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FISCAL SUSTAINABILITY OF MACEDONIA ON ITS PATH TOWARDS THE EU

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1. Introduction

The 2008 global economic crisis exposed the importance of state fiscal intervention, and more than two decades of neoclassic paradigm and a non-fiscal domination paradigm, it brought back fiscal activism and the Keynesian ideas and measures at the top of government agendas. However, drastic worsening of many developed nations' fiscal state, as a result of a decreased economic activityand of various fiscal packages aimed at the financial sector and the economy as a whole, complemented by budgetary pressures from an aging population, activated debates on the size, sustainability and the consequences of budget deficits and public dept.

Recent events, particularly the conditions created by the European debt crisis under which, some EU member states faced difficulties in access to markets, confirmed that the challenges of fiscal sustainability are not only long-term, and are not typical only of developing countries, but are a real problem for developed countries with a growing public debt, stagnant economic growth, unfavorable demographic trends and obligations passed on by the financial sector. This imposed the sustainability of public finances (important for the creation of sufficient fiscal space to tackle future unfavorable macroeconomic shocks and with costs associated with an aging population) as one of the most important macroeconomic subjects for EU member states and candidates, according to its importance in maintaining EU's stability.

The subject of fiscal sustainability is relevant for the Republic of Macedonia which has a relatively low but growing level of public debt, that from the beginning of the crisis until December 2015 grew more than 20pp of GDP and reached 46.5% of GDP (38% of GDP state debt). Estimation of fiscal sustainability is an infallible part of analysis carried out by international financial institutions (IMF, World Bank) in countries of interest, including Macedonia. This is particularly important taking into account the growth tempo of Macedonia's

debt, its structure, and efficiency of fiscal politics, one of the key indicators for assessment of our stability on the path towards the EU.

In context of the above, this paper defines the concept of fiscal sustainability, presents the problem's relevance for developed countries of the European debt crisis case, and lastly, elaborates Macedonia's fiscal politics, public debt, and fiscal sustainability.

2. Concept of fiscal sustainability

Often times when fiscal sustainability is mentioned, it is about the country's solvency. In that sense, **fiscal sustainability**^I can be defined as the country's ability (theoretically) of indefinitely maintaining current fiscal politics without the need of changes in public spending or taxation, in order to influence the primary budget balance; and such a policy can be maintained indefinitely without continuous growth and excessive debt accumulation(EC, 2015; IMF, 2009; Greene, 2012). It follows that a continuous growing and/or extremely high coefficient of debt is unsustainable (Balassone et al., 2009; Afonso, 2005). Theoretically, the concept of sustainability is often linked with satisfying the interim budget limitation according to which the total of the current value of primary budget surpluses has to be at least equal to the initial debt (Chalk and Hemming, 2000; IMF, 2002). In the case of EMU's Stability and Growth Pact, according to Balassone and Franco (Balassone and Franco, 2000), sustainability can be seen as "the non-breaking of arbitrary predefined parametric standards"

Fiscal unsustainability implies that the existing fiscal policies cannot continue indefinitely and, sooner or later, adaption will be necessary. Otherwise, public debt will explode (Cottarelli, 2012). Usually, the later determined unsustainability and necessary adaptation are very costly due to the loss of trust among participants in the financial markets. Thus, the focus of fiscal sustainability analysis is often times on the consequences from the required changes in policies.

2. Why fiscal sustainability on the path towards the EU – The European debt crisis

The fiscal stimuli as a response to the global financial and economic crisis caused a serious problem for the Eurozone and many countries infringed on the established Maastricht

¹Fiscal sustainability had been discussed long ago and it is intuitively clear that a policy is sustainable when it prevents bankruptcy, but there is no clear and widely-accepted analytical and operative definition on what constitutes the sustainable position of debt (review of definitions in Balassone and Franco, 2000).

criteria by which the deficit shouldn't pass 3% of GDP during normal times, whilst public debt 60% of GDP.²

Economic growth disappointed in the EMU. The Eurozone barely achieved growth in 2008, and entered a recession in 2009 with a fall of GDP of 4.4%. However, the European debt crisis is caused by other factors as well: a lack of common fiscal policy; great disparities in the level of development among countries from the center and the periphery; great financial instability in some countries; disagreements among member states about the direction of fiscal policies, etc. (Fiti and Tashevska, 2013).

