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Estimation of Government Spending Multiplier in EU Economies

Marko Senekovič

University of Maribor, Faculty of Economics and Business, Slovenia
marko.senekovic1@um.si

Alenka Kavkler

University of Maribor, Faculty of Economics and Business, Slovenia
alenka.kavkler@um.si

Jani Bekő

University of Maribor, Faculty of Economics and Business, Slovenia
jani.beko@um.si

Abstract

The aim of this paper is to estimate government consumption multiplier and to examine the effect of various characteristics of countries on the size of fiscal multiplier. We apply a panel VAR model following Ilzetzki et al. (2013) for a sample of 28 EU countries covering the period from 1995 to 2017. Key findings are, first, the estimated average fiscal multiplier is larger than unity. Second, the size of fiscal multiplier is larger in the cases of lower public indebtedness, for more developed European countries and for more financially open economies, which is also in line with relevant empirical literature. Regarding the role of trade openness, the results are inconclusive. In addition to this, membership of countries in the European integrations positively affects the size of fiscal multiplier. Therefore, fiscal policymakers should use fiscal stimuli as the instrument of boosting short-term economic growth selectively and consider country-specific characteristics. This paper contributes to the ongoing discussion in two ways, it examines the effect of additional characteristics of countries on the size of fiscal multiplier and updates existing empirical literature.

Keywords: country characteristics, fiscal multiplier, panel VAR

Introduction

The Great Recession triggered a broad discussion about the role and effectiveness of economic policy for stabilizing business cycles and promoting economic growth. The deep recession after 2008 pushed monetary policy into an unknown territory, where lack of established practices raised important questions about the way of conducting economic policy in modern times (see, for example, Blinder et al., 2016). At the same time, fiscal policymakers under threatening debts, public deficits, and simultaneous pressure from international economic arenas applied rather contradictory measures tracking the goal of balancing public budgets. Recent studies showed that the mechanism of fiscal multiplier works and that its effect on output is non-negligible but at the same time inconsistent (see, for example, Auerbach & Gorodnichenko, 2011; Warmendinger et al., 2015; Jackson

et al., 2018). Studies dealing with the analysis of the most frequent determinants of the size of fiscal multipliers already exist (see, for example, Ilzetzi et al., 2013; Koh, 2017; Deskar-Škrbić et al., 2017) and offer us certain insights into the subject area, but there is no consensus in regard to the impact of all determinants. Consequently, our empirical understanding of the mechanism of fiscal multipliers remains limited (Ramey, 2019; Devereux, 2018).

The main purpose of this paper is to estimate the average size of fiscal multiplier on the panel sample of 28 European Union (EU) countries using an updated annual data sample covering the period from 1995 to 2017 and to scrutinize the impact of selected countries' characteristics on the magnitude of the government spending multiplier. We examine how public debt, trade openness, financial openness, level of development, membership in political and monetary integration, and the period of the Great Recession affect the value of fiscal multipliers. To obtain estimates of fiscal multipliers based on vector autoregression, we follow the seminal paper of Blanchard and Perotti (1999) and its modified version for applying panel models used in Ilzetzi et al. (2013) and Koh (2017). Our results could provide insight into the country-specific use of fiscal stimuli by boosting short-term economic growth.

The remainder of this paper is structured as follows. In Section 2, we present a brief evaluation of empirical literature about factors that crucially affect output changes due to shifts in government spending. In Sections 3 and 4, we describe the methodological framework and the data sample used in this study, respectively. Then, the results are documented and outlined in Section 5. The main conclusions are given in Section 6.

Brief Overview of the Literature

In this chapter, we summarize the key findings of the relevant empirical literature, focused on examining the influence of country-specific characteristics on the size of fiscal multipliers. Perotti (2002) and Blanchard and Perotti (1999) set out theoretical and methodological foundations for the development of the study of fiscal policy and its impact on the GDP and on the other key macroeconomic variables based on the vector autoregression methodology. Blanchard and Perotti (1999) showed that positive government spending shocks have a positive effect on the GDP, while positive tax shocks have a negative impact on the GDP. On a sample of five developed economies, namely, the United States, Germany, Great Britain, Canada, and Australia, Perotti (2002) observed that the impact of fiscal policy on the GDP and its components became weaker in the years after 1980. Giordano et

al. (2007) examined the effects of fiscal policy on private GDP, inflation, and long-term interest rates using the smooth transition vector autoregression (SVAR) approach on the example of the Italian economy. The authors report a positive impact of the increase in direct government consumption on output. Burriel et al. (2009) also emphasized that expansive fiscal policy has a positive impact on the GDP and on private consumption in the short-term. The fiscal multipliers in the Euro Area are comparable in size with those in the United States and are higher in the case of budgetary problems than in normal circumstances.

Further research showed that it is reasonable to distinguish between different phases of the business cycle. Auerbach and Gorodnichenko (2010, 2011, 2014) estimated multipliers in separate studies for the United States, OECD countries, and Japan. The authors pointed out that the calculated values of the multipliers differed between recession and expansion, with values at the time of recession increasing. Batini et al. (2012) also corroborated the thesis of higher spending multipliers in phases of recession. On the other hand, results of Ramey and Zubairy (2014) for the United States did not indicate a statistically significant difference between the values of the multipliers relative to the phase of the business cycle. However, the development of methodology continued, so Riera-Crichton et al. (2015) showed that we get even higher values of fiscal multipliers during extreme crises. In addition to this, if fiscal policy stimulates government consumption at the time when it grows from year to year, we get even higher estimated multipliers in all three phases of the cycle.

Some researchers showed that the structural characteristics of countries are also relevant for the output effect of government spending. Ilzetzi et al. (2013), for example, found that the output effect of fiscal stimulus is greater in more developed countries, the size of fiscal multipliers is smaller in more open economies compared with the reference figures in closed economies, and that fiscal multipliers are smaller or even negative in countries with high public debt. Silva et al. (2013) found similar results for an annual panel of the Euro Area countries. Hory (2016), on the sample of 48 emerging and advanced economies, gauged a considerably lower size of spending multiplier in the case of emerging market economies than in the case of advanced economies. Furthermore, spending multiplier is negatively correlated with imports, public debt, and savings but, on the other hand, is positively correlated with unemployment level and financial development. Koh (2017) confirms findings of other studies and implies that fiscal multipliers are larger during periods of low public debt, in periods of financial crisis and economic downturn, and in more developed countries. But contrary to the findings in Ilzetzi et al. (2013), Koh (2017) reports that fiscal multipliers are not necessarily smaller in

the economies with high trade and financial openness. He also argues that the size of fiscal multipliers does not necessarily depend on the type of exchange-rate regime.

