



Faculty of Economics, University of Niš
11-12 October 2017

International Scientific Conference
**CONTEMPORARY APPROACHES
IN THE ANALYSIS OF ECONOMIC PERFORMANCES**

EMPIRICAL EVALUATION OF THE FISCAL MULTIPLIERS

Biljana Stanivuk *

Biljana Kovačević •

Natasa Tešić ♦

***Abstract:** The economic crisis that happened in 2008 has created the need for the detailed examination of the particular elements of fiscal policy and quantification of their impact. Due to the consequences of the crisis, all components of consumption have considerably decreased, thus making the issue of their impact on the level of domestic product significant to examine. The fiscal multiplier shows the ratio of a change in gross domestic product (GDP) that appeared as a result of changes in public consumption. Many factors impact the level of fiscal multipliers, such as the size and openness of economy, country's development level, exchange rate regime, monetary policy, structure of fiscal stimulus, country's indebtedness, credit rating, etc. With regard to the combination of these factors as well as the chosen methodology and the country in question, the assessments of values of fiscal multipliers range from negative (in small and open economies, highly indebted economies, which apply flexible exchange rate policy) to relatively high values (characteristic for well-developed countries, with the implementation of accommodating monetary policy).*

***Keywords:** fiscal policy, fiscal multipliers, economic growth, cyclic oscillations of economy.*

1. Introduction

* Faculty of Business Economics Bijeljina, Bosnia and Herzegovina,

✉ biljana.stanivuk@fpe.unssa.rs.ba

• Faculty of Business Economics Bijeljina, Bosnia and Herzegovina,

✉ biljana.kovacevic@fpe.unssa.rs.ba

♦ Faculty of Business Economics Bijeljina, Bosnia and Herzegovina,

✉ natasa.tesic@fpe.unssa.rs.ba

UDC 336.02

338.23:336.74

Anti-recession fiscal policy in the focus of its research highlights the size of fiscal multipliers, as well as the factors that determine their size. The post-crisis period led to the cyclic oscillation of economic activities that were mitigated by the various measures of fiscal policies. Comparing the recent crisis with the Great Recession in 1929 has resulted in an attempt to overcome it by applying fiscal policy measures regarding aggregate demand management. Given that fiscal policy influences aggregate supply and aggregate demand, a change in any of these categories has an effect on production, employment, the level of national income and trade balance.

Keynesian approach involves the impact of fiscal policy on aggregate demand, production and employment and it emphasizes the importance of demand stimulants as a factor in GDP growth. In this regard, fiscal policy measures aim at increasing aggregate demand. Contrary to this approach, the monetarists consider this impact short-term and believe that monetary policy has more powerful instruments that control demand and inflation. However, in times of crisis, especially at the very beginning of the crisis, stabilizing role of fiscal policy is considered irreplaceable. Despite opposing views of fiscalists and monetarists, faced with the crisis, both equally resort to instruments of fiscal policy. A. Smith's invisible hand needs the help of the visible hand of J.M. Keynes in resolving the crisis (Juricic, 2010). However, studies have shown that Keynesian approach is not always appropriate, according to which fiscal policy is the solution to a economic crisis, always and everywhere, but nor the results of the new classical economics, according to which fiscal policy is ineffective in mitigating the cyclical fluctuations of the economy (Arsić et al., 2017). Economic growth is going to depend on the amount of the tax burden, the structure of government expenditures, tax structure, tax administration, the informal economy. Of course, all of these elements of fiscal policy should be considered in the long term. In addition, it is important to determine the impact of fiscal policy on macroeconomic stability and the amount of public debt, and indirectly, this policy has an important influence on inflation, exchange rate and the external economic balance.

Fiscal policy influences the increase in income and economic development from the two aspects. First, levying taxes and thus reducing population and economic income. Secondly, public spending or investing in schools, roads, hospitals, thus stimulating GDP growth. Depending on the goals of fiscal policy, the state can keep expansionary or restrictive fiscal policy. Expansionary policy includes tax cuts, leading to rising consumer spending and increasing investment in the economy, while restrictive policy leads to an increase of taxes, reducing consumption and investment and thus achieves a positive impact on reducing inflation. No matter what fiscal policy is chosen by a state, its impact on macroeconomic stability and growth of the economy is dominant. In addition, the impact of fiscal policy on the economy depends on many factors, among which are particularly important: the size and openness of the economy, the level of development of the country, the state of the economy and public finance, monetary policy and exchange rate regime, the structure of fiscal incentives, investor confidence in government policies and others (Arsić et al., 2017). These factors, together with fiscal policy, affect the economic growth of the country. Their effects on economic growth can be expressed by using fiscal multipliers. Fiscal multipliers are generally defined as the ratio of a change in output (ΔY) to a discretionary change in government spending or tax revenue (ΔG or ΔT) (Spilimbergo et al., 2009). When adopting the measures of fiscal policy, it is necessary to take into account the multiplier effects of each component of fiscal spending, as well as on the functioning of the automatic stabilizers.

