



Faculty of Economics, University of Niš, 16 October 2015

International Scientific Conference

**CHALLENGES IN BUSINESS AND ECONOMICS:
GROWTH, COMPETITIVENESS AND INNOVATIONS**

**PUBLIC DEBT AND ECONOMIC GROWTH
IN THE REPUBLIC OF MACEDONIA**

Blagoj Gorgievski *

Magdalena Stanokovska *

***Abstract:** The literature shows that debt has a negative impact on growth through a standard crowding out effect, but back-of-the envelope calculations indicate that this effect is quantitatively small. While uncertainty and policy credibility may amplify the negative effect of crowding out, hysteresis can lead to a situation in which expansionary fiscal policies have positive effect on long-run growth. In our view, future research on the links between public debt and economic growth should focus on cross-country heterogeneity and on the mechanisms and transmission channels through which public debt may hinder economic growth. Addressing the latter point would require a unified theory aimed at explaining under what conditions and through which mechanisms debt may reduce economic growth. R. Macedonia should continue to keep a proactive policy to create agregme demand through financing public investments during the global crisis. It as secondary indebted country still has possibility to increase the public debt but the very careful way.*

***Key words:** budget deficit, public debt, economic growth*

1. Introduction

The literature shows that debt has a negative impact on growth through a standard crowding out effect, but back-of-the envelope calculations indicate that this effect is quantitatively small. While uncertainty and policy credibility may amplify the negative effect of crowding out, hysteresis can lead to a situation in which expansionary fiscal policies have positive effect on long-run growth.

However, causality is hard to establish and, in our reading of the empirical evidence, there is no paper that can make a strong case for a causal relationship going from public debt to economic growth. Our finding that there is no evidence of a causal negative

* State University "St. Kliment Ohridski", Bitola, Faculty of Law, Macedonia;
✉ blagoja.gorgievski@uklo.edu.mk, magdalena_stankovska@hotmail.com
UDC 336.27+330.35(497.7)

relationship going from debt to economic growth does not mean that debt does not matter, and that countries should run profligate fiscal policies. First, saying that there is no evidence that debt is bad for growth is different from saying that there is evidence that debt does not matter for growth. Second, we think that the relationship between debt and growth is heterogeneous across countries and time periods and that future research should focus on these sources of heterogeneity.

Sovereign debt can help developing countries. It enables their governments to facilitate growth take-offs by investing in a critical mass of infrastructure projects and in the social sectors when taxation capacity is limited, or when the alternative would be to print money and compromise macroeconomic stability. Debt also facilitates tax smoothing and counter-cyclical fiscal policies, essential for reducing output volatility; and it permits an equitable alignment of benefits and costs for long-gestation projects by shifting taxation away from current generations.

Fiscal policy in R. Macedonia will be aimed at supporting economic growth and preserving price stability. It leaves out maintenance in a controlled budget deficit at moderate levels of around 2% -3% of GDP, in order to deliver significant capital investments and projects, most notably in transport, energy, communal, educational and health infrastructure. This level of budget deficit will allow the maintenance of a moderate level of indebtedness.

Simple back-of the envelope calculations suggest that debt may have a negative effect on growth, but the effect is likely to be small. More sophisticated models yield uncertain results on the relationship between debt and growth and show that the link between debt and growth depends on many cyclical and structural factors. These considerations suggest that trying to estimate a single debt coefficient that holds for all countries and all periods may be mission impossible.

According to the literature, fiscal consolidation based on spending cuts is more effective and has a more favourable impact on economic growth in the long term than that based on a rise in public revenues. That is particularly the case if the budget restraint applies to spending other than that which is generally considered productive, such as expenditure on investment, education, research and innovation. The scale of the impact of consolidation on economic activity will depend on the use made of the money saved by budget austerity.

The acceleration in the pace of decline in GDP in R. Macedonia in nineties of the last century is a reflection of a deep economic depression, disintegration of the former Yugoslav market, economic blockades as applied to some neighboring countries and economic blocks that temporarily applied certain neighboring states on R. Macedonia, the transition from the self-management system of orient to market economy and the slow restructuring as mikro and macro level.

While solving certain structural problems manifested after the independence of the Republic Macedonia, the government issued so-called structural bonds that significantly influenced the increase in public debt. Solving certain structural problems manifested after the independence of the Republic Macedonia, the government issued so-called structural bonds that significantly influenced the increase in public debt.