Deskar-Škrbić et al. (2017) among other structural determinants examine the role of the tax burden for which they suggest a negative correlation with the size of a fiscal multiplier. Recently, Borsi (2018) estimated larger fiscal multipliers in times of a credit crunch; further, Miyamoto et al. (2018) once again emphasized the role of larger fiscal multipliers in the periods of zero lower bound when crowding out effect of private expenditures is considerably reduced.

In a nutshell, according to the findings of studies presented above, we may expect that the size of fiscal multiplier is larger in cases of economic downturn, lower public debt, relatively more closed economies, in industrial countries, and under a fixed exchange-rate regime. However, empirical literature is not unanimous about the size dependence of fiscal multipliers to some other specific structural determinants of economies.

Methodological Framework

For assessment of the size of a fiscal multiplier, the methodological framework based on a vector autoregression model was applied. We followed the seminal paper of Blanchard and Perotti (1999) and adopted their methodology on panel data model with referencing on Ilzetzki et al. (2013) and Koh (2017). A panel VAR approach was also used in Silva et al. (2013) and Hory (2016).

The baseline model covers four macroeconomic variables: real government consumption ($g_{i,t}$), real GDP ($y_{i,t}$), fiscal balance to GDP ($FB_{i,t}$), and real effective exchange rate ($reer_{i,t}$). The vector of endogenous variables can be written as $X_{i,t}$ and the vector of residuals as $U_{i,t}$. A reduced form of the panel vector autoregression is defined in Equation (1):

$$X_{i,t} = C(K)X_{i,t-1} + U_{i,t}, \tag{1}$$

where $X_{i,t} = [g_{i,t}, y_{i,t}, FB_{i,t}, reer_{i,t}]'$ and $U_t = [u_{i,t}^g, u_{i,t}^y, u_{i,t}^{FB}, u_{i,t}^{reer}]'$, K is the operator of lag structure, and $C(K)$ is the polynomial of corresponding degrees.

To identify shocks in government consumption, we use Cholesky decomposition, where the ordering of the variables is crucial. Results are based on the following system of equations:

$$AX_{i,t} = \sum_{k=1}^K C_k X_{i,t-k} + BE_{i,t}, \tag{2}$$

where $X_{i,t}$ is a vector of endogenous variables for a given country i and a year t . C_k is the matrix of the own and cross effects of the k th lag of the variables. Matrix B is a diagonal; therefore, $E_{i,t}$ represents orthogonal shocks to government consumption (Ilzetzki et al., 2013). We order the variables according to Ilzetzki et al. (2013) and Koh (2017). Thus, our model consists of variables in the following order: real government consumption, real GDP, fiscal balance to GDP, and real effective exchange rate. Country fixed effects are also included in these regressions.

Koh (2017) stresses that an alternative approach using annual data instead of quarterly data as in Ilzetzki et al. (2013) is also credible and provides robust results. The results are reported when the number of lags is set to one, which is comparable with a four-quarters lag structure in quarterly data analysis. For estimation purposes, the panel vector autoregression package for Stata provided by Abrigo and Love (2016) was utilized. The generalized method of moments is used as an estimation technique.

Ordering of the variables defines the causal relationships between them. The GDP responds contemporaneously to the changes in government expenditures; however, at the same time, government consumption does not react to the changes in output within the same period. Following Koh (2017), we assume that the changes in government consumption patterns on an annual basis correspond to actual fiscal budget decisions, which are made mainly once a year. Additional advantages of using annual data instead of quarterly data are, first, lower importance of the seasonality effects; second, a smaller role of the anticipation effects because the changes in the government consumption are more difficult anticipated by economic agents on a yearly basis. Furthermore, fiscal balance to GDP responds contemporaneously to the changes in output, and all three variables, i.e., government consumption, output, and fiscal balance, contemporaneously affect the real effective exchange rate.

Data

The base panel vector autoregression model in this paper comprises real government consumption, real GDP, fiscal balance to GDP, and real effective exchange rate. All variables have annual frequency and cover the period between 1995 and 2017. Data for real government consumption and real GDP are collected from the World Bank (2019), specifically from the World Development Indicators database in the form of local currency units and constant prices. Data for fiscal balance to the GDP, expressed in percentage points, are collected from Eurostat (2019), whereas data for real effective exchange rate are provided from Darvas (2019).

The real effective exchange rate is calculated on the basis of a country's 67 biggest trading partners and with using CPI index as a proxy for domestic and foreign price levels. All three variables with the exception of fiscal balance to the GDP are stated in first log differences. These four macroeconomic variables for EU member states are organized in strongly balanced panel data sample. Because the goal is to operate with a balanced panel, we did not use longer time-series data for some countries even though they are available.

Additional variables are collected for the purpose of examining the role of countries' characteristics. Thus, we employed public debt to GDP data in percentage points from Eurostat (2019) to establish the public indebtedness of European countries. Then, with trade to GDP data from the World Bank (2019), the selected countries were classified according to their trade openness. Trade to GDP indicator includes trade in merchandise and services and flows of exports and imports. Next, data on the GDP per capita in constant 2010 USD are employed from the World Bank (2019) to classify countries into two groups according to their level of development. To check the impact of the financial and capital openness of the economy on the size of a fiscal multiplier, we used the Chinn-Ito index (2006). For the purposes of checking the effect of the inclusion of countries in the EU or in the Economic and Monetary Union (EMU) on the magnitude of the fiscal multiplier, we constructed our own series, indicating the time when each country entered an individual integration. Next, based on the study of the macroeconomic situation in the EU, we mark the period of the Great Recession for 2008–2015. Even though Euro Area GDP growth began with sluggish recovery in the first quarter of 2013, average real GDP of the Euro Area surpassed the pre-crisis level in the third quarter of 2015. In addition to this, employment level in the Euro Area began rising at a bit faster pace at the beginning of 2015 (CEPR, 2017).

In determining the relative thresholds for individual macroeconomic determinants, the study partly follows the work of Ilzetki et al. (2013) and Koh (2017), though relative thresholds in this paper are adjusted according to the nature of variables in our sample. If the public debt exceeds the value of 60% of the GDP, that period is classified as one of high public indebtedness. The aforementioned limit in the level of public indebtedness is also in line with the Maastricht criteria. Regarding the level of development, we include countries into a group of less and more developed economies. Namely, the median GDP per capita in the year 2004 is used as the threshold. For the purpose of ranking countries with regard to the trade openness, we first calculated the average shares of trade in the GDP for all countries and then established each country's status. Countries

with less than 95% share of trade in GDP are considered closed. Last, regarding financial and capital openness, threshold, which separates countries or individual periods, was determined based on the calculated average value of the Chinn-Ito index.

