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## The Impact of the Economic Crisis upon Fiscal System from Romania and EU Member States

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*Fiscal policies must ensure the stability of taxes and duties and to propose an optimal level of taxation that does not stop economic activity and do not aggravate the financial situation of the population. Measures concerning taxation system should have the effect of training on tax payers and coordinate proper location and collection of taxes. In the study we aim to achieve reform radiography incomplete and to highlight the challenges raised by taxpayers in Romania by presenting major deficiencies that offset the competitive advantages of the Romanian fiscal system.*

*Tax legislation should establish legal rules on imposing taxes and penalties for non-compliance with fiscal discipline and conduct training activities in the field of tax payers.*

*The uncertainty caused by frequency of legislative changes and quality of the relationship with the revenue authorities, including transparency, preparedness and availability are concerns that are found in the current study.*

*In conclusion, in Romania the share of revenues in GDP is low, although the number of tax administrations is comparable to that of countries with a population twice as large, which confirms once again that the Romanian tax system needs further reform. Its success will be ensured through indirect stimulation of a more sustainable model of economic growth by increasing tax collection to accommodate any potential adjustments of tax system directed specifically towards the incentive to work.*

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**Keywords:** *fiscal system, fiscal revenues, tax collection, economic crisis.*

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## **Introduction**

The economic crisis has produced changes in the tax systems of all countries in the world; the European Union feels the full effects. In most countries, ever-growing public financial income needs carry to establish new taxes, and transforming exceptional taxes in permanent income tax. But, however the budgets of states at tax income level did not rise, since level of collection of the income tax has been deducted. However, a major problem refers to big differences from one state to another at fiscal system level; this is explained, on the one hand, by different levels of economic development of countries, and on the other, by the policies promoted by public authorities in its relationship with population: the satisfaction to a large extent from public funds to social needs of citizens (education, health, social security, culture), or their only partial coverage, that is public - private partnership.

The authors expose the fiscal policy developments in Member States, and mutations in the level and structure of taxation levied in these countries.

Research findings show the personal opinions of the authors on the European and Romanian fiscal system in the context of the economic crisis and some recommendations on these.

## **Literature review**

Tax issues have been a subject of many specialists in economy over time. One author of books on taxation (Biriş, 2012) stated: " a few people understand that the fiscal system is a fine mechanism, such as a Swiss watch, where each component works together with others and are influencing each other".

According to Charles Louis Montesquieu's opinion, the tax is "a piece that every citizen gives from his property, to be secure of the other party or to use it."

In fact, over the years there were several changes in the structure and level of taxes, as well as in placing and collecting them.

In the aftermath of "First World War, and especially during the Great Depression that occurred between 1929 and 1933, unions and left-wing political forces campaigned for public participation in financing public expenditure ever-growing in relation to contribution capacity of each social group to ease the tax burden on the shoulders of workers" (Văcărel, 2007). According to Gaston Jeze (1936), taxes and fees take into account "fiscal burden sharing between individuals".

Later, in the '60s and afterwards, more economists, followers of modern liberal doctrine were called for the retirement of the state from economic activity, for abnegation of taxes as a tool for intervention in the economy, and for replacing progressive taxation of personal income with proportional taxation, reducing tax rates etc.

One of the most outstanding figures of classical political economy in the eighteenth century and the first quarter of the nineteenth century, Adam Smith, was stating in his memorable publication "Wealth of Nations": "in the fiscal policy of the state should underlie several principles such as the appropriateness of taxation, certainty of taxation, tax collection and the convenience, tax efficiency. Normally, each newly introduced tax must satisfy the requirements of equity, financial policy, economic and social policy."

French economist Pierre Lalumiere (1970) emphasizes that "taxes can be used to encourage or discourage certain economic activity".

Another expert on economics, Georges Bernard (1979), proposed a new taxation system that "must result in a direct annual tax in variable rates on real value of physical capital and consumer durable goods."

In the first decades of the twentieth century, in some countries there is only one income tax, which applies to both individuals and companies, while in others there were different regulations, adapted to the two categories of taxpayers.

American economists Richard Musgrave and Peggy Musgrave (1984) stated that "any tax or expense affects the economy in several ways, and follow different objectives".