2. Defining a fiscal multiplier

A reminder to the general equation of GDP forms: $BDP = C + I + G + (X-M)$ wherein C - personal consumption, I - investment, G - spending / public consumption, and (X-M) - the difference between exports and imports. Each of these categories on the right side of the equation affects the level of GDP. Therefore, the literature suggests a large number of multipliers that are related to each forms of the consumption. So, we have a multiplier of private consumption, investment multiplier, multiplier fiscal multiplier and external trade. Special attention was paid to the fiscal multiplier. In the literature the term fiscal multiplier has been interpreted in different ways. In the broadest sense, the fiscal multiplier is defined as the effect of changes in fiscal instruments on GDP, i.e. the percentage change in the real GDP in relation to the change in the fiscal balance (Coenen et al., 2010). Many authors stated that the fiscal multiplier represents the change in real GDP and other measures of output caused by an increase in certain fiscal variables for one unit (Ilzetzki et al., 2013). Fiscal multiplier is defined as the percentage of change of GDP to exogenous or temporary changes in the fiscal deficit, taking into account their initial value (Baum et al., 2012). The effect on GDP public consumption is expressed as a fiscal multiplier which expresses the percentage increase of GDP with the increase of consumption of the public for one percent (Nakamura, Steinsson, 2013). The fiscal multiplier is a measure of short-term impact of discretionary fiscal policy on GDP levels, expressed as a percentage (Batini et al., 2014).

3. Different kinds of fiscal multipliers

Depending on the time frame considered, the following kinds of multipliers can be defined (Spilimbergo et al., 2009):

$$\text{Current fiscal multiplier} \equiv \frac{\Delta Y(t)}{\Delta G(t)} \quad (1)$$

The current fiscal multiplier is also called the static multiplier in the literature. The given formula can be defined as being in a direct alteration of public expenditure (or reductions) with the change in national income for one year. The main problem with this multiplier is its stationarity and the inability of distinguishing the effects that other factors have had on the growth of national income. Therefore, it is possible that the value of static fiscal multiplier above 1 does not constitute a sufficiently reliable argument for holders of economic power that rely on fiscal expansion as a generator of economic growth. Also, its value below 1 may not be the reason for the qualification of an expansionary fiscal policy as ineffective. Reliability of this indicator is large only when the certain public expenditure has been implemented fully in one year, and when the multiplier effects include a one-year operating period (Mlinarević, 2013).

$$\text{Multiplier at some horizon N:} \equiv \frac{\Delta Y(t+N)}{\Delta G(t)} \quad (2)$$

The multiplier at some horizon N: Fiscal multiplier at some horizon N is the ratio between the public expenses incurred in one year with an overall change in national income

from the beginning to the end of the period. Its accuracy depends on the possibility of identifying channels of influence on the level of aggregate demand by investing in infrastructure projects or other measures of expansionary fiscal policy.

$$\text{Maximum (peak) multiplier: } \equiv \max_N \frac{\Delta Y(t+N)}{\Delta G(t)} \quad (3)$$

The maximum (peak) multiplier: Max fiscal multiplier is intended to identify the time period in which a fiscal stimulus reaches the highest point of its multiplying effect. This period of time helps in decomposing the demand in the year, and to isolate the effects that have been created under the influence of expansionary fiscal measures.

$$\text{Cumulative multiplier in the period } j = 0, 1, \dots, N: \left(\equiv \frac{\sum_{j=0}^N \Delta Y(t+j)}{\sum_{j=0}^N \Delta G(t+j)} \right) \quad (4)$$

The drawbacks of all previous forms of fiscal multipliers compensates the cumulative or long-term fiscal multiplier. It stands for the ration of cumulative change in public expenditure and the cumulative change in the national income in the observed period. Therefore this form has been used in the most macroeconomic analyses.

