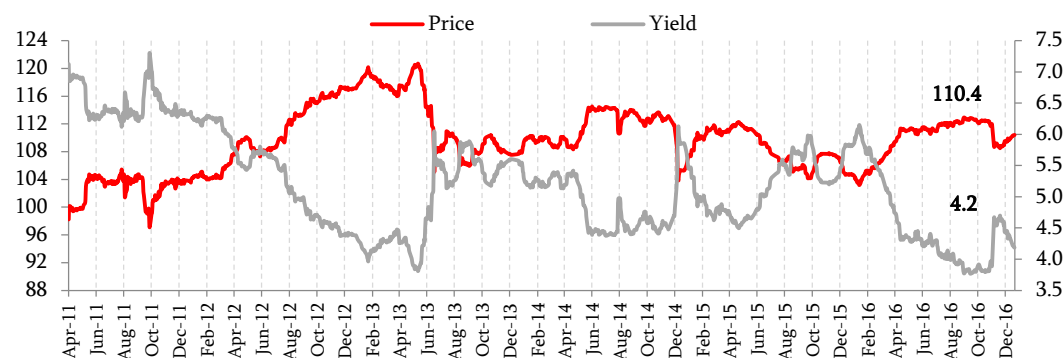
Source: MoF

Government together with the National Bank has elaborated a capital market development strategy and action plan. There are number of structural reforms that directly or indirectly should contribute to capital market development. The ongoing work related to the introduction of a pension system is the most important reform that can facilitate capital market development.

Multilateral Development Banks (MDBs) also support the government in this endeavour through technical assistance as well as by directly operating on the market. International Finance Institutions (IFIs) started to issue GEL denominated bonds in order to develop capital market in Georgia (EBRD – GEL 132mln; IFC –GEL 30mln; ADB – GEL 164mln; BSTDB – GEL 108mln). In April 2017, EBRD pioneered first ever GEL denominated Eurobond (GEL120mln). On international markets Georgia has a USD 500 million sovereign bond outstanding that matures in 2021.

Issuance of the sovereign Eurobond back in 2008 opened market to private commercial banks and SOEs. Both GR and GOGC have tapped international markets by issuing Eurobonds for USD 500 and USD250 million respectively. Both companies have a BB- rating from Fitch and B+ rating from S&P.

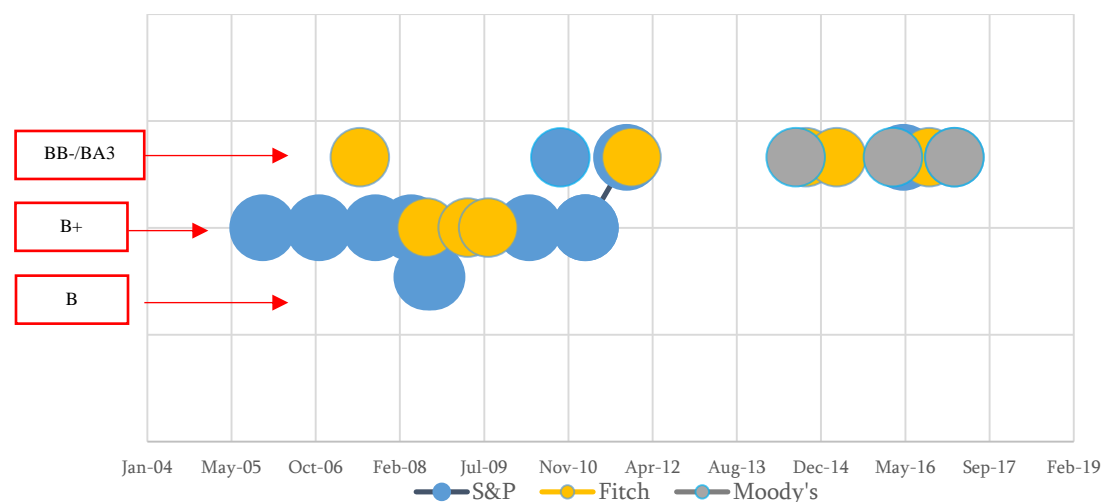
Figure 14: Georgian Sovereign Eurobond 2021



Source: MoF

For the last several years Georgia holds BB-/Ba3 ratings with stable outlook from all three major rating agencies. Maintaining stable rating can be considered an achievement amidst the deterioration of ratings in the countries of the region, including Georgia's neighbouring countries. There were even two temporary cases of outlook change from stable to positive.

