

# **Is the Fiscal Union the Principal Problem in the EU?**

*Jaroslav Husár*

## **ABSTRACT**

Meeting at an EU Council summit in Brussels late into one Thursday night in 2012, leaders of the seventeen euro zone countries agreed to sign a new intergovernmental treaty (*NIT*) mandating greater fiscal coordination and budget discipline. The highly anticipated decision is meant to quell months of market volatility by offering a long-term solution to the ongoing euro zone sovereign debt crisis. In this paper we showed that fiscal union and balanced government budget are not a necessity.

## **KEY WORDS**

fiscal union, fiscal policy, econometric model, economic science and economic policy making, regional economic science, balanced government budget

**JEL:** C01, E01, E25, E27, E62

## **INTRODUCTION**

For several weeks there is a discussion in Brussels about fiscal policy and fiscal union. For almost a decade now there is an annual debate over how best to reduce the budget deficits in EU member countries, as well as in Brussels. These debates have been acrimonious, time-consuming, and also highly political. But they also have an important economic aspect, for the two sides are arguing the governments' policy that is the overall balance of governments spending and taxation. The question may be set like this: is the fiscal union the right solution? Is it the only solution? We will tackle these questions in this paper.

### **The known goals of the fiscal policy**

As we can see nearly in all the EU members have agreed that the budget deficits are too large, but they disagreed over how to reduce it. In several countries there were big problems (Greece, Spain,). In many member countries of the EU have believed that taxes should be raised (e.g. Slovakia). The discussions in the parliaments of particular countries have maintained that virtually all fiscal restraints should come on expenditure side of the budget. How do, or how should, our political leaders decide how much spending or taxation is the right amount? Perhaps more to the point, how can I as a voter (voters in countries) decide whether my elected representatives in my parliament have made sound decisions (and in EP)? This question is annually repeated in any country. And we can see lot of problems. And what now in all the EU member countries?

Economic theory resolved many questions – government purchases and equilibrium income, income taxes and the consumption schedule, tax policy and equilibrium income, multipliers for tax policy, planning expansive fiscal policy, planning restrictive fiscal policy; to mention some of the problems. Are they solved now in the project of fiscal union?

As it is known, to the extent that excessive aggregate demand can be attributed to the developments in particular sectors of the economy, it may be possible to direct tax policy toward this sector without putting the brakes on the system as a whole. For example, if a boom in investment spending is under way, a rise in corporate income tax rates with unchanged personal income tax rates may be in order. In such a case, the dampening effect will fall, at least initially, on the sector that needs dampening. If on the other hand, the excesses primarily the result of a surge in consumption spending, the personal income tax would probably be a better vehicle through which to effect the required degree of restraint. I think that this is a common practice in every country. Will this be possible now after the fiscal union?

When the economy faces deficient aggregate demand and recession, the appropriate fiscal policy may, of course, be to cut tax rates. Here again, the question arises of how any given cut should be allocated over various types of taxes in order to get the maximum stimulative effect. In simplified form, the question is often approached as a choice between, or a combination of, tax cuts designed to stimulate consumption spending or investment spending. Here we see a new problem. What are the prospect of this knowledge in a new era of EU? The specific arguments in this field could be examined in detail and in more precise form, but our purpose is simply to point out that this is one of the basic questions to be answered in selecting the most effective tax policy in EU, perhaps thesedays most effective expansionary tax policy. It should be also noted that the answer need not be the same in every country and situation; investment-stimulating tax changes may look more promising in one recession, consumption-stimulating tax changes in another. The problems are cumulating. Do we know how they were solved in a near history of particular countries of EU?

Is there the compromise solution generally recommended for the EU? We know that in Slovakia we have accepted the flat rate income tax. And what happened? We changed it last year. Today it is generally accepted by economists and businessmen alike that changes in tax rates can and should be employed in the interest of greater economic stability. The specific tax changes that are to be made in pursuit of this goal, however, give rise to many difficult and controversial questions. In addition to the difficulties associated with determining which tax policies are best designed for stabilization purposes, there are also the difficulties of reconciling these policies with the goal of equity. What about unfair distribution of the tax burden among different income classes or different type of income. This is an example of the conflict that can arise between economic stability and economic justice.

We do not want to mention more problems and more controversies. Our intention is to show one possible way of tax problem solution in EU. I want to rely on mathematical tools. Indeed, just because mathematics of IS/LM model is a very powerful tool for making logical deductions from a set of assumptions about behavior. In any case, it forces us to make fewer simplifications of reality than we would have to make if we were to rely on verbal reasoning alone.