4. What determines the size of the multipliers?

The size of the multiplier depends on several factors and is conditioned by the economic, financial and political environment (Arsić et al., 2014). Based on the previously derived formula, we can interpret the determinants that affect the size of fiscal multipliers. The size of the fiscal multiplier depends on numerous factors including these usually pointed out in the literature (Spilimbergo et al., 2009): a small leakage of fiscal stimulus, accommodative monetary conditions and a sustainable fiscal position of the country after the stimulus.

If we know that savings and imports reduce the amount of funds that are in the rotunda of income, it is clear that the demand is reduced for their amount. Applying expansionary fiscal policy and tax cuts, the government is trying to boost demand and economic growth. However, the success of this policy depends on the inclination of citizens to save. If an individual decides to save rather than spend, regardless of the lower taxation, the value of the fiscal multiplier will be less. Therefore, the aim is to reduce the value, or the amount of outflow of this type of fiscal stimulus. The leakages of fiscal stimuli are lower if most of the stimuli are being achieved by increasing government spending, not tax cuts. The higher marginal propensity to consume affects the increase in the value of the multiplier. However, if consumers predict that due to the increase in public spending in the future an increase in taxes will happen, it can affect their decision in regard to savings, in order to be able to pay increased taxes in the future. Such consumer behavior reduces the value of the fiscal multiplier. Custom monetary policy can increase the value of the multiplier. In addition, it should be designed to keep nominal interest rates at a certain level. Otherwise, if there is an increase in nominal interest rates as a result of expansionary fiscal policy, this will neutralize the positive impact of the fiscal multiplier. Highly expansive monetary policy that is manifested in almost zero interest rates by central banks

Empirical evaluation of the fiscal multipliers

and in extensive programmes of quantitative easing, is not sufficient to start bank lending and economic recovery (Arsic, Randjelovic, 2014). In order to increase the value of the fiscal multiplier, it is necessary to maintain the fixed exchange rates. The growth of public debt over a certain level, which depends on the country's credit rating, may adversely affect the macroeconomic stability, economic growth, and thus the height of the fiscal multiplier (Arsić et al., 2017). If public debt is unsustainable, interest rates rise and thus the effect of the fiscal expansion is being reversed.

5. The size of the fiscal multiplier in developed countries and developing countries

As it has already been mentioned in this paper, the impact of fiscal policy on the economy depends on a number of factors, among which the greatest impact have: the level of development of a country, the size and openness of the economy, the state of the economy, the state of public finances, fiscal stimulus, monetary policy, exchange rate regime and others. Depending on the combination of these factors, as well as the methodology and the sample of countries, the estimates of the fiscal multipliers have been obtained, which range from a negative value in the case of heavily indebted, small and open economies, which in addition apply policies to the flexible exchange rate, to a relatively high value of the multiplier in the case of major developed countries, which conduct accommodating monetary policy (Arsić et al., 2017).

IMF published a study in 2009. 'Fiscal Multipliers' (Spilimbergo et al., 2009) in which it was stated that the level of fiscal multipliers was mostly affected by the size of the economy and the types of fiscal stimulant. In addition, a static multiplier ($\Delta Y / \Delta G$) is estimated, assuming that the interest rate is constant. The conclusion is as follows: the value of multipliers of public expenditures for large countries is between 1 and 1.5,4 for countries of medium size between 0.5 and 1 and for small open economies of less than 0.5. A multiplier of public investment is higher than the average of multipliers of public expenditures, while the multiplier of taxes and transfers is nearly twice the average of the multiplier of public expenditure. The study provided some explanations and recommendations regarding the understanding of the size of fiscal multipliers. Given the degree of development of the financial market, on the one hand, the less developed countries have limited spending and savings, which increases the amount of multipliers, while on the other hand, due to higher financial risk, the interest rates on which the less developed country borrows are more than the interest rates in developed the market, which certainly reduces the size of the multiplier. Reducing the propensity for consumption, in the event of a financial crisis, affects the reduction in the size of the fiscal multiplier. On the contrary, the crisis leads to fewer creditworthy clients, so the state is trying to maintain its creditworthiness with its measures, thereby increasing the amount of multipliers. Fiscal incentives (temporary and permanent) also have a significant impact on the level of fiscal multipliers. Temporary incentives have a more significant effect if they affect price changes by reducing consumption taxes, while sustained incentives have a more significant effect if they affect income change (income tax cuts).