Value of fiscal multiplier represents the output effect of government spending measured in the absolute currency terms. The impulse and response variables are expressed in first log differences, approximating growth rates; consequently, results can be interpreted as elasticities. To obtain fiscal multipliers, values of elasticities are divided with an average share of government consumption to GDP in the sample. The calculations of the impact multipliers are reported.

Results and Discussion

The results are illustrated graphically on a 10 years' forecast horizon. In all cases, impulse represents shock in the government consumption with the magnitude of 1% of GDP. Therefore, the magnitude of output effect can be shown as lines that represent the values of a fiscal multiplier. The shaded area on the forecasting horizon indicates statistically significant results. On the other hand, the unshaded area represents statistically insignificant results. The values of fiscal multipliers and economic interpretations are given hereinafter.

Figure 1 depicts the estimated value of the fiscal multiplier on the predictive horizon for the whole EU panel. As illustrated in the figure, the fiscal multiplier has a statistically significant immediate effect that lasts for three years. The maximum value of the estimated multiplier is observed directly after introduced shock in government consumption when it climbs slightly above 1.3. However, the values of a multiplier then gradually converge to zero. In our survey, annual data were used instead of quarterly data; therefore, the results must be interpreted accordingly. It follows that the estimated multiplier after the first year should be compared with the multiplier after the fourth quarter in the other studies.

The purpose of the research is not merely to estimate the size of fiscal multiplier in EU member states but to examine the impact of the selected characteristics of the countries on the size of fiscal multiplier. The results of the calculations indicate that the level of public indebtedness affects the size of a fiscal multiplier. In the case of low public indebtedness (Figure 2), the output response to shock in government consumption is statistically significant in the first three years. The corresponding multiplier reaches the highest value when it is slightly above 1.6 and then gradually diminishes to zero. On the other hand, Figure 3 shows that, in the case of

Figure 1. Dynamics of Fiscal Multiplier in the EU Sample

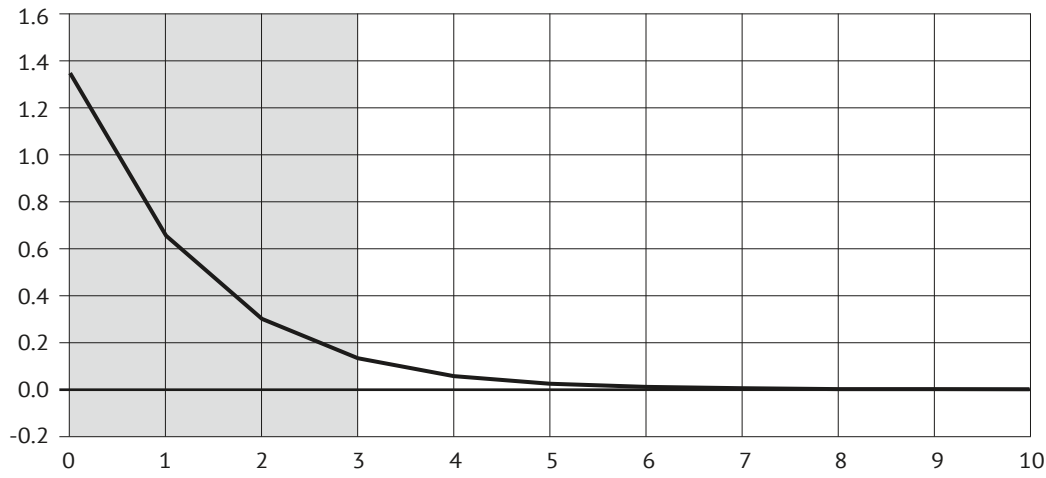


Figure 2. Fiscal Multiplier under Public Debt Less Than 60% of GDP

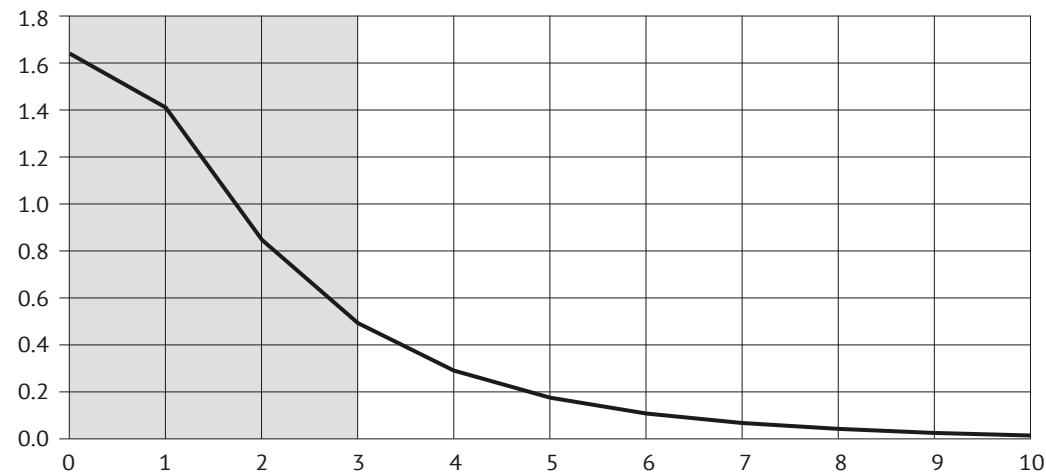
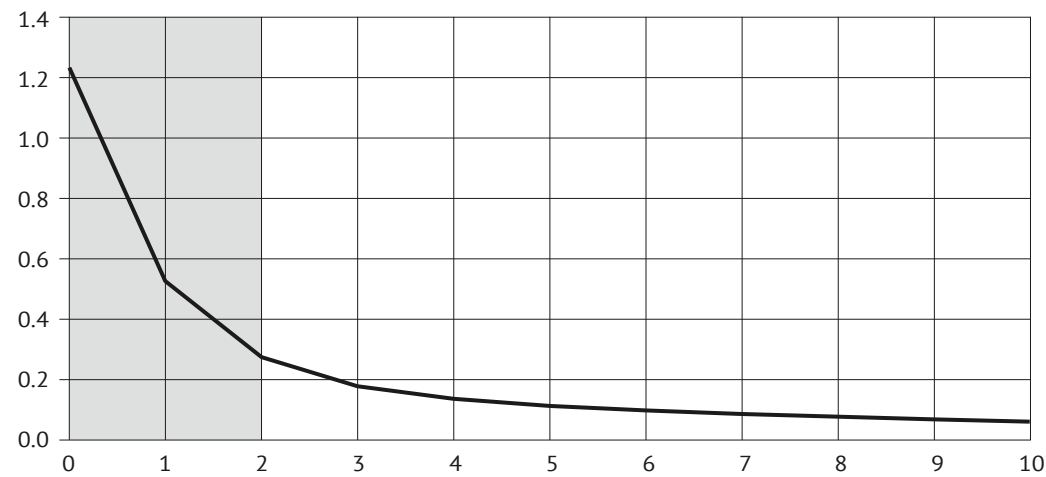


Figure 3. Fiscal Multiplier under Public Debt More Than 60% of GDP



relatively higher public indebtedness, the estimated values of the fiscal multiplier are relatively lower. A multiplier reaches maximum value immediately after the introduction of a positive shock in government consumption, i.e., its value is slightly over 1.2. The magnitude of the output response, which is statistically significantly different from zero only within the first two years, gradually converges to zero.

