

## REPERCURSIONS OF THE IMPLEMENTATION OF FISCAL POLICY'S OBJECTIVES ON ECONOMIC GROWTH

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### ABSTRACT

*The paper aims to present that fiscal policy has a direct impact on economic growth. Any changes into its objective are reflected directly and indirectly on entire economic actors. The research is based on comparative analysis of trends in several indicators assessing the economic efficiency of the tax systems of EU's largest 19 member states and shows how changes in fiscal policy vision directly affect investments, confidence of foreign direct investors, individual perceptions about fiscal matters. The ways of which fiscal policy's objectives are implemented in each country depend on its public authorities, and how they accurately assess the rhythm and effects of the measures. The author comes up with an alarm signal, specifying that the way fiscal policy is managed, especially the tax policy, brings crucial repercussions for the country's sustainable economic development as well as for the image of political stability promoted in relations with international partners.*

**KEYWORDS:** *debt, deficit, economic growth, fiscal policy, investment, public finance, revenue, tax, tax data, tax efficiency, tax structure, taxation, unemployment.*

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### 1. INTRODUCTION

Fiscal policy plays a major part in the economic growth of each country. The objectives set in the fiscal policy enable the design of a balanced national budget, a sustainable and consistent economic development, through management and constant monitoring of the public expenditure, of the public revenues, of the (public) debt and of the public borrowing.

Early in 2009, the financial downturn hit almost all the countries of the world, the European Union states included. The unsustainable economic growth in the years before the crisis, the untenable budget deficits, the significant public debt, the easy access to bank loans of corporate and retail clients were the nurturing ground for the swift spreading of the economic crisis. The financial downturn triggered pay cuts, massive layoffs, businesses suspending operations or cutting down output (following dwindling demand). In other words, it quickly set off a ripple of pervasive economic and social decline.

The need to counter these adverse effects caused numerous countries to take budget austerity steps while also implementing measures aimed at boosting national economies.

So in early 2009 most European Union member states focused on short-term measures aimed at reducing budget imbalances rather than on implementation of sweeping reforms with long-term results.

The tax systems in 2009, 2010 and 2011 mostly concentrated on curbing public administration expenditure (especially salary costs), maintaining and increasing investment expenses, targeting strategic areas that would allow job retention or job creation. Though its objectives, closely linked

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to the good management of public money, fiscal policy affects the economic growth of each individual country.

Furthermore, by signing the Stability and Growth Pact, which includes clear rules and limitations in preparing and management the public budget, each signatory country becomes aware of and responsible for the implementation and monitoring of how the fiscal policy objectives, set for the European Union, are enforced and carried out at the national level. Under the Stability and Growth Pact, the European states created or introduced in the domestic legislation new rules for fiscal stability and responsibility. These rules are aimed at providing the balanced economic growth of each individual country.

One of the main objectives is to design and maintain, throughout a tax year, a balanced national budget, with a deficit close to nil. Maintaining the deficit within sustainable levels ensures credibility towards foreign partners. Credibility means that the state concerned is able to manage efficiently the public money spending, to take steps that will add value in the medium- and long-term and, last but not least, to create economic and political stability that will boost the trust of prospective investors and of existing investors alike.

## **2. LITERATURE REVIEW**

According the Hemming (2002) the fiscal policies implemented by a country have a direct effect on its economic performance, and by designing a sustainable tax system and carefully use the spending levels, this can lead to long-term economic growth. Moreover, the fiscal policy in conjunction with the monetary policy are going to influence the money supply and interest rates, as this analysis will show. The aim of a fiscal policy is to create a long-term economic growth. Most studies show that ideally an economy should grow between 2% and 3 % per year.

