Impact of the Public Debt of the Republic of Armenia on Economy and on the State Budget

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This research was possible because of the help from Open Society Foundations – Armenia (OSF-Armenia) within the framework of Policy Fellowship Initiative (grant №19360). The opinions expressed in this paper are the authors and may not reflect the opinion or position of OSF-Armenia.

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Content

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The final paper reflects some of the opinions expressed during the discussion of the results of the research held at Congress hotel in Yerevan on 13 October 2016.

Executive Summary

The public debt of the Republic of Armenia is an issue of concern and discussions. Over 2008-2015 in absolute terms the public increase 4 times – reaching AMD 2456 billion from AMD 585 billion, and in relative terms roughly tripled, reaching 48.8 percent of GDP compared to 16.4 percent. The size of the public debt would have been an issue of lesser concern if it would have not been accompanied by deterioration of the terms of new borrowings compared to previous borrowings. It increased the burden on economy and on state budget. At the same time the Armenian economic growth slowed down. Debt related payments became a heavy burden for the state budget. Efforts to stimulate the economy with new borrowings may endanger fiscal and debt sustainability.

Public debt is the consequence of imbalances in fiscal policy. The debt emerges and increases because in recent years the state budget had a big deficit. If the government will not take steps to correct the situation awry adjustment may start that will hurt socially vulnerable groups of population. Properly managed adjustment requires either increasing public revenues, or cutting down expenditures, or both.

Interest expenditures leap after large scale borrowings and nowadays absorb about 10 percent of public revenues compared to 1.9-2.0 percent paid in 2007-2008.

The Government of Armenia (GOA) must be more consistent when implementing public debt management policy. During implementation the GOA takes decisions that are not envisaged in its strategic papers and the impact of those decisions is not assessed in those strategies.

Funds borrowed by the GOA are channeled to sectors that according to publications of well known international organizations are extremely corrupt.

The public debt of Armenia constituted 65 percent of –observed‖ GDP. Probably the GOA must not allow the public debt to reach 47-49 percent of GDP and must keep it at lower level.

Not regulated and sharp depreciation of the Armenian dram (simultaneously with deterioration of some indicators) may sharply increase the debt to GDP ratio. In addition, debt payments – amortization of the principal and interest payments – may require more resources from the state budget.

The fact that immediately or two months after publication of the IMF country reviews the GOA carries out large scale debt transactions that are not envisaged by the GOA programs with the IMF raises questions about the role and the credibility of those programs.

More research is necessary to investigate the impact of the quality of governance and the level of corruption on debt sustainability, as well as the impact the public debt is having on private savings, public investment, efficiency and interest rates.

Introduction

The public debt and the economic growth have complex mechanism of mutual influence. Public debt may stimulate the economy or create obstacles for it depending on how the borrowed funds are used. If borrowed funds are used to fund investment project that have potential big impact which is in line with the ―golden rule‖ of public finances it will foster economic growth and become a source of additional revenue for the government, thus reducing the debt burden. On the other hand if the borrowed funds are used to finance current expenditures or the economic growth slows down because of other reasons then the debt service and debt sustainability becomes an issue. When government borrowing increases interest rates, according to neoclassical theory it leads to crowding out because for financial sector it becomes more profitable to fund the government instead of the private sector. The private sector is not interest in investing when the rates are high.

The recent debt crisis increased the academic interest towards investigating the impact of debt on economic growth. While in the past the research was concentrating more to developing countries over the last decade the research on the impact of public debt on economic growth in advanced countries increased.

In recent years the Government of Armenia (GOA) tried to stimulate the economy with borrowed funds. The borrowed funds increased the public debt but did not result in substantial economic growth. The GOA did not follow the golden rule of public finances according to which the government must borrow to fund investment and development projects so that the future generations will benefit. Current expenditures must be funded by revenues. Low efficiency of utilization of utilization of borrowed funds can be the reason they have small impact on the economy. One must take into consideration that the requirement to efficiently use public funds is not related only to borrowed funds. The GOA is not efficient also when utilizing its own revenues. This is reflected in low governance indicators awarded by international organizations. However, in the case of borrowed funds the consequences are even dire because those funds must be repaid to creditors in the future and if they don't general additional revenue debt repayment may become an issue.

In light of the research on the impact of public debt on economic growth this research intends to investigate the impact the funds borrowed by the GOA in recent years had on economy, state budget and public debt and if necessary submit recommendations that will help to make the debt and public finances more sustainable.

1. Literature review

After studying a panel of advanced and emerging market economies over 1970-2007 Kumar and Woo (2010) found evidence of impact of high initial debt on subsequent growth in 38 advanced and emerging economies. They came to conclusion that on average, a 10 percentage point increase in the initial debt-to-GDP ratio is associated with a slowdown in annual real per capita GDP growth of around 0.2 percentage points per year. The impact is smaller in advanced economies (around 0.15). Higher levels of initial debt have proportionately larger negative effect on subsequent growth (evidence of nonlinearity with debt above 90 percent of GDP having a significant negative effect on growth). According to Kumar and Woo the adverse effect largely reflects a slowdown in labour productivity growth mainly due to reduced investment.

Reinhart and Rogoff (2010) recorded results similar to findings of Kumar and Woo (2010) by analyzing through simple correlation statistics the developments of public debt and the long-term real GDP growth rate in a sample of 20 developed countries over a period spanning about two centuries (1790 - 2009). They found that the relationship between government debt and long-term growth is weak for debt/GDP ratios below a threshold of 90% of GDP, while above 90% the average growth declines considerably.

Schclarek (2004) also investigates the relationship between gross government debt and per capita GDP growth in developed countries between 1970 and 2002. No robust evidence of a statistically significant relationship is found for a sample of 24 industrial countries[1] with data averaged over seven 5 year periods.

Cecchetti, Mohanty and Zampolii (2011) analysed debt data for 18 OECD countries from 1980 to 2010 and concluded that when government debt goes beyond 85 percent of GDP, it becomes a drag on economic growth and will not allow addressing extraordinary events in the future. In addition to public they suggest that there are thresholds also for corporate (90 percent of GDP) and household debt (around 85 percent of GDP). Cecchetti, Mohanty and Zampolli (2010) conclude that rapidly aging population complicate the analysis of debt sustainability and that unfunded large and growing liabilities should become a central part of long-term fiscal planning.

In their study of data on gross central government debt to GDP ratios beginning from 1800 Reinhart et al. (2012) revealed that in 23 out of 26 cases when the debt exceeded 90% of GDP countries experienced lower growth rates compared to the average of other years.

In their study of 12 euro area countries for the period 1990-2010 Baum, Checherita-Westphal and Rother (2013) came to the conclusion that the short run impact of debt on GDP growth is positive and highly statistically significant. However, it decreases to around zero and loses significance when public debt-to-GDP ratios are around 67 percent. Additional debt has a negative impact on economic growth when debt to GDP ratio is above 95 percent.

Checherita and Rother (2010) examine the average impact of government debt on per-capita GDP growth in 12 euro area countries during the 1970-2011. They find a non-linear impact of debt on growth with a turning point at about 90-100 percent of GDP. Beyond that level the government debt-to-GDP ratio has adverse impact on long-term growth. The negative growth effect of high debt may start from levels of around 70-80% of GDP.

The study of large panel data of countries for 1970-2010 by Calderon and Fuentes (2013) revealed a negative and robust, non-linear effect of public debt on growth exacerbated if quality of institutions is weak and domestic financial markets are underdeveloped. They concluded that strong institutions, high quality domestic policies, and outward-oriented policies[2] partly mitigate the adverse effect. A simultaneous sharp reduction in public debt and an improvement in the policy environment induce an increase in the growth rate per capita of 1.7 percent points for the Caribbean and 2 percentage points for South America. An upgrade in quality of policies and a reduction in public debt results in low but significant growth benefits for the Caribbean (0,85 percent) and South America (1,5 percent).

