

## Study On Determination the Degree of Tax in The European Union Countries, Based on National Macroeconomic Indicators

by

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**Abstract.** In preparing this study, I started from Montesquieu's statement according to which " Nothing requires more wisdom and prudence by the authorities, than regulation by these of that interest in from the subject is private and which he suffered to obtain" (Montesquieu, 1748). In his famous work, entitled *The Spirit of Laws*, the author referred to state fiscal policy which should be elaborated so that this one " not 'press too much'" on taxpayers. Too, even author says that in countries where authorities set too heavy taxes, these measures led to the impoverishment of the population. Based on claims above mentioned, in the preparation of this study, the author has proposed to prepare a study through which to analyse key indicators on taxation at the level of Member States of the European Union, taking into account data on gross domestic product and the tax revenues officially published by EU institutions. The period under study is minimum 12 years, finally, developing some conclusions on taxation in these countries.

*Key words:* degree of taxation, taxes, tax revenue, gross domestic product, European Union

JEL classification: H21, H25, G38

### 1 Introduction

According to Hobbes, egoism dominates human nature, man for man, being considered wolf (homo homini lupus). Given that in nature reigns "each war with all other", people conclude a social contract by transferring the state power and jurisdiction. Thus, legitimacy of the state consists of duty to ensure security. Hence results the necessity appearance of the state as an artificial creation (Hobbes Thomas, 1651, pg. 127). But the state cannot function without costs, requiring creation of public revenues. These forms of share property of every member of society, he was deprived of it, in return for the assurance from the state institutions his security and to ensure the peaceful use of the remaining property (Montesquieu, 1748). Based on the above theories, through this article we set as a general objective, conducting a study on degree of tax payers at the level of member states of the European Union, such as Austria, Bulgaria, Czech, Cyprus, France, Germany, Greece, Italy, Lithuania, UK, Netherlands, Poland, Romania, and Spain. To achieve these results, we set as a general objective of the research, to elaborate a

study on determine the degree of tax, for each of the countries mentioned above, taking into account their total tax revenues in relation to GDP, in relation to the gross domestic product. We believe that the results obtained can be used to obtain some conclusions regarding the European countries where taxation is higher, being able to elaborate future research studies by which to determine the factors that influence a country's fiscal policy.

### 2 Literature

The concepts of taxation are presented in a series theoretical studies and empirical but also in the tax rules. Thus, in the paper entitled *Politics*, Aristotle examines the principles of taxation, criticizing the methods practiced by Dionysius of Syracuse, which proposed multiplication of taxes, so that within 5 years, subjects to bring all the property in the treasury (Aristotle, 350 BC). Jean-Jacques Rousseau critical state institutions that appear as intermediaries between citizens and the state, saying that, if they did not exist and people should govern themselves, the State would not apply to loans, enclosing it in debt, not

necessary to increase taxes on citizens which would have a higher standard of living (Rousseau Jean-Jacques, 1761). According to David Ricardo's work, taxes are some of the produce of the land and labor of a country, placed at the disposal of government. The author makes a classification of the capital of a country in fixed and circulating, based criterion used goods for less than or more than 1 year (Ricardo David, 1817).

John Maynard Keynes presents levers used by the UK authorities, the late nineteenth century, to reduce differences in wealth between rich and poor. Thus, during that period have been introduced direct tax, such as special surtax succession (Keynes John Maynard, 1936).

Rifat Azam from Harvard University has developed a paper that addressed aspects of taxation in the development of international trade and implementation in question the introduction of a tax on carbon emissions and financial transactions. He finally proposed a tax on cross-border income (Rifat Azam, 2013). James R. Repetti, from Boston College - Law School, together with other authors, have developed an article ent Horizontal Equity Revisited, they addressed issues related to the review of fiscal policies, vis-a-vis the principle of equity. They proposed a rethinking of the theory of distributive justice on taxation, recommending that it consider an appropriate tax burden (Repetti James R., 2012).