According to Horton & El-Ganainy (2006), the fiscal policy has two main effects: on the short term, it can provide a macroeconomic stabilization, while on the long run it can stimulate economic growth and reduce poverty. Although the Classical Theory of economics states that even over time, an economy should correct itself on the condition that governments do not intervene, as John Maynard Keynes developed the Keynesian Theory, things started to change especially during times of economic recession. According to Keynes (1936), during recession, governments are ought to increase the spending levels in order to correct instabilities while reducing taxes. The idea behind his theory was to increase the sum of money that people have in order for them to buy more products, thus increasing consumption. By increasing consumption, the demand of such products will increase, incentivising companies to speed-up production and to hire more workers.

Afonso & Sousa (2009) analysis shows that government revenues shocks (e.g. reducing taxes) have a positive effect on GDP, investments, housing and stock prices and the real effective exchange rate. According to Molnar (2012), fiscal rules are associated with successful consolidations, while adjustments programmes to the tax system, during the crisis period of short after, tend to destabilise debt. Briefly, her empirical analysis shows that profitability or debt stabilization is sustainable if the adjustments are focused on growth rather than on spending.

In that context, we can conclude that fiscal policies have an import role to play in a countries economic growth. Moreover, in order to assess the economic effects of the fiscal rules we have to take into account the following two indicators: expenditure and revenues.

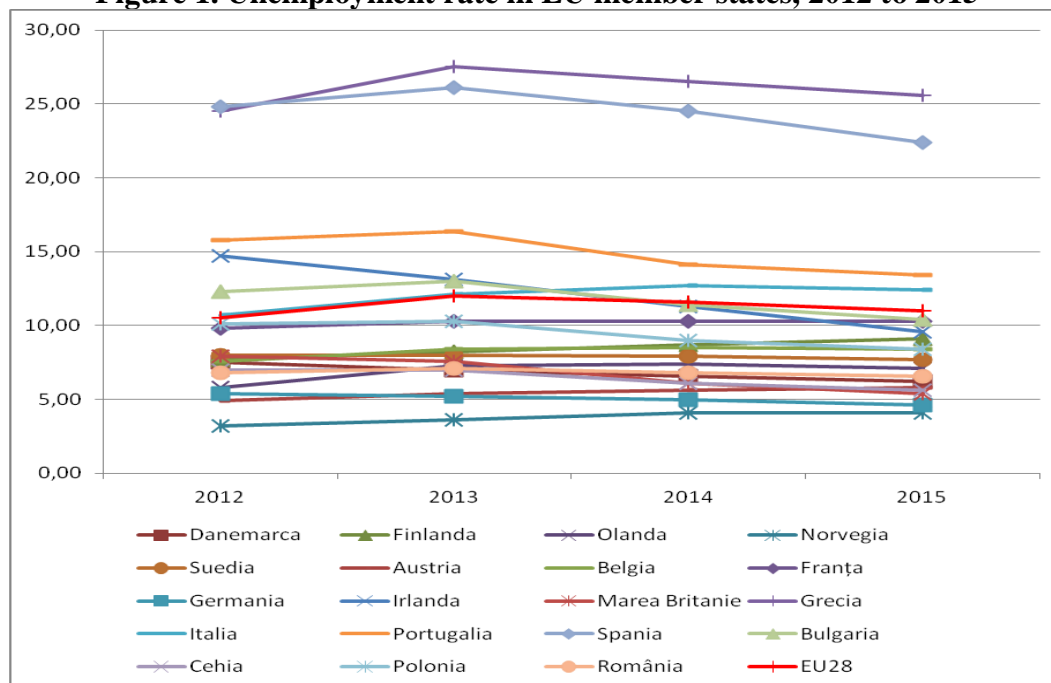
## **3. RESEARCH ANALYSES AND FINDINGS**

The research method is the comparative analysis of trends in several indicators assessing the economic efficiency of the tax systems of EU's largest 19 member states, between 2012 and 2015. The indicators considered in this research for the assessment of the fiscal systems are: the unemployment rate, economic growth, public debt and budget gap levels, and investment growth.

## Unemployment rate

Unemployment rate is an indicator of the efficiency (or inefficiency) of a fiscal system.