In spite of the fact that an economy is too complex, we will describe its functioning using only a few equations; we will show the plausibility of the IS/LM model to show the way how to cope with the fiscal union. We think that the symbols of the variables in the model are quite known, I will directly use them. The model consist of this set of equations: GDP definition, consumption function defined as a relation of disposable

income, the simple income tax function (will be modified for the second country), and import function as a function of disposable income. Investment expenditures and government expenditures are exogenous variables and exports will have different values for both countries (look into excel mode). So the economic system of a country can be described by this system of equations:

$$Y = C + I + G + X - M$$

$$C = 50 + 0.9(Y - T)$$

$$T = 0.5Y$$

$$M = 50 + 0.5(Y - T)$$

$$I = G = 300$$

To get the solution of the model we can use an Excel. Having the same model for two economies, the Excel representatiton is given in Table 1:

Table 1: Model of the fiscal policy for two countries

Y1	C1	I1	G1	X1	M1	T1	Y2	C2	I2	G2	X2	M2	T2	ST	RHS
1	-1	-1	-1	-1	1	0	0	0	0	0	0	0	0	0	0
-0,9	1	0	0	0	0	0,9	0	0	0	0	0	0	0	0	50
-0,5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	20
-0,5	0	0	0	0	1	0,5	0	0	0	0	0	0	0	0	50
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	300
0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	300
0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	400
0	0	0	0	0	0	0	1	-1	-1	-1	-1	1	0	0	0
0	0	0	0	0	0	0	-0,9	1	0	0	0	0	0,9	0	50
0	0	0	0	0	0	0	-0,5	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	-0,5	0	0	0	0	1	0,5	0	50
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	300
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	300
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	380
0	0	0	0	0	0	1	0	0	0	0	0	0	1	-1	0
inverse															solution
1,25	1,25	-0,5	-1,3	1,25	1,25	1,25	0	0	0	0	0	0	0	0	1240 Y
0,563	1,563	-1,1	-0,6	0,56	0,56	0,56	0	0	0	0	0	0	0	0	590 C
0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	300 I
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	300 G
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	400 X
0,313	0,313	-0,6	0,69	0,31	0,31	0,31	0	0	0	0	0	0	0	0	350 M
0,625	0,625	0,75	-0,6	0,63	0,63	0,63	0	0	0	0	0	0	0	0	640 T
0	0	0	0	0	0	0	1,25	1,25	-0,5	-1,3	1,25	1,3	1,25	0	1225 Y
0	0	0	0	0	0	0	0,56	1,56	-1,13	-0,6	0,56	0,6	0,56	0	601,25 C
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	300 I
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	300 G
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	380 X
0	0	0	0	0	0	0	0,31	0,31	-0,63	0,69	0,31	0,3	0,31	0	356,25 M
0	0	0	0	0	0	0	0,63	0,63	0,75	-0,6	0,63	0,6	0,63	0	612,5 T
0,625	0,625	0,75	-0,6	0,63	0,63	0,63	0,63	0,63	0,75	-0,6	0,63	0,6	0,63	-1	1252,5

In reality this model can contain a detailed presentation of all principal economic relations. The last column is the right-hand side (RHS) of the model. The complete model has three blocks: the first block of seven equations describe the economic system of the first country (green), the second block describes the economic system of the second country (yellow) and the last equation is the third block; it relates the first

and second country. There might be more equations, eg. money demand or free movement of labour force. For the demonstration purpose I take it as satisfactory. It is an equation saying what is the sum of tax revenue in both countries together.

Then follows the row „inverse“. Below it is the inverse matrix of the model. We use it to calculate the values of the endogenous variables. To help keep track of the variables, we have the name of each variable above the column representing its coefficients. So above the first column there is the variable for the GDP of the first country (Y1), above the second the consumption expenditures of the first country (C1) over the third are investments (I1) over the fourth government expenditures (G1) above the fifth X1 (export of the first country) the sixth is M1 (import of the first country) and over the last one is T1 (tax revenue of the first country). The same order is for the second country. The last column in the matrix (before the RHS) is the variable ST, sum of tax receipts. Now we have the deep insight into the economy; we do understand how an economic system of two countries is working. Inverse matrix contains important coefficients on economies functioning (e.g. multipliers, known from macroeconomics). Due to the inverse matrix we can calculate the values of the endogenous variables. The last column in the part „inverse“ there are the values of endogenous variables. We see that the GDP of country one is 1240 billions of euro, the consumption expenditures are 590 billions of euro etc. . The second country's GDP is 1225 billions of euro. There are 14 endogenous values not only the GDP or debt. We see that the concepts are becoming more and more abstract, less illustrative, less concrete and less understandable, but *more helpful*. Policy-makers must accept the development of economic science and apply the knowledge.