EMU is the only example in the world of the existence of a common monetary region but without a common fiscal policy, banking union and political union (Balassone et al., 2009; Lane 2012). The Maastricht criteria and the Stability and Growth Pact (SGP) have been established in order to discipline fiscal governments of member states and were meant to serve as a replacement for a common fiscal policy in the EMU. However, without efficient control over public spending in some EMU countries, fiscal rules weren't followed(Fiti and Tashevska, 2013). Budgetary discipline in a monetary union is very important since fiscal expansion of an undisciplined country causes negative externalities in other countries in the zone, while the absence of a central fiscal organ creates conditions for the existence of a moral hazard and chronic deficit in certain countries. The possibility for countries to borrow in a common currency causes problems of a free ride until there are incentives to save heavily indebted countries. The crisis confirms that the existence of a monetary union without a common fiscal policy is unsustainable (Bosomworth, 2012). These are some of the reasons why it is important to devote attention to mechanisms that sustain the stability of public finances in each country that aspires to join the EU and which will have a share in the stabilisation/destabilisation of the macroeconomic environment in the Union.

The seriousness of the crisis in the Eurozone caused disrespect of SGP's clause according to which problematic countries should not be bailed out. Greece was the first to receive a bailout package from the EU and the IMF in May 2010, followed by Ireland, Portugal, Spain, and Cyprus. The ECB took unconventional monetary measures of support for the European system, such as the buying of public debt of problematic countries. Later, a set of measures and activities were taken: the EU and the IMF formed a European mechanism of financial stability to aid

²European countries were exposed to various reasons for debt growth: some had a traditionally high public debt – Greece, Portugal and Italy, while in some, the aid for private and the banking debt led to rising public debt – Spain and Ireland(Semmler and Semmler 2013, Fiti and Tashevska, 2013).

problematic countries. The countries agreed a Europact, a European semester (a timetable for all monitoring elements, including fiscal, macroeconomic and structural policies), signed a New Fiscal Compact as part of the Stability, Coordination and Stability Treaty with the EMU, etc. Pressed by fiscal rules and the pressure of financial markets, European countries took on fiscal contraction during conditions of deep negative production gaps. Some authors are against the implemented fiscal consolidation i.e. a fiscal austerity policy during conditions of recession, warning that it can cause nervousness in financial markets, added by its restrictive effect on the GDP that can reduce the deficit reduction, even cause the debt coefficient to rise if the beginning debt level and fiscal multiplicators are high, and the real time for consolidation is the boom and not the fall(example. Krugman, 2010; Cafiso and Celini 2012; DeLong and Summers, 2012).

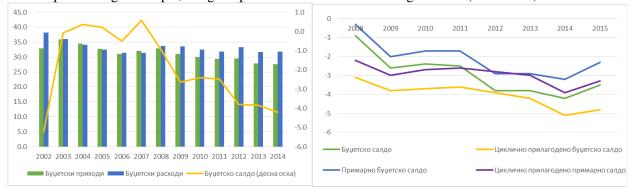
The European Commission's report (EC, 2015) on the EU's fiscal sustainability, states that current conditions of low inflations and modest growth of the realistic GDP (1.9% in 2015) hinder the debt reduction, and fiscal consolidation is required, mainly by cutting unproductive public spending and increasing efficiency of public expenditure. Low interest rates lower debt service costs and facilitate the reduction of debt burden. Despite lowered risks to fiscal sustainability regarding the beginning of the crisis, there are serious mid-term and long-term challenges, mainly due to the high amount of accumulated debt and projected growth of costs associated with an aging population.

4. Fiscal policy, public debt and fiscal sustainability in the Republic of Macedonia

Before the Global crisis, the Republic of Macedonia was characterized by stable growth rates (ave. 5% in 2004-2008); reduced unemployment; soft inflation and deflation rates in 2004 (-0.4%) and in 2009 (-0.8%); an almost balanced budget (a surplus in 2004, 2005 and 2007); modest public debt (reduced public debt of just 23% of GDP in 2008); a significant level of international reserves; a small and well-capitalized banking system with limited dependency on external financing, and more on home deposits which reduced exposure to global financial conditions; positive signals for potential investors and business partners from progress on EU integration by becoming a candidate country; great deficit on the current account – the main vulnerable spot at the beginning of the crisis.