But the adoptability of taxes by taxpayers assumes certain requirements:

- "Fiscal system and each tax should be simple and transparent, so that the one who pays it knows how much has to pay to the state;

- Revenue authorities cannot act as inquisitor, but have to respect the privacy of citizens;
- Costs of administering the tax system should be reasonable from the two players involved - the fiscal apparatus that collects taxes and taxpayer which must comply with laws imposing taxes" (Weber, 1997).

The 21st century faced major changes in fiscal policy pursued by the countries of the world, due to the economic crisis.

Other authors: Braşoveanu (2009), Caragea (2010), Cataramă & Pădurean (2010), Constantinescu & Mosteanu (2011), Mosteanu & Constantinescu (2009), Stoian (2011), Țăţu et al (2010), Caragea et al (2011), Câmpeanu & Pădurean (2011), Attila (2012), in their empirical research, taxes approaches the issues and their influence on economic development.

Taxes' modern development in Europe is marked by removing differences between tax laws of the Member States of the European Community, the harmonization of those laws and the establishment of similar tax procedures and that are subordinated to the EU fiscal policy.

High levels of taxation in the EU shows that this is an area with a taxing that has increased dramatically in recent years. Therefore, in 1992, through the Maastricht Treaty and then the Stability and Growth Pact, Member States have decided to adopt a series of fiscal consolidation packages.

## **Impact of economic crisis on the Romanian and European fiscal system**

By installation of the economic crisis, the relaxation fiscal policies of taxation existing in all European countries including Romania were replaced by aggressive fiscal policy measures which have done nothing but worsen the economic situation and more of many countries.

After 1989 in Romania there was no clear vision of fiscal policy in the medium and long term, and the Romanian tax system occurred continually changing taxation levels that led to the dramatic decrease of the collection of taxes and amplification tax evasion. The emergence of the economic crisis has only served to increase even more tax evasion and austerity measures imposed by the government culminated in increasing the VAT rate from 19% to 24%. In Romania the impact of reduced public

expenditures by 25% led to a decrease of earnings, which contributed to a dramatic decline in living standards of the population. Moreover, these changes have led to a sharp deterioration in the economic situation, an unprecedented tax evasion, increased inflation and consumer price index, decreased domestic demand against the economic crisis.

During the economic crisis 2008 - 2011, indirect taxes in regard to GDP increased significantly, which have been outlined in Figure 1. This increase was happened due to the aforementioned changes regarding VAT. Note that the evolution of direct taxes as a share of GDP over the same period had a significant increase in the level of direct taxation because there were no changes.

The authors present also in the scientific approach the share of tax revenues and their components (direct taxes, indirect social contributions) in GDP. In Figure 2, we can notice that the largest component of tax revenue is the indirect taxes.

Moreover, the same component of tax revenues, i.e. indirect taxes represents the largest share of GDP (Figure 2).

It is well known that tax revenues are differentiated from one state to another and even from one year to another in all states. These differences arise mainly because of the level of economic development of states and because of changes in their tax laws.

In EU Member States approaches on direct and indirect taxation proceedings are different: while developed countries focus on direct taxation, developing states rely too heavily on indirect taxation.

Along with the advent and development of the effects of the economic crisis were felt sharply in the taxation on consumption. EU-27 consumption taxes experienced a significant increase (19.7%), disrupting its decrease during 2007. The explanation may be due to increase of VAT in several EU countries. Standard VAT rates increased since 2009. Thus, the average of the EU-27 shows an increase of 1.5 points in just four years, reaching about 21% in 2012.

The evolution of the average VAT rate in the 27 EU Member States during 2007 to 2011 is observed in Figure 3.

At the level of Member States, the revenues increased on three major categories such as consumption, labor and capital (Figure 4).

In terms of labor taxation, on average, taxes on earned income represent 50 % of total revenue, being followed by the ones for

consumption, a third, and those for capital, about a fifth. As regards labor taxation, on average, taxes on earned income represent 50 % of total revenue, being followed by the for consumption, a third, and those for capital, about a fifth.

The capital levy experienced a significant decline since 2007 until 2009. Cyclical effects and large reductions in corporate income taxes affect the capital levy. However, since 2010 it gathers a remarkable stabilization.