**Figure 1. Unemployment rate in EU member states, 2012 to 2015**



Source: calculations based on [http://ec.europa.eu/economy\\_finance/eu/index\\_en.htm](http://ec.europa.eu/economy_finance/eu/index_en.htm)

Austria, Belgium, France and Germany (users of the Continental model of taxation according to Mosteanu and Mitroi (2015)) have the lowest unemployment rate. In the countries covered by the Continental Model, the welfare and social protection policy encourages the fit-for-work but unemployed people to find jobs, by rethinking the welfare system so that individuals would be more interested in finding a job, following a reduced sum/period of the unemployment benefit granted (a measure initially promoted by Germany). Another feature is that the labour market policy mainly focuses on the steady nature of jobs, with the component of flexible work for one given employer coming second. Although the right of European citizens to work in any country in the European economic area, the Continental Model states are more reluctant to foreign workforce and prefer their own citizens. This accounts for the lowest unemployment rates of the Continental Model states as compared to the EU-28 average (11.0%) and to the other European tax systems (except for Norway, where the unemployment rate is 4.1%), i.e. 4.6% in Germany, 5.8% in Austria, 8.4% in Belgium and 10.3% in France. Of all the countries using this model, France has a higher unemployment rate. At present, in order to solve this issue, France has launched an active labour market policy that promotes a system of state-subsidised jobs for the youth and flexible jobs.

In Sweden, Finland, Denmark, the Netherlands and Norway (users of the Scandinavian Model of taxation), taxation policy focuses on direct taxes, which, even though at first glance may seem to be placing a high tax burden on individuals, it has caused - in conjunction with active welfare policies - the unemployment rate to go down much below the EU-28 average of 11.0% in 2015 (4.1% in Norway, which ranks first with the lowest unemployment rate in all the countries covered by the analysis; 6.2% in Denmark, 7.1% in the Netherlands, 7.7% in Sweden and 9.1% in Finland). This shows in the employment rates, which are the highest in the Scandinavian Model countries, compared to the EU-28 average (68.1% in 2015) and to the countries covered by the analysis (79% in Norway, the highest figure in the EU, followed by Sweden with 79.5%, the Netherlands with 76.9%, Denmark with 76% and Finland with 74.2%).

Bulgaria, the Czech Republic, Poland and Romania (covered by the Catching-up Model of taxation) were hit by unemployment, especially after a policy of reducing public spending, restructuring and reshaping the public administration system. Therefore, a large part of the workforce in the public sector had to turn to the private sector. In recent years, tax reforms have brought along a tax incentive package aimed at stimulating the employment of the unemployed workforce. This caused the average unemployment rate to go to 7.75% in 2015, following the high figure in Bulgaria (10.4%), with lower figures in the other three states: 8.4% in Poland, 6.6% in Romania and 5.6% in the Czech Republic. Greece, Italy, Portugal and Spain (covered by the Mediterranean Model of taxation) have the highest unemployment rates in the EU-28 (in 2015: 25.6% in Greece, 22.4% in Spain, 13.4% in Portugal and 12.4% in Italy).

Overall, following the financial downturn, the austerity measures in terms of salary-related public expenditure, in conjunction with higher tax rates, initially caused the unemployment rate to go up. Keeping a sustainable level of investment expenses and granting new tax incentives starting in 2012 and 2013 sent the number of jobs up and the unemployment rate down during the last period covered by the analysis (2014 and 2015).

### **Economic growth**

Another indicator that measures the efficiency of a fiscal policy and tax system is economic growth. Austerity measures involving salary-related reduction of public expenditure in conjunction with measures aimed at encouraging job retention and job creation were needed to lower the unemployment rates, whereas in terms of economic growth things have gradually improved over time.