The fiscal policy prior to the crisis was oriented toward the creation of conditions for higher economic growth though the stimulation of aggregative offer and demand: in 2007, legal reforms were passed which introduced flat tax; tax exemption was also introduced with an amount of reinvested profit; with GDP there was an introduction of a 5% tax on some products; in July 2008 a measure was passed that saw the reduction of social benefits for 10 pp;³in 2005, Macedonia borrowed under favorable conditions from global capital markets by issuing the first Macedonian Eurobond used as repayment of capital to the London Club⁴.

Graph 1. Budget receipts, budgetexpenditures and balanced budgetof RM (% of GDP)



Source: Ministry of Finance of the Republic of Macedonia, NBRM

Budget revenues	Budget balance
Budget expenditures	Primary budget balance
Budget balance (right axis)	Cyclic adjusted budget balance
	Cyclic adjusted primary balance

However, Macedonia was not immune to the crisis. As a small and open economy, it is especially vulnerable to external shocks from changes to economic activity in neighboring countries, particularly in EU countries as its main trade partners. Due to the insufficiently developed financial markets in the region and in Macedonia, the crisis arrived, first, through the real sector, through reduced demand for exports (for the crisis' transmission see Trenovski, 2013; Fiti and Tashevska, 2013).

The fall of economic activity in the country was first felt with the reduction of budget revenues and the 2007 surplus (0.6% of GDP) turned into a deficit of -0.9% of GDP in 2008 and

³The reduction of tax rates (however, a widening of tax ambit) and benefits payment rates, primarly increased public revenue as % of GDP (Trenovski, 2013).

⁴In2009 a new Eurobond was issued, but now under more unfavorable conditions –its interest rate was almost two times higher than the one in 2005 and was 9.875% on an annual level.

a primary deficit of -0.3% of GDP (graph 1, right image). The fiscal impulse was around 3% of GDP. The expansive discreet fiscal policy implemented by the Government in 2009 (anti-crisis packages to facilitate the effects of the crisis, increasing potential growth of the economy, improving living standards, and protection for vulnerable groups), despite contributing to the limiting of the economic fall to just 0.4% in 2009, led to the deepening of the budget deficit, to a level of -2.7% of GDP in 2009, whilst the primary deficit reached -2.2% of GDP.It is logical during conditions of a fall in economic activity to implement fiscal stimuli, especially when the monetary policy has its hands tied (here due to the fixed exchange rate). The monetary policy was tightened in order to reduce the pressure on the foreign currency reserves.⁶ Most often, the fiscal and monetary policy act in the opposite direction as strategic substitutes, especially visible with the expansive fiscal policy, when the restrictive monetary policy neutralized a part of the stimulating effect (Bedjeti 2010; Trenovski, 2013; Trenovski and Tashevska, 2014). In 2010 the fiscal policy was aimed at the gradual tightening of the budget deficit mainly through the adaptation of public spending; however, in recent years, the budget deficit had deepened, reaching -4.2% in 2014 and 3.5% of GDP in 2015. The 2011-2014 period is characterized, once again, by a structural deficit and positive fiscal impulse, indicating an expansive discreet fiscal policy, while in 2015, there is a negative fiscal impulse (see NBRM, 2016). The IMF (2015) expect the deficit to remain over 3% of GDP in the mid-term, should there be no changes in policy.



Graph 2 Structure of public expenditures of the Republic of Macedonia (in %)

⁵The primary balance is more appropriate when analyzing the current course of policy and when examining the efficiency of the discreet fiscal policy because it doesn't include the interest rate costs which aren't dependent on current decisions by the Government, but arise from previous obligations.

⁶The increased offer of state bonds to finance higher public expenditures and NBRM's efforts to stop the growth of inflation encouraged growth of interest rates of MF and NBRM, and they reached the peak of 9% in mid-2009.

⁷This decrease is largely due to the increased public revenues, partially due to the reintroduction of non-reinvested revenue tax, as well as the efforts to improve tax payment.

Source: MF and NBRM.