[1] The industrial countries used in the study are Australia, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and United States.

[2] Trade and financial openness.

Nautet and Van Meensel (2011) find that ―advanced economies with a debt ratio below 30 percent of GDP achieved an average increase in per capita GDP at constant prices of 3.2 percent, whereas growth came to only 1.9 percent for the advanced economies with a debt ratio in excess of 90 percent of GDP‖. However, the link between debt level and GDP is less clear in case of emerging economies while in case of developing countries per capita GDP growth is clearly higher the lower the public debt.

Mencinger, Aristovnik and Verbic (2014) calculated the debt-to-GDP turning point, where the positive effect of accumulated public debt inverts into a negative effect and came to a conclusion that the threshold value for the ―new‖ member states is lower than for ―old‖ member states. While for ―old‖ EU member states the threshold of debt to GDP ratio is somewhere between 80 and 94 percents for ―new‖ members states it is somewhere between 53-54 percent.

Ahlborn and Schweickert (2015) find that underdeveloped countries experience a linear negative influence of public debt on long-run growth. Public debt has negative growth effect for Continental[3] countries that becomes more significant at public debt levels above 75 percent of GDP, while no such effect was identified for Liberal[4] countries. In Nordic[5] countries the growth becomes negative when public debt is around 60 percent of GDP.

Afonso and Alves (2014) study the effect of public debt on economic growth for annual and 5 year average growth rates and tested the existence of non-linearity effect of public debt on growth for 14 European countries over 1970-2012 and find negative impact of -0.01 percent for each 1 percent increment of public debt and average debt threshold of around 75 percent. However, debt service has a 10 times worse effect on growth.

Using nonlinear threshold models Egert (2012) concluded that there is some evidence in favor of a negative nonlinear relationship between debt and growth and when non-linearity is detected, the negative nonlinear effect shows of at lower levels of public debt somewhere between 20-60 percent of GDP. Egert concludes that nonlinear effects might be more complex and difficult to model than previously thought.

In contrast to all above authors using a novel empirical approach and an extensive dataset developed by the Fiscal Affairs Department of the IMF Pescatori, Sandri and Simon (2014) find no evidence of any particular debt threshold above which medium-term growth prospects are dramatically compromised. They conclude that debt trajectory is an equally important factor because countries with high but declining debt grow as fast as countries with low debt. However, Pescatori, Sandri and Simon (2014) find evidence that high debt may result in higher output volatility.

Szabo (2013) used linear regression study based on EU-27 countries revealed that a one percent point increase in the debt to GDP rate causes a slowdown of 0.027 percent point in the rate of the economic growth, while in new member states that joined the EU in 2004 or later the effect is higher (0.041 percent point). Szabo realized that in the years preceding the economic crisis the ‗optimal' rate of sovereign debt to GDP was 68 percent which has risen to 86 percent by 2012. According to Szabo's calculations the cut in the GDP proportionate rate of education expenditures sets back economic growth.

For 14 European countries[6] for 2000-2011 Casni, Baduring and Sertic (2014) find that both in the long and in the short run public debt lowers the GDP growth and that a credible fiscal consolidation is necessary in combination with policies to promote lasting growth.

Clements et al. (2003) investigated the relationship between external debt, public investment, and growth in low-income countries and stated that high levels of public debt can depress economic growth in low-income countries and threshold levels of external debt was estimated around 50% of GDP.

Pattillo et al., (2011) examine the impact of external debt on growth using panel data for 93 developing countries. Their findings suggest that the average impact of debt becomes negative at about 160-170 percent of exports or 35-40 percent of GDP and the marginal impact of debt at about half of these values.

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[3] Core EU member state with a Coordinated Market Economy and a conservative welfare state, focusing their expenditures on subsidies for leisure.

[4] Anglo Saxons and Switzerland, with a Liberal Market Economy and Welfare State and spending focus on government consumption.

[5] Core EU member state with a Coordinated Market Economy and Social Democratic Welfare State and a spending focus on subsidies for work.

[6] Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Germany, Hungary, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia and Slovenia.

Imbs and Ranciere (2005) focus on measures of gross external debt, for a sample of 87 developing economies over the period 1969-2002. They concluded that on average debt overhang occurs when the face value of debt reaches 55 to 60 percent of GDP or 200 percent of exports, or when the present value of debt reaches 35 to 40 percent of GDP or 140 percent of exports. Then, initial debt tends to be associated with subsequently low growth. They find that institutions do matter for debt and growth. They also find that investment decline sharply in the overhang zone and the conduct of economic policy deteriorates substantially.

Babu, Kiprop, Kalio and Gisose (2014) found that external debt expansion has a negative effect on economic growth of the East Africa Community member countries. They assume that if properly utilized, external debt can help the developing countries to meet development goals. However, this has not been the case.

Based on investigation of 55 low-income countries over the period 1970-1999 Clements et al. (2003) found that the turning point in the net present value of external debt is at around 20-25% of GDP.

Schclarek (2004) finds a linear negative impact of external debt on per-capita growth in a panel of 59 developing countries over the period 1970-2002.

	Debt threshold as percent of GDP	**Countries**	**Period reviewed**
Kumar and Woo (2010)	Inverse relationship	38 advanced and emerging	1970–2007
Checherita and Rother (2010)	90 percent	12 euro area	1970-2011
Reinhart and Rogoff (2010)	90 percent	20 developed	1790-2009
Cecchetti, Mohanty, and Zampolii (2011)	85 percent	18 OECD	
Baum, Checherita-Westphal and Rother (2013)	95 percent	12 euro area	1990-2010
Afonso and Alves (2014)	75 percent	14 eruopean	1970-2012
Mencinger, Aristovnik and Verbic (2014)	80-94 percent	Old EU members	1980-2010
Mencinger, Aristovnik and Verbic (2014)	53-54 percent	New EU members	1995-2010
	External debt threshold		
Pattillo et al (2011)	170 percent of exports or 35-40 percent of GDP	93 developing countries	
Imbs and Ranciere (2005)	200 percent of exports or 55-60 percent of GDP	87 developing countries	1969-2002
Clements et al (2003)	50 percent of GDP	Low income countries	

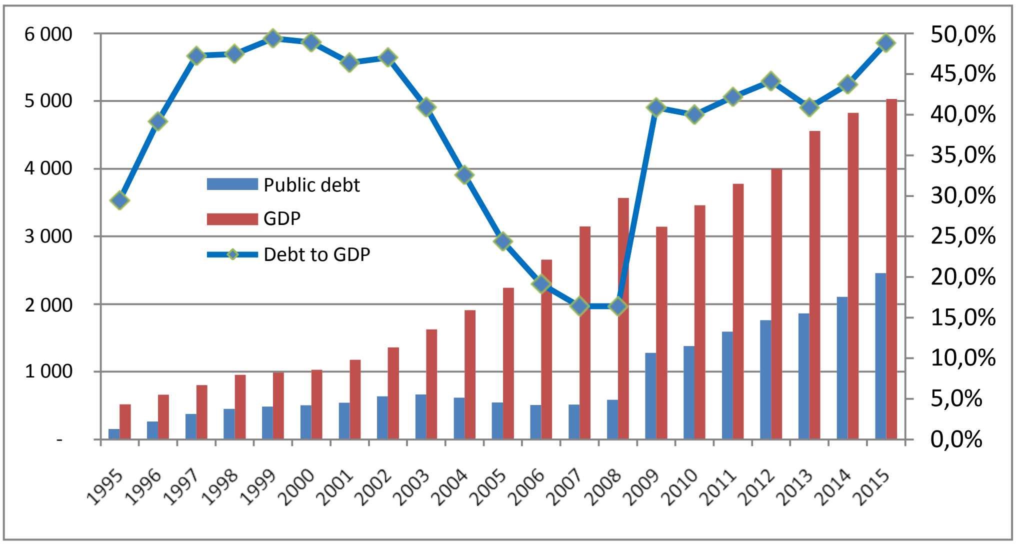
Public debt affect economic growth via private savings, public investment, factor productivity and long term nominal and interest rates of government debt. The above mentioned research indicates that debt reduction may stimulate economic growth.