### 3 Data and research methodology

Subject research data were extracted from the database officially published by the EU institutions. In terms of research methodology, were used both quantitative methods and qualitative methods. In order to achieve the objective of the research I have done so: is selected from the database a sample of 14 countries in the European Union Member States, which represents a 50%, considering that the sample is representative. Subsequently, we extracted data on tax revenues and gross domestic product for a minimum period of 12 years, respectively 01, January 2000 -

December 31, 2013, by which time the information was available. In some cases, data analysis was made for a period of 18 years (since 1995), depending on data availability. In order to achieve the expected results, were calculated various indicators, such as: gross domestic product index, tax revenues index and the degree of taxation.

The mathematical model based on the degree to which we estimated tax ( $Gf_i$ ) of each country is defined as follows:

$$Gf_i = \frac{Vf_i}{GDP_i} \times 100, (1) \text{ where}$$

- $Gf_i$  - is the measure of a country's tax
- $Vf_i$  - tax income of a country is in a period of one year
- $GDP_i$  - is the gross domestic product of a country into a period of one year
- $i$  - index is assigned to each country under analysis.

Finally, the results were pooled for each country under analysis.

### 4 The study results and conclusions

Following the development of the study we obtained the following results:

Table 1. Estimating the degree of taxation in Austria

Year	(GDP) (mil euro)	GDP index (%)	$Vf_i$ (mil euro)	Tax revenue index (%)	$Gf_i$ (%)
2000	208,416	-	89,957	-	43
2001	214,297	103	96,374	107	45
2002	220,515	103	96,365	100	44
2003	225,068	102	97,936	102	44
2004	234,718	104	101,141	103	43
2005	245,120	104	103,373	102	42
2006	258,995	106	107,667	104	42
2007	274,111	106	114,525	106	42
2008	282,664	103	120,919	106	43
2009	276,297	98	117,305	97	42
2010	285,251	103	120,416	103	42
2011	299,069	105	126,741	105	42
2012	307,038	103	132,630	105	43
2013	313,216	102	-	-	-
Total	x	x	x	x	43%

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Austria, the degree of taxation is a decrease trend during the period under study. Thus, in 2001, recorded the highest level of taxation, which is 45%. Starting next year the degree of taxation decreased from 44% to 42% in 2011. Among the factors that determined these results, mention GDP growth, from 208,416 million euros in 2000 to 313,216 million euros in 2013. In terms of tax revenues, there is a growth of 89,957 million euros in 2000 to 132,630 million euros in 2011. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, it is 106%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2007, which is 106%.

Table 2. Estimating the degree of taxation in Bulgaria

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
2000	14,034	-	4,426	-	32
2001	15,546	111	4,786	108	31
2002	17,026	110	4,852	101	28
2003	18,372	108	5,699	117	31
2004	20,391	111	6,633	116	33
2005	23,263	114	7,271	110	31
2006	26,469	114	8,132	112	31
2007	30,764	116	10,255	126	33
2008	35,433	115	11,430	111	32
2009	34,950	99	10,135	89	29
2010	36,055	103	9,922	98	28
2011	38,506	107	10,505	106	27
2012	39,909	104	11,070	105	28
2013	-	-	-	-	-
Total	x	x	x	x	30%

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Bulgaria, the degree of taxation is a decrease trend during the period under study. Thus, in 2007, recorded the highest level of taxation, which is 33%. Starting next year the degree of taxation decreased from 32% to 28% in 2012. Among the factors that determined these results, mention the increase of gross domestic product, from 14,034 million euros in 2000 to 39,909 million euros in 2012. In terms of tax revenues,

there is a growth from 4426 million euro in 2000 to 11,070 million euros in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 116%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2007, which is 126%.

Table 3. Estimating the degree of taxation in Czech

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
1995	1,532,993	-	545,024	-	36
1996	1,760,589	115	600,961	110	34
1997	1,885,634	107	653,299	109	35
1998	2,062,317	109	689,789	106	33
1999	2,149,559	104	736,230	107	34
2000	2,268,716	106	768,158	104	34
2001	2,447,066	108	827,445	108	34
2002	2,568,477	105	888,522	107	35
2003	2,688,216	105	953,833	107	35
2004	2,927,296	109	1,052,562	110	36
2005	3,117,652	107	1,111,721	106	36
2006	3,349,969	107	1,184,745	107	35
2007	3,663,849	109	1,314,590	111	36
2008	3,845,879	105	1,325,692	101	34
2009	3,759,113	98	1,255,471	95	33
2010	3,790,748	101	1,273,970	101	34
2011	3,824,799	101	1,323,758	104	35
2012	3,845,645	101	1,347,062	102	35
2013	-	-	-	-	-
x	x	x	x	x	35%