2. Public Debt and Economic Growth: the Theory

We start with a short survey of what economic theory tells us about the relationship between public debt and economic growth. Throughout our discussion, we will assume that government expenditure in goods and services is fixed and we examine what happens if the government decides to temporarily reduce taxes and finance its expenditure by issuing debt. We will also assume that Ricardian Equivalence does not hold and that public debt can affect real variables. According to the “conventional view of public debt” (Elmendorf and Mankiw, 1999), in the short-run output is demand-determined and fiscal deficits (or higher public debts) have a positive effect on disposable income, aggregate demand, and overall output. This positive short-run effect of budget deficits (and higher debt) is likely to be large when the output is far from capacity. According to Elmendorf and Mankiw (1999), things are different in the longrun. If Ricardian Equivalence does not hold, the decrease in public savings brought about by a higher budget deficit will not be fully compensated by an increase in private savings. As a consequence, national savings will decrease, resulting in lower total investment, either at home or abroad. Lower investment at home will have a negative effect on GDP, as it will lead to a smaller capital stock, higher interest rate, lower labor productivity and wages. Lower foreign investment (or higher foreign inflows), instead, will have a negative effect on foreign capital income and will thus lower the country’s future GNP. This negative effect of an increase in public debt on future GDP (or GNP) can be amplified by the presence of distortionary taxes.

According to Elmendorf and Mankiw’s (1999) back-of-the-envelope calculations, each additional dollar of government debt reduces steady-state gross output by about 10 cents (9 cents are due to the lower capital stock and one cent to future tax distortion). If we assume that annual real GDP growth is 3 percent and convergence speed is 2 percent, we find that this change in steady-state output has a fairly small growth effect. In particular, our calculations indicate that increasing debt by 100 per cent of GDP would reduce annual GDP growth by approximately 20 basis points in the first twenty years.

The negative effect of public debt could be much larger if high public debt increases uncertainty or leads to expectations of future confiscation, possibly through inflation and financial repression (see Cochrane, 2011a,b, for a discussion of these issues). In this case, higher debt could have a negative effect even in the short-run.

The conventional split between the short and long-run effects of debt disregards the fact that protracted recessions may reduce future potential output (as they increase the number of discouraged worker, with the associated loss of skills, and have a negative effect on organizational capital and investment on new activities). In this case, running fiscal deficits (and increasing debt) may have a positive effect on output in both the short and long-run. In fact, DeLong and Summers (2012) argue that, in a low interest rate environment, expansionary fiscal policy is likely to be self-financing. There is, in fact, evidence that recessions have a permanent effect on the level of future GDP (Cerra and Saxena, 2008). DeLong and Summers (2012) mention that the US Congressional Budget Office recognizes this fact and reduces its estimates of future potential output when output falls below potential for at least one year.

A large number of empirical papers find that the relationship between debt and growth is non-linear and characterized by the presence of a threshold above which debt starts having a negative effect on economic growth. While non-linearities and threshold

effects could arise from the presence of debt overhang (Krugman, 1988; Sachs, 1989), it is not clear whether a debt overhang argument could be easily applied to advanced economies in which the majority of debt-holders are resident (and therefore there is not an external transfer problem).

Checherita-Westphal, Hughes Hallett, and Rother (2012) develop a theoretical model in which, over the business cycle, debt can only be issued to finance public investment and the optimal level of public debt is determined by the public to private capital ratio that maximizes economic growth. With such a set-up, they show that the level of debt that maximizes economic growth is a function of the output elasticity of the capital stock. Checherita-Westphal, Hughes Hallett, and Rother (2012) use the model to estimate optimal debt ratios for various subsamples of OECD countries and find values that range between 43 and 63 percent of GDP. However, Greiner (2012a) shows that the results of Checherita-Westphal, Hughes Hallett, and Rother (2012) are driven by their assumption that the deficit is equal to public investment at each point in time. According to Greiner (2012a), in such a set-up, debt is completely irrelevant and the non-linear relationship between debt and growth is given by the growth-maximizing tax rate. He then shows that allowing for a more general debt policy leads to a monotone and negative relationship between public debt and steady-state growth. Greiner (2011, 2012b) also argues that the effect of debt on growth depends on the presence of rigidities in the economy. In particular, Greiner (2011) shows that, in a model with no rigidities and elastic labor supply, public debt has a negative effect on labor supply, investment, and economic growth. In the presence of wage rigidities and unemployment, instead, public debt has no effect on the allocation of resources and can even have a positive effect if it is used to finance productive investment.