Figure 15: Sovereign Ratings



Sources: Fitch; S&P; Moody's

Banking sector

The financial sector is dominated by commercial banks (all private) with non-bank financial institutions holding around five percent of assets. Banking sector is sound and developing well. Yet, the high dollarization (65 percent) is a concern. With waves of major depreciations during last couple of years it was expected that non-performing loans would increase. However, increase was only marginal to 3.5 percent at the end of 2016 (NPL reached up to 8 percent after the financial crisis in

2008).¹³ The liquidity and capital adequacy ratios are also well above the required 30 and 12 percent levels respectively and confirm the sector soundness.

Private sector credit has been constantly growing with about 10 percent on average per year over the last years. Interest rates are gradually decreasing with interest rate for corporate loans at respectively 11.5 percent and 8.8 percent in local and foreign currency (end 2016). The maturity, although growing, remains low at 3.5 years for local currency loans and 7.5 years for foreign currency loans on average.¹⁴

From these numbers, one may conclude that it will take several years before commercial banks can be considered as an important source of financing for infrastructure investments. However, the terms for large-scale projects may differ significantly from average numbers. For example, commercial banks are expected to be a key partner for the USD2.5 billion PPP project related to the Deep-Sea Port in Poti.

4.5. Attracting private investment through public-private partnerships (PPPs)

PPP is an important instrument for satisfying the public demand for better infrastructure and services. It is a mechanism to attract private finance to infrastructure projects and, if well designed, to improve public services delivery.

Government of Georgia has expressed its intention to facilitate greater participation of the private sector in infrastructure and stands ready to identify PPP opportunities. Until recently, there was no PPP framework in Georgia as well as no predefined process for selecting suitable project. PPPs were largely governed by the general public procurement and investment laws, the Civil Code and sector-specific regulations. International comparisons show that the country was lagging behind in this area. For example, the Economist Intelligence Unit's evaluated PPP readiness in 21 countries, mostly in Asia-Pacific and Georgia was ranked last. Among the six areas assessed by the study, Georgia appears to have in two – Regulatory framework and institutional framework - the weakest positions (20th and 21st rank respectively) (EIU, 2015).

However, a PPP framework is under development. These efforts are led by the Ministry of Economy and Sustainable Development (MOESD) with support from donors - the ADB and EBRD. To date, a draft piece of legislation has been produced and the Government intends to develop guiding standards as well. In this respect, the Government already approved a PPP policy document in June 2016.¹⁵ This document covers the modalities of the State participation in PPP projects, institutional settings, various stages of PPP project development from initiation to approval, and possible sectors for PPP arrangements. According the document main principles of PPP arrangements are:

¹³ <https://www.nbg.gov.ge/index.php?m=304>

¹⁴ <https://www.nbg.gov.ge/index.php?m=304>

¹⁵ <https://matsne.gov.ge/ka/document/view/3298735>

- a) transparency – ensuring that the information about PPPs and new opportunities is publicly available;
- b) foreseeability – clear and predictable rules;
- c) non-discrimination – fair and equal treatment of all public and private, foreign and domestic entities;
- d) value for money – ensuring that maximum efficiency and effectiveness is reached;
- e) Adequate risk allocation – reasonable distribution of responsibilities and risks between the parties;
- f) fiscal responsibility – commitments under PPP should not jeopardize the sustainability of public finances;
- g) environmental and social sustainability – project have to meet established requirements as it is proved by environmental and social impact assessments.

Although PPP framework is currently under elaboration, in practice the government already cooperates with the private sector in infrastructure development. In the energy sector, Power Purchase Agreements (PPAs) are signed to promote the participation of private investors and banks in the financing of power generation projects. Usually ESCO, the state-owned company responsible for matching supply and demand in the electricity market, is the signatory on the government side.

PPAs signed, for projects with construction permit and financial closure in place, are worth USD 1.08 billion, which amounts to 7.8% of GDP. The fiscal exposure to PPAs should however be low as the electricity purchased by ESCO is sold to distributors and consumers without losses. Still, it would be prudent to have a framework that will make transparent the process of signing the PPA agreements and will put in place sound fiscal risk assessment.