Another important research published in 2009 is the work of the author Ilzezyki and his associates. In the research, the authors dealt with a vector autoregressive model and evaluated the multiplier height on a sample of 45 countries. Their attention was focused on

developed and underdeveloped countries, countries with fixed and country with a flexible exchange rate and open and closed economies. They concluded that the cumulative multiplier of developed countries is slightly above 1, while in developing countries around 0.8, a cumulative multiplier in countries with a fixed exchange rate is about 1.5, while in countries with a flexible exchange rate around zero and open economies have the value of a fiscal multiplier around zero, while in closed economies this value is about 1.6.

They also concluded that the cumulative multiplier for investments is higher than multipliers for government consumption (especially in developed countries). After the major economic crisis in 2008 and the fear of a deep and prolonged recession, limited opportunities for stimulating through monetary policy, attention was focused on fiscal policy (Coenen et al., 2010). The authors sought to find out how effective interim state policy actions would reduce the depth and slow down the duration of the crisis. The question arises of the sustainability of the fiscal effects and the accumulation of debt arising from fiscal incentives. Particular importance in work is attributed to the sizes of fiscal multipliers. The survey includes policy-making institutions, such as the Federal Reserves, the European Central Bank, the International Monetary Fund, the European Commission, the OECD, and the Bank of Canada. This analysis led to several significant conclusions. There is a strong finding on all models that fiscal policy has significant multipliers related to public spending and targeted transfers. The effectiveness of fiscal policy will be greatest in the conditions in which fiscal policy is supported by accommodating monetary policy through maintaining interest rates constant over a certain period of time. Fiscal stimulants have a greater impact if they are measured in years rather than over longer periods. In a long observation period, a multiplier of fiscal stimulus can have a negative value. Therefore, fiscal policy must be conducted in a responsible manner, so that the policy threshold is sustainable, while ensuring that the fiscal authorities retain their credibility. This means that they should take into account the measures aimed at reducing debt-to-GDP ratio, in economically more favourable periods, in order to secure the fiscal space for stimulating actions in the period of less favourable economic conditions.

Iizetzksi and associates (2011) within the IMF research contributed to an intensive debate about the real effects of fiscal stimulus, showing that the impact of government spending shocks depends on the key characteristics of countries, such as the level of development, the exchange rate regime, openness of the economy, public debt and the like. They studied quarterly data sets on government spending in 44 countries and found that the effect of increasing public spending is higher in developed countries than in developing countries. A fiscal multiplier is relatively higher in countries with a fixed exchange rate, moving around zero in countries that apply flexible exchange rate policy. They found that fiscal multipliers are lower in open economies than in closed economies, and that in countries with high public debt they are approximately zero. In the end, they concluded that the composition of public spending could have a stimulating effect, especially in developing countries. While the rise in public spending reduces the level of GDP in developing countries, the rise in government investment has contributed to the rise in GDP.

Baum and associates (2012) have also analysed the relationship between fiscal multipliers and the state of the economy in expansion and recession. Expansion and recession are defined by the sign of the production gap (a positive sign of expansion and a negative sign of recession). The decision to use the production gap as a variable has more arguments. One of these is that even a negative gap, regardless of GDP growth rate, has an

Empirical evaluation of the fiscal multipliers

available excess of capacities in the economy, reducing private investments, following public expenditures shocks. There is a double contribution of this work, and it is reflected in the following: this is the first study to use quarterly data on government expenditures and revenues for six countries (Japan, USA, Germany, Canada, France and England); by doing estimates of individual countries, enabling explanation of the variables (government revenues and expenditures), which have different regression slopes, depending on whether the chosen marginal value of the obtained gap has been above or below a certain level, which has been selected as optimal in the model. The result of the research is that the effect of fiscal policy on government expenditures and the size of the fiscal multipliers of the six analyzing economies is on average higher during the recession phases and the negative gap, than in the stages when the production gap is positive. Similarly, consumption shocks tend to have a greater impact on the height of the multiplier in the stages of the negative production gap.