The influence of the level of public indebtedness on the size of a fiscal multiplier is also supported by economic theory because the countries with higher public debt have difficulties in securing the financial support of stimulative fiscal policy due to rising interest rates. Consequently, public treasuries are often under pressure, which can lead countries to a negative debt spiral. The increased share of public expenditures on interest payments can significantly reduce the financial potential of stimulative use of fiscal

incentives. Our findings are in line with the results from the studies of Ilzetzki et al. (2013), Koh (2017), Hory (2016), and Deskar-Škrbić et al. (2017). The problem of high public indebtedness was exposed during the Great Recession, especially in the EU, where many member states have had problems with the management of rising public debt. As a result, some member states could not apply a countercyclical fiscal policy and were instead forced to painful fiscal tightening. Member states should therefore deleverage public budgets during relatively stable times, but, in times of economic downturn, they should give a push to the aggregate demand in order to stimulate economic growth.

In the case of trade openness, our results do not offer a clear-cut conclusion and suggest that trade openness affects the size of fiscal multiplier to a lesser extent. Figure 4 indicates that, in the case of less open economies,

Figure 4. Fiscal Multiplier under Lower Trade Openness

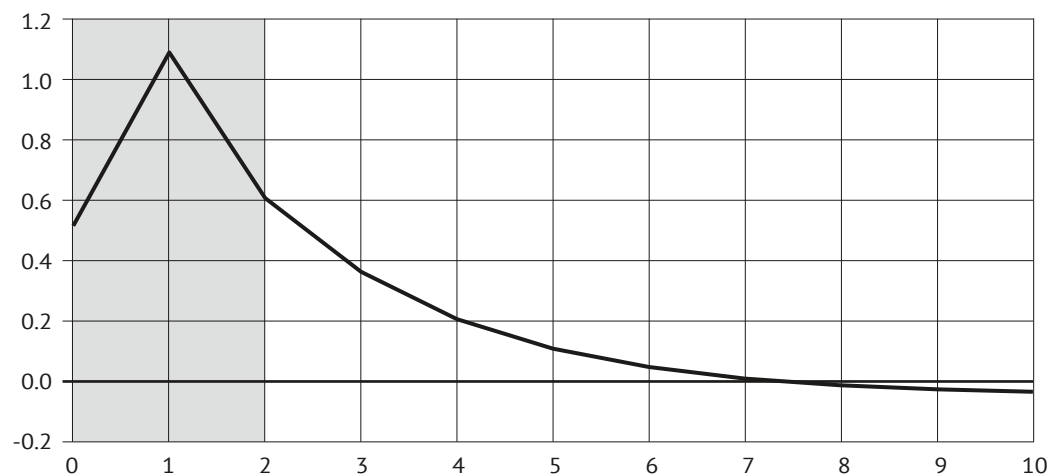
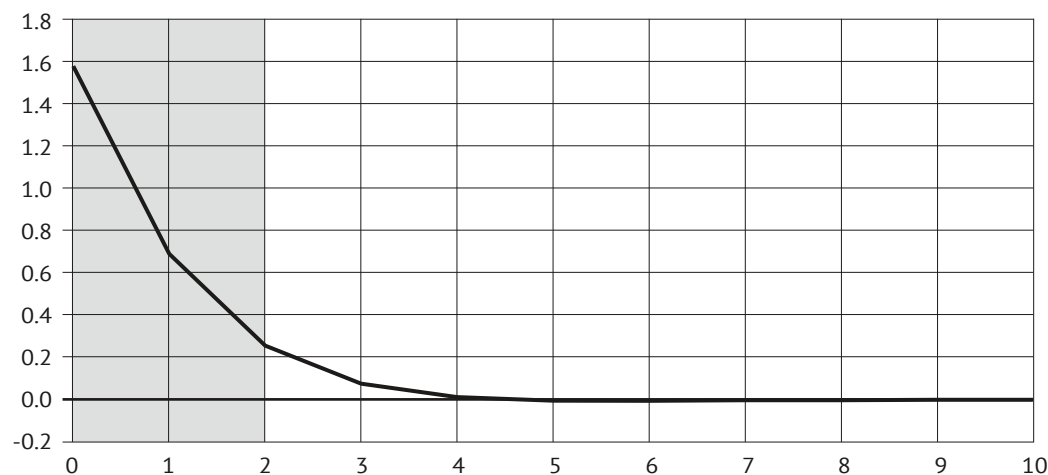


Figure 5. Fiscal Multiplier under Higher Trade Openness



the multiplier reaches the highest value after the first year, namely, 1.1. In the long run, an estimated multiplier gradually converges to zero, the values of which are statistically significant only in the first two years. In the case of more open economies, the value of a multiplier is the highest immediately after the introduction of the shock, around 1.6, but the output response is less persistent (Figure 5). The results are statistically significant within the first two years; however, our results do not provide a clear answer to the role of trade openness in determining the size of a fiscal multiplier. Similar findings are also provided by Koh (2017), while, for example, Ilzetzi et al. (2013), Silva et al. (2013), and Hory (2016) identify higher values of multipliers in more closed economies. Economic theory also envisages higher fiscal multipliers in more closed economies, as the larger share of the initial fiscal stimulus remains within the borders of countries

because of lower import leakage. It should also be noted that our data sample consists only of member states of the European Union, which are all considered relatively open in comparison with the rest of the world.