Greiner (2012a) concludes that there is no well-specified model that can generate an inverted U-shaped relationship between debt and growth. Non-linearities may arise if there is a tipping point above which public debt suddenly become unsustainable (Ghosh, Kim, Mendoza, Ostry, and Qureshi, 2012, provide a formal model). However, we are not aware of any theoretical model that includes such tipping points in a growth framework.

It is also possible that high levels of debt pose constraints on a country's ability to conduct countercyclical policies, and thus increase output volatility and reduce economic growth (for the relationship between volatility and growth, see Ramey and Ramey (1995)). However, the relationship between debt and the ability of conduct countercyclical policies is more likely to depend on the composition of public debt than on the level of public debt (Hausmann and Panizza, 2011; De Grauwe, 2011). This suggests that countries with different debt structures and monetary arrangements are likely to start facing problems at very different levels of debt.

Summing up, simple back-of the envelope calculations suggest that debt may have a negative effect on growth, but the effect is likely to be small. More sophisticated models yield uncertain results on the relationship between debt and growth and show that the link between debt and growth depends on many cyclical and structural factors. These considerations suggest that trying to estimate a single debt coefficient that holds for all countries and all periods may be mission impossible.

2.1. Impact of the Public Debt on GDP

2.1.1 Short- and long-term Effects of a Reduction in the Public Debt

The theoretical and empirical literature concerning the impact of fiscal policy on economic activity is extensive, but it does not offer a clear answer to the question of the link between fiscal policy and economic activity. In fact, the impact depends very much on circumstances, which may vary considerably over time and from one country to another. Here it is crucial to distinguish between the short-term economic impact of the public debt and its long-term effects.

Short-term impact

In the short term, the measures taken to consolidate the budget are likely to depress economic growth. In fact, most empirical studies show that the budget multipliers – which indicate the extent to which a given fiscal stimulus influences activity growth – are positive in the short term.

However, the scale of a consolidation plan's short-term negative impact on economic activity varies according to the measures adopted. Measures relating to public consumption and investment have a relatively major impact on economic activity, whereas measures concerning transfers – such as taxes or social benefits – have a weaker effect. The reason is that the latter have only an indirect effect in modifying consumption or investment, via an adjustment to the incomes of households or companies. The degree to which households and firms face liquidity constraints or credit restrictions is also important for ascertaining the impact of tax increases or social benefit cuts on economic growth.

Moreover, it seems that the negative effect of consolidation measures on economic growth in the short term is weaker – or even practically non-existent – if the public finance situation deteriorates and that situation is considered worrying. In fact, the consolidation measures may avoid an interest rate rise, which would curb private investment. Moreover, they may lead to a reduction in the savings ratio, e.g. owing to a reduction in precautionary savings by households thanks to a revival in confidence after a period of budget difficulties(1). In that case, the negative impact on economic activity in the short term could be very small. In the current situation, these factors seem relevant, so that fiscal consolidation will not necessarily have a very negative effect on business activity.

The scale of the impact of consolidation also depends on the economic and monetary environment in which it is implemented. Where consolidation takes place in a small, open economy, its short-term impact is less than in the case of simultaneous consolidation in a number of countries, which will have a bigger restraining effect on global demand. Next, if the central banks are able to adopt an accommodating policy, consolidation is less damaging to growth. However, if interest rates are close to zero, central banks have less scope for compensating for the potential decline in global demand and inflation caused by increasing revenues and cutting public spending. Finally, the presence of a fixed exchange rate tends to reinforce the negative impact of consolidation on growth, compared to a system of floating exchange rates, which generally plays a significant buffer role.

Long-term impact

In contrast to the short-term effects, the long-term impact of fiscal consolidation ensuring the sustainability of public finances is undeniably positive. The effects include a decline in long-term interest rates, owing to a contraction in the supply of government securities on the market and a reduction in risk premiums. In addition, the reduction in interest charges resulting from consolidation frees up more resources for productive public expenditure or for reductions in the burden of taxation and parafiscal levies.

According to the literature, fiscal consolidation based on spending cuts is more effective and has a more favourable impact on economic growth in the long term than that based on a rise in public revenues. That is particularly the case if the budget restraint applies to spending other than that which is generally considered productive, such as expenditure on investment, education, research and innovation. The scale of the impact of consolidation on economic activity will depend on the use made of the money saved by budget austerity.

3. Public Debt and Dynamism of Economic Growth in the Republic of Macedonia

3.1. Economic growth

The acceleration in the pace of decline in GDP in nineties of the last century is a reflection of a deep economic depression, disintegration of the former Yugoslav market, economic blockades as applied to some neighboring countries and economic blocks that temporarily applied certain neighboring states on R. Macedonia, the transition from the self-management system of orient to market economy and the slow restructuring as mikro and macro level.