Macedonia's public revenues are in a downward trend and are among the lowest in Europe in relation to the GDP. They were reduced from 33.8% of GDP in 2007 to 27.8% in 2014, among the lowest in the region due to lowered revenue tax rates and income tax rates, as well as social security benefits. The relaxing of fiscal policies and fiscal stimuli increased public expenditures to 34.1% in 2008 and 34.2% in 2012 (31.8% in 2004). Despite the level of public expenditures not being worrying, their structure isn't favorable to growth. Current expenditures make up around 90% of the total budget expenditures (graph 2). Social benefits have increased as a GDP percentage, and pension growth (they were 9% of GDP in 2015), together with the effects from an aging population and the outflow of young qualified workers will cause further pressure on the budget. The country carried out several successful pension reforms in the past two decades, however, they aren't enough to prevent the growth of expenses. Doemelandet al (Doemeland et al., 2015) point out the low efficiency of public spending. The role of capital investments in the total budget expenditures increased to 10.1% in 2014 (14.4% in 2008). But they also carry many unproductive costs; while large sums of money end up abroad from where they have no multiplicative effect on the home economy. The research and development and education expenditures that support growth have a particularly low share in the total budget expenditures.

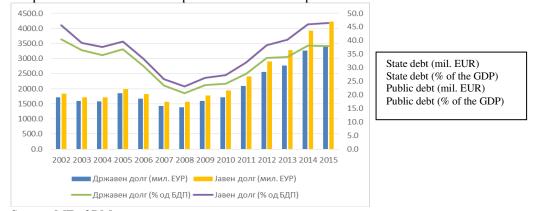
4.1 Public debt

The 2000-2008 period is characterized by continuous decline of public debt from 47.9% of GDP to the lowest level of 23% of GDP in 2008, while the 2008 public debt was 20.5% of GDP (graph 3). Strong domestic demand, favorable lending conditions, helped the acceleration of economic activity. The correlation of the economic growth rates and public debt interest rates were sufficient, while a policy of fiscal discipline and primary balance (small surplus) was also carried out. The earnings from privatization, especially of ESM-distribution (225 million EUR in 2006) also played a big part. In 2007 the debt to the Paris and the London Club was paid, parts of the debt to multilateral creditors, and two structural bonds.

However, from 2008 the debt began to rise as a result of worsened economic conditions and the Government's expansive fiscal policy. The country's borrowing, especially from abroad,

⁸Doemeland et al. (Doemeland et al., 2015)point out that the policy of the SDI to intensify employment and growth, contributed to the decline of the correlation between revenues and GDP due to tax breaks.

became an important source of assets to cover public expenditures (the borrowing from abroad has increased from 1.1% in 2004 to 10.2% in 2013). In August 2014, Macedonia took out a 36.4million-euro loan for competition development policies, financed by the World Bank. In 2014 public debt reached 45.9% because the Government issued a 500-million-euro bond under very favorable conditions (3.975%, 7 years) and thus completely, early financed the 15-million-euro bond, and carried out payments to the IMF in 2015 (154 million EUR). Public debt was reduced in the first half of 2015 to 43,7% of GDP. Nevertheless, the issuing of a new Eurobond of 270 million euros and increased borrowing at home of 94 million euros caused the country's debt to be 38% of GDP, while the total public debt 46.5% of GDP, which is an increase of 23.5pp compared to 2008 (23% of GDP). Public debt is becoming increasingly different to the central bank's debt due to certain capital expenses being transferred from the budget to public companies (e.g. the Government dislocated a big share of road infrastructure projects from the budget by transforming the former Roads Fund into a Public Enterprise for State Roads), and due to the support in financing of small and medium-sized companies by the MBDP, whose debt rose from 0.4% of GDP in 2009 to 2.2% in 2012 and reflects the use of lines of credit secured from the European Investment Bank. The public debt of state companies increased from 2.6% of GDP in 2009 to 7.7% in 2014. In the future, it is important that spending and borrowing of the PDS to be estimated as part of fiscal risks and sustainability of the government's debt. (Doemeland et al., 2015)



Graph 3. State debt and total public debt of the Republic of Macedonia

Source: MF of RM.

The maininstigator of debt growth is the central government's primary deficit (2.5% on average in 2009-2014), as a result of fiscal measures and automatic stabilizers, the borrowing by state companies, the real interest rates (due to low inflation) etc..Only the growth of GDP went in the other direction but with smaller intensity compared to the pre-crisis period.