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In the Czech Republic, the degree of taxation is a decrease trend during the period under study. Thus, in 2007, was registered the highest level of taxation, which is 36%. Starting next year the degree of taxation decreased from 36% to 35% in 2012. Among the factors that determined these results, mention the increase of gross domestic product, from CZK 2,268,716 million in 2000 to CZK 3,845,645 million in 2012. In terms of tax revenues, there is a growth of CZK 768 158 million in 2000 to CZK 1,323,231 million in 2011. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 109%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2007, which is 111%.

Table 4. Estimating the degree of taxation in Cyprus

Year	(GDP) (mil)	GDP index	Vfi (mil)	Tax revenue	Gfi (%)
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	euro)	(%)	euro)	index (%)	
2000	9,948	-	2,980	-	30
2001	10,727	108	3,289	110	31
2002	11,075	103	3,421	104	31
2003	11,651	105	3,757	110	32
2004	12,588	108	4,151	110	33
2005	13,600	108	4,763	115	35
2006	14,663	108	5,246	110	36
2007	15,902	108	6,375	122	40
2008	17,150	108	6,624	104	39
2009	16,855	98	5,954	90	35
2010	17,401	103	6,191	104	36
2011	17,888	103	6,313	102	35
2012	17,728	99	6,251	99	35
2013	16,502	93	-	-	-
Total	x	x	x	x	34%

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Cyprus, the degree of taxation has been an increasing trend until 2007, it recorded a relatively high level (40%) and from next year we found a decrease to 35% in 2012. Among the factors that determined these results, mention the increase of gross domestic product from 9948 million euro in 2000 to 16,502 million euros in 2013. In terms of tax revenues, there is a growth from 2980 million euro in 2000 to 6251 million euro in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 108%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2007, which is 122%.

Table 5. Estimating the degree of taxation in France

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
2000	1,440,402	-	635,822	-	44
2001	1,495,562	104	655,712	103	44
2002	1,543,167	103	667,716	102	43
2003	1,587,191	103	684,167	102	43
2004	1,655,253	104	716,819	105	43
2005	1,717,848	104	752,960	105	44
2006	1,798,776	105	793,101	105	44
2007	1,886,217	105	818,675	103	43
2008	1,934,000	103	835,535	102	43
2009	1,885,605	97	794,542	95	42
2010	1,936,415	103	824,031	104	43
2011	2,001,121	103	875,180	106	44
2012	1,440,402	-	635,822	-	44

2013	1,495,562	104	655,712	103	44
Total	x	x	x	x	44%

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In France, the degree of taxation is a decrease trend during the period under study. Thus, in 2006, was registered the highest level of taxation, which is 44%. Starting next year the degree of taxation decreased from 44% to 43% in 2010. Among the factors that determined these results, mention the increase of gross domestic product of EUR 1,440,402 million in 2000 to EUR 1,495,562 million in 2013. In terms of tax revenues, there is a growth of 635,822 million euros in 2000 to 655,712 million euros in 2013. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 105%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2006, which is 105%.

Table 6. Estimating the degree of taxation in Germany

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
2000	2,047,389	-	854,318	0	42
2001	2,099,800	103	835,908	98	40
2002	2,130,123	101	836,957	100	39
2003	2,146,154	101	847,537	101	39
2004	2,193,946	102	847,500	100	39
2005	2,225,720	101	859,174	101	39
2006	2,313,251	104	900,322	105	39
2007	2,426,476	105	945,731	105	39
2008	2,475,425	102	967,849	102	39
2009	2,374,875	96	942,734	97	40
2010	2,494,853	105	953,760	101	38
2011	2,611,111	105	1,012,783	106	39
2012	2,664,794	102	1,049,410	104	39
2013	-	-	-	-	-
Total	x	x	x	x	39

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Germany, the degree of taxation is a decrease trend during the period under study. Thus, in 2000, was registered the highest level of taxation, which is 42%. Starting next year the degree of taxation fell from 40% to 39% in 2012. Among the factors that determined these

results, mention the increase of gross domestic product of EUR 2,047,389 million in 2000 to 2,664,794 million euro in 2012. In terms of tax revenues, there is a growth of 854,318 million euros in 2000 to 1,049,410 million euro in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 105%. Regarding the growth of tax revenues, we find that it had the highest growth in 2011, which is 106%.