Thus, in the first transition years, Macedonia has negative rates of economic growth (from -2% to - 8% p.p.)¹. As of 1996 there is a tendency of increased economic activity whereby registered significant acceleration of economic growth. It was triggered by the stable macroeconomic environment, expressed through retained macroeconomic stability of prices and stable exchange rate and increased liquidity of the banking sector, which allow intensification of bank lending. In function of economic expansion was vigorous implementation of structural reforms in the fiscal area, so real GDP in 2000 reached 5.1 percent, which also represents the highest increase in the transition period of the Macedonian economy. Security crisis disrupt macroeconomic environment in 2001 and 2002 when it recorded a decline in GDP. Already in 2003 economic growth meets expectations with a growth rate of GDP of 3.2%.

Furthermore, R. Macedonia has achieved significant growth in economic activity (which is a continuation of a three-year trend of continuous economic growth since the fall of 2001 crisis.). The positive economic performance was determined by increased domestic and external demand, in terms of price stability and the intense banking activity.

¹ Data presented on economic growth are based on the respective reports by year presented by NBRM

Public Debt and Economic Growth in The Republic of Macedonia

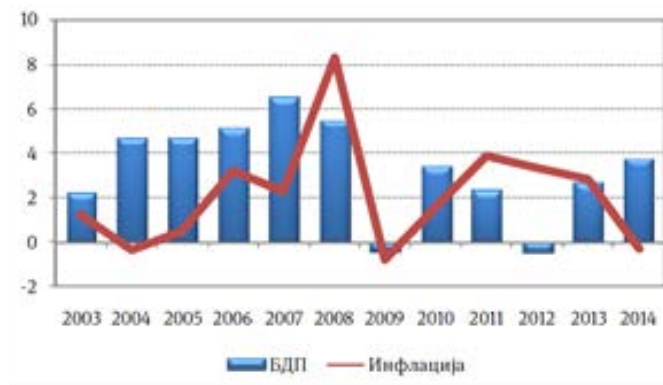
The negative effects of the global financial and economic crisis on the domestic economy led to a decline in domestic economic activity in 2009. The first effects were still visible in the last quarter of 2008, the slowdown in the annual growth, while in 2009, GDP registered a real annual decline of 0.7%. Thus, for the first time since 2002, the domestic economy declined in economic activity.

The gradual recovery of the global economy had a positive transmission effects on activity in the domestic economy. After a moderate drop in the previous year, in 2010, the Macedonian economy registered real GDP growth of 0.7%.

Economic activity in the Macedonian economy continued to grow during 2011. Real GDP growth was 3%, which is almost double the rate of growth compared to the previous year. Favorable movements were present in the first half of the year, when the national economy recorded an average growth of 5.2%. The gradual increase in the foreign effective demand, the favorable conjuncture of world market of our major export products, reduced aversion to risk acceptance among domestic and foreign investors had a strong positive impact on domestic economic activity. Additional stimulus gave rise in government capital investment. This economic environment has contributed to creating favorable expectations of domestic economic agents, whereby an increase in the propensity to consumption, which was supported by increased credit activity and increased employment.

After two years of relatively stable economic growth of around 3% in 2012, the Macedonian economy had a slight decline of 0.3%. Continued uncertainty in the external environment and reduced economic activity the most important trading partners as a result of the European debt crisis and during 2012 was a major limiting factor to the growth of the domestic economy

Real GDP growth and inflation (%)



Source: Ministry of Finance of the R. Macedonia

After minimal decline from the previous year, the domestic economy during 2013 was back in the zone of positive growth rates. Estimated data on gross domestic product for 2013 pointed to solid growth of 3.1%. Such economic achievements in terms of slow improvement of the external economic environment t, are explained by factors at the time it was inherent in the Macedonian economy. Namely, the presence of new production

capacities of technological-industrial development zones and steadily increasing their use creates positive repercussions on the export sector and industry. Moreover, further support the economy through public and private investment, especially in construction, representing an important factor for economic growth in 2013.

The trend of growth in economic activity continued in 2014, but with higher intensity compared to the previous year. According to the estimated data, real GDP growth in 2014 was 3.8%.

The acceleration of economic growth is conducted in terms of something stimulating outdoor environment compared to the previous year. However, during this year the growth of the domestic economy in a significant part associated with the operation of new export-oriented capacities, the activity of which provide a significant increase in production and exports. At the same time, and further positive stimulus on growth and provide public infrastructure investments. The improvement of the external environment and positive transfer effects on the activity of the new facilities improved business environment in domestic economy. This statement is partially demonstrated by greater dispersion of growth in 2014, showing that several economic sectors sources of the increase in value added in the economy.