In EU, fiscal policy measures adopted in Member States, and later influenced by the emergence of the economic crisis caused dynamic changes in the level of taxation and of revenues during 1995 -2011 (Figure 5). It can be observed that the largest change in revenues growth was recorded in 2010 in Ireland.

The austerity measures implemented in most European countries which aimed to collect a larger amount of resources in the budget, managed only to increase even further the boundary between poor and rich. Collection rate has become increasingly difficult, and the amount of resources allocated to foreground areas of society (education, health, etc.) decreased, leading to accelerated degradation of society.

## Research methodology

### Description of the models and variables used in the regression model

The research for this study comprises an analysis of the economic crisis impact, measured by GDP index (GDP was computed at market prices, 2005=100), on the fiscal systems of EU Member States (measured as % of GDP of the aggregate value of fiscal taxes at national level). Thus, we applied a semi-logarithmic regression model, as follows:

$$\ln Y_i = a_0 + a_1 X_i + e_i \quad (1)$$

Given the used variables, the equation can be written as:

$$\ln(Tax\_2010)_i = a_0 + a_1(GDP\_2008)_i + e_i \quad (2)$$

Where:

Dependent variable - Tax\_2010 - % of GDP of the aggregate value of fiscal taxes at national level for all EU Member States.

Independent variable – GDP index in 2008 (computed at market prices, 2005=100).

In order to estimate the parameters of the regression equation it was used the MSE method (the mean squared error of an estimator is one of many ways to quantify the difference between values implied by an estimator and the true values of the quantity being estimated).

$$\sum (y_i - \hat{y}_i)^2 = \min \quad (3)$$

The variability of data between countries was reduced using the logarithm procedure.

### The regression output

On the base of data provided by table 1, we are able to analyze the regression output given in the Table 1.

There is observed a correlation between the variables considered in the model, but the intensity has a medium level ( $R=0.46$ ); increasing of the taxes in EU Member States is partial explained by the impact of the economic crisis (measured by decreasing of GDP index).

Between data series that comprises Tax\_2010 - % of GDP of the aggregate value of fiscal taxes at national level and the independent variable, GDP index in 2008 there is a time lag of two years. This reflects that the increasing of taxes in 2010 was the result of decreasing in economic development of EU Member States, starting with the year 2008 (under the impact of the economic crisis across the world economies). The model confirms this theory, each percentage point less of GDP Index in 2008 reflects an average increasing of taxes in 2010 with 1.016007.

### Conclusions

The research conducted by the authors could be drawn several conclusions:

- The economic crisis has produced major changes in both Romanian and European tax systems;
- Budget austerity measures implemented in most European countries, but also in Romania as a result of the economic crisis, led to a decrease earnings of citizens, rising unemployment, low consumption and low living standards of the population;

- Collection taxes rate decreased, increasing alarmingly the level of tax evasion.

## Recommendations

- Greater accountability in public spending;
- Completely rethinking the fiscal system;
- Flexible level taxation by granting tax incentives to attract foreign capital;
- Simplifying legislation and its effectiveness;
- Creating value added jobs as much as possible;
- Strong measures to prevent and combat tax evasion;
- Removing surface and taxation of informal economy.