Meanwhile, the government decided to introduce temporary restrictions regarding the issuance of new PPA guarantees. This includes three major criteria:

- ✓ The guaranteed purchase period shall not be more than 8 months in each year;
- ✓ The guaranteed purchase tariff shall not be more than USD 6c kWh; and
- ✓ The total installed capacity of all new projects requiring PPAs, including ones under negotiations, is not more than 2000 MW.

5. Improving Infrastructure Spending Efficiency

5.1. Strengthening the Project Cycle

Projects are usually initiated by the line ministries and discussed with the Ministry of Finance. Overall, they are analyzed in terms of their coherence with policy priorities. The analysis can be further improved as evaluations do not include in most of cases cost benefit and value for money assessments and rely on the fit with policy priorities. Possibility to finance the pre-selected project is discussed with the potential donor.

In order to improve management of investment projects, the Government of Georgia elaborated and adopted a special guide in 2016¹⁶, which provides rules for the selection and implementation of investment projects that estimated value exceeds GEL 5 million (around \$2 million) and are financed (or co-financed) through the central or local budget.

The Ministry of Finance of Georgia is responsible for coordinating investment projects in-line with the elaborated guidelines, which determine five project phases: i) preliminary selection, ii) evaluation, iii) final selection, iv) implementation and monitoring and v) post evaluation. The roles and responsibilities of public bodies, participating in this process, are defined for each phase.

- **Preliminary selection of investment projects:** The following elements are considered during this phase: the project concept; needs assessment; identification of strategic importance and rationality; preliminary assessment of project's economic importance and analysis of alternatives (including no action taken); estimation of impact on the budget and evaluation of access to finance; identification of the ways of implementation (procurement procedures, expected results including considerations in case of PPP arrangement); analyses of the sustainable development issues (financial and institutional sustainability, environmental protection and social sustainability); provision of further surveys; and consultations. The public body should submit this information to the Ministry of Finance for opinion. After the identification of a sustainable investment project by the public body, with consideration the MoF's opinion, the project can be moved to the next phase (i.e. evaluation).
- **Evaluation phase:** In this phase, a cost-benefit analysis is produced in order to ensure that society obtains the maximum benefit from the project implementation. Elements assessed include economic impact, sustainability, risk and access to finance in order to determine the best alternative. Evaluation results have then to be submitted to the MoF, which revises the economic and social value of the investment project in light of the needed financing and submits its opinion to the Economic Council for discussions. Upon approval of the investment project by the Economic Council, the project goes to the next – final selection and budgeting stage. In case of municipalities, evaluation results are submitted to the local finance body and the Ministry of Regional Development and Infrastructure of Georgia (MRDI).
- **Selection and budgeting phase:** This phase considers the selection of investment projects to be financed from the state budget. The list of investment projects is updated periodically, but final projects should be selected before March 1 of the fiscal year for their inclusion in the mid-term budget and ensuring the multi-year financing if needed.
- **Implementation and monitoring phase:** quarterly and annual reports on status of implementation of investment projects should be prepared by the relevant bodies and submitted to the government followed by a submission to the parliament together with the budget

¹⁶ Government decree on the Approval of the Guide on the Management of Investment Projects; N 191; 22.04.2016

implementation report. In case of observed deviations from plans during the implementation period, such as substantial changes in required financing, implementation time-frame or projects impact on beneficiaries, the Economic Council (the Prime Minister’s advisory body) is responsible to prepare recommendations on modification, suspension or termination of investment project.

- **Post evaluation phase:** The evaluation considers the achieved results vis-à-vis the resources used and project’s impact on environment. The post-evaluation has to be completed within 1 year upon completion of investment project by the implementing body and has to be published.

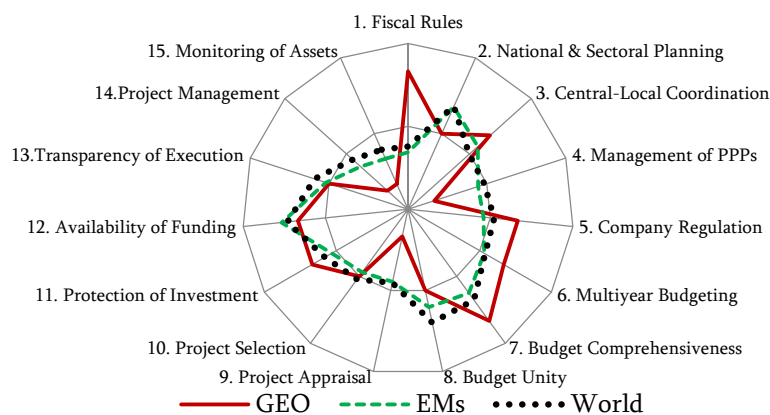
At this stage, the new regulation is piloted in 5 self-governed cities of Georgia, including Tbilisi.