GDP growth in 2014 was broad-based, i.e. all **sectors** recorded positive growth rates. The largest individual contribution processing industry in increased use of domestic and foreign capacity export oriented. Considering the structure, favorable changes in the manufacturing industry is mostly explained by increased production of motor vehicles, machinery and appliances, and electrical equipment. Also, a significant contribution to growth in 2014 has construction sector the result of more intensive construction activity in the area of housing construction and hydro. The growth of industrial production during the year was transmission positive effects on trade, transport and traffic, which cumulatively represent the third largest component with a positive contribution to economic growth. Industrial production continued favorable developments in 2014, and grew by 4.3% due to growth in the manufacturing industry. Construction in 2014 recorded a significant growth of 6.1%. The growth of the service sector accounted for 3.2% and agriculture grew by 2%.

Analyzed by expenditure side, the **main drivers** of GDP growth in 2014 is exports and gross investment. Exports of goods and services grew by 17% in real terms, mainly due to the increased export potential of the country. Export growth has been accompanied by changing the structure towards products with higher technological value, due to production and export capacity in the free economic zones. Gross investments in 2014 grew by 13.5% due to growth in investment in construction, ie the realization of public investments in infrastructure and investments of foreign companies in the free economic zones, as well as the growth of imports of investment goods. High export growth and gross investment creates pressures on the import of goods and services, which increased by 14.5%. Positive contribution to the economic growth was consumption, which grew by 1.6% due to the growth of private consumption.

From the **perspective of demand**, economic growth in 2014 are explained by the concurrent growth of domestic demand and export activity. The continuation of structural changes in the economy associated with the new production capacities are the main factor for increased exports in 2014 year, the exports component was the highest individual positive contribution to growth. In 2014 the economic growth was supported by increased

Public Debt and Economic Growth in The Republic of Macedonia

domestic demand, the most significant was the growth of the gross investment, partly driven by higher investments. Furthermore, favorable developments in the labor market and growth in real wages during the year provided further support the growth of consumption households. The only component in terms of domestic demand where a decrease is public demand. Increased domestic demand and export activity led to growth of imports and hence a negative contribution net export demand to growth.

3.2. Public debts

Immediately after independence, R. Macedonia joined the clearing obligations to international creditors inherited from the former Yugoslavia, and to a significant restructuring of the external debt which R. Macedonia inherited from the former Yugoslavia. In 1994 it was cleared inherited debt to the World Bank, in 1996 clarify the obligations towards the European Investment Bank (EIB), EUROFIMA and European resettlement Fund (CERF).

While solving certain structural problems manifested after the independence of the Republic Macedonia, the government issued so-called structural bonds that significantly influenced the increase in public debt. Especially impacted by the bond for old foreign currency savings that the Government aired in 2000 in the amount of EUR 546.5 million in order repayment of foreign currency deposits of citizens that were frozen in the banks of the Republic Macedonia, after the breakup of the former Yugoslav federation. As a result of the issue of this bond, the stock of public debt formally rose in 2000 to 2.219 million, although obligations undertaken by the state on the basis of de facto foreign captives dating since independence.

Public debt as a percentage of GDP reached a peak in 2000, reaching 57.2% of GDP. Since then, the rate is gradually reduced in each of the coming years and including projections for 2005 is 44.1% of projected GDP according to GFS methodology, ie 40.9% of the projected GDP, according to the Public Debt Law.²

According to the target set in the strategy for public debt management in the period from 2006 to 2008 public debt in relation to GDP tended to continuously decrease and ranged within 37% to 41%, while in the general government tends to decrease moving within the 35% to 38% of GDP. In December 2005 this ratio stood at 44.1% while the growth of general government 40.9%. The increase in public debt in 2005 was due to the broadcast of the first Eurobond in the amount of 150 million EUR amount in January 2006 used for repayment of the debt to the London Club of Creditors, whereby to offset this rise in debt.

At the end of 2007, general government debt to GDP ratio is well below the established target, amounting to 24.8%, while total public debt was 27.6% of GDP. This decrease is primarily a result of the operations of early redemption of debt, and an additional factor is the growth of GDP in 2007. At the end of 2008, general government debt to GDP ratio is well below the established target, amounting to 20.9%, while total public debt reached 23.9% of GDP. This decrease is primarily a result of the regular

² Presented data on public growth are based on the relevant reports published yearly by the Ministry of Finance

servicing of the existing debt, and the smaller volume of new borrowings in the past. At the end of 2009 government debt to GDP ratio is well below the established target, amounting to 24.1%, while total public debt was 27.1% of GDP.