The debt structure reveals some risks: a growing share of short-term debt and a high percentage of debt denominated in a foreign currency. A larger part of the debt is external, while the larger percentage of debt in foreign currency attracts a foreign currency risk, something that is important for a country like Macedonia with a de facto fixed exchange rate. A shock to the exchange rate can increase the liabilities expressed in domestic currency and the liquidity problems, with a negative effect on the country's risk premium.

4.2 Macedonia's fiscal sustainability

Despite its growth, the public debt is among the lowest in Europe (the average of SSE in 2014 is 52.6% of GDP) and it is on a significantly lower level than the one established by the Maastricht criteria of 60% of GDP. Nevertheless, the accelerated dynamic of its growth at the start of the crisis (the debt doubled in the 2008-2015 period) presents a cause for concern, and imposes the need for higher caution in the management of public finances in order not to endanger their sustainability (a warning also given by the IMF and the World Bank). Also because of the awareness that in countries with lower incomes, the negative implications of public debt (consequences for macroeconomic stability, decreased capital earnings and financial limitations on the private sector) appear on a lower level of indebtedness. (Presbitero, 2010; Reinhart and Rogoff, 2010).

There aren't many empirical analyses that touch on the problem of Macedonia's fiscal sustainability. We can mention Tashevska (2015), Trenovski and Tashevska (Trenovski and Tashevska, 2015), Doemeland et al. (Doemeland et al., 2015), reports on Macedonia by the IMF. Below, we give a review of some of results of those analyses.

The growth of budget revenues doesn't fully follow the growth of budget expenditures i.e. they diverge, implying that their development doesn't help the decline of the country's indebtedness (Tashevska, 2015⁹). That study also shows that the growth of revenues causes a successive growth of the expenditures, implying that they aren't used to narrow the budget deficit.

A way to determine fiscal sustainability is by estimating the reaction of the primary budget balance when the level of debt changes. Trenovski and Tashevska (Trenovski and Tashevska,

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⁹There is a co-integration among budgetary revenues and budgetary expenditures which meets the condition of a so-called "weak" alternative of fiscal sustainability. But the co-integration coefficient (b<1)shows the budget expenditures grow over-proportionately in relation to budget revenues.

2015) and Tashevska (2015) find a negative reaction of the primary balance during a short-term shock to the debt, and conclude that the indebtedness level has no deciding meaning when determining the fiscal position, in spite of the fact that during a longer period, the primary balance does react to the higher debt. But in order to prevent debt accumulation, a faster reaction by the primary balance is required.

Most often, debt sustainability is analyzed by projecting its future trend. Economists from the World Bank (Doemeland et al., 2015) are projecting that the central government's gross debt will stabilize at around 40% of GDP by 2019, while public debt will surpass 53% of GDP, within the current scenario which forecasts that the Government will implement the planned path of fiscal consolidation (decreasing fiscal deficits from 4.2% in 2014 to 2.9% by 2017), stated in the Medium-term Fiscal Framework 2015-2017. This borrowing trend is confirmed by reports from the IMF, where the last one (IMF, 2015) predicts that the general government's debt will reach 45% of the GDP by 2020, while the total public debt will be 54% of GDP (graph 4).

The Government of the Republic of Macedonia (2015) predicts the public debt in 2018 to reach 52.4% of GDP, while state debt 41.5%, which is similar to the basic scenario in Tashevska's projections (2015)¹⁰. The projected fiscal trend mainly comes from the high primary deficit, and is partially neutralized by the favorable perspectives of growth. The total public debt will increase rapidly, primarily due to higherspending by state companies.¹¹ A weaker GDP growth will negatively impact the share of debt through the lower denominator (nominal GDP) and with the worsening of the budget balance as a result of the automatic stabilizers which can cause for the debt to endanger the threshold of 60% of GDP. The same can occur if there is no success in the implementation of fiscal consolidation, while the primary balance maintains a level of around -3%, or if all investment projects are implemented, without changes to the pension policy. It can be concluded that all debt projections point to a growing trend and caution in further management of public finances. (Doemeland et al., 2015; IMF,2015; Tashevska, 2015) Graph 4. Projections on the debt's high dynamic (% of the GDP)

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¹¹The debt of state companies is predicted to rise to 14.4% by 2019 (Doemeland et al., 2015)

¹⁰Tashevska (2015), with the aid of stochastic simulations of the central bank's debt, based on the methodology by Garcia and Rigobon (Garcia and Rigobon, 2004), estimates a debt growth of over 40% of GDP by the end of 2017.