In case of a relatively smaller financial openness of economies, values of the fiscal multiplier do not exceed unity and are relatively lower compared with values recorded in more financially open economies. Figure 6 shows a statistically significant response of output within the first two years. In periods when countries experienced a relatively more financially open economic environment, we estimated higher values of fiscal multiplier, i.e., the maximum value is observed immediately after the introduction of the shock and amounts to 2.0 (Figure 7). The output response is statistically significantly different from zero only within the first year. The results of our research are partly in line with the

Figure 6. Fiscal Multiplier under Lower Financial Openness

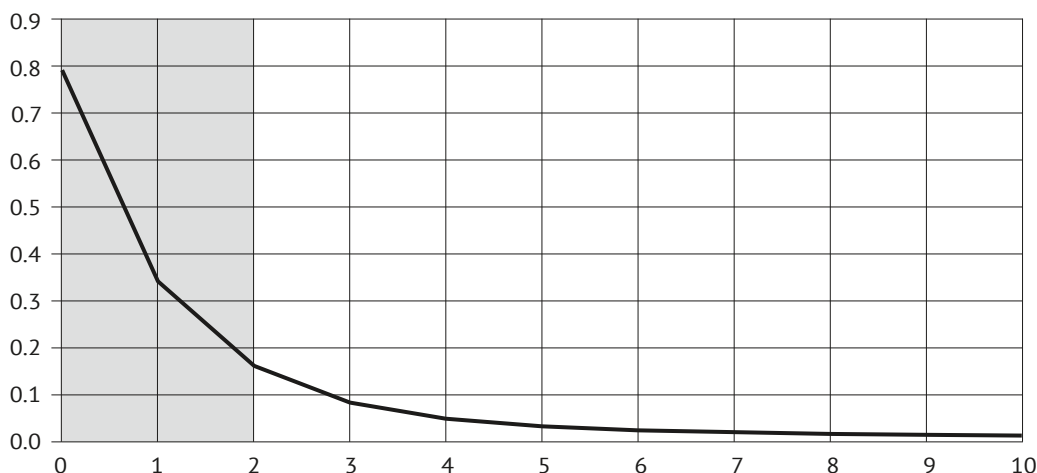
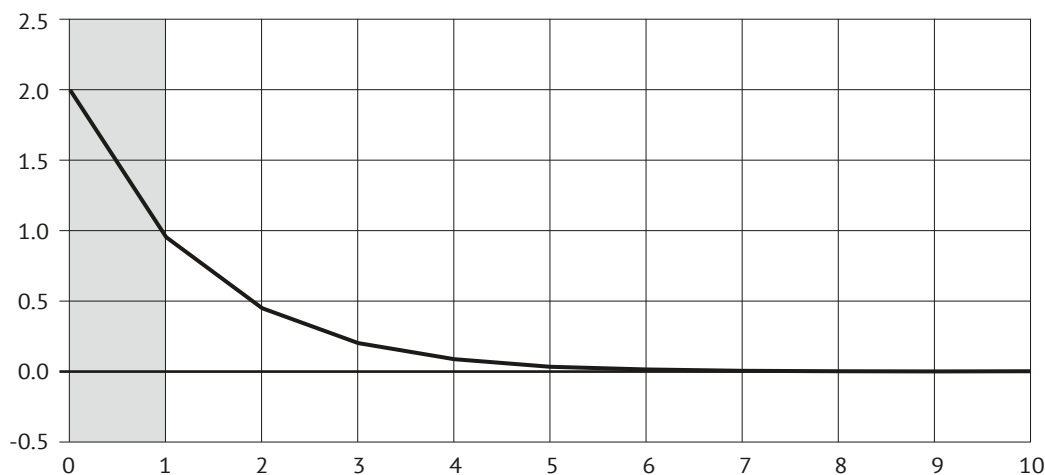


Figure 7. Fiscal Multiplier under Higher Financial Openness



results of Koh (2017), as he also notes that countries that are financially more open do not necessarily record lower values of fiscal multipliers; they can even be higher than in the case of financially more closed countries. On the other hand, Ilzetzi et al. (2013), contrary to Koh (2017), argue that fiscal multipliers are higher in the case of more closed economies in terms of international flows of capital.

Level of development is the next in line of structural characteristics, which can influence the size of the fiscal multiplier. For the group of relatively less developed European economies, we estimate the maximum value of the fiscal multiplier at 1.35 (Figure 8), which is achieved immediately after the introduction of the shock in government spending. The output response is statistically significantly different from zero in the period of the first three years, while the multiplier values gradually converge to zero.

Among relatively more developed European economies (Figure 9), the fiscal multiplier reaches the maximum value after one year, when it stops at 1.9. Although the direct response of output is considerably lower in the case of more developed economies, it rises then to relatively higher values; in addition to that, a longer persistence of the effect of the fiscal stimuli is also detected. In this case, too, the output response is statistically significant over a period of three years.

Hory (2016) estimates that, in the economically developed countries, the values of a fiscal multiplier are close to unity, while for developing economies he reports multiplier values closer to zero. The comparable influence of the level of economic development on the size of a fiscal multiplier is also found in Ilzetzi et al. (2013) and Koh (2017). Koh (2017) explains the results with a more sophisticated bureaucratic system in developed economies,

Figure 8. Fiscal Multiplier for Less Developed Economies

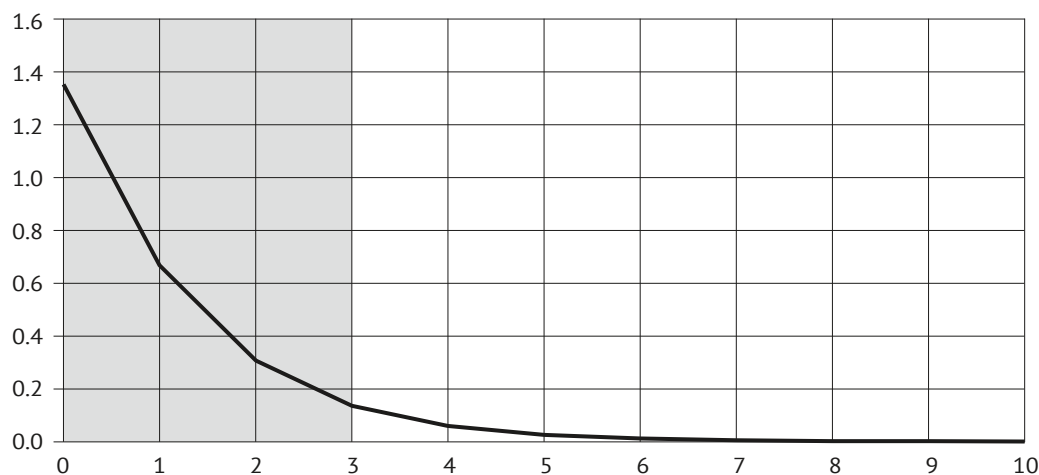
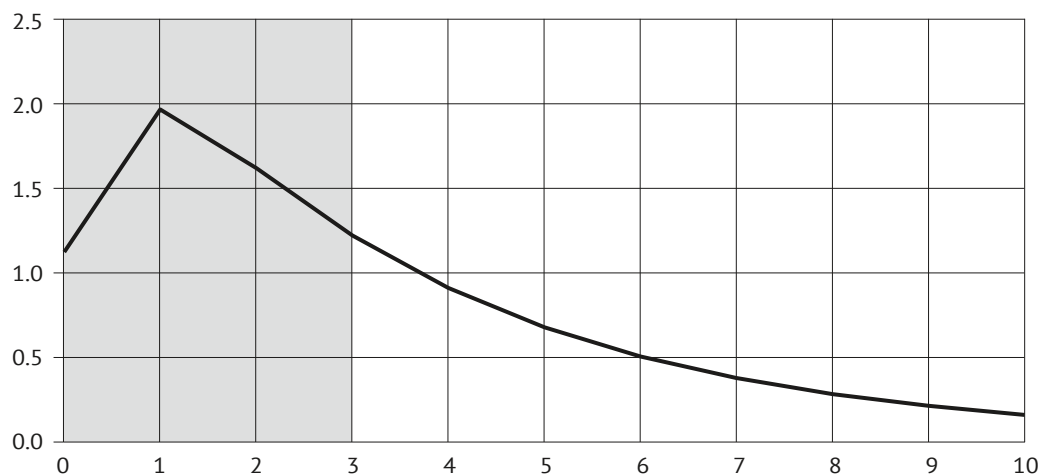