Blanchard and Leigh (2013) have investigated the relationship between errors in the forecast of fiscal consolidation growth and planned fiscal consolidation during the crisis. They found that planned fiscal consolidation in developed economies was associated with lower growth than expected, so fiscal multipliers were significantly higher than forecasts. It is estimated that the multipliers of income range from 0.3 to 0.5, and the multiplier of public spending is between 0.3 and 1.8. The conclusion is that there are no unique multipliers that apply for each period and in each country. Multipliers may have a higher or lower value depending on the state of the economy. Deciding on the appropriate attitude of fiscal policy requires much more than estimating the size of short-term fiscal multipliers. Practically all developing economies face the challenge of fiscal consolidation in response to increased levels of government debt and future pressure on public finances under the influence of demographic change. The value of the fiscal multiplier is usually higher during the period of fiscal consolidation than before the crisis.

Nakamura and Steinsson (2013) have developed a framework for the interpretation and estimation of aggregate multipliers in closed economies. This multiplier is extremely sensitive to changes in monetary and fiscal policy. In contrast, the relative multiplier of the open economy does not distinguish these effects, because the regions that are linked have a unique monetary and tax policy. The estimates of these authors are consistent with the new Keynesian models in which public spending shocks have potentially great effects on production, rather than it would be in a conventional neoclassical model. The result of the study is that government spending should have a high multiplier when the economy is in a trap of liquidity, that is, when the nominal interest rate is on the lower limit and does not respond to economic shocks.

Arsić and associates (2014) studied differences about the size and variations of fiscal multipliers in emerging European economies. In addition, the paper examines the response of private consumption to the shock of public spending, conditioned by the exchange rate regime and the state of the economy. The research in the work is based on the SVAR model that identifies fiscal shocks and determines the value of fiscal multipliers. The most important conclusions for the newly emerging European countries are as follows: the multiplier of consumption in emerging European countries ranges from 0.5 to 0.6 and is significantly higher than multipliers in developed countries (around zero); the exchange rate regime has a significant effect on the size of the multiplier of consumption and is relatively high in countries with fixed exchange rates, while it is close to zero for countries with

flexible exchange rates; the difference in the level of multipliers at a fixed and flexible exchange rate can be attributed to different monetary policy regimes; the multiplier of public spending was higher in periods of great recession than before the recession; after the shock of government expenditures, there has been an increase in private consumption, which supports the predictions of traditional and new Keynesian models, unlike neoclassical; multipliers of income have a lower value than cost multipliers, they are higher in fixed than in a flexible exchange rate.

Arsić and Randelović (2014) have investigated the impact of fiscal policy on economic growth in Serbia. Serbia is a small open economy with flexible exchange rate, non-modifying monetary policy, low credit rating, high public debt. All this leads to the conclusion that fiscal multipliers are low. Expansive fiscal policy can not significantly stimulate the economic activity. The authors state that the specificities of Serbia in relation to other countries are effective limitations for economic growth, which are located on the supply side rather than on the demand side. Removing of these constraints represents a key potential for economic growth. Empirical research suggests that expenditure multipliers in central and eastern European countries with a flexible exchange rate stand at around 0.1, and in the period of the crisis they increase from 0.6 to 0.8. A new study by these authors (2017) is characterised by much more favourable picture of Serbia in terms of fiscal policy than it was in previous years. A solid growth of the economy has been achieved, and macroeconomic stability has been significantly improved through fiscal consolidation. The growth of investor confidence, with favourable conditions on the domestic and international market, has led to an increase in investments. Although there is still a conclusion about the low values of the fiscal multipliers.

Batini and associates (2014) propose an estimate of the multiplier value for countries where a reliable estimate is not possible. The authors suggest that countries of similar characteristics merge into groups or "baskets" that, according to the authors' assumptions, should have approximately the same multiplier value. Also, the authors' idea was to use this approach as a cross-check of the countries in which the estimates are available. The paper's contribution is in detailed explanation of the structural factors and the confirmation of previous research which concluded that multipliers have the highest value in the second year. In addition, a new approach to the identification of factors and effects of the multiplier has been proposed, which should be considered indicative. In this empirical research, there is a strong dominance of the assessment according to which the multipliers of current expenditures in small, open and developing economies are significantly less than one. That same group of authors published a booklet within the IMF in the same year, simply explaining all the details linked to the fiscal multiplier: the definition, importance for macroeconomic analyses, determinants, and the like.