2. The Public Debt of the Republic of Armenia

Armenian economy is highly exposed to developments in its main trading partner countries. Over the last decade Russia was the major source of remittances, foreign direct investment (FDI) and energy supply (fuel for thermo-power and nuclear plant).

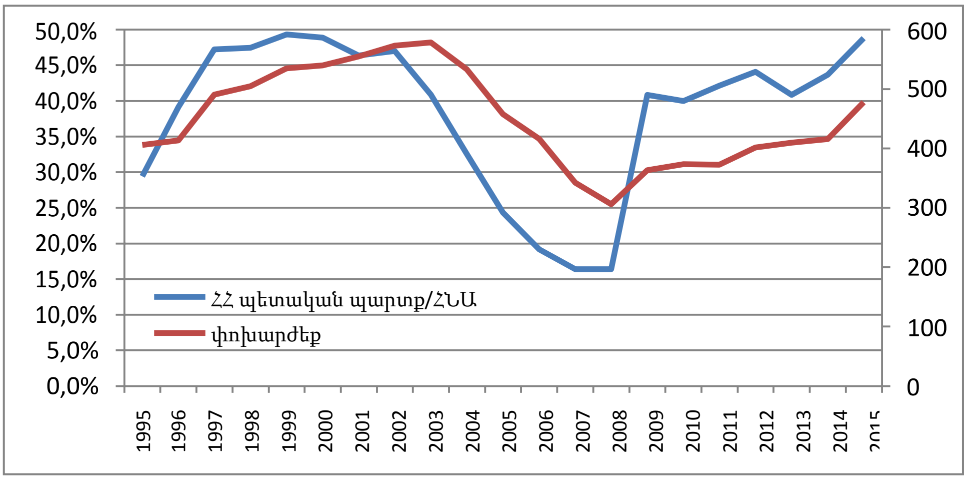
Since 2009 the Government of Armenia (GOA) borrows aggressively. In absolute terms over 2008-2015 the debt more than quadrupled from AMD 585 million AMD 2456 million. In relative terms the debt tripled from 16.4 percent of GDP to 48.8 percent. Until recently the GOA used to deny existence of debt related problems.

Figure 1. Public Debt and Gross Domestic Product of Armenia



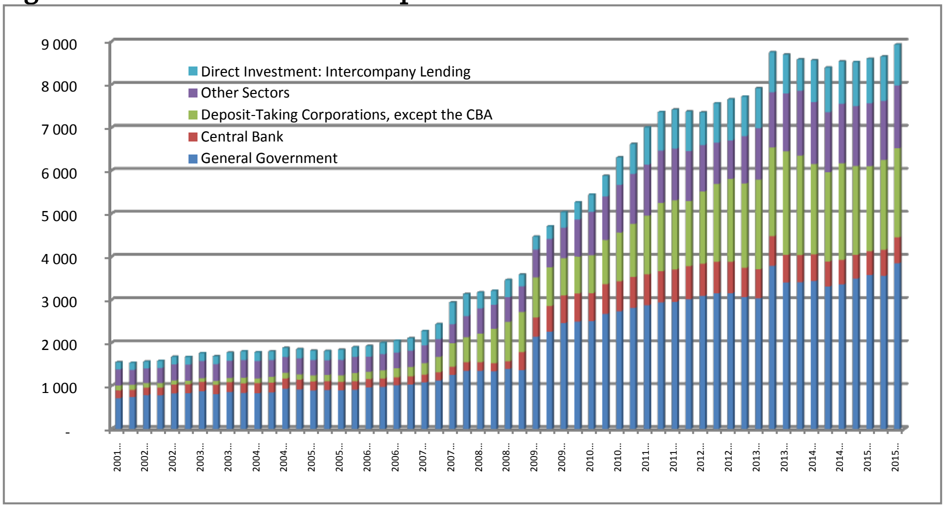
Source. National Statistical Service of the Republic of Armenia www.armstat.am

Figure 2. Changes of debt to GDP ratio and the exchange rate of the Armenian dram relative to US dollar (left axis, the size of the Armenian debt in terms of GDP, right axis, the exchange rate of the Armenian dram versus US dollar)



In 2013 the GOA introduced new debt instrument – the Armenian Eurobond. However, at the time of the issuance the GOA did not present to the public the impact the new debt may have on Armenian economy, public debt and on the budget. The increase of the debt is accompanied by low economic growth. Over 1995-2000 when Armenia started rapid accumulation of external debt the GDP grew on average at 5.3 percent annually. Over the next 8 years (2001-2008) the average 11.9 percent annual GDP growth was accompanied by 30 percent reduction of debt (the public debt declined from 47 percent to 16.4 percent): Over 2003-2008 the big part of the debt reduction can be attributed to appreciation of the national currency (figure 2). Over 2010-2015 the GDP grew on average at 4 percent. The decline of the GDP growth rate can be a result of several factors, including the dramatic increase of payments against public debt. The interest expenses against public debt as well as payments of principal amounts increased substantially. Over the recent years the private sector also borrowed substantial amounts from abroad (figure 3).

Figure 3. External debt of the Republic of Armenia



Աղբյուր: SDDS

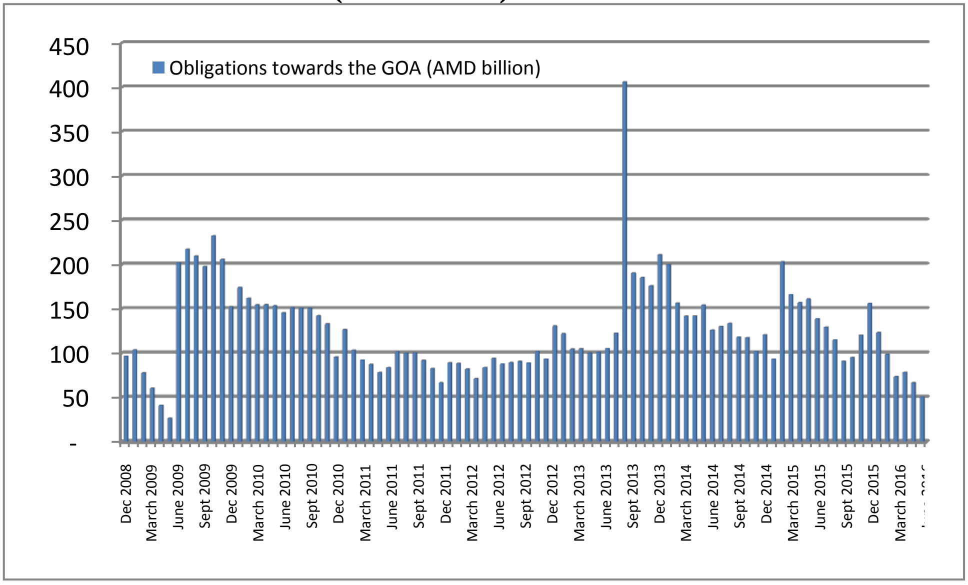
2.1. Debt strategies, sustainability analysis and government actions

Forecasting is an ungrateful task. However, public policy cannot be developed without forecasts. The Government of Armenia forecasts future economic developments based on certain assumptions. Assumptions on their own are very often based on past performance of indicators. In the past the Government of Armenia was very optimistic about economic, fiscal and debt developments. Debt sustainability analysis carried out in 2011 the Ministry of Finance (MOF) of Armenia was expecting that public debt will reach the peak in 2012 at 39 percent of GDP and will start declining thereafter. Although in 2011 the models used by the MOF did not reveal any threats the MOF recognized the fact that the models hint that the Government of Armenia needs to adopt more conservative borrowing policy.