Figure 9. Fiscal Multiplier for More Developed Economies



which means more effective management and governance of fiscal stimulus policies. On the other hand, in less developed economies, more cash flows are expected to leak out of the system due to poor project management skills and less developed institutional framework or possibly due to increased corruption risks.

In Figures 10 and 11, the results show a certain influence of the membership of countries in the political integration on the size of fiscal multiplier. Prior to joining the European Union, countries recorded a statistically significant output response to a positive shock in government consumption over the first two years. The values of the estimated fiscal multiplier are lower than unity throughout the horizon. In the case of member states, however, the values of a fiscal multiplier exceed unity and are also statistically significantly different from zero within the first two years, with the highest value reaching

directly after the introduction of shock in government consumption, amounting to slightly above 2.0. Then, the value of the fiscal multiplier gradually decreases and approaches zero after six years. A possible economic interpretation of higher fiscal multiplier in the case of countries' inclusion in political integration may be in a better and more stable institutional framework for the overall integration as a whole and, consequently, also for the member states themselves. Countries within the European Union are therefore forced to implement projects transparently and efficiently; otherwise, the supranational authority can penalize any wrongdoings. Similarly, before joining the European integration, countries were forced to fulfill a number of challenging entry criteria in the field of fiscal issues.

The analysis of the impact of country membership in monetary integration on the size of a fiscal multiplier has

Figure 10. Fiscal Multiplier for the Group of Non-EU Members

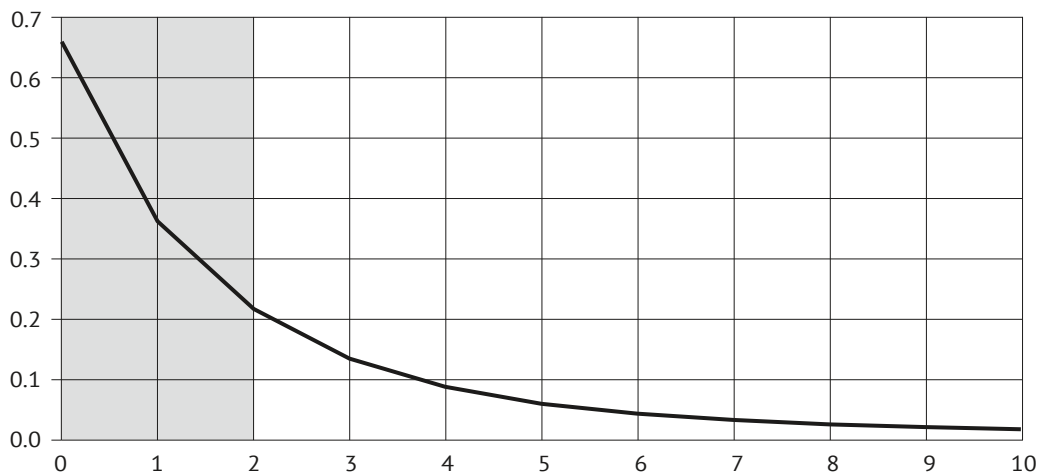
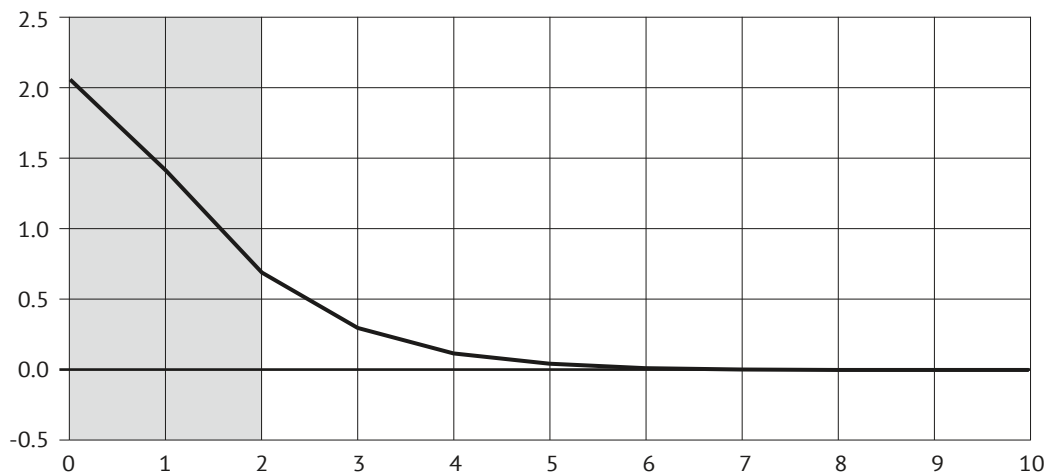


Figure 11. Fiscal Multiplier for the Group of EU Members



parallels with the previously described effect of the participation in political integration. Figure 12 shows that the estimated values of fiscal multiplier are statistically significantly different from zero within the first three years, reaching the maximum value immediately after the introduction of shock, namely, the value is 1.2. Then, the values of the fiscal multiplier gradually converge to zero. If the countries were included in the Economic and Monetary Union, we estimate the relatively higher values of the fiscal multiplier (Figure 13). In this case, the output response to shock in government consumption is statistically significant only within the first year with the maximum observed value of 1.6.