Table 7. Estimating the degree of taxation in Greece

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
1995	89,853	-	29,455	0	33
1996	97,974	109	32,298	110	33
1997	107,099	109	36,689	114	34
1998	109,018	102	39,608	108	36
1999	117,897	108	43,950	111	37
2000	137,978	117	47,689	109	35
2001	146,524	106	48,668	102	33
2002	156,662	107	52,704	108	34
2003	172,536	110	55,294	105	32
2004	185,169	107	57,940	105	31
2005	193,055	104	62,201	107	32
2006	208,535	108	66,157	106	32
2007	223,261	107	72,555	110	32
2008	233,151	104	74,978	103	32
2009	231,225	99	70,549	94	31
2010	222,180	96	70,323	100	32
2011	208,433	94	67,572	96	32
2012	193,413	93	65,362	97	34
2013	-	-	-	-	-
x	x	x	x	x	33

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Greece, the degree of taxation is a decrease trend during the period under study. Thus, in 1999, was registered the highest level of taxation, which is 37%. Starting next year the degree of taxation decreased from 35% to 34% in 2012. Among the factors that determined these results, mention the increase of gross domestic product of EUR 137 978 million in 2000 to EUR 193 413 million in 2012. In terms of tax revenues, there is a growth of 47,689 million euros in 2000 to 65,362 million euros in 2012. As regards the growth rate of gross domestic product, we find that it had the highest

growth in 2000, which is 117%. Regarding the growth of tax revenues, we find that it had the highest growth in 1997, which is 114%.

Table 8. Estimating the degree of taxation in Italy

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
2000	1,199,272	-	497,259	-	41
2001	1,254,920	105	516,927	104	41
2002	1,302,788	104	527,441	102	40
2003	1,340,661	103	550,829	104	41
2004	1,398,199	104	564,900	103	40
2005	1,436,313	103	576,077	102	40
2006	1,492,648	104	622,853	108	42
2007	1,554,846	104	664,510	107	43
2008	1,574,756	101	673,118	101	43
2009	1,519,014	96	653,142	97	43
2010	1,551,827	102	660,532	101	43
2011	1,580,353	102	671,596	102	42
2012	1,567,701	99	689,834	103	44
2013	1,199,272	-	497,259	-	41
Total	x	x	x	x	42

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Italy, the degree of taxation is a decrease trend during the period under study. Thus, in 2007, was registered the highest level of taxation, which is 43%. Starting next year the degree of taxation decreased from 43% to 42% in 2011. Among the factors that determined these results, mention the increase of gross domestic product of EUR 1,199,272 million in 2000 to 1,567,701 million euro in 2012. In terms of tax revenues, there is a growth of 497,259 million euros in 2000 to 671,596 million euros in 2011. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 104%. Regarding the growth of tax revenues, we find that it had the highest growth in 2006, which is 108%.

Table 9. Estimating the degree of taxation in Lithuania

Year	(GDP) (mil Ltl)	GDP index (%)	Vfi (mil Ltl)	Tax revenue index (%)	Gfi (%)
1995	26,922	-	7,410	-	28
1996	33,720	125	9,144	123	27
1997	40,530	120	12,648	138	31

1998	45,039	111	14,731	116	33
1999	43,880	97	14,336	97	33
2000	46,028	105	14,212	99	31
2001	48,887	106	14,373	101	29
2002	52,361	107	15,221	106	29
2003	57,246	109	16,483	108	29
2004	63,023	110	18,209	110	29
2005	72,372	115	21,111	116	29
2006	83,267	115	24,954	118	30
2007	99,217	119	29,991	120	30
2008	111,916	113	34,383	115	31
2009	91,989	82	27,942	81	30
2010	95,665	104	27,249	98	28
2011	106,943	112	29,278	107	27
2012	113,811	106	30,947	106	27
2013	119,474	105	-	-	-
x	x	x	x	x	30

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Lithuania, the degree of taxation is a decrease trend during the period under study. Thus, in 1999, was registered the highest level of taxation, which is 33%. Starting next year the degree of taxation fell from 31% to 27% in 2012. Among the factors that determined these results, mention the increase of gross domestic product, from LTL 26,922 million in 1995 to EUR 119,474 million in 2013. In terms of tax revenues, there is a growth of LTL 7,410 million in 1995 to 30,947 million euros in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 119%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2007, it is 120%.