**Table 1. Economic growth in the EU member states, 2012 to 2015**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Ireland	-0.30	0.20	4.80	3.6
Poland	1.8	1.7	3.4	3.3
Romania	0.60	3.40	2.80	2.8
Spain	-2.10	-1.20	1.40	2.8
United Kingdom	0.70	1.70	2.80	2.6
The Czech Republic	-0.90	-0.70	2.00	2.5
Norway	2.70	0.70	2.2	2.50
Sweden	-0.30	1.30	2.10	2.5
Germany	0.40	0.10	1.60	1.9
Denmark	-0.70	-0.05	1.10	1.8
The Netherlands	-1.10	-0.70	0.90	1.6
Portugal	-4.00	-1.60	0.90	1.6
Belgium	0.10	0.30	1.00	1.1
France	0.20	0.30	0.40	1.1
Bulgaria	0.50	1.10	1.70	1
Austria	0.80	0.20	0.30	0.8
Italy	-2.80	-1.70	-0.04	0.6
Greece	-6.60	-3.90	0.80	0.5
Finland	-1.4	-1.3	-0.01	0.3
EU28	-0.50	0.10	1.30	1.5

Source: [http://ec.europa.eu/economy\\_finance/eu/index\\_en.htm](http://ec.europa.eu/economy_finance/eu/index_en.htm)

Most countries first tried to curb their budget gap, then move on to economic growth. 2013 is the year when the economies of the European states overcame the financial crisis and started their recovery.

Even if at first the austerity measures proved quite drastic in the short term, in the long run the curbing of public expenditure brought about a recovery across the European area. So the new fiscal system imposed under the EU Stability and Growth Pact and implemented in each Member State has now beneficial effects. Yet there are still countries such as Greece, Italy, Spain, France still dealing with economic growth issues and still in need of consistent domestic reforms to have a constant economic growth.

### **Reducing public deficit and public debt**

Reducing the public deficit and the public debt are a fiscal policy objective. It reflects how public expenditure is efficiently allocated and how public revenue is created and collected effectively. Reducing the public deficit and the public debt clearly shows two aspects: a state's ability to manage efficiently public money, and to efficiently direct public spending toward investments to add value and foster economic growth and investors' trust.

The Stability and Growth Pact stipulates that a country's budget is balanced when the budget gap is up to 3% of the GDP (in 2014, the EU-28 average was 2.9%, while in 2015 was 3%).

The tables below list the deficit and public debt figures in the EU.

**Table 2. Government deficit % of GDP in the countries covered by the tax models analysed, 2012 to 2015**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Norway	13.80	11.30	9.10	9.00
Germany	0.10	0.10	0.70	0.60
Denmark	-3.70	-1.10	1.20	-1.50
Sweden	-0.90	-1.40	-1.90	-1.50
Romania	-2.90	-2.20	-1.50	-1.60
The Netherlands	-4.00	-2.30	-2.30	-1.70
Austria	-2.20	-1.30	-2.40	-2.00
The Czech Republic	-3.90	-1.20	-2.00	-2.00
Greece	-8.70	-12.30	-3.50	-2.10
Belgium	-4.10	-2.90	-3.20	-2.60
Italy	-3.00	-2.90	-3.00	-2.60
Ireland	-8.10	-5.80	-4.10	-2.80
Poland	-3.70	-4.00	-3.20	-2.80
Bulgaria	-0.70	-0.09	-2.80	-2.90
Finland	-2.10	-2.50	-3.20	-3.30
Portugal	-5.60	-4.80	-4.50	-3.50
France	-4.80	-4.10	-4.00	-3.80
United Kingdom	-8.30	-5.70	-5.70	-4.50
Spain	-10.30	-6.80	-5.80	-4.50
EU28	-4.20	-3.20	-2.90	-3.00

*Source:*

<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00127&plugin=1>

The austerity measures taken during the economic crisis resulted in the reduction of the budget deficit as % of the GDP, in most European states, although in 2015 the downward trend stagnated. The reduction may be attributable to the increasing investment expenses or to the higher social security and protection spending mainly targeting the wave of immigrants from the countries affected by political dissension.