As the history showed the GOA did not take seriously the "hints" provided by the models and adopted very aggressive debt issuance policy that was not even envisaged by its strategies. The medium term debt management strategies (MTDMS) are high quality technical documents that present the government's vision of how it is going to manage the public debt. However, MTDMSs of different years provide contradicting messages. E.g.,

- The Medium term expenditure framework (MTEF) of the GOA for 2014-2016 approved in July 2013 did not indicate that the GOA is going to issue bonds in international capital markets (Eurobonds) later in 2013. MTEF and MTDMS did not present the possible interest costs in its forecasts for 2014-2016. However, two months later, in September 2013 the GOA issued 7 year USD700 million foreign currency denominated bonds that distorted the medium-term vision of development of public finances. The cash flows of the state budget did not justify the issuance of eurobonds (figure 4). Further research is necessary to evaluate the additional costs or savings the GOA generated by replacing 14 year (due in 2024) USD500 million Libor+3 loan from Russia by 7 year (due in 2020) USD700 million 6 percent coupon bonds.
- MTEF2015-2017 envisage that the GOA will issue new eurobonds to fund the deficit and the current account, to support high economic growth and enlarge debt instruments. However, the MTDMS tables did not include possible additional costs of those new eurobonds and did not specify what impact the borrowed funds will have on the economy, state budget and public debt.

Figure 4. Obligations of the Central Bank of Armenia towards the GOA over December 2008 to December 2016 (AMD billion)



Source: Central Bank of Armenia. Information is available at https://www.cba.am/am/SitePages/statmonetaryfinancial.aspx

- While MTEF2017-2019 claims that the GOA is going to reduce investments in order to tighthen the fiscal policy because of debt sustainability considerations MTDMS leaves the door open for new issuance of foreign currency denominated debt. Without thorough scrutiny of the impact of debt related financial flows on Armenian economy and on the state budget the announcements about the possibility of issuance of new foreign currency denominated government bonds is a disturbing statement.

2.2. Assessments of rating agencies

In recent years Moody's Investor Services (Moody's) downgraded Armenia's issuer and government bond rating. On 18 March, 2016 Moody's downgraded Armenia's long-term issuer and senior unsecured debt rating to B1 from Ba2 and changed the outlook to stable from negative. Moody's justified the downgrade by Armenia's increasing external vulnerabilities and worsening fiscal and government debt metrics[7]. On 15 January, 2015 Moody's already downgraded Armenia's issuer and government bond rating to Ba3 from Ba2 and changed the outlook to negative from stable. These changes in rating and in economy mean that funds borrowed in the financial market become more expensive for Armenia.

2.3. IMF support of reforms

Over the years the International Monetary Fund (IMF) supported the Government of Armenia. According to IMF (2016) Armenian public and publicly guaranteed debt will increase until 2017 and will start declining beginning from 2018. IMF made similar forecasts in the past. Specifically in 2009-2010 the IMF forecasted that Armenian public debt will pick in 2011 and will start declining thereafter. In July 2011 the IMF forecasted (IMF, 2011a) that that the debt will continue to rise ***to 40 percent in 2011*** before declining gradually to 29 percent of GDP by 2014.

In 2012 IMF was claiming (IMF, 2012) that Armenian public debt is sustainable. In February 2013 IMF was of the opinion (2013a) that if the budget deficit will be at 2 percent of GDP debt will be inclined to grow and it is desirable to keep it below 2 percent of GDP. At the beginning of 2014 IMF was expecting (IMF, 2014) that budget deficit in 2015 will decline to 2 percent of GDP and to 1.8 percent thereafter. In November 2015 publication IMF (IMF, 2015b) suggested starting budget consolidation from 2016 so that the government will stabilize the debt and will start its reduction.

[7] Moody's expected that –Armenia's general-government-debt-to-GDP ratio will rise above 50% in 2017 under the baseline assumption of a growing economy‖

In the letter addressed to IMF managing director (IMF, 2016) the Government of Armenia specified that “The consolidation needs in the coming years will make it difficult to expand the current expenditure envelope, so our efforts will be focused mainly on increasing the efficiency and quality of spending, especially in critical areas such as healthcare and education.”

Sometimes it is difficult to understand the role and the importance of the IMF and the program it has with the GOA. In some cases the GOA made swift operations that substantially deviated from those programs couple of days after publications of a review. E.g., in July 2913 IMF published the №13/238 report about the sixth review of the joint program that did not envisage large borrowing by the GOA (table 1 presents financial flows envisaged in №13/238 report). Two months after publication of the report the GOA issued USD 700 million Eurobonds.

Table 1. Financial flows for coming years envisaged by Armenia country report №13/238 published in July 2013 by the IMF

	2009	2010	2011	2012	2013	2014	2015	2016
Net borrowing	886	168	152	225	299	219	207	216
Disbursements	907	193	180	255	375	301	330	359
Amortization	-21	-25	-28	-30	-75	-82	-123	-143

In March 2015 IMF published the №15/65 country report about Armenia. The financial flows envisaged by that program are presented in table 2.

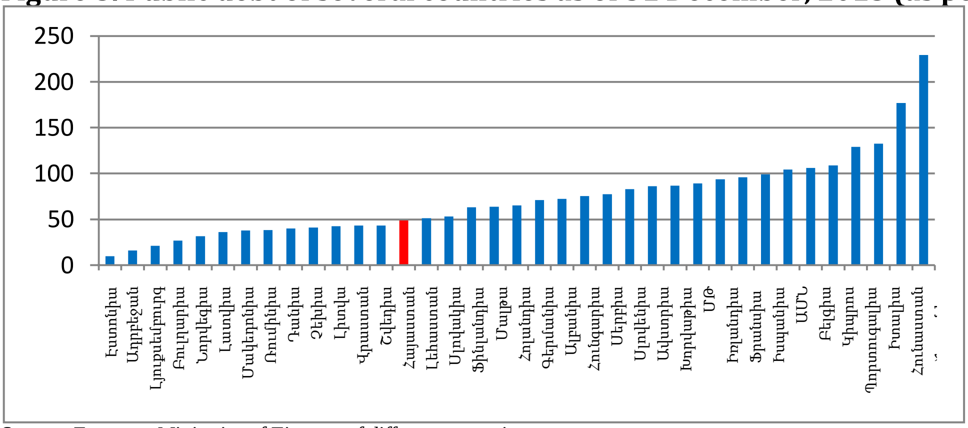
Table 2. Financial flows for coming years envisaged by Armenia country report №15/65 published in July 2013 by the IMF

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Net borrowing	886	168	152	225	382	201	143	236	281	325	264
Disbursements	907	193	180	255	914	237	199	305	365	421	453
Amortization	-21	-25	-28	-30	532	-36	-56	-69	-84	-97	-189

2.4. International comparisons

Armenian public debt is not big. Several countries have comparable or even much bigger debt (figure 5). At the end of 2015 public debt of the Republic of Georgie was at about 43 percent of GDP. Serbia faces debt problems (IMF, 2016b) because its debt is at 75-77 percent of GDP.