Stronger and more developed institutional framework with an even higher degree of economic integration demands from EMU member states higher standards in the

functioning of economic policy. A single central bank that forms a common monetary policy and overviews economic conditions of the entire Euro Area can also have a positive effect on the efficiency of fiscal incentives. The explanation for this phenomenon lies in more stable prices and interest rates, which make fiscal policy more robust and resistant, as financial markets recognize individual member states as being less risky because of their membership in a monetary union. There is also a fixed exchange rate within the EMU, which provides additional soundness into the system.

The economic crisis hit the global economic system in 2008 drastically and was considered as the biggest contraction since the Great Depression in the 1930s. The results of our research show that estimated values of fiscal multiplier during the off-recession period are lower compared with the values of fiscal multiplier during a major recession.

Figure 12. Fiscal Multiplier for the Group of Non-EMU Members

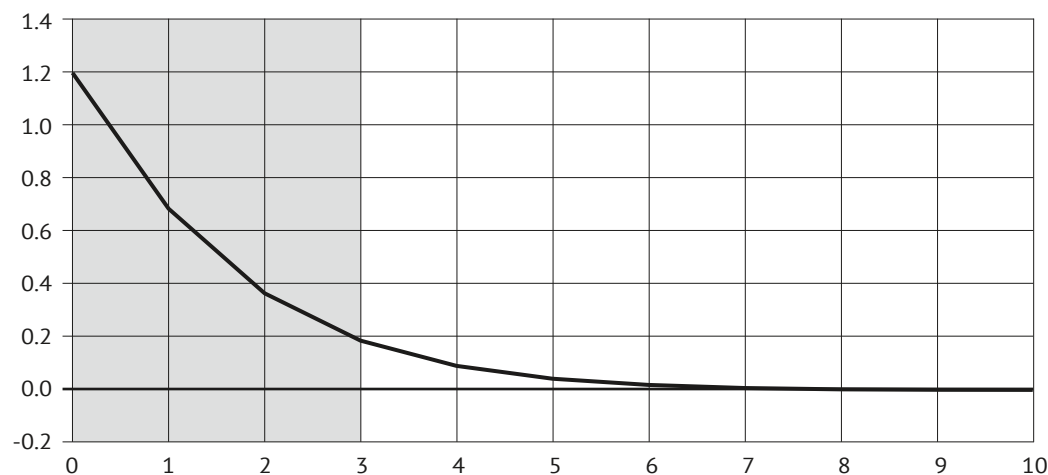


Figure 13. Fiscal Multiplier for the Group of EMU Members

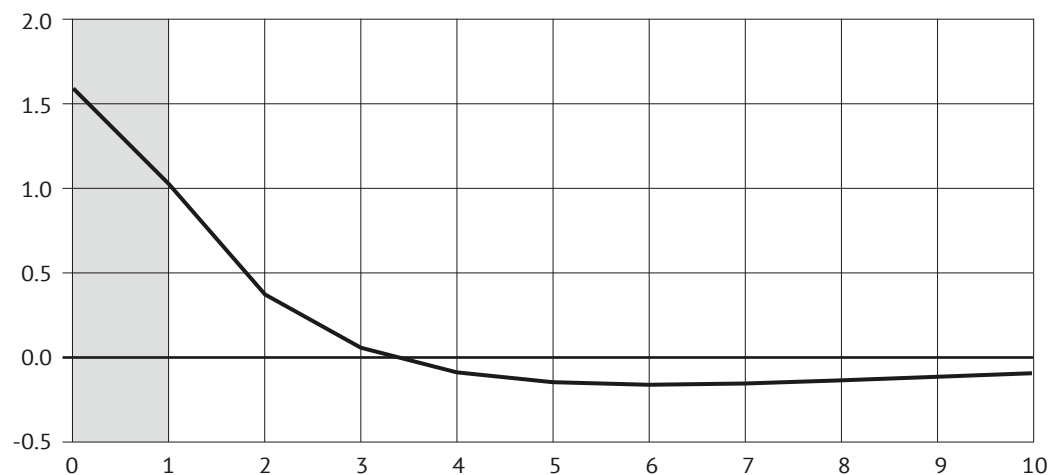


Figure 14 shows that, in normal time, the fiscal multiplier reaches the highest value immediately after the shock, when it amounts to 0.95. The response of the output to a positive shock in government consumption is statistically significantly different from zero within the first five years; after the first year, a gradual decline in the value of the multiplier is also observed. During the duration of a major recession (Figure 15), the fiscal multiplier is estimated at a value of 2.0 immediately after the shock, which rapidly falls and then persists around zero in the negative area. The fiscal multiplier is statistically significantly different from

zero only on the impact. The reason for the higher value of the short-term multiplier during a major recession can be hidden mainly in the underutilization of the economy and in the zero lower bound. Consequently, any additional spending, in our case, an increase in government consumption has a beneficial effect on economic activity. However, in the context of the recession, which is usually accompanied by a loose monetary policy, interest rates persist for a long time on a low level, which gives a fiscal policy additional maneuvering space for issuing more government securities at low cost.