For this indicator, the Scandinavian Model countries fared best in 2015. Norway had a 9% surplus (it should be noted that throughout the entire period analysed, 2012 to 2015, Norway had a

substantial surplus of 13.8% in 2012, 11.3 in 2013 and 9% in 2014) and was the only country to achieve this. The rest of the Scandinavian Model states had a budget deficit in 2015, but below the 3% cap: -1.5% in Denmark, - 1.5% in Sweden, and - 1.7% in the Netherlands. Finland was the only country under this Model to exceed the 3% target (i.e. 3.3%) in 2015, but during the analysed period it stayed between 2.1% and 3%.

Countries in the Continental Model rank second, and in 2015 they meet the targets in the Stability and Growth Pact (Mosteanu & Mitroi, 2015). Austria had a 2.5% budget deficit as % of GDP, Belgium 2.6% and Germany 0.6% of GDP, all below the 3% of GDP target. France had a 3.8% of GDP deficit, which is indicative of the effects of high unemployment and high welfare and social protection expenditure, showing an economy still struggling.

The Catching-up Model ranks three. Here the fiscal relaxation policy, the active labour market policy, the regional economic growth policy and access to technical and financial assistance from international financial institutions helped the budget gap to narrow below the Stability and Growth Pact targets (in 2015: - 2.9% in Bulgaria, 2.8% in Poland, 2% in the Czech Republic and 1.6% in Romania).

In 2015 (average figure 3.18%), the surprise came again from the Mediterranean Model countries trying to stay within the Stability and Growth Pact targets. They even managed to outrank Ireland and the United Kingdom (the Anglo-Saxon Model countries with an average of 3.65%).

Speaking of the budget deficit, Ireland and United Kingdom were notably affected by the financial downturn, as their budget revenues would no longer cope with the public expenditure during the onset of the crisis. In 2015 however Ireland curbed its deficit to 2.8% of GDP from 8.1% in 2012. This comeback was attributable to the tax reformation launched shortly after 2009, which involved higher tax rates and economic reform based on rethinking of economic growth objectives and review/reduction of budget spending, but it was also the outcome of a policy aimed at stimulating productive investments. The United Kingdom seems unable to stay under the 3% of GDP target, going down from 8.3% in 2012 to 4.5% of GDP in 2015. Although on a downward trend, the United Kingdom is yet to come up with specific financial and fiscal reformation measures.

**Table 3. Public debt as % of GDP in the countries covered by fiscal models analysed, 2012 to 2015**

	2012	2013	2014	2015
Norway	29.20	29.30	26.40	25.40
Bulgaria	15.70	18.30	27.60	29.80
Denmark	46.40	45.00	45.20	39.50
Romania	37.30	38.00	39.80	40.10
The Czech Republic	39.90	45.00	42.60	41.50
Sweden	36.60	38.70	43.90	44.20
Poland	54.40	55.70	50.10	50.90
Finland	52.90	55.80	59.30	62.60
The Netherlands	66.50	68.60	68.80	69.90
Germany	77.90	77.10	74.70	71.50
Austria	81.50	80.90	84.50	87.00
United Kingdom	85.80	87.30	89.40	89.90
France	89.60	92.30	95.00	96.40
Spain	84.40	92.10	97.70	100.40
Belgium	102.00	104.40	106.50	106.50
Ireland	121.70	123.20	109.70	107.10
Portugal	125.80	129.70	130.20	124.40
Italy	123.10	128.50	132.10	133.10
Greece	156.90	175.00	177.10	180.20
EU28	83,70	85,80	86,80	85,40

Source: [http://ec.europa.eu/economy\\_finance/eu/index\\_en.htm](http://ec.europa.eu/economy_finance/eu/index_en.htm)

In terms of public indebtedness, it can be noted that the Catching-up Model countries fare best, as they are cautious about drawing funds from abroad (an average of 40.58% in 2015), unlike the Mediterranean Model countries, their polar opposite (an average of 134.53% in 2015), which currently are economically stagnant and still in need of foreign financial support, which would be best combined with a specific package of economic and financial recovery measures.

The high indebtedness of the Mediterranean Model countries, which shows in the public debt as % of GDP, caused the public spending on welfare and social protection to diminish and the tax burden on individuals to grow. The credit crunch, the diminishing spending on investments, the restructuring of the salary and taxation system sent the unemployment rate up.