Figure 5. Public debt of several countries as of 31 December, 2015 (as percent of GDP)



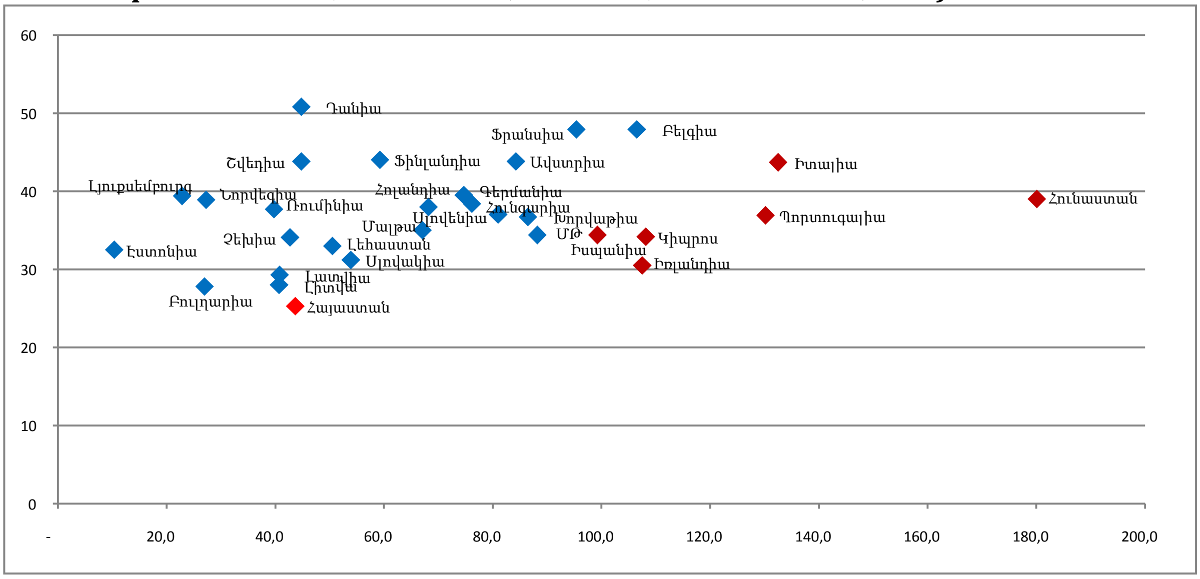
Source: Eurostat, Ministries of Finance of different countries

As specified in literature review some researcher came to a conclusion that in advanced economies the public debt becomes a burden for the economy when the debt exceeds 90 percent of GDP. Other researchers are of the opinion that in new EU member countries the debt becomes a burden when it exceeds 53-54 percent of GDP.

In that sense it is important to pay attention to revenues collected by the governments. Figure 6 presents information about gross revenues (vertical axis, includes taxes and social contributions) and public debt (horizontal axis) of EU member countries at the end of 2014.

While having debt that is comparable to the debt of governments of Denmark, Sweden and Poland (44.8, 44.8 and 50.5 percent of GDP respectively) Armenian authorities collect substantially less revenues compared to the governments of those countries (in Denmark it is at 50,8, in Sweden 43,8, in Poland 33.0, in Armenia 25.3 percent of GDP). Revenues collected by Armenian authorities are comparable to the ones collected by Bulgarian authorities (27.8 percent of GDP) while the public debt of Bulgaria at the end of 2014 was at 27 percent of GDP.

Figure 6. Public debt and gross revenues of some countries as of 31 December, 2014 (as percent of GDP, vertical axis, revenues, horizontal axis, debt)



Source: Eurostat (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_10a_taxag&lang=en)

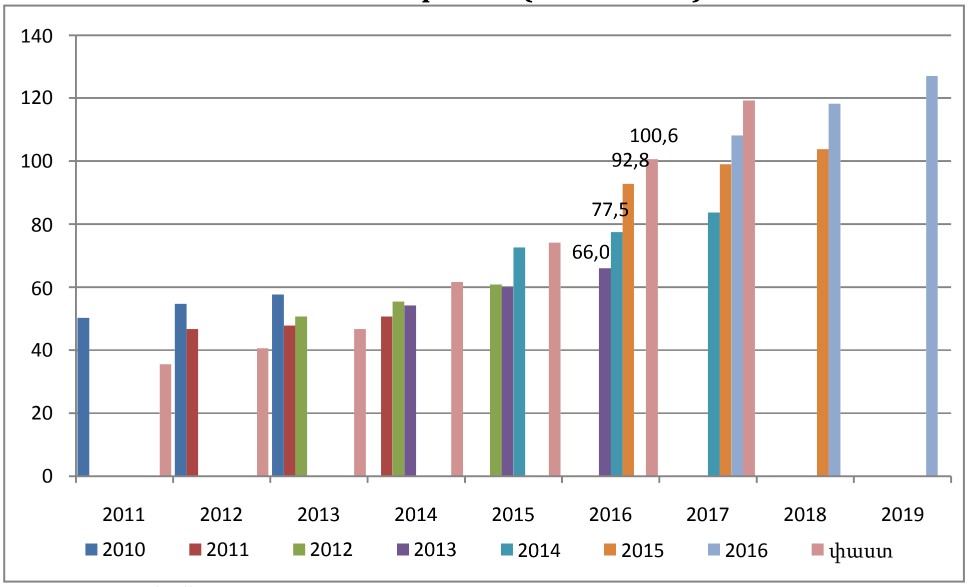
2.5. Analysis

As a result of decisions taken by the GOA over 2009-2015 it is more difficult to manage the public debt. Because of number of reasons it is difficult to forecast interest expenses for upcoming three years. First, the size of the public debt changes rapidly. In addition, the Ministry of Finance does not forecast the exchange rate and as a result any depreciation during the period between preparation of the medium-term expenditure framework (MTEF) and the preparation of the annual budget increases interest expenses payable. Figures 7 and 8 presents the impact of the decisions taken by the GOA on public debt forecasts. Before 2013 the Ministry of Finance was making conservative forecasts which means interest expenses forecasted during preparation of the next MTEF and the actually paid interests could decline. Starting from 2014 interest expenses forecasted in each next MTEF and actual interest expenses in general increase (figure 8). E.g., MTEF2014-2016 approved in 2013 envisaged interest expenses of AMD 66 billion in 2016. MTEF2015-2017 approved in 2014 envisaged AMD 77,5 billion in 2016. MTEF 2016-2018 approved in 2015 envisaged AMD 92,8 billion and finally the 2016 annual budget envisaged AMD 100,5 billion.

While until 2013 interest expenses envisaged in annual budget laws or actually paid interest were less than envisaged by the MTEF prepared in that year (that is, MTEF 2011-2013 approved by the GOA in July 2010 envisaged bigger amount than it was envisaged by the draft annual budget for 2011 submitted to the National assembly in October 2010) beginning from 2013 the situation changed and MTEF always underestimates interest expenses. This can be partly explained by some rigidity of the budget system as a result of which one exchange rate is used for all future years.

Foreign currency denominated debt is very sensitive to exchange rate fluctuations. As mentioned in the past (Kyurumyan, 2014) deterioration of public debt indicators of Armenia can be explained not only with the fact of large scale new borrowings but also by 23 percent depreciation of the national currency. Over 2009-2015 the GOA borrowed large amounts of money without having program of their utilization.