Figure 14. Fiscal Multiplier in the Off-Recession Period

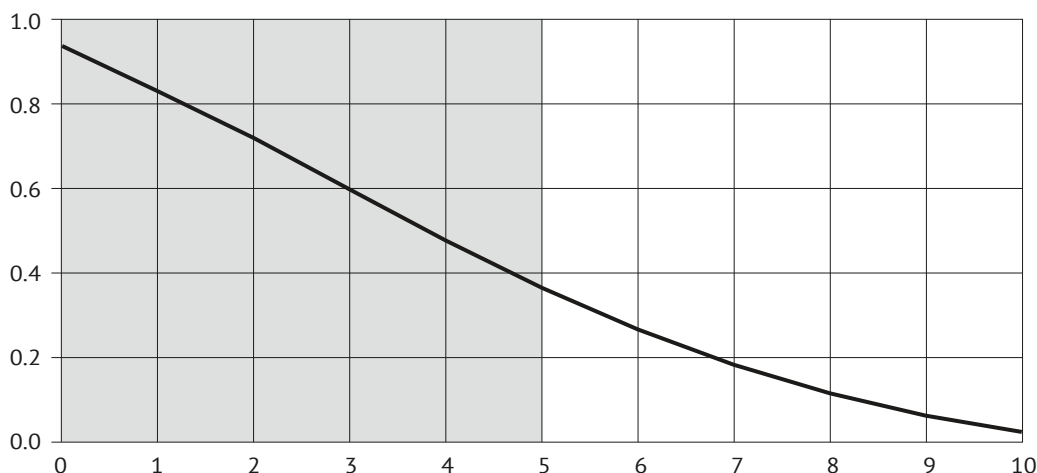
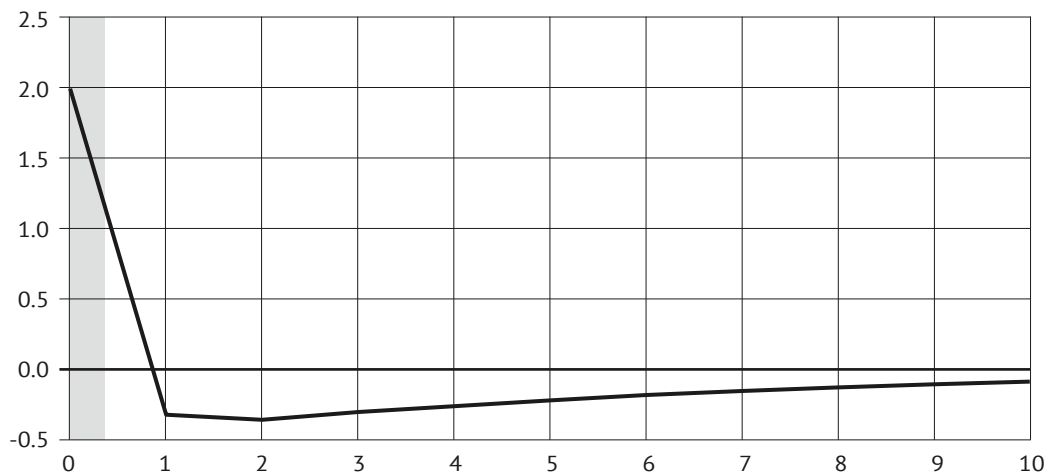


Figure 15. Fiscal Multiplier in the Period of Great Recession



Conclusions

Building a broad consensus in the field of understanding the role of countercyclical fiscal policy in boosting economic growth during the slack, our study expands and updates the existing empirical literature. In this paper, we estimate the government consumption multiplier based on a panel VAR

model for a sample of EU countries between 1995–2017 and examine the effect of various characteristics of the countries on the size of fiscal multiplier. We check whether the level of public indebtedness, trade openness, financial openness, level of development, membership in trade and monetary integration, and era of the Great Recession affect the size of fiscal multiplier. Core results are summarized in Table 1.

Table 1. Summary Results

Characteristics	Influence on the Size of Fiscal Multipliers
Level of public indebtedness	-
Trade openness	Inconclusive
Financial openness	+
Level of development	+
Membership in EU	+
Membership in EMU	+
Period of Great Recession	Higher multiplier; shorter impact

Notes: +/- represents positive or negative impact of the country's characteristic on the size of fiscal multiplier, respectively.

Our study indicates higher values of fiscal multiplier in periods of lower public indebtedness and in cases of more developed economies, which corroborates the findings of Ilzetzki et al. (2013), Hory (2016), and Koh (2017). Results regarding financial openness suggest higher values of multiplier in more financially open European economies. This is not strictly in line with economic theory, but Koh (2017) provides an argument of support based on easier access to financial markets and therefore better options for financing additional expenditures. Rather contradictory results occur in the case of trade openness, where the direct effect of additional government consumption is higher in more open economies though is less persistent at the same time. These findings are in line with those in Koh (2017) but contradict those in Ilzetzki et al. (2013), Combes et al. (2016), and Hory (2016). As at least partly expected, we discovered

higher immediate output effect in the period of the Great Recession, but the effect quickly diminishes to zero. Membership of the countries in supranational integrations, according to our estimates, helps countries to gain more efficient use of public expenditures in terms of boosting short-term economic growth.

Despite scrutinizing a large number of characteristics of fiscal multipliers in this paper, there is still room for upgrading our research in adding into consideration more factors such as exchange-rate regime, labour market features, private indebtedness, and income inequality. With broadening the list of relevant factors, we will gradually improve the understanding of the transmission mechanism of the fiscal stimuli, which can significantly improve the effectiveness of stimulative fiscal measures.

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Authors

Marko Senekovič is an assistant at the department of political economy, Faculty of Economics and Business, University of Maribor. He cooperates in the teaching process in undergraduate courses for principles of economics, microeconomics, theory of markets and prices, macroeconomics, open economy macroeconomics, and development of economic theory. He is a doctoral student at the Faculty of Economics and Business, University of Maribor. His research is primarily focused on fiscal policy modelling and economic theory.

Alenka Kavkler, PhD, is an associate professor of quantitative methods in business science at the Faculty of Economics and Business, University of Maribor. She received her M.Sc. in mathematics from University of Ljubljana and her PhD from Vienna University of Technology. Her research is mainly focused on nonlinear econometric models, especially smooth transition regression models. She is currently the head of the Institute of Operations Research at the Faculty of Economics and Business.

Jani Bekó, PhD, is full professor of economic theory and applied economics at the Faculty of Economics and Business, University of Maribor, and head of the department of political economy. He teaches undergraduate and postgraduate courses on microeconomics, the theory of markets and prices, macroeconomics, international economics, and the development of economic theory. He is an active researcher within the research program entitled “Adjustment of the Slovenian Economy and Development Identity of Slovenia in EU.” His bibliography is comprised of more than 250 entries.

Ocena multiplikatorja vladne potrošnje v gospodarstvih EU

Izvleček

Namen tega članka je oceniti multiplikator vladne potrošnje na panelu držav EU in preveriti vpliv izbranih karakteristik držav na višino fiskalnega multiplikatorja. Na vzorcu 28 držav EU, ki zaobjema obdobje 1995-2017, apliciramo panelni VAR model, pri čemer sledimo Ilzetzkiju idr. (2013). Ugotavljamo, da je ocenjen povprečni multiplikator vladne potrošnje večji od ena in da je fiskalni multiplikator višji v primeru nižje ravni javne zadolženosti, v bolj razvitih državah in v finančno bolj odprtih gospodarstvih. Učinek trgovinske odprtosti držav na višino fiskalnega multiplikatorja je nejasen. Prav tako ugotavljamo pozitivno odvisnost višine multiplikatorja vladne potrošnje od članstva držav v evropskih integracijah. Na podlagi rezultatov lahko sklepamo, da je za nosilce fiskalne politike smiselna selektivna uporaba fiskalnih spodbud pri uravnavanju kratkoročne gospodarske aktivnosti. Naš članek ažurira obstoječo empirično literaturo in oceni vpliv dodatnih, manj raziskanih karakteristik držav na velikost fiskalnega multiplikatorja.

Ključne besede: karakteristike držav, fiskalni multiplikator, panelni VAR