State debt (IMF)
Debt of the Central Government (WB)
Public debt (Government of the RM)
Public debt (IMF)
Public debt (WB)

Source: IMF (2015); (Doemeland et al., 2015), Government of the Republic of Macedonia (2015)

The accelerated pre-crisis growth dynamic of public debt imposes the need for a good medium-term fiscal strategy of consolidation. In order to secure debt sustainability, the central bank's primary deficit should be gradually reduced, primarily to stabilize the debt, and then to build fiscal buffers. According to the IMF's estimates,in order to stabilize the debt, it is necessary to reduce the central bank's primary deficit of around 1.6% of GDP(IMF, 2015).

The Government predicted fiscal consolidation by tightening the budget deficit to -2.6% in 2018. (Government of RM, 2015), and fiscal rules that should come into force from 1 January 2017, with a budget deficit ceiling of 3% of GDP and public debt ceiling of 60% of GDP. Nevertheless, according to the IMF (2015), an even lower debt limit would help Macedonia create a sufficient fiscal space in order to respond to future challenges from macroeconomic shocks and from medium-term pressures associated with an aging population, while simultaneously lowering the risks of increased needs for financing.

Conclusion

Macedonia's public debt is among the lowest in Europe (by the end of 2013, the state debt was 34,2 % of GDP, while the total public debt 40.5% of GDP). While on a moderate level, the pre-crisis accelerated dynamic of debt growth attracts the need for a good medium-term fiscal strategy of conciliation. The smaller threshold of debt tolerance of countries with lower wages should be taken into account. The risk of non-payment of debts has a tendency to grow along with the debt, however, which level of computability with fiscal sustainability is acceptable remains a matter of estimation. Nevertheless, the empirical analyses of developing markets show that countries can enter the debt crisis even if the debt is surprisingly low. In 55% of countries

with medium income, when not complying with debt liabilities, their public debt was under 60% of GDP; and in 35% was less than 40% (Doemeland et al., 2015).

Based on our analysis, we can make the following recommendations for an economic policy in Macedonia:

- While the level of debt is not very high, measures of gradual fiscal consolidation are required, in order for a fiscal space to be created. It is recommendable that each over-performance of revenue i.e. accrual surplus, to be used to lower public debt. To ensure debt sustainability, the primary deficit should gradually decrease, in order to stabilize the debt, and then build fiscal buffers;
- -The consolidation would be best achieved by cutting current expenditures, since they have smaller multiplicative effects and a smaller negative effect on economic growth (see Trenovski, 2013). According to the WB (2016), reforming the amount and targeting the pensions and social benefits is crucial for an effective medium-term fiscal consolidation. Priorities should be established, in terms of capital expenditures, while public investments should be directed toward large infrastructural projects (roads, modernizing the railroads, gasification), which significantly lowers business costs, and toward research, development and education, which encourages growth;
- The low taxation level attracts investments and creates jobs. Since the maintaining of low and flat tax is the Government's strategic decision, the increase of budget revenue can be achieved by creating a fiscal policy for structural and tax reformation: the expansion of the tax base and its ambit, as well as improving the efficiency of tax collection (further decrease of the grey economy and its officialisation/covered by tax regulations);
- Good coordination between fiscal and monetary policy is needed. Fiscal policy cannot achieve the required goals without the support by the monetary policy; but when determining the course of action and the measures taken, the monetary aggregates should also be taken into account;
- Since the largest share of the debt is in foreign currency and abroad, in order to maintain the value of the denar, reforms are needed to stimulate exports, which is a key factor for improving the growth dynamics, and also carries a larger inflow of foreign currency;
- The expectations of economic subjects should be heeded, because if they expect larger fiscal contraction in the future (or perceive the fiscal policies are unsustainable in the long term) as a

- result of today's increased public expenditures, they will react by saving more and investing less;
- The sustainable level of debt also depends on the successful implementation of more effective macroeconomic policies and strucutral reforms that encourage economic growth, a more fiscal transparency and good management of public debt, through a prudent fiscal framework.