5.2. Enhancing Public Investment Management

Strong Public Investment Management (PIM) institutions are important to ensure that every dollar invested translate into greater access and quality of infrastructure. PIM strengthening initiatives are timely as the Government intends to accelerate infrastructure investments.

To assist countries, IMF has developed the Public Investment Management Assessment (PIMA) toolkit that allows identifying institutional weaknesses in individual countries. Rough exercise produced for Georgia suggests strengthening the management of PPPs, project appraisal process, project management and monitoring of assets.

Figure 16: Evaluation of Public Management by Institutions in Georgia



Source: IMF and author’s estimates

Countries with more credible capital budgets and less volatile investment volumes have higher efficiency of capital spending. As table below shows Georgia is gradually improving its planning, but there is a room for further improvement. However, these improvements were not the result of institutional changes. Instead improvements in the budget and procurement processes resulted from

enhanced capacity at the technical level as well as from decision makers learning on their own experience. Public Expenditure and Financial Accountability (PEFA) Assessment 2012 showed improvement in aggregate expenditure outturn compared to original approved budget score from D (2008) to A (2012) as well as improvement in composition of expenditure outturn compared to original approved budget score from C (2008) to B+ (2012). The latest is expected to further improve during the 2016 PEFA assessment.

Stop-go investment policies undermine efficiency of investment. As Georgia has set its plans to accelerate construction of infrastructure, decisive steps to further strengthen PIM should be taken in parallel. For investment to lead to desired results, they should be accompanied by the strengthening of PIM (IMF, 2015).

Table 8: Infrastructure Investments Planned and Actually Disbursed

| GEL Million | Ministry of Regional Development and Infrastructure (MRDI) | | | | Ministry of Energy | Total |
|------------------------------------------------|------------------------------------------------------------|------------|----------------------------|-------------|--------------------|--------|
| | MRDI Total | Road Infra | Regional & Municipal Infra | Water Infra | | |
| Approved Budget 2013 | 487.0 | 256.4 | 129.2 | 101.4 | 109.3 | 596.3 |
| Actual Disbursements in 2013 | 326.3 | 250.9 | 35.6 | 39.8 | 142.9 | 469.2 |
| Actual disbursements % of Approved Budget 2013 | 67.0% | 97.9% | 27.6% | 39.2% | 130.8% | 78.7% |
| Approved Budget 2014 | 505.2 | 266.2 | 130.2 | 108.9 | 94.1 | 599.3 |
| Actual Disbursements in 2014 | 426.2 | 259.4 | 83.0 | 83.8 | 133.4 | 559.6 |
| Actual disbursements % of Approved Budget 2014 | 84.4% | 97.5% | 63.7% | 77.0% | 141.8% | 93.4% |
| Approved Budget 2015 | 530.9 | 296.0 | 132.8 | 102.1 | 74.4 | 605.3 |
| Actual Disbursements in 2015 | 454.0 | 247.2 | 101.2 | 105.6 | 112.2 | 566.2 |
| Actual disbursements % of Approved Budget 2015 | 85.5% | 83.5% | 76.2% | 103.5% | 150.8% | 93.5% |
| Approved Budget 2016 | 551.8 | 249.6 | 172.2 | 130.0 | 103.0 | 654.8 |
| Actual Disbursements in 2016 | 549.4 | 249.5 | 174.9 | 125.1 | 159.4 | 708.8 |
| Actual disbursements % of Approved Budget 2016 | 99.6% | 99.9% | 101.5% | 96.3% | 154.7% | 108.2% |