To show the possibilities of this model, we have changed the tax revenue function. For the first country we used this function:  $T = 20 + 0.5Y$  and for the second we used this one:  $T = 0.5Y$ . They might have been more complicated. From the last column we see that tax receipts of the country one are 640 and of the second are 612.5 billions of euro. Tax receipts of both countries are 1252.5 billions of eur. We can calculate even the budget surplus; for the first country it is 340 billions of euro and for the second it is 312.5 billions of euro. The sum of tax receipts for both the countries is 1252.5 billions of euro. So we see that having in mind the model approach we can accept that the countries do not have the same tax system; fiscal policy can be different. The objective of the policy-maker – EU – is to derive values for the policy instruments so that the target values of the endogenous variables can be achieved. We showed very concrete way how to get the aim and it is due the economic theory. Using this (similar) methodology, we could create co-operative economic system of EU. In its actual practice, the EU nowadays is in fact pursuing key idea by imposing unequal treaties upon states of the Global South and former socialist countries trying to ensure that the EU can unilaterally obtain access to strategic raw materials, instead of developing co-operative regimes based on sustainable common long-term focus of its underlying vision. We need sustainable future for the EU that can be assured by efficient economic policy done in Brussels. Based on *complex regional econometric* models, the economic policy of EU may rely on very complex (not like our skeletal) systems of relationships. The value of such construction in the understanding of economy functioning is, as we illustrated, of high importance. *Equations* play an essential part in portraying economic relationships.

**What are the real problems of EU?**

Twelve years after the adoption of the Lisbon Strategy, which included commitment to achieving greater social inclusion, the living situation for large parts of the population has not improved. Quite the opposite: insecurity, precariousness and poverty have increased. Even though the EU has made rhetorical commitments to put social inclusion on its political agenda, in practice no decisive steps have yet been taken. The year 2010 was denoted by the EU as the *European Year for Combating Poverty and Social Exclusion*, but the Commission's new strategy document *Europe 2020* lacks concrete objectives or the means of achieving them. The only quantified target is to reduce the number of people living in poverty by about 20 million people. Furthermore, the *Europe 2020* strategy aims at ensuring „active participation“ of people experiencing poverty and social exclusion in the society and at enabling them „to live in dignity“ despite their state of poverty – but not at eradicating poverty and social exclusion as such. In order to achieve this very limited objective, the strategy does not propose specific measures. Instead it proposed to launch a „flagship“ initiative called the „European platform against poverty“<sup>1</sup>. We would say that these are soft-policy instruments. Look at the basic macroeconomic data for Slovakia.

#### *GDP and other indicators for Slovakia*

Item	Units	2008	2009	2010	2011	2012
<b>GROSS DOMESTIC PRODUCT</b>						
GDP in current prices	mld. €	66,8	62,8	65,9	69,1	71,5
index, year to year changes, previous year = 100	%	108,8	93,9	104,9	104,9	103,4
GDP in constant prices	mld. €	62,4	59,4	62,0	63,9	65,2
index, year to year changes, previous year = 100	%	105,8	95,1	104,4	103,2	102,0
<b>INFLATION</b>						
Interyear rate of inflation						
Last month of the year	%	4,4	0,5	1,3	4,4	3,2
Average in the year	%	4,6	1,6	1,0	3,9	3,6
<b>EKONOMIC ACTIVITY DEA VZPS<sup>4)</sup></b>						
Number of working	Th. pers.	2 433,8	2 365,8	2 317,5	2 315,3	2 329,0
index, year to year changes, previous year = 100	%	103,2	97,2	98,0	99,9	100,6
Number of unemployed	th. pers.	257,5	324,2	389,0	364,6	377,5
index, year to year changes, previous year = 100	%	88,2	125,9	120,0	93,7	103,5
Rate of unemployment	%	9,6	12,1	14,4	13,6	14,0
<b>ZAMESTNANOSŤ</b>						
Number of all employed persons						
in an economy	Th. pers.	2 280,0	2 176,6	2 151,9	2 192,5	2 192,3
index, year to year changes, previous year = 100	%	102,6	95,5	98,9	101,9	99,9
<b>AVERAGE MONTHLY WAGE RATE</b>						
employed persons in an economy (total)						
nominal	euro	723,03	744,5	769	786	805
index, year to year changes, previous year = 100	%	108,1	103,0	103,2	102,2	102,4
real - year to year changes, previous year = 100	%	103,3	101,4	102,2	98,4	98,8

<sup>1</sup> More in EuroMemorandum 2010/2011 of European Economists for Alternative Economic Policy in Europe.