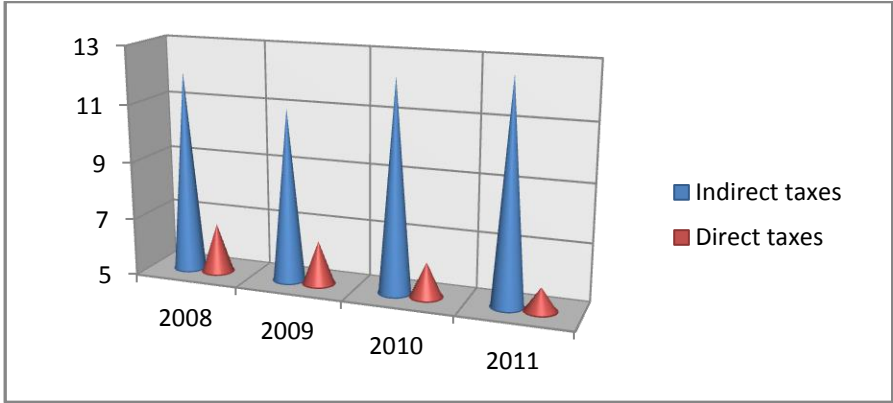
## Tables

**Table 1:** Regression output

<i>Regression Statistics</i>						
Multiple R	0.461014					
R Square	0.212534					
Adjusted R Square	0.178296					
Standard Error	0.164441					
Observations	25					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	1	0.167858	0.167858	6.207608	0.020372	
Residual	23	0.621937	0.027041			
Total	24	0.789796				
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	3.644304	0.041617	87.56751	1.54E-30	3.558212	3.730395
PIB_2008	-0.01588	0.006375	-2.49151	0.020372	-0.02907	-0.0027

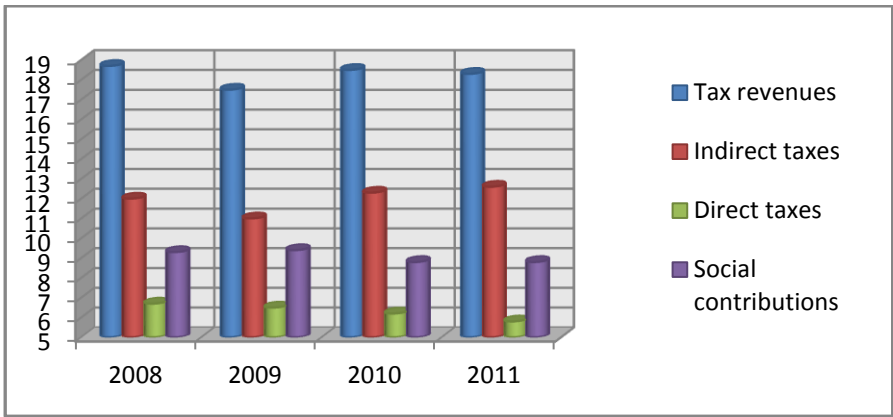
## Figures





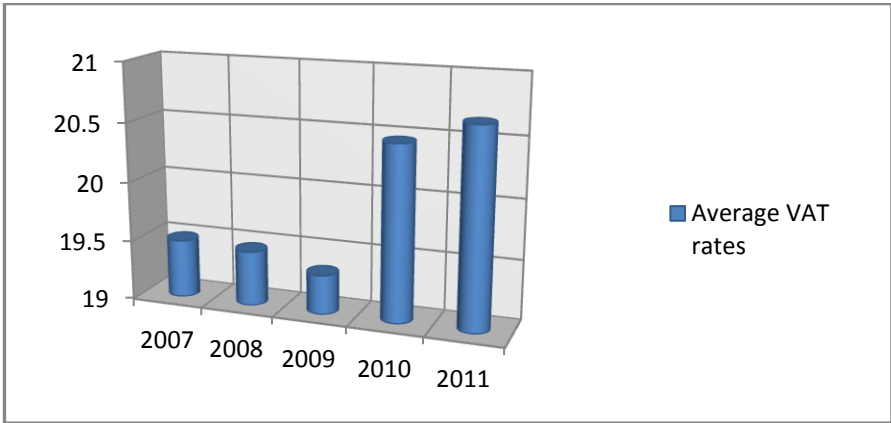
**Figure 1:** Share in GDP of direct and indirect taxes during 2008-2011 in Romania