Table 10. Estimating the degree of taxation in United Kingdom

Year	(GDP) (mil GBP)	GDP index (%)	Vfi (mil GBP)	Tax revenue index (%)	Gfi (%)
2000	987,723	-	364,370	-	37
2001	1,032,308	105	379,310	104	37
2002	1,081,674	105	383,726	101	35
2003	1,149,227	106	405,787	106	35
2004	1,213,452	106	434,901	107	36
2005	1,277,565	105	464,763	107	36
2006	1,350,123	106	501,474	108	37
2007	1,428,960	106	524,060	105	37
2008	1,462,671	102	558,265	107	38
2009	1,416,667	97	502,200	90	35
2010	1,486,636	105	536,586	107	36

2011	1,537,103	103	566,548	106	37
2012	1,566,602	102	572,034	101	37
2013	-	-	-	-	-
Total	x	x	x	x	36

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In the UK, the degree of taxation is a decrease trend during the period under study. Thus, in 2007, was registered the highest level of taxation, which is 38%. Starting next year the degree of taxation decreased to 37% in 2012. Among the factors that determined these results, mention the increase of gross domestic product, from GBP 987 723 million in 2000 to 1,566,602 million GBP in 2012. In terms of tax revenues, there is a growth of GBP 364,370 million in 2000 to GBP 572,034 million in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 106%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2006, which is 108%.

Table 11. Estimating the degree of taxation in Netherlands

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
2000	418,101	-	166,854	-	40
2001	447,782	107	171,642	103	38
2002	465,181	104	175,540	102	38
2003	476,735	102	178,592	102	37
2004	491,235	103	184,308	103	38
2005	513,194	104	192,950	105	38
2006	540,488	105	210,602	109	39
2007	571,640	106	221,223	105	39
2008	594,512	104	233,123	105	39
2009	573,476	96	218,810	94	38
2010	586,713	102	228,463	104	39
2011	598,705	102	231,038	101	39
2012	599,124	100	233,739	101	39
2013	-	-	-	-	-
Total	x	x	x	x	38

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In the Netherlands, the degree of taxation is a steady trend during the period under study. Thus, in 2000, there was a 40% level of taxation. Starting next year the degree of taxation decreased from 38% in 2010 -2012 and

it was 39%. Among the factors that determined these results, mention the increase of gross domestic product of EUR 418 101 million in 2000 to EUR 599 124 million in 2012. In terms of tax revenues, there is a growth of 166,854 million euros in 2000 to 233,739 million euros in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2004, which is 106%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2005, which is 109%.

Table 12. Estimating the degree of taxation in Poland

Year	(GDP) (mil PLN)	GDP index (%)	Vfi (mil PLN)	Tax revenue index (%)	Gfi (%)
2000	744,808	-	242,439	-	33
2001	780,058	105	250,998	104	32
2002	808,273	104	264,519	105	33
2003	843,305	104	271,592	103	32
2004	925,168	110	290,918	107	31
2005	982,917	106	322,480	111	33
2006	1,060,308	108	357,986	111	34
2007	1,176,079	111	409,712	114	35
2008	1,276,080	109	437,560	107	34
2009	1,344,717	105	427,315	98	32
2010	1,417,474	105	449,881	105	32
2011	1,527,590	108	494,256	110	32
2012	1,596,088	104	518,551	105	32
2013	-	-	-	-	-
Total	x	x	x	x	33

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Poland, the level of taxation is a downward trend during the period under study. Thus, in 2007, recorded the highest level of taxation, which is 35%. Starting next year, the level of taxation decreased from 34% to 32% in 2012. Among the factors behind these results, the rise in gross domestic product, from 744,808 million PLN in 2000 to 1,596,088 million PLN in 2012. In terms of tax revenues, there is a growth of 242 439 mln PLN in 2000 to 518,551 million PLN in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2007, which is 111%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2007, which is 114%.