After previously off the debt of the Central Bank, the public debt of the Republic of Macedonia for 2010 was 28.2% of GDP. Furthermore, the second target gives maximum limit of state debt, that "government debt must not exceed 30% of GDP." At the end of 2010, government debt to GDP ratio is 24.6%.

The public debt of the Republic of Macedonia for 2011 was 32.9% of GDP. Furthermore, the second target gives maximum limit of state debt, that "government debt must not exceed 30% of GDP." At the end of 2011, government debt to GDP ratio stood at 28.6%. The debt of the central government (consolidated) at the end of 2012 amounted to 2544.5 million euros in the previous year increased by 455.7 million euros. If the value of debt is expressed in terms of gross domestic product, it has increased by 6 percentage points compared to the end of 2011, from 27.8% to 33.8%. However, the method according to the records of the debt based on cash accounts, in the amount of the debt at the end of 2012 contained funds for debt refinancing in 2013, ie funds that were allocated to the payment of the Eurobond in the amount of 175 million, which was fully paid on January 8, 2013. Municipal debt at the end of 2012 was 10.0 million and represents 0.13% of GDP. In the previous year this debt increased by 5.9 million. The debt of public enterprises at the end of 2012 amounted to 366,1 million representing 4.9% of GDP, compared with last year increased by 57.7 million euros. The debt of the National Bank of the Republic of Macedonia at the end of 2012 amounted to 467.2 million euros, ie 6.2% of GDP. In the previous year, the debt of the National Bank of Macedonia decreased by 135.9 million euros, representing 1.8 percentage points of GDP.

State debt of the Republic of Macedonia at the end of 2013 amounted to 2771.6 million or 36.1% compared to the gross domestic product. Despite the increase by 1.8 percentage points of GDP compared with 2012, the Republic of Macedonia remains low indebted country with a government debt that is far lower than the average level of debt of EU countries. The public debt of the Republic of Macedonia at the end of 2013 amounted to 3296.0 million and represents 42.9% of GDP.

Debt of central government and total public debt



Source: State statistical office and NBRM calculation

Public Debt and Economic Growth in The Republic of Macedonia

The public debt of the Republic of Macedonia, which includes government debt and guaranteed public debt at the end of 2014 amounted to 3921.3 million and represents 46.0% of GDP. External public debt amounted to 2725.1 million, while domestic public debt amounted to 1196.2 million euros. State debt of the Republic of Macedonia at the end of 2014 amounted to 3262.5 million euros or 38.2% of GDP. With this level of government debt Macedonia remains moderately indebted country with a government debt that is far lower than the average level of debt of EU countries.

The financing of the budget deficit in 2014 is fully executed through net foreign borrowing, despite assumptions of rebalance of the budget predicted that a certain part of the budget to cover the gap from home resources. The debt of the central government in 2014 amounted to 3246.4 million, representing growth of 17.8% compared to the previous year. The share of the central government debt to GDP ratio reached 38%, compared to 34% in 2013. The increase in debt is entirely a result of significant growth of external debt (contribution of 18 pp), which resulted from borrowing through issuance of new Euro-bond, unlike domestic debt which reported a marginal decline. On the other hand, total public debt in 2014 year increased by 19.5% to 3921 million. Nominal growth public debt has led to increased and its share in GDP, which amounted to 45.9%, versus 40.5% in 2013. Such dynamics of public debt in most part due to the increased government debt, ie the increased external debt of central government and less to the growth of external Guaranteed debt of public enterprises and joint stock companies in state ownership. The terms of these two components of public debt, the tendency of reduce the share of government debt in total debt (from 84.5% in 2013 year of 83.2%) at the expense of increasing the share of guaranteed debt (from 15.5% to 16.8%). In terms of the residential structure of public debt, the share of external public debt to GDP ratio rose by 6.3 percentage points compared to 2013, and reached 31.9%, while the share of domestic debt for the first time after several years decreased and amounted to 14% (14.8% in 2013). At the end of 2014, gross external debt amounted to 5954.4 million euros, or 69.8% of GDP, which represents an increase of 5.4 pp of GDP, compared to the end 2013. Gross external debt arises exclusively from higher public debt, in terms of annual drop on debt the private sector. High growth in public debt primarily due to intensive growth of long-term liabilities of the central government in the form of debt securities as a result of the issued Eurobond in an additional contribution from the growth of debt on the basis of long-term financial loans to public enterprises.