It can also be noted that the Scandinavian Model countries in their turn meet the Stability and Growth Pact targets, with an average 48.32% in 2015.

#### **Investment growth**

Once the management of the financial downturn in the Community area started shortly after 2009 and 2010, at the same time with the implementation of tax incentives, investment started to grow (table 4) and follow a slow but steady upward trend. This growth of investment is an indicator of the efficiency of the fiscal system. Investment growth entailed job creation, a boost in budget revenue, lower deficit and overall economic growth. It should be noted that since 2015 investment has been growing at the same rate as in the last two years. This is due to the political instability in some European countries.

**Table 4. Aggregate investment trend, 2012 to 2015 (year-on-year)**

	2012	2013	2014	2015
Ireland	5.20	-2.80	8.60	9.7
Greece	-28.70	-9.50	0.80	8.4
United Kingdom	0.70	3.40	7.40	6.9
Poland	-1.5	1.1	9.3	5.9
Sweden	-0.20	-0.40	4.70	4.4
The Czech Republic	-2.90	-4.40	3.40	4.1
Norway	2.70	0.70	2.8	3.50
Romania	0.10	-7.90	-5.40	3.5
The Netherlands	-6.00	-4.00	7.70	3
Portugal	-16.60	-6.70	2.40	2.9
Denmark	0.60	0.90	2.10	2.3
Germany	-0.70	-0.60	3.10	2.1
Belgium	0.00	-2.20	3.60	1.7
Austria	0.50	-1.50	1.00	1
Italy	-9.30	-5.80	-2.60	1
France	0.30	-1.00	-1.60	0.6
Spain	-8.10	-3.80	-1.60	0.6
Finland	-2.2	-5.3	-4.2	0
Bulgaria	4.20	-0.01	2.30	-2.3
<b>EU28</b>	<b>-2.80</b>	<b>-1.50</b>	<b>3.80</b>	<b>5.4</b>

Source: [http://ec.europa.eu/economy\\_finance/eu/index\\_en.htm](http://ec.europa.eu/economy_finance/eu/index_en.htm)

When assessing a fiscal system in terms of investment growth, it can be noted that the Anglo-Saxon Model (the UK and Ireland) had the largest investments throughout the analysed period, and this shows in the economic growth, where they rank first. Therefore, the taxation system combined with an active policy for investments and for drawing investors led to economic development.

The development of the Mediterranean Model in terms of investments is interesting, with Portugal making a spectacular comeback (from -16.6% in 2012 to 2.9% in 2015) and Greece trying to overcome the economic stalemate in 2015 by selling state assets (including land – inlands) and leap to positive figures (from -28.7% in 2012 to 8.4% in 2015).

#### 4. CONCLUSIONS

Our research points out that at present, after two or three years of financial recovery, in 2015 the European Union member states are still struggling to overcome the crisis, which raises questions over the viability of the measures taken on all levels, not just in terms of taxation. The objectives of a fiscal policy have a direct impact on economic growth.

However, some measures adopted early in 2009 and 2010, intended to cut budget expenditure, focused on reducing salary-related and social protection spending. This triggered a short-term reduction of consumption, and implicitly of production and budget revenues.

At the onset of the economic crisis, measures were promoted aimed at reducing taxation and granting tax incentives to investors and to employers that keep and/or create jobs, in order to counter the salary-related tax austerity steps taken. These measures started to bear fruit in 2012 and they still are.

Fiscal policies in the European Union member states were aimed at providing economic growth, employment, balanced budget, reducing inequalities and directing economy toward economic and social reconstruction. Most European countries followed a Keynesian fiscal policy, trying to

influence the development of their respective economies by means of an expansion fiscal policy involving the deliberate reduction of taxation, an increase of the unemployment or welfare benefit spending, all aimed at encouraging output, consumption and investment. These austerity policies should be implemented cautiously as in the short term they proved to curb aggregate demand and widen the recession gap, while sending unemployment up and making it so difficult to recover. This policy should have been followed up with (and in some countries it was) a recovery policy by means of increased public investment spending, lower taxation and tax incentives and facilities. The first effect was, immediately after 2012, the increase in domestic demand, following the raise in disposable income (including that arising from job creation). Higher demand triggered higher domestic output and implicitly an increase of GDP.