Serrato and Wingender in 2016 proposed a new approach that can identify the impact of government spending on the economy. They were driven by the fact that a large number of federal spending programmes depend on the level of the local population. The main results of this work follow the impact of shocks on federal spending, income, employment growth, but through the evaluation of data based on the estimated preferences of the local population (on which the economic outcome depends), then they estimate the local multiplier of government consumption, spill over effects to neighbouring countries and test the false effects of government expenditures, to determine whether federal spending has a greater impact on areas with low economic growth. Their conclusion is that

Empirical evaluation of the fiscal multipliers

in seven years since the crisis, the federal government has spent large amounts of money in order to stimulate the economy, but many economists and political analysts argue that fiscal policy has limited impact in the short term. Therefore, the identification of the causes is proposed.

Jasmin Sin (2016) has investigated the value of the fiscal multiplier by using the DSGE model on the case of small open economies. He came to the conclusion that the multiplier is higher if the countries participate in the domestic and international financial markets. State assets have a higher degree of liquidity than private property. Fiscal expansion is stimulated by investments, and thus it affects the growth. However, international capital mobility is not perfect, so it is advisable to use a conventional model that neglects the presence of fluctuations in the international capital market and therefore underestimates the level of fiscal multiplier. As fiscal policy is more effective when the nominal interest rate is around zero, the fiscal multiplier should also have a higher value under this assumption than in "normal" conditions.

6. The Size of the fiscal multiplier in BiH

There is not a single document in Bosnia and Herzegovina, or a legal act to guide the holders of economic authorities when implementing expansive fiscal measures. Unfortunately, the literature is extremely scarce and there is no serious research that calculates the value of the fiscal multiplier. The complexity of the tax system, the decentralisation of the tax administration, the different legal frameworks within the Federation of BiH, the Republika of Srpska and the Brčko District, as well as the incomplete statistical data, question the possibility of making a realistic analysis and more detailed dealing with the issue of the size of a fixed multiplier. The specificity of Bosnia and Herzegovina, in relation to the countries in the region, is the fixed exchange rate regime established through the currency board. The existence of a currency board means the inability to establish an accommodating monetary policy. The country has no right to manage monetary aggregates, except for coverage in foreign currencies and foreign exchange. This fact represents an extremely limiting factor in the conduct of both monetary and fiscal policy. Given that there is a fixed exchange rate, while BiH belongs to a group of countries that are open, with a relatively medium level of indebtedness (with a tendency to increase indebtedness), according to all the limitations already outlined above and explanations of the impact of these constraints, the assumption is that the value of public expenditures multiplier should be extremely low, if not negative. Therefore, in encouraging the recovery of the country, it would be good if the country would rely more on investments, and less on public spending.

7. Conclusion

The global economic crisis in 2008 opened a debate between the two opposing schools of economic thinking. Monetarists believe that state interference is extremely dangerous in resolving the crisis and intervention in the economy, and that it creates more problems than benefits. The Keynesian school, led by a successful resolution of the previous global economic crisis, proposes an anti-cyclical fiscal policy, as an integral part of the economic policy in almost every country. Fiscal policy influences growth of the

economy through its impact on macroeconomic stability and through its structural characteristics. When adopting fiscal policy measures, it is necessary to take into account the multiplicative effects of each component of fiscal consumption, as well as the functioning of the automatic stabilizer.

In small open economies, which have a flexible exchange rate and non-accommodating monetary policy, a low value of fiscal multipliers is expected. It is important to point out that in the periods of recession the value of the fiscal multiplier is increasing, which leads us to the conclusion that in the conditions of the recession, fiscal expansion is justified. Fiscal policy, or management of its structural characteristics, can significantly influence economic growth. In addition, the macroeconomic constraints of individual countries must be stated. The fulfilment of formal conditions established by the theoretical model does not necessarily mean an increase in economic activities due to fiscal expansion. If we consider the case of Bosnia and Herzegovina, the theoretical assumption is that a country that has a fixed exchange rate and increase of interest rate as a consequence of fiscal expansion should record GDP growth. However, this is not the case in BiH, due to the insufficient development of the financial market, which does not contribute to the inflow of foreign capital. Another assumption which did not find its foundation in empirical research relates to the claim that tax cuts will stimulate the growth of employment and reduce the gray economy, with the unchanged amount of total tax revenues. In doing so, the authors rely on the assumption that tax multipliers are at about one or more than one, although most empirical research suggests that their value is around zero and that they are very unstable. However, despite numerous disagreements, a large number of authors came to the conclusion that fiscal multipliers have different values in the recession phase and expansion phase and that public consumption has the greatest impact on the value of multipliers.