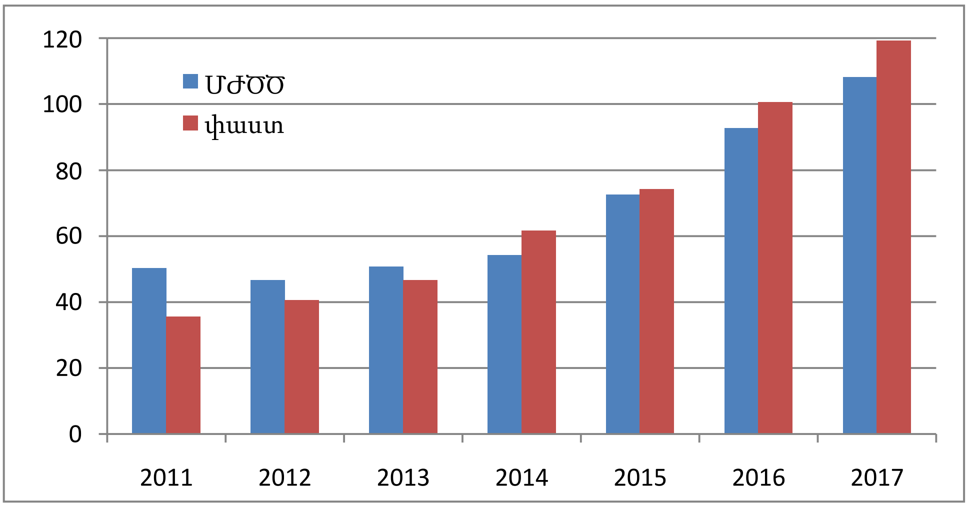
Figure 7. Interest expenses for the next three years envisaged by MTEFs of different years and actual interest expenses (AMD billion)



Source: MTEFs of different years and annual budget execution reports
Note: For 2016 and 2017 present data included in the 2016 annual budget law and the draft 2017 annual budget law

The GOA is not consistent in implementation of the public debt management strategy. In September 2013 the GOA issued Eurobonds despite the fact that it was not envisaged neither in its medium term expenditure program nor by 2013 annual budget law. In the future the GOA included in MTEFs general formulations about possibility of issuance Eurobonds without presenting to the public its assessment of their impact on Armenian economy, state budget and public debt.

Figure 8. Interest expenditures envisaged in the first year of medium term expenditure frameworks and actual or budgeted figures (AMD billion)



Sourse: medium term expenditure frameworks of different years and annual budget execution reports
Note: Data for 2016 and 2017 represents figures included in 2016 annual budget law or in the draft of the 2017 annual budget law

Funds borrowed in 2013 and 2015 are expenses and became a burden for the state budget. While the 7 year bonds issued in 2013 were placed at 6.25 percent the 10 year bond issued in 2015 was placed at 7.5 percent. While the coupon of the 2013 bond was 6.0 percent, which means the GOA has to pay USD 30 million annual interest until 2020 the coupon rate of the 2015 bond was 7.15 percent which means the has to pay USD 35.75 million interest every year until 2025.

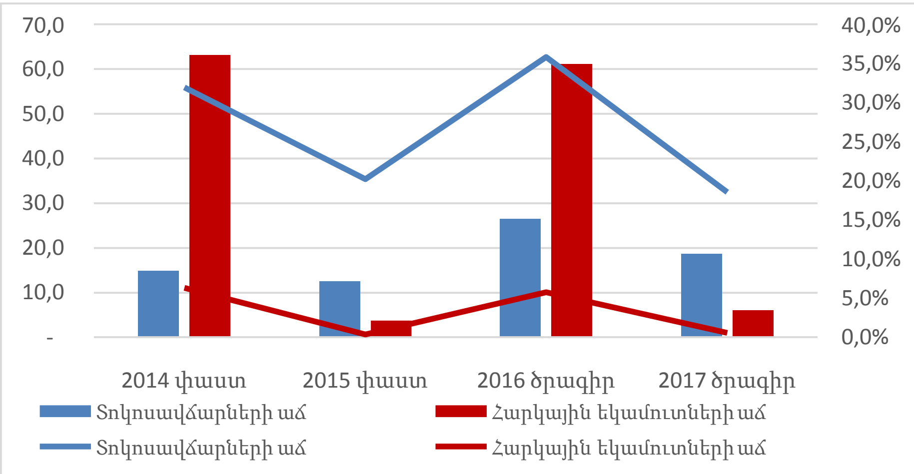
The average interest paid against the debt at the end of 2015 was 4.5 percent compared to 4.2 percent at the end of 2014. The average yield of domestically issued treasuries climbed in recent years. While at the end of 2014 the weighted average yield of outstanding treasuries was 13.49 percent at the end of 2015 it was 13.99 percent. The concessional loans received from international organizations still constitute the big part of the debt portfolio.

The GOA has to promote restrictive expenditure because of debt sustainability considerations which affects public investments. It is expected that public investments will decline by 4.7 percent in 2016. Private investment also declined in recent years. In coming years the GOA has to channel more public funds to debt payments (amortization of principal and interest) which will create obstacles for increasing funding to other sectors. Taking into consideration the fact that Armenia enters pre-election period it is highly probable that the GOA will succumb to pressures to increase expenditures and will again borrow large amounts.

Aggressive borrowing strategy not only shadowed the success of the preceding period but as highlighted by the IMF (IMF, 2016) the issuance of Eurobonds did not allow achievement of indicative target of debt concessionality specified in IMF program.

Interest expenditures: In recent years debt related financial flows increased dramatically. Interest expenditures increased by AMD 14.9 billion in 2014 compared to 2013, AMD 12.5 billion in 2015, according to 2016 annual budget will increase by AMD 26.5 billion and according to the draft 2017 annual budget by another AMD 18.6 billion.

Figure 9. Actual increases of interest expenditures and public revenues in 2014-2015 and forecasts for 2016-2017 (left axis, AMD billion, right axis, percent change over preceding year)

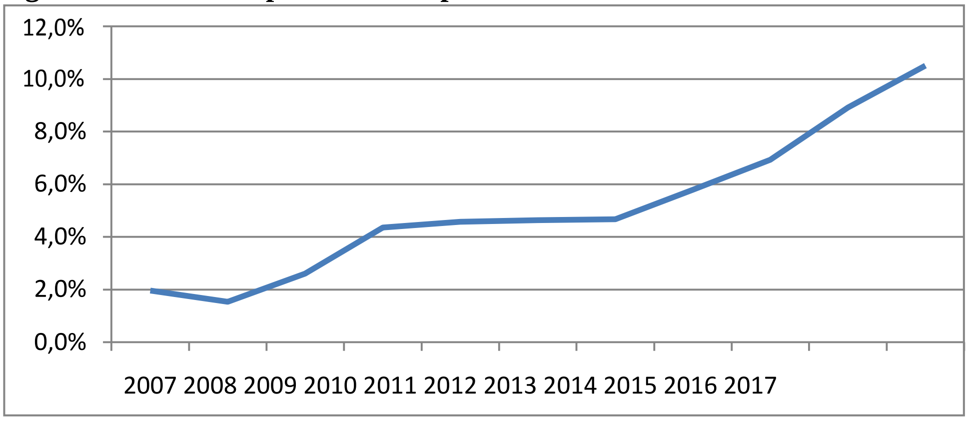


Sources: annual budget execution reports for 2014 and 2015, 2016 annual budget law, draft 2017 annual budget law

Impact of debt on economy. Within the framework of this research the impact of the debt on economy is assessed by reviewing indicators of economic growth and taxes. It is clear that the amount of taxes collected changes not only as a result of channeling borrowed funds into the economy and stimulating the economy but also because of other factors. However, if taxes did not increase substantially in short and medium term one must hope that they will increase in the long run as a result of efficient investment of borrowed funds. Over 2014-2017 (data for 2017 is based on the draft annual budget law) state budget revenues increased or they will increase by AMD 63.2, 3.8, 61.1 and 6.0 billion respectively. Government officials and analysts already mentioned that in 2016 government revenues will fall short by AMD 60-80 billion which means that the increase of interest expenditures will be bigger than the increase in actual revenue collected. Over the years specified above interest expenditures increased or it is expected that they will increase by 31.9, 20.2, 35.8 and 7.5 percent respectively while the tax revenues and state duties will increase respectively by 6.3, 0.4, 5.7 and 0.5 percent (figure 9).

According to the draft annual budget law for 2017 interest expenditures will absorb about 10 percent of tax revenues and duties (figure 10). In 2007-2008 only 1,5-2,0 percent of tax revenues and duties were channeled to interest expenditures. In coming years allocations to interest expenditures may increase because of three reasons: (1) if the public debt will grow; (2) if the interest rate paid against the public debt increases, and (3) if the Armenian dram depreciates.