Overall, indicators of external indebtedness of the domestic economy show that the gross external debt is in the safe zone. The only indicator that classifies the group of economy highly indebted countries a share of the gross external debt in GDP. The analysis of the dynamics of foreign indebtedness indicates a moderate deterioration in all indicators of solvency for 2014, compared with the end of 2013. On the other hand, liquidity indicators suggest a more favorable external position, given the improvement in performance and maintaining full coverage of liabilities based on short-term debt with a remaining maturity with funds from the foreign exchange reserves. The level of net external debt as an additional indicator external position of the economy at the end of 2014 amounted to 1812.8 million euros, or 21.2% of GDP compared to 31.12.2013, and this indicator slightly worse, ie net external debt increased by 2.6 pp of GDP. Slower growth in net external debt relative to the growth of gross debt due to the higher level of gross external claims (by 2.9 pp of GDP), due to higher foreign exchange reserves, which shows that some receipts external borrowing at this time reserved in the form of foreign currency reserves.

4. Conclusion

Our findings should not be interpreted as suggesting that debt accumulation is not a relevant policy issue or that high debt levels are not a serious problem. First of all, stating that there is no evidence that debt has an effect on economic growth is different from stating that there is evidence that debt has no effect on economic growth. Second, there are different ways through which a large public debt may harm the economy. We suggest that a fully solvent government with a high level of debt may decide to put in place restrictive fiscal policies to reduce the probability that a sudden change in investors' sentiments would push the country towards a bad equilibrium. These policies, in turn, may reduce growth, especially if implemented during a recession. In this case, it would be true that debt reduces growth, but only because high levels of debt lead to contractionary policies. While such an interpretation would justify longterm policies aimed at reducing debt levels, it also implies that countries should not implement restrictive policies in the middle of a crisis.

In our view, future research on the links between public debt and economic growth should focus on cross-country heterogeneity and on the mechanisms and transmission channels through which public debt may hinder economic growth. Addressing the latter point would require a unified theory aimed at explaining under what conditions and through which mechanisms debt may reduce economic growth.

In the first transition years, R. Macedonia has negative rates of economic growth. In function of economic expansion was vigorous implementation of structural reforms in the fiscal area, so real GDP in 2000 reached 5.1 percent, which also represents the highest increase in the transition period of the Macedonian economy. Security crisis disrupt macroeconomic environment in 2001 and 2002 when it recorded a decline in GDP. Furthermore, R. Macedonia has achieved significant growth in economic activity (which is a continuation of a three-year trend of continuous economic growth since the fall of 2001 crisis.). The positive economic performance was determined by increased domestic and external demand, in terms of price stability and the intense banking activity.

The negative effects of the global financial and economic crisis on the domestic economy led to a decline in domestic economic activity in 2009. The first effects were still visible in the last quarter of 2008, the slowdown in the annual growth, while in 2009, GDP registered a real annual decline of 0.7%. Thus, for the first time since 2002, the domestic economy declined in economic activity.

While solving certain structural problems manifested after the independence of the Republic Macedonia, the government issued so-called structural bonds that significantly influenced the increase in public debt.

Public debt as a percentage of GDP reached a peak in 2000, reaching 57.2% of GDP. Since then, the rate is gradually reduced in each of the coming years and including projections for 2005 is 44.1% of projected GDP. Overall, indicators of external indebtedness of the domestic economy show that the gross external debt is in the safe zone. The only indicator that classifies the group of economy highly indebted countries a share of the gross external debt in GDP. The analysis of the dynamics of foreign indebtedness indicates a moderate deterioration in all indicators of solvency for 2014, compared with the end of 2013. On the other hand, liquidity indicators suggest a more favorable external position, given the improvement in performance and maintaining full coverage of liabilities based on short-term

Public Debt and Economic Growth in The Republic of Macedonia

debt with a remaining maturity with funds from the foreign exchange reserves. The level of net external debt as an additional indicator external position of the economy at the end of 2014 amounted to 1812.8 million euros, or 21.2% of GDP compared to 31.12.2013, and this indicator slightly worse, ie net external debt increased by 2.6 pp of GDP.