Bibliography

- Afonso, A. (2005) "Fiscal sustainability: The unpleasant European case". FinanzArchiv 61:19–44.
- Balassone, F., Cunha, J., Langenus, G., Manzke, B., Pavot, J., Prammer, D. and Tommasino, P. (2009) "Fiscal sustainability and policy implications for the euro area", Discussion Paper Series 1 No. 2009, 04, Volkswirtschaftliches Forschungszentrum der Deutschen Bundesbank.
- *Balassone*, *F. and Franco*, *D.* (2000): "Assessing Fiscal Sustainability: A Review of Methods with a view to EMU", Fiscal Sustainability, Banca d'Italia, 22-60, Rome.
- *Blanchard, O.* (1990). Suggestions for a new set of fiscal indicators. *OECD Economics and Statistics Department Working Papers*, No.79, OECD Publishing.
- Bosomworth, A. (2012) "The Eurozone Sovereign Debt Crisis Status Quo, Challenges and Prerequisites for aSolution from an Asset Manager's Perspective", in *The Interaction of Political, Fiscal and Financial Stability: Lessons from the Crisis*, (Gnan, E.), Vienna, 2013.
- *Cafiso, G. and Cellini, R.* (2012) "Evidence on Fiscal Consolidations and the Evolution of Public Debt in Europe", CESifo Working Paper No.4027, December 2012
- *Cottarelli* (2012) Fiscal outlook and fiscal sustainability risks. Financial Stability Review, No.16, April 2012, Banque de France, pp.17-28.
- *DeLong, J. B. and Summers, L. H.* (2012). "Fiscal Policy in a Depressed Economy". In Spring 2012 Conference on the Brookings Papers on Economic Activity (BPEA).
- **Doemeland, D., Shimbov, B., Davies-Cole, N.S.**(2015) FYR Macedonia Public expenditure review: fiscal policy for growth. Washington, DC: World Bank.

- *Fiti, T. and Tashevska, B.* (2013) "The European debt crisis and its implications on the Macedonian economy", *CEA Journal of Economics*, Vol. 8, No. 1, pp. 25-42.
- *EC* (2016) *Fiscal Sustainability Report 2015*, European Economy, Institutional Paper 018, European Commission.
- *Greene*, *J.E.* (2012) *Public Finance: An International Perspective*, World Scientific Publishing Co. Pte. Ltd., Singapore.
- IMF (2002), Assessing Sustainability, International Monetary Fund, Washington DC.
- IMF (2015) Former Yugoslav Republic of Macedonia: Staff Report for the 2015 Article IV Consultation, 10 August.
- Lane, P. R. (2012) "The European sovereign debt crisis", The Journal of Economic Perspectives, 26(3), 49-67.
- *Presbitero*, *A. F.* (2010, November 12). Total public debt and growth in developing countries.
- Reinhart, C. and Rogoff, K. (2010) "Growth in a Time of Debt", NBER Working Paper No. 156.
- *Semmler, W. and Semmler, A.* (2013). The Macroeconomics of Fiscal Consolidation in the European Union. Available at SSRN 2320198.
- *Spilimbergo, A. Symansky, S., Blanchard, O. and Cotarelli, C.* (2008) "Fiscal Policy for the Crisis", *IMF Staff Position Note*, available at: http://ssrn.com/abstract=1339442.
 - **Trenovski, B., & Tashevska, B.** (2015). Fiscal or monetary dominance in a small, open economy with fixed exchange rate—the case of the Republic of Macedonia. *Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu*, *33*(1), 125-145.
- Trenovski, B. (2013). The Key Macroeconomic Policies In Terms Of The Global Economic Crisis. Center for Economic Analyses—CEA, Skopje, 296.
- Trenovski, B. (2013). Optimal Macroeconomic Policy In Macedonia—in terms of the global economic crisis. *Center for Economic Analyses–CEA, Skopje*, 165.

- World Bank (2016) South East Europe regular economic reportno. 9: Rebalancing for stronger growth, Washington, D.C., World Bank Group.
- Government of the Republic of Macedonia (2015) Fiscal Strategy of the Republic of Macedonia 2016-2018.
- NBRM (2016) Annual Report for 2015, National Bank of the Republic of Macedonia.