Figure 10. Interest expenditures as percent of taxes and state duties

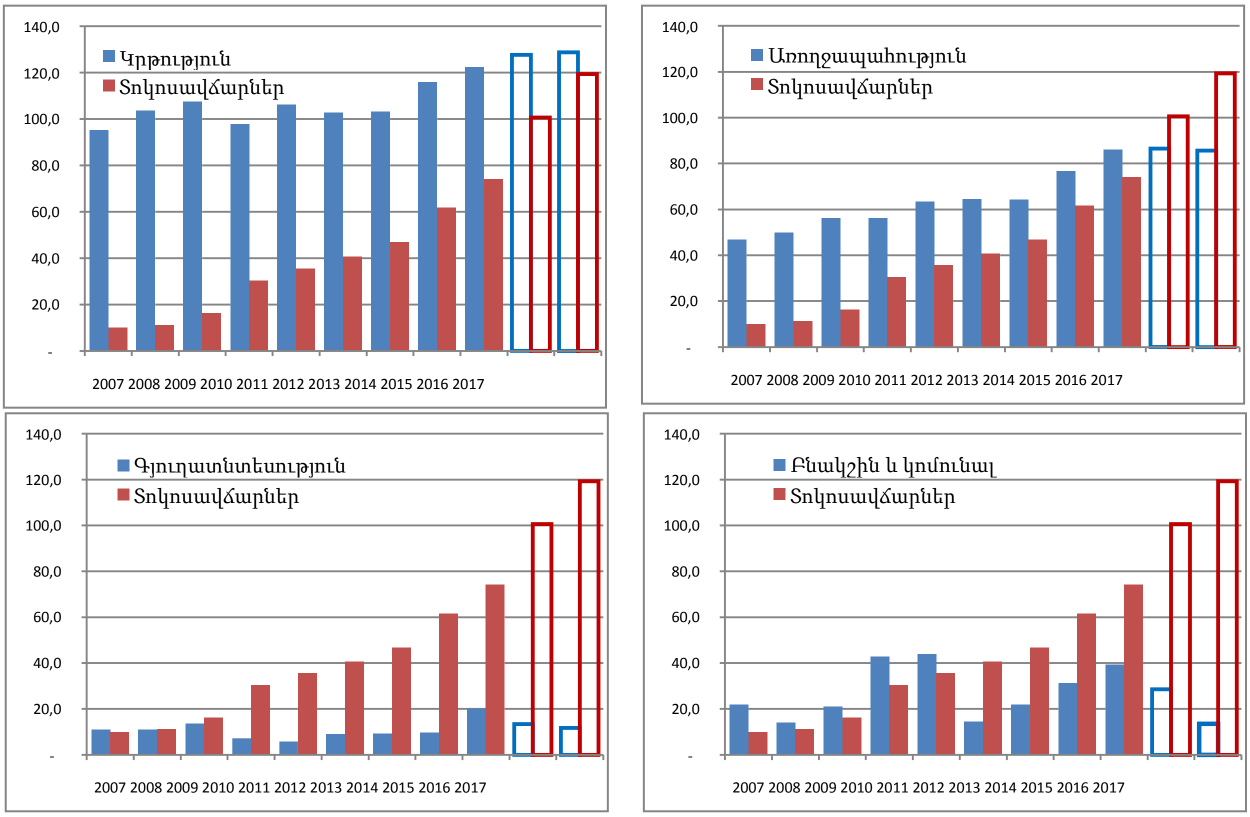


Source: annual budget execution reports for different years

In order to understand the dynamics of allocations to interest expenditures over the recent years we must compare them with actual (for 2007-2015) or planned (as envisaged by the law on state budget for 2016 or planned in the draft state budget for 2017) allocations to some sectors.

Interest expenditures absorb resources that could have been channeled to improve the welfare of socially vulnerable groups of population or to stimulate the economy. If we assume that the draft budget for 2017 will be approved and executed as it was submitted to the National Assembly then it will turn out that compared to 2007 in 2017 education financing increased by 35 percent, health by 83 percent, agriculture by 7 percent, while housing declined by 38 percent. Over the same period interest expenditures against public debt increased 11 times reaching AMD 119,3 billion in 2017 from AMD 9,9 billion in 2007 (comparable data is presented in figure 11).

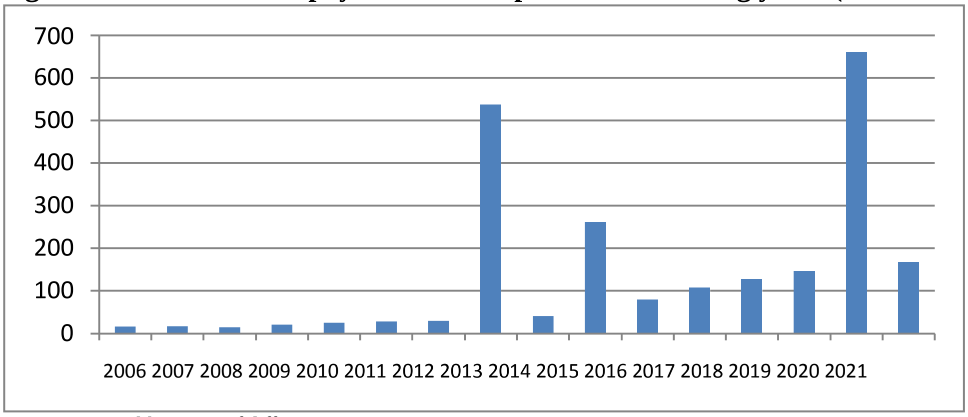
Figure 11. Funding of education, health, agriculture, housing and interest expenditures over 2007-2015 and the plans for 2016-2017 (AMD billion)



Amortization payments. Allocations for amortization of external public debt will also increase substantially in coming years. While until 2012 amortization payments were about USD 15-30 million annually over 2017-2019 they will fluctuate around USD 110-150 million and in 2020 will exceed USD 650 million (figure 12).

Over the past period the Armenian economy and state budget revenues did not experience such sharp increase. Payments of this size will require large allocations from the state budget and may shake the internal financial market. Compared to 2008 the Armenian economy did not grow sufficiently so that it will allow the state budget to easily pay against this grown obligations. Any sharp and substantial depreciation of the national currency will increase the burden on the state budget. The IMF and the GOA forecasts presented to the public did not envisage such an economic growth or increase of state budget revenues that will allow paying the USD 500 million Eurobonds in 2020 without shocks (as a result refinancing risks increase).

Figure 12. Amortization payments in the past and in coming years (USD millions)



Source: IMF publications of different years

The impact of the exchange rate of the Armenian dram on public debt. The real effective exchange rate of the Armenian dram is substantially overvalued. Over the first seven months of 2016 the Armenian dram appreciated by 6.2 percent compared to the same period of the previous year. In 2015 the Armenian dram appreciated by 10.6 percent compared to 2014. The real effective exchange rate appreciated by 6.3 percent in 2015 and by another 1.1 percent over January-July 2016. The above mentioned indicators hint that there is high probability of depreciation of Armenian dram in near future. Any irregular and sharp depreciation of the Armenian dram simultaneously in combination with deterioration of number of economic indicators may sharply increase the debt to GDP ratio and require bigger allocations from the state budget for amortization of public debt and payments of interest.