Summing up, fiscal policy measures are implicitly directed toward boosting the domestic resources required for funding economic growth, investments, which show in job creation and increasing budget revenues.

A fiscal policy, through its measures and objectives, is aimed directly at encouraging business, investments, providing social protection while making sure that each player contributes to budget revenue by means of taxes.

In terms of taxation impact on economic growth, our research found that in most economies of the globe high taxes and unstable legislation inhibit economic growth, whereas the opposite entails positive effects on investments, tax compliance and economic growth.

Economic growth has been and will remain an essential matter to all public authorities, central and local, in all the countries of the world. Economic growth is a priority in economists' forecast and analyses. In their endeavour to overcome the economic crisis and recover, most European countries had as primary objective of their macroeconomic policies the adjustment of their set of economic development policies so as not to affect the European area.

Economic growth cannot be studied without considering the mix of public policies and their implications in promoting economic reforms.

One last objective of a fiscal policy is to keep public debt within a sustainable level in the medium- and long-term. Public debt is closely linked to public spending, to funding of expenditure, to the level of public revenue and to the economic growth policy. Therefore, all public spending related actions affect revenues and may generate new public debts required to meet public needs. Poor management of budget revenue, in its turn, triggers the need for foreign funding and implicitly leads to an increase of the debt. All this shows that all the budget indicator estimating policies should be inter-connected, before making decisions which are sure to affect the economic and social setting of the country.

## REFERENCES

- Afonso, A., Sousa, M. (2009) *The Macroeconomic Effects of Fiscal Policy*. Working Paper, Series no. 991, pp. 13-25.
- Economic performance by country, retrieved July 20, 2018, from [http://ec.europa.eu/economy\\_finance/eu/index\\_en.htm](http://ec.europa.eu/economy_finance/eu/index_en.htm)
- Fact Sheets on the European Union, retrieved July 20, 2018, from [http://www.europarl.europa.eu/atyourservice/ro/displayFtu.html?ftuId=FTU\\_5.11.1.html](http://www.europarl.europa.eu/atyourservice/ro/displayFtu.html?ftuId=FTU_5.11.1.html)
- Hemming, R., Kell, M., Mahfouz, S. (2002) *The Effectiveness of Fiscal Policy in Stimulating Economic Activity. A Review of the Literature*, pp. 4-9, pp. 13-32.
- Horton, M., El-Ganainy, A. (2006) *What is fiscal policy?* Finance & Development, Volume 46, Number 2, pp 52-53.
- Keynes, J., M. (1936). *The General Theory of Employment, Interest and Money*. Chapter 18. Retrieved July 20, 2018, from: <https://www.pdfdrive.com/the-general-theory-of-employment-interest-and-money-e32764968.html>

- Legea responsabilității fiscal-bugetare*, Capitolul II, Secțiunea a II-a, Art.75, Para.2 Retrieved July 20, 2018, from EUROSTAT <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdec450&plugin=1>
- Molnar, M. (2012) *Fiscal Consolidation: What factors determine the success of consolidation efforts?* OECD Economics Department, Working Papers No. 936, pp. 11-22.
- Mosteanu, N. R., Mitroi, M. (2015). *European Tax Models*. Economics World, February 2015, Vol. 3, No. 1-2, p.22.
- The State of Public Finances: Outlook and Medium-Term Policies After the 2008 Crisis (2009)*, International Monetary Fund. Retrieved July 20, 2018, from <https://www.imf.org/external/np/pp/eng/2009/030609.pdf>
- World Bank Group, retrieved July 20, 2018, from <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/RO-DE-GB-IT-GR-BG?display=default>