Table 13. Estimating the degree of taxation in Romania

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
2000	40,631	-	12,538	0	31
2001	45,360	112	12,972	103	29
2002	48,643	107	13,669	105	28
2003	52,583	108	14,586	107	28
2004	61,090	116	16,672	114	27
2005	79,793	131	22,243	133	28
2006	97,737	122	27,945	126	29
2007	124,725	128	36,321	130	29
2008	139,717	112	39,341	108	28
2009	118,275	85	31,905	81	27
2010	124,289	105	33,425	105	27
2011	131,536	106	37,488	112	29
2012	131,626	100	37,448	100	28
2013	-	-	-	-	-
Total	x	x	x	x	28

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Romania, the degree of taxation is a decrease trend during the period under study. Thus, in 2000, was registered the highest level of taxation, which is 31%. Starting next year the degree of taxation decreased from 29% to 28% in 2012. Among the factors that determined these results, mention the increase of gross domestic product, from 40,631 million euro in 2000 to 131,626 million euro in 2012. In terms of tax revenues, there is a growth of 12,538 million euros in 2000 to 37,448 million euro in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2005, which is 131%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2005, which is 133%.

Table 14. Estimating the degree of taxation in Spain

Year	(GDP) (mil euro)	GDP index (%)	Vfi (mil euro)	Tax revenue index (%)	Gfi (%)
2000	629,686	-	214,859	-	34
2001	680,872	108	229,177	107	34
2002	729,387	107	248,942	109	34
2003	782,823	107	265,609	107	34
2004	840,977	107	292,598	110	35
2005	909,578	108	326,672	112	36
2006	985,561	108	362,181	111	37
2007	1,053,123	107	391,084	108	37
2008	1,087,776	103	358,284	92	33

2009	1,045,809	96	321,303	90	31
2010	1,045,109	100	337,171	105	32
2011	1,046,897	100	333,189	99	32
2012	1,029,817	98	334,875	101	33
2013	-	-	-	-	-
Total	x	x	x	x	34

Source: own based on data extracted from (European Union. Taxes in Europe Database, 2015)

In Spain, the degree of taxation is a decrease trend during the period under study. Thus, in 2007, was registered the highest level of taxation, which is 37%. Starting next year the degree of taxation decreased from 33% to 32% in 2011. Among the factors that determined these results, mention the increase of gross domestic product, from 629,686 million euros in 2000 to 1,029,817 million euro in 2012. In terms of tax revenues, there is a growth of 214,859 million euros in 2000 to 334,875 million euros in 2012. As regards the growth rate of gross domestic product, we find that it had the highest growth in 2006, which is 108%. Regarding the growth of tax revenues, we find that it still had the highest growth in 2005, which is 112%.

Following the analysis of the study results, we conclude that countries with the highest degree of tax, within the subject of research, are France, with a 44% tax rate and Austria with a 43% tax rate. The following places are Italy, with a degree of tax of 42% and Germany, with a tax rate of 39%. Analyzing the causes that led to these results has resulted that the main influence had an increase in tax revenues a higher growth rate than the gross domestic product. For example, in Austria, in 2008, tax revenue growth rate was 106%, compared with the index of gross domestic product growth, which was 103%. In Bulgaria, in 2007, tax revenue growth rate was 126%, compared with growth index of gross domestic product, which was 116%. In Greece, in 2007, tax revenue growth rate was 110%, compared with growth index of gross domestic product, which was 107%. In Lithuania, in 2007, tax revenue growth rate was 115%, compared with growth index of gross domestic product, which was 113%. Romania is in last place, point of view of taxation, but analysing in detail, we find that the tax

on social security contributions is among the highest in the countries surveyed. From this point of view, I consider it to be necessary a decrease in social security taxation in Romania.

### Acknowledgement

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/134197 „Performance and excellence in doctoral and postdoctoral research in Romanian economics science domain”.

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