Source: Processing of the authors based on EUROSTAT data

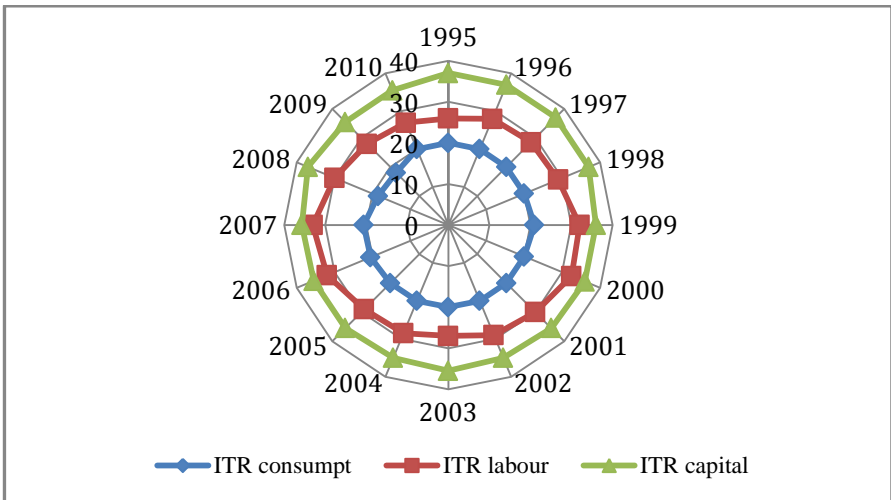


**Figure 2:** Share of fiscal revenue in GDP and their components in the period 2008-2011 in Romania

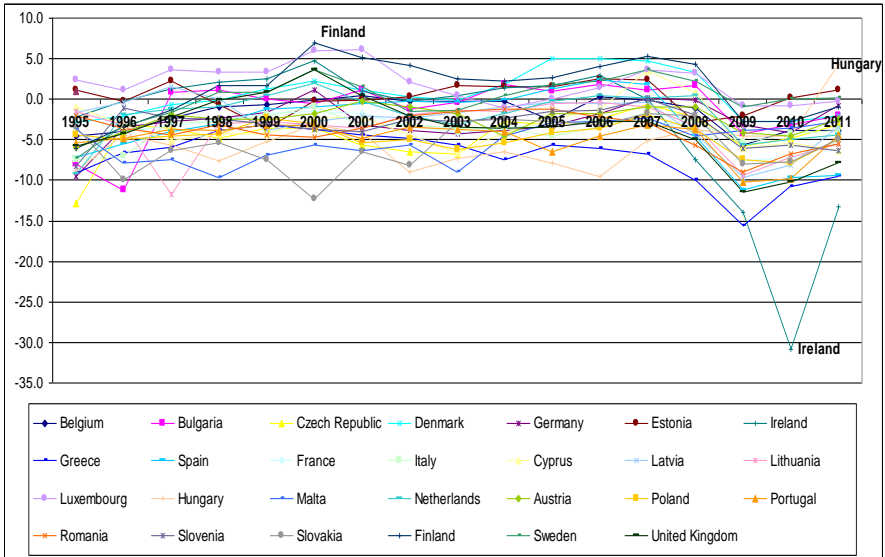
Source: Processing of the authors based on EUROSTAT data



**Figure 3:** Evolution of average VAT rates for EU-27 during 2007-2011  
Source: European Commission, Tax reforms in UE member states, working papers, n.34, 2012



**Figure 4:** Implicit tax rates for EU-27 during 1995-2010  
Source: European Commission, Tax Reforms in EU Member States, working papers, n.34, 2012



**Figure 5:** Dynamic of the Government revenue in EU-27 during 1995-2011

Source: Eurostat, 2013  
[http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/data/database)

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### Appendix 1: Government revenue (as % in GDP)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Belgium	-4.5	-4.0	-2.3	-1.0	-0.7	-0.1	0.4	0.2	0.2	0.2	0.2	0.6	0.1	-1.1	-5.6	-3.9	-3.9
Bulgaria	-8.0	-11.0	-0.9	-1.2	-0.1	0.5	1.1	1.2	0.4	1.9	1.0	1.9	1.7	1.7	4.3	-3.1	-2.0
Czech Republic	-12.8	-3.1	-3.6	-4.8	-3.6	-3.6	-5.6	-6.5	-6.7	-2.8	-3.2	-2.4	-0.7	-2.2	-5.8	-4.8	-3.2
Denmark	-2.9	-2.0	-0.6	-0.1	-1.3	-2.2	-1.2	-0.3	-0.1	-1.9	-5.0	-5.0	-4.8	-3.3	-2.8	-2.7	-2.0
Germany	-9.5	-3.4	-2.8	-2.3	-1.6	-1.1	-3.1	-3.8	-4.2	-3.8	-3.3	-1.7	-0.2	-0.1	-3.1	-4.1	-0.8
Estonia	1.1	0.3	2.2	0.7	3.5	2.1	0.3	1.3	1.7	1.6	1.6	2.5	2.4	2.9	2.0	0.2	1.2
Ireland	-2.2	-0.3	1.3	2.1	2.5	4.7	1.0	0.3	0.4	1.4	1.7	2.9	0.1	7.4	13.9	30.9	-13.3
Greece	-9.1	-6.9	-5.8	-3.8	-3.1	-3.7	-4.4	-4.8	-5.7	-7.4	-5.6	-6.0	-6.8	-9.9	-15.6	-10.8	-9.5
Spain	-7.2	-5.5	-4.0	-3.0	-1.2	-1.0	-0.5	-2.4	-4.1	-1.3	-4.4	-2.9	-1.9	-4.5	-11.2	-9.7	-9.4
France	-5.5	-4.0	-3.3	-2.6	-1.8	-1.5	-1.7	-3.3	-4.1	-3.6	-3.0	-2.4	-2.8	-3.3	-7.6	-7.1	-5.2

Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7.4	7.0	2.7	2.9	2.0	0.9	3.2	3.2	3.6	3.6	4.5	3.4	1.6	2.7	5.4	4.3	3.8	-	-
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.9	3.2	5.1	4.2	4.3	2.3	2.2	4.4	6.6	4.1	2.4	1.2	3.5	0.9	6.1	5.3	6.3	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1.6	0.4	1.5	0.0	3.8	2.8	2.0	2.3	1.6	1.0	0.4	0.5	0.4	4.2	9.7	8.1	3.4	-	-
Lithuania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1.5	3.2	11.7	3.0	2.8	3.2	3.5	1.9	-	-	0.5	0.4	1.0	3.3	9.4	7.2	5.5	-	-
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.4	1.2	3.7	3.4	3.4	6.0	6.1	2.1	0.5	-	0.0	1.4	3.7	3.2	0.8	0.8	0.3	-	-
Hungary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8.8	4.4	5.6	7.6	5.2	3.1	4.1	9.3	7.5	6.9	7.5	9.5	5.1	3.7	4.5	4.5	4.3	-	-
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.7	7.9	7.4	9.7	6.9	5.7	6.3	5.7	9.0	4.6	2.9	2.7	2.3	4.5	3.9	3.6	2.7	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9.2	1.9	1.2	0.9	0.4	2.0	0.3	2.1	3.2	1.8	0.3	0.5	0.2	0.5	5.6	5.0	4.4	-	-
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5.9	4.1	1.9	2.5	2.4	1.8	0.2	0.9	1.7	4.6	1.8	-	1.7	1.0	4.1	4.5	2.5	-	-
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4.4	4.9	4.6	4.3	2.3	3.0	5.3	5.0	6.2	5.4	4.1	3.6	1.9	3.7	7.4	7.9	5.0	-	-
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5.4	4.8	3.7	3.9	3.1	3.4	4.8	3.7	4.7	4.0	6.5	4.6	3.2	3.7	10.2	9.8	4.4	-	-
Romania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.0	3.6	4.4	3.2	4.4	4.7	3.5	2.0	1.5	-	1.2	2.2	2.9	5.7	9.0	6.8	5.5	-	-
Slovenia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8.3	-	2.3	2.4	3.0	3.7	4.0	2.4	2.7	2.3	-	1.5	4.0	1.9	6.0	5.7	6.4	-	-
Slovakia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.4	9.9	6.3	5.3	7.4	12.3	6.5	8.2	2.8	2.4	2.8	3.2	1.8	-	8.0	7.7	4.9	-	-
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6.1	3.4	1.3	1.7	1.7	7.0	5.1	4.2	2.5	2.3	2.7	4.1	5.3	4.3	2.7	2.8	0.9	-	-
Sweden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7.3	3.3	1.6	0.9	0.8	3.6	1.6	-	-	0.0	1.4	2.9	3.6	2.2	1.0	0.0	0.2	-	-
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5.8	4.2	2.2	0.1	0.9	3.6	0.5	2.1	3.4	3.5	3.4	2.7	2.8	5.0	11.0	10.2	7.8	-	-

Source: Eurostat, 2013  
[http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/data/database)