Source: MoF

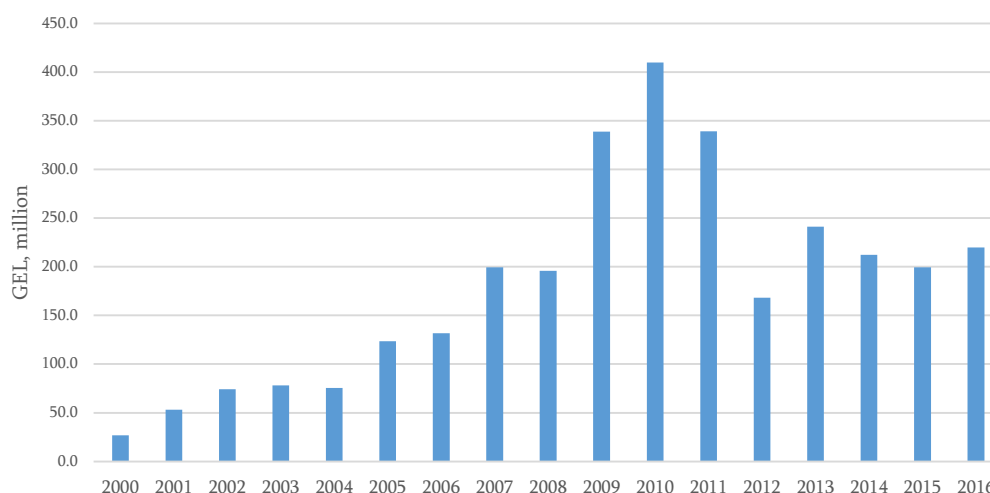
5.3. Allocating Funds to Asset Maintenance

Low investments in maintenance lead to gradual degradation of infrastructure. In the energy sector, the average age of existing hydropower plants is 37 years and the oldest plants have operated for 75 years (ADB, 2013). Underinvestment in the nineties in the energy sector led to gradual reduction of HPPs' production capacity by 70-80 percent and the deterioration of the system reliability. According to World Development Indicators (WDI) the percentage of the population using improved sanitation facilities gradually deteriorated between 2007 and 2015 from 91.2 to 86.3 percent (UNICEF & WHO, 2015), which is largely due to insufficient maintenance.

Between 2007-2014 Georgia spent US\$2,500 per km per year on routine maintenance of roads which is less than the international comparator range of US\$4,000 to US\$8,000 per km (WB, 2016). Budget allocations for roads rehabilitation and maintenance remains roughly constant during 2015-2017 at GEL160 million. It is obvious that acceleration of infrastructure projects will lead to a higher stock of infrastructure, which in turn will require higher allocations for maintenance. To preserve the value of infrastructure assets and the service quality, sufficient funds should be allocated to infrastructure maintenance.

As described in section 3.1, the Government has significantly increased financing of maintenance and rehabilitation of road infrastructure. It may consider long-term planning for maintenance and rehabilitation of all infrastructural assets. These costs should be taken into account when new infrastructural projects are initiated and optimal stock of infrastructure should be assessed with due consideration of future maintenance costs. To alleviate the burden on the state budget, involving the private sector in asset maintenance can be considered including choosing the construction and maintenance contracts at the stage of the project initiation.

Figure 17: Maintenance and Rehabilitation Expenditure



Source: Road's Department

6. Conclusion and recommendations

Georgia has successfully conducted reforms aiming at the creation of a business-friendly environment including through tax reform, elimination of corruption and red tape, and improved governance. However, for the reforms to yield maximum results for inclusive growth and fully utilize country's potential, the country needs to further develop its infrastructure.

Plans to accelerate investment in infrastructure call for additional financial resources. Concessional financing from donors remains a major source of financing. However, to demonstrate prudence in fiscal policy, the Government has to restrict borrowing up to certain level and seek sources of financing that will not affect its budget deficit. For example, the Government was able to identify additional room for financing through revenue and expenditure measures.

Georgia is also strengthening its public investment management system. This reform is timely and its importance even bigger as the country intends to accelerate investment in infrastructure. Strong PIM institutions can yield to higher efficiency in investments. Georgia may wish to take faster steps in this area.

Greater involvement of the private sector in financing infrastructure is also possible. This requires though adequate utility fees and the introduction of tolling on roads for the private sector to generate revenues. For PPP arrangements to lead to higher efficiency and avoid unexpected fiscal costs, strong PPP institutional and legal frameworks have to be in place. Government's initiative to work in this direction with donor assistance is commendable. Overall, raising user charges, using value capture mechanisms and privatization are options to reduce costs and generate funds for new investments. Georgia is also working on development of the capital market. Developed capital market is essential for greater participation of the private sector in infrastructure development.

To conclude, Georgia may benefit from learning success stories of other countries and should take advantage of information sharing opportunities to design its future infrastructure financing strategies.

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