References

1. Arsić, M., Randelović, S. (2014), „Uticaj fiskalne politike na privredni rast u Srbiji“, Zbornik radova „Ekonomika politika Srbije u 2014. godini“, NDES, Beograd.
2. Arsić, M., Randelović, S. (2013), „Analiza i ocena fiskalne politike za period 2014-2016“, Kvartalni monitor broj 34, FREN, Beograd.
3. Arsić, M., Nojković, A., Petrović P. (2014), „Fiscal Multipliers in Emerging European Economies“, dostupno na <http://dx.doi.org/10.2139/ssrn.2402170>.
4. Arsić, M., Randelović, S., Nojković, A. (2017), „Uticaj fiskalne politike na rast privrede Srbije“, Zbornik radova „Ekonomika politika Srbije u 2017. godini“, NDES, Beograd.
5. Batini, N., Eyraud, L., Weber, A. (2014), „A Simple Method to Compute Fiscal Multipliers“, Working paper 14/93, IMF.
6. Batini, N., Eyraud, L., Forni, L., Weber, A. (2014), „Fiscal Multipliers: Size, Determinants, and Use in Macroeconomic Projections“, Technical notes and Manuals, Fiscal Affairs Department, IMF.
7. Blanchard, O., Leigh, D. (2013), „Growth Forecast Errors and Fiscal Multipliers“, Working paper 13/1, IMF.
8. Ilzetzki, E., Mendoza, E., Vegh, C. (2011), „How Big (Small?) are Fiscal Multipliers?“, Working paper 11/52, Research Department, IMF.
9. Juričić, Lj. (2010), „Financijska kriza i fiskalna politika“, Ekonomski pregled broj 61, Zagreb.

Empirical evaluation of the fiscal multipliers

10. Mlinarević, P. (2012), „Dometi fiskalne politike u podsticanju privrednog rasta“, Zbornik radova broj 7, Ekonomski fakultet Pale, Univerzitet u Istočnom Sarajevu.
11. Nakamura, E., Steinsson, J. (2013), „Fiscal Stimulus in a Monetary Union: Evidence from U.S. Regions“, Columbia University, 2013.
12. Serrato, J.C, Wingender, P. (2016), „Estimating Local Fiscal Multipliers“, Duke University, NBER and IMF, Research paper.
13. Sin, J. (2016), „The Fiscal Multiplier in Small Open Economy: The Role of Liquidity Frictions“, Working paper 16/138, IMF.
14. Spilimbergo, A., Symansky, S., Schindler, M. (2009), „Fiscal Multipliers“, IMF Staff Position Note 09/11, IMF.

EMPIRIJSKE OCENE FISKALNIH MULTIPLIKATORA

Apstrakt: Velika ekonomska kriza koja se dogodila 2008. godine, dovela je do potrebe da se detaljno ispituju pojedini elementi fiskalne politike i da se kvantifikuje njihov uticaj. Imajući u vidu da je, kao posledica krize, došlo do značajnog smanjenja svih komponenti potrošnje, bilo je važno istražiti njihov uticaj na nivo domaćeg proizvoda. Fiskalni multiplikator pokazuje odnos promene u bruto domaćem proizvodu (BDP) koje su nastale kao rezultat promena u nivou javne potrošnje. Na visinu fiskalnih multiplikatora utiču mnogi faktori, među kojima treba istaći veličinu i otvorenost privrede, razvijenost zemlje, režim deviznog kursa, monetarnu politiku zemlje, strukturu fiskalnih stimulansa, zaduženost zemlje, kreditni rejting i slično. U zavisnosti od kombinacije navedenih faktora, odabrane metodologije i zemlje za koju se računa, procene vrednosti fiskalnih multiplikatora se kreću od negativnih (kod malih i otvorenih privreda, visoko zaduženih privreda, koje primenjuju politiku fleksibilnog deviznog kursa), do relativno visokih vrednosti (koje su karakteristične za razvijene zemlje, uz sprovođenje akomodirajuće monetarne politike).

Ključne reči: fiskalna politika, fiskalni multiplikator, privredni rast, ciklične oscilacije privrede.