### Appendix 2: Main national accounts tax (as % in GDP)

GEO/TIME	1 9 5	1 9 6	1 9 7	1 9 8	1 9 9	2 0 0	2 0 0	2 0 1	2 0 2	2 0 3	2 0 4	2 0 5	2 0 6	2 0 7	2 0 8	2 0 9	2 0 10	2 0 11	
Belgium	4 6 0	4 6 .5	4 7 1	4 7 7	4 7 6	4 7 3	4 7 3	4 7 5	4 7 7	4 7 0	4 7 1	4 7 0	4 6 7	4 6 2	4 6 6	4 5 9	4 6 5	4 6 .3	4 6 7
Bulgaria	3 1 2	3 2 1	2 8 .7	3 1 6	3 1 .1	3 1 .5	3 0 8	2 8 5	3 1 .0	3 2 5	3 2 5	3 3 7	3 3 4	3 3 3	3 2 3	2 9 0	2 7 5	2 7 2	2 7 2
Czech Republic	3 5 5	3 4 .1	3 4 .7	3 5 3	3 4 .3	3 3 9	3 3 8	3 4 6	3 5 5	3 5 9	3 5 7	3 5 4	3 5 9	3 5 5	3 4 5	3 3 5	3 3 4	3 3 5	3 3 5
Denmark	4 9 .8	5 9 .1	4 9 .9	5 0 .3	5 0 9	5 9 2	4 9 4	4 8 8	4 9 0	5 0 0	5 1 .7	5 5 5	4 9 8	4 8 6	4 8 7	4 8 7	4 8 .3	4 8 6	4 8 6
Germany (including former GDR from 1991)	4 1 5	4 1 9	4 1 8	4 2 1	4 3 0	4 2 8	4 0 9	4 0 4	4 0 6	3 9 7	3 9 7	3 9 7	4 0 0	4 0 0	4 0 2	4 0 8	4 0 8	3 9 .3	4 0 0
Estonia	3 3 .3	3 4 .3	3 4 .3	3 4 4	3 2 6	3 1 .0	3 0 .3	3 1 .1	3 0 8	3 0 6	3 0 7	3 0 7	3 0 8	3 1 5	3 2 0	3 1 6	3 4 1	3 4 .3	3 3 0
Ireland	3 4 4	3 4 .7	3 3 8	3 3 1	3 3 1	3 2 5	3 0 9	2 9 6	3 0 1	3 1 .4	3 1 .9	3 3 4	3 3 9	3 2 .3	3 1 9	2 9 9	2 9 9	2 9 9	3 0 4
Greece	3 1 0	3 1 .3	3 2 5	3 4 .3	3 5 4	3 6 6	3 5 2	3 5 7	3 4 1	3 3 4	3 4 4	3 3 4	3 3 4	3 4 3	3 4 2	3 4 8	3 2 0	3 4 0	3 4 9
Spain	3 3 0	3 3 5	3 3 6	3 4 .2	3 4 8	3 5 0	3 4 .5	3 5 1	3 4 7	3 5 5	3 6 7	3 7 7	3 8 6	3 9 0	3 9 9	3 1 .6	3 3 1	3 3 4	3 2 4
France	4 .4 4	4 5 8	4 6 .1	4 5 9	4 6 7	4 6 0	4 5 6	4 5 1	4 4 9	4 5 1	4 5 6	4 5 6	4 5 9	4 5 2	4 5 0	4 4 1	4 4 5	4 4 .5	4 5 9
Italy	3 7 8	4 1 5	4 .0 6	4 2 6	4 2 4	4 1 8	4 1 5	4 0 8	4 1 3	4 0 7	4 0 3	4 0 3	4 2 0	4 3 0	4 3 0	4 3 0	4 3 3	4 2 8	4 2 8
Cyprus	2 6 9	2 6 .9	2 5 9	2 7 6	2 7 8	3 0 0	3 0 .7	3 0 9	3 2 2	3 3 0	3 5 0	3 5 0	3 5 8	4 0 1	3 8 6	3 5 3	3 5 6	3 5 6	3 5 2
Latvia	3 3 1	3 .9 9	3 2 0	3 2 9	3 2 1	2 9 9	2 9 0	2 8 8	2 8 8	2 8 8	2 9 4	2 9 8	3 0 8	3 0 8	2 9 7	2 7 0	2 7 4	2 7 4	2 7 7
Lithuania	2 7 5	2 7 1	0 .6 6	3 1 8	3 1 8	3 0 0	2 8 6	2 8 3	2 8 0	2 8 4	2 8 7	2 9 6	2 9 9	2 9 9	3 0 4	2 9 6	2 7 4	2 7 4	2 6 4
Luxembourg	3	3	4	4	3	4	4	4	3	3	3	3	3	3	3	4	3	3	3