This table says nothing about how an economic system of Slovakia is working (these kind of tables are very common in EU countries). But the real life in Slovakia shows too many problems. We can mention just only the problem of poverty (or gypsies). There are 8 370 persons having less than 130 euro per month. The next category is from 130.1 – 200 euro. There are 17 105 people. The macroeconomic data does not say this. The last category is a category over 665.1 euro. There are 25 857 persons. Total number of pensioners is 980 864 persons. GDP, though, is not necessarily the best measure of living standards, but says nothing about poverty reduction. It is better to look at the household consumption based on surveys. Or to see the GDP structure, i.e. C, I, G, X and M. Known Millennium Development Goals (MDGs) started in 2000 and should in 2015 were trying to stress the poverty problem. World statistics say something about undeveloped countries. Nobody in the developed world comes remotely close to the poverty level that is 1.25 USD a day. But if we divide 130:31 we will get 4.19 euro for Slovakia. People below that level (gypsies) live lives that are poor, nasty, brutish and short. They lack not just education, health care, proper clothing and shelter – which most people in most of the world take for granted – but even enough food for physical and mental health. There is a lot of debate about what exactly counts as poverty and how best to measure it not only in underdeveloped countries. This short verbal picture about Slovakia says only very limited information. To get a deep understanding, we would need more detailed information based on input-output tables. The SNA data says something only about the final consumption. We need to understand the production, distribution and accumulation of the output.

We prefer optimization of financial flows, particularly distribution of income. We need for each EU country the graphical model of flows and then calculate the right size of the flow. Will the Thomas Malthus idea be realized these days? The problems to be urgently addressed with regard to EU can be found in more economic instruments applied in EU. Particularly I would like to mention Maastricht criteria. The GDP or debt/GDP ratio does not represent the problems of the economies. We need to follow the equilibrium equation that holds at all times that can be derived from the definition of the GDP:  $(S - I) + (T - G) = (X - M)$ . This equation shows how difficult are the theses of balanced budget of an economy; there are relations on savings, investments, exports and imports. Many economists in EU work on the problem of analyzing the working of the economy using it. The doctoral students of our university constructed the equilibrium equation for all the EU countries and were perplexed with the analyzed results. We have to be aware of the scarcity and the choice; this is the big EU problem. As we see these days there is a problem of EU resource allocation optimization; specialization, division of labor and efficient exchange. The solution requires the modeling techniques; at least of the type we mentioned in this paper.

## **Conclusion**

The fiscal union does not solve the problems of EU. Economic policy in the EU has reverted to a more nationally based approach. In a few last years EU (Brussels) started to discuss the fiscal union as a principal solution. We showed that using the scientific instruments we can get quite different conclusion. We can optimize the problem of government fiscal and monetary policy in particular countries. The financial system of the EU remains too fragile, not based on experience and economic theory. Economic policy instruments should be based on econometric modelling.

We showed very concrete way how to get the aim and it is due the economic theory. Using this (similar) methodology, we could create co-operative economic system of the EU. In its actual practice, the EU nowadays is in fact pursuing key idea by imposing unequal treaties upon states of the Global South and former socialist countries trying to ensure that the EU can unilaterally obtain access to strategic raw materials, instead of developing co-operative regimes based on sustainable common long-term focus of its underlying vision. We need sustainable future for the EU.

We have to be aware of the scarcity and the choice in an economy; this is the big EU problem. These days there is problem of EU resource allocation optimization; specialisation, division of labour and efficient exchange. This requires the modeling techniques of econometrics and input – output analysis.

### **References:**

1. ASTERIOU, D. and HALL, S. G.: Applied Econometrics, New York, Palgrave Macmillan, 2007
2. HUSÁR, J.: Makroekonomická analýza, Bratislava, Ekonóm, 2009
3. PARKIN, M.: Macroeconomics, ninth edition, New York, Pearson, 2010.
4. PENTECOST, E.: Macroeconomics, New York, MacMilan Press ltd., 2000.
5. Confronting the crisis: Austerity or Solidarity, EuroMemorandum 2010/2011.

Prof. Ing. Mgr. Jaroslav Husár, CSc.  
Cádrova 5  
831 01 Bratislava

mail: [husar.jaroslav@gmail.com](mailto:husar.jaroslav@gmail.com)  
or  
[husra@euba.sk](mailto:husra@euba.sk)