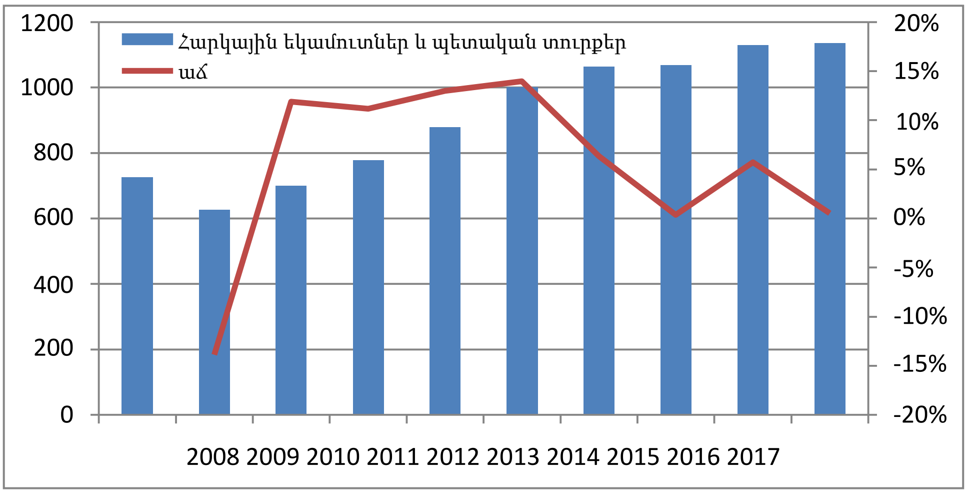
The previous cases of difficulties associated with public debt encountered by the GOA. The Republic of Armenia encountered public debt related problems in 2001-2002. The debt burden declined as result of debt to equity swap with Russian Federation. Over 1997-2002 Armenian public debt was fluctuating around 46-49 percent of GDP. Armenian public debt became a burdent now when the debt to GDP ratio is around 49 percent of GDP. One can assume that 47-49 percent of GDP is the threshold that the GOA may allow at current structure of economy. Taking into consideration that it is necessary to have some security reserve it is probably reasonable to keep the debt at lower level.

Impact of the debt on the economy and the efficiency of efforts of the GOA to stimulate the economy. The GOA does not have evaluation mechanism of efficiency of utilization of own and borrowed funds. It is not clear, what impact does the funds have on economy and development of different sectors. Over the last 20 years the GOA attracted grants and loans to fund infrastructural projects, stimulate the economy and improve the governance. However, according to Transparency International anticorruption center the public administration, the judicial system and the policy, the health and education systems remain the most corrupt. It is not clear how effective are these corrupt and other sectors in utilizing own and borrowed funds.

If efficiently utilized the programs financed with the help of funds borrowed by the government must stimulate the economy which will increase taxes. Of course the increase of taxes collected changes also as a result of other factors. However, taking into consideration the fact that in recent years interest expenses grow faster that taxes and duties one can claim that at least in the short and medium run (the three year period) the funds borrowed since 2013 did not have substantial positive impact on the Armenian economy.

The size of the debt. When evaluating the size of the Armenian debt one must take into account that when calculating the GDP the National Statistical Service (NSS) of Armenia includes also the estimate of the "non-obeserved economy" which is equal to 25 percent of GDP[8]. It means that the monitored GDP is about AMD 3774.1 billion. Public debt constitute 65.1 percent of monitored GDP.

Figure 13. Increase of tax revenues and state duties



Source: Budget execution reports of different years
Note: Data before 2012 includes also mandatory social payments

3. Conclusion

Public debt is the result of imbalances in fiscal policy. The debt increases because the state budget has deficit. Any government can have small budget deficit for long period of time without endangering the economic stability. Any government can have large budget deficit for short period of time without endangering economic stability. No government can have large budget deficit for long period of time without endangering economic stability. The sharp increase of the public debt is an evidence of large imbalances in fiscal policy. It means that the government takes on obligations that far exceed financial resources available to it. If the government doesn't take measures to correct the situation and doesn't reduce the budget deficit to 1.5-2.0 percent of the GDP immediately and keep it at that level in coming years awry adjustment may start that will hurt socially vulnerable groups of population. Properly managed fiscal adjustment will require either increasing state revenues or cutting the expenditures, or both. Increase of revenues is possible if the government reduces the shadow economy. Expenditure can be reduced by setting the priorities and cutting down non-priority expenditures.

Interest expenditures leap after large scale borrowings. Specifically, in 2010 interest expenses increased by 87 percent compared to the previous year (Armenia borrowed USD 500 million from Russian Federation in 2009), in 2014 increased by 32 percent (in 2013 Armenia issued Eurobonds in international market), by 20 percent in 2015 (in March 2015 Armenia placed its second foreign currency denominated bonds against which started to pay interest in September of the same year) and by 32 percent in 2016. Newly borrowed funds not only increase the debt but also changed the quality of debt because the debt portfolio is replenished with more expensive instruments and the debt is more sensitive to exchange rate fluctuations.

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[8] NSS methodology. Available in Armenian at http://armstat.am/Metadata/Pages_Armenian/SM/ArmSMNationalAccounts.htm and in English at http://dsbb.imf.org/Pages/SDDS/BaseSMReport.aspx?ctycode=ARM&catcode=NAG00&ctyType=SDDS

The GOA needs to be more consistent in implementation of debt policy. Technical documents prepared by the MOF (debt sustainability analyses of 2011 and MTEFs of different years) contain good analysis of debt and provide ample information about government upcoming plans. However, without analyzing of the impact of Eurobonds on Armenian economy, state budget and public debt provisions related to possible issuance of those instruments create uncertainty and endanger debt sustainability because the vague formulations that does not thoroughly scrutinize consequences of those action allow the GOA to issue new debt unexpectedly without including the possible expenditures associated with them in MTEF and the annual budget of the next year.

Funds borrowed by the GOA are channeled to sectors that according to publications of respected international organizations are highly corrupt. The GOA may develop indicators to assess the corruption and efficiency of utilization of public funds and distribute the additional public funds according to priorities and success in fighting corruption and improvement of indicators of efficiency of sectors (e.g., channel more resources to sectors that reduced the cost and prices of goods and services delivered, or use other indicators).

Irregular and sharp depreciation of the Armenian dram at the time of deterioration of other economic indicators can sharply increase the debt to GDP ratio, as well as require more resources from the state budget for debt payments (both amortization of the principal amount and interest).

Taking into account the fact that immediately or two months after publication of the next review carried out by the IMF mission the GOA engages in large scale transactions that were not envisaged in the tables presented in those reviews the role and credibility of the programs of the GOA with the IMF is not clear.

The size of the Armenian public debt is equal to 65 percent of “observed” GDP. The “non-observed” part of the economy is not tax and the revenue generated in the “non-observed” part of the economy cannot be used for amortization of the debt or interest payments. Probably the GOA must not allow the debt to approach 47-49 percent of the GDP and must keep it at much lower level (not exceed the 50 percent threshold of the “observed” GDP).

4. Recommendations

The debt of the GOA is becoming a burden for the state budget and taxpayers. The GOA needs to improve the strategic planning of public finances, analyse and present to the public the impact the large scale borrowings have on Armenian economy, the state budget and public debt.

Public debt management reports must present not only deviations from the state budget and the reasons but also deviations from the public debt management strategy.

It necessary to prepare and regularly present to the public debt sustainability analysis. The law must require regularly carrying out debt sustainability analysis and publishing the results.

The large part of the problems associated with the debt are the result of imbalances in fiscal policy. The GOA may reduce those imbalances either by increasing the revenues, reducing expenditures or doing both simultaneously.

The GOA must refrain from issuing new large volume debt until 2020 if it does not have a specific program of utilization of those funds. The budget deficit must be reduced to 1.5-2.0 percent of GDP at most. Interest expenditures already absorb large amounts of funds from the state budget. Any additional large scale new borrowing will increase the burden. The debt must be substantially smaller than 47-49 percent of the GDP. When evaluating the debt burden it is necessary also to evaluate its size related to “observed” economy.

In coming years Armenian fiscal and monetary authorities must take steps to assure stability and predictability of the Armenian dram. Sharp and unexpected depreciation can make payment against principal and the interest more difficult.

It is desirable for the GOA to develop own methodology of assessment of corruption in different sectors and channel public funds (revenues and borrowed funds) to least corrupt sectors or sectors that demonstrate success in the fight against corruption.

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