	8 .2	8 .6	0 .4	0 .4	9 .2	0 .0	0 .6	0 .2	9 .0	8 .2	8 .5	6 .7	6 .5	8 .4	0 .2	8 .5	8 .1		
Hungary	4 1. 0	4 0 0	3 8 4	3 8 0	3 .9 0	3 9 9	3 8 8	3 8 1	3 8 1	3 7 8	3 7 5	3 7 4	4 0 5	4 0 4	4 0 2	4 0 2	3 8 0	3 7 1	
Malta	2 8 .3	6 6 9	2 8 9	2 6 9	2 2 0	2 9 2	3 1 0	3 2 1	3 2 5	3 3 7	3 5 2	3 5 3	3 6 0	3 4 9	3 5 9	3 4 4	3 4 4	3 5 1	
Netherlands	4 1. 4	4 1. 4	4 .8	4 0 6	4 4 5	4 4 9	4 0 .4	4 9 7	3 3 8	3 3 8	3 3 5	3 3 6	3 3 9	3 3 9	3 3 9	3 3 9	3 3 9	3 9 0	
Austria	4 3. 7	4 5. 1	4 6 .3	4 6 .3	4 5 9	4 5 1	4 5 8	4 5 3	4 5 2	4 4 6	4 3 6	4 4 0	4 4 2	4 4 2	4 4 2	4 4 1	4 4 6	4 3 7	
Poland	3 7. 1	3 7. 2	3 6 .5	3 5 4	3 4 9	3 2 6	3 2 2	3 2 7	3 2 2	3 2 5	3 2 8	3 3 8	3 4 8	3 4 3	3 4 3	3 4 8	3 1 8	3 1 8	3 2 4
Portugal	3 1. 8	3 2. 5	3 2. 5	3 2. 8	3 3. 7	3 3. 7	3 3. 4	3 4. 2	3 4. 7	3 3. 8	3 4. 9	3 5. 6	3 5. 9	3 5. 9	3 5. 9	3 4. 5	3 4. 8	3 4. 1	3 6 .1
Romania	2 7. 7	2 6 .1	2 .6	2 9 0	2 3 .3	2 0 6	2 .9	2 8 5	2 8 1	2 7 7	2 8 5	2 9 2	2 9 8	2 8 8	2 7 7	2 7 7	2 7 6	2 7 3	2 7 3
Slovenia	3 9. 2	3 8 0	3 6 9	3 7 8	3 8 1	3 7 5	3 7 7	3 8 1	3 8 3	3 8 4	3 8 9	3 8 5	3 7 9	3 7 5	3 7 5	3 7 6	3 7 1	3 7 5	3 7 5
Slovakia	4 .9 4	4 9 .5	3 7 4	3 6 8	3 5 4	3 4 1	3 3 2	3 3 1	3 3 0	3 3 7	3 3 1	3 3 5	2 9 4	2 9 5	2 9 4	2 9 1	2 8 3	2 8 8	2 8 8
Finland	4 6 .3	4 7 6	4 .9	4 6 7	4 6 3	4 7 4	4 .9	4 4 8	4 4 3	4 4 6	4 4 1	4 4 9	4 4 1	4 4 0	4 4 0	4 4 0	4 2 6	4 3 6	4 3 6
Sweden	4 8 .5	4 0 9	5 1 3	5 1 8	5 2 0	5 2 1	5 9 9	4 7 9	4 8 3	4 8 5	4 9 3	4 8 7	4 7 8	4 6 9	4 7 1	4 7 1	4 5 9	4 7 9	4 7 9
United Kingdom	3 5. 5	3 5. 4	3 5. 9	3 7. 1	3 3. 2	3 8. 2	3 8 0	3 6 7	3 6 3	3 6 8	3 7 8	3 7 4	3 8 1	3 7 6	3 9 3	3 6 3	3 6 4	3 7 2	3 7 2

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