R. Macedonia should continue to keep a proactive policy to create agregre demand through financing public investments during the global crisis. It as secondary indebted country still has possibility to increase the public debt but the very careful way. It means that it needs careful structuring of public debt to creditors on the one hand, and public financing of exclusively productive investments manner with the short to medium term multiplier effect on the private sector of the Macedonian economy

References

1. Abbas, S. M. A., N. Belhocine, A. A. El-Ganainy, And M. A. Horton (2011): "Historical Patterns and Dynamics of Public Debt - Evidence From a New Database," *IMF Economic Review*, 59(4), 717–742.
2. Arslanalp, S., And T. Tsuda (2012): "Tracking Global Demand for Advanced Economy Sovereign Debt," *IMF Working Papers* 12/284, International Monetary Fund.
3. Barro, R. J. (1974): "Are Government Bonds Net Wealth?," *Journal of Political Economy*, 82(6), 1095–1117.
4. Baum, A., C. Checherita-Westphal, And P. Rother (2012): "Debt and growth: New evidence for the euro area," *Journal of International Money and Finance*, 32, 809–821.
5. Checherita-Westphal, C., A. Hughes Hallett, And P. Rother (2012): "Fiscal Sustainability using Growth-Maximising Debt Targets," *Working Paper Series* 1472, European Central Bank.
6. Checherita-Westphal, C., And P. Rother (2012): "The impact of high government debt on economic growth and its channels: An empirical investigation for the euro area," *European Economic Review*, 56(7), 1392–1405.
7. Cochrane, J. H. (2011a): "Inflation and Debt," *National Affairs*, (9), 56–78. (2011b): "Understanding policy in the great recession: Some unpleasant fiscal arithmetic," *European Economic Review*, 55(1), 2–30.
8. Delong, B. J., And L. H. Summers (2012): "Fiscal Policy in a Depressed Economy," *Brookings Papers on Economic Activity*, Spring
9. Djuric, Ivan, Linde Gotz, and Thomas Glauben. 2011. "Influences of the Governmental Interventions on Wheat Markets in Serbia during the Food Crisis 2007/2008." Halle, Germany: Leibniz Institute of Agricultural Development in Central and Eastern Europe (IAMO).
10. Elmendorf, D. W., And G. N. Mankiw (1999): "Government debt," in *Handbook of Macroeconomics*, ed. by J. B. Taylor, and M. Woodford, vol. 1 of *Handbook of Macroeconomics*, chap. 25, pp. 1615–1669. Elsevier
11. Greiner, A. (2011): "Economic Growth, Public Debt and Welfare: Comparing Three Budgetary Rules," *German Economic Review*, 12(2), 205–222. (2012a): "Debt and Growth: Is There a Non-Monotonic Relation?," *Working Papers in Economics and Management* 04-2012, Bielefeld University. (2012b): "Sustainable Public Debt and Economic Growth under Wage Rigidity," *Metroeconomica*, forthcoming

12. Ghosh, A. R., J. I. Kim, E. G. Mendoza, J. D. Ostry, And M. S. Qureshi (2012): “Fiscal Fatigue, Fiscal Space and Debt Sustainability in Advanced Economies,” *Economic Journal*, Forthcoming
13. Mankiw, N. G., D. Romer, And D. N. Weil (1992): “A Contribution to the Empirics of Economic Growth,” *The Quarterly Journal of Economics*, 107(2), 407–37.
14. Ramey, G., And V. A. Ramey (1995): “Cross-Country Evidence on the Link between Volatility and Growth,” *American Economic Review*, 85(5), 1138–51.
15. Ramey, V. A. (2012): “Discussion of Fiscal Policy in a Depressed Economy, by B. J. DeLong, and L. H. Summers,” *Brookings Papers on Economic Activity*, Spring.
16. Reinhart, C. M., V. R. Reinhart, And K. S. Rogoff (2012): “Public Debt Overhangs: Advanced-Economy Episodes Since 1800,” *Journal of Economic Perspectives*, 26(3), 69–86.
17. Reinhart, C. M., And K. S. Rogoff (2010a): “Debt and Growth Revisited,” *VoxEU.org*. (2010b): “Growth in a Time of Debt,” *American Economic Review*, 100(2), 573–78. (2011): “From Financial Crash to Debt Crisis,” *American Economic Review*, 101(5), 1676–1706.
18. Rodrik, D. (2008): “The Real Exchange Rate and Economic Growth,” *Brookings Papers on Economic Activity*, 39(2 (Fall)), 365–439.
19. Sachs, J. D. (1989): “The Debt Overhang of Developing Countries,” in *Debt, Stabilization and Development*, ed. by G. A. Calvo, R. Findlay, P. Kouri, and J. B. de Macedo. Basil Blackwell, Oxford