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THE TAXATION POLICY EFFECT OF THE EU'S STATES MEMBERS ON THEIR INVESTMENTS. A QUANTITATIVE INVESTIGATION OF THE MATTER

By

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Abstract

In today's opened and globalized economy, the existence of economic competition, becomes more complex and more difficult even for economies that had long tradition in issues of economic development and economic competition, as those of Europe and the USA etc. The present study emerges to investigate how the implementation of financial policy can influence, and to what degree, the level of investments in the countries members of the European Union.

Considering that the economic development and prosperity are based to a large extent on the investments of capitals in a country, we hope that the findings of the present study will add more value to the effort for the solution of the problem by the countries of Europe.

1. Introduction

It is known that the modern financial policy which is implemented by various countries mainly aims, at developing their economies as well as at easing off the social inequalities, since as much citizens as possible intend to enter the process of economic and social development. One of the important issues of modern economies, regarding the implementation of their tax policy, is to find the best possible solution which will respect the social character of taxation without discouraging the creation of new investments. Keeping in our mind that in the states members of the European Union (EU) the highest rate of investments, approximately 86% of these, is owed to private investments, it is very likely that the investments will be influenced to some degree by the tax policy of the EU states members.

The present quantitative analysis demonstrated that there is a relation between the level of investments and the main taxes that exist in the states members of the EU. That is, of the "Taxes on production and imports", the "Taxes on income, wealth, etc" and of the "Social contributions".

On the bases of the European Union's (EU's) authorized services' data, for the year 2004 the average total taxation in the countries members of the European Union reached the 40,7% of the Gross Domestic Product (GDP). This percentage was slightly higher in the euro-zone countries and reached the 41,1% of the Gross Domestic Product. In this amount of tax revenues the earnings from all taxation kinds as well as the social contributions (News Release – European Union, 16 /2006) are included. The tax revenues in the European Union countries basically come from three large corresponding categories. From "Taxes on production and imports", "Taxes on income, wealth, etc" and from "Social contributions". Certainly, there are differences between the European Union states members, regarding the level of taxes that they impose on enterprises, citizens etc. This is an additional reason that led the writer to investigate, if the existing differences between the EU's (European Union's) countries in implementing their tax policy influence the increase of investments.

I indicatively mention that the Scandinavian countries for example have a total of tax revenues, which is approximately equal to the 50% of the Gross Domestic Product. Particularly we have, Denmark: 49,9%, Sweden: 51,2%, and Finland: 44,5%, (Eurostat, 2006). On the other hand there are countries, such as Slovenia and Latvia of which the tax revenues are lesser than 30% of the GDP.

2. A short description of the EU's economic situation and the investigated taxes.

The European Union including today 27 (twenty-seven) member states has developed into an important economic power. Through appropriate management, if the EU develops the capabilities of each country of its member, it will be able to offer many and important things to itself as well as to humanity in general.

Considering that the economy of the European Union is until now the largest in the whole world, followed closely by the United States of America. According to the International Monetary Fund in the year 2005 the EU (of the 25 states) had a Gross National Product (GNP) 12.865.602 million USA dollars, against 11.734.300 of the USA (Economy of the European Union, 2006). Previous statistics of the World Bank in 2003, gave the level of the EU's GNP, in billions of Euros, equal to 9755,4 and of the USA equal to 9727,7.

Nevertheless, because the population of the EU is larger than that of the USA, the per capita Gross National Product (GNP) of the EU (28.100$) is

lower than that of the USA (40.000 $). Moreover it is estimated that in the next 15 years the economic enlargement of the USA (3% annually) will be higher than that of the EU (2,1% annually) (wikipedia, 2006). In addition, concerning the object of the present study, we must take into consideration that the financial measures beyond their social character, must also reinforce the investments and the economy in general.

In an effort towards tax income uniformity the European Union has categorized the taxes of its countries into three big categories, as we mentioned before. The first category is called "Taxes on production and imports", for reasons of brevity, this category of taxes will be mentioned as "Taxes on production". In this category of taxes the well known Value Added Tax (VAT) plays a leading part, the excise duty, the import duties etc. The "Taxes on production and imports" is mentioned by the Eurostat as - ESA95 code D.2. These taxes consist of compulsory, unrequited payments, in cash or in kind which are levied by general government, or by EU institutions, in respect of the production and importation of goods and services, the employment of labour, the ownership or use of Land or other assets used in production etc (Eurostat, Europa, 2006).

The other large category of taxes "Taxes on income, wealth, etc" consists of taxes on incomes, profits and capital gains. Here the taxation revenues from individuals and households incomes (salaries, pensions, incomes from rents etc.) are included, and from profits of legal persons. In addition, revenues from taxation on share profits as well as on winnings from lottery are included, but also from the taxes on gambling etc. Further, poll taxes belong here, levied per adult or per household, the expenditure taxes, payable being the total expenditures of persons or households etc. The "Taxes on income", have received the code name (D.51) from Eurostat (Forum Europa, 2006). We will mention them here as "Taxes on income".

Finally, the third category refers to the social contributions. Here, we can distinguish two cases, the case of actual social contributions and the case of imputed social contributions. The first case includes employers' actual social contributions, employees' social contributions and by self employed ones (social contributions) and non-employed persons. The second case, the imputed social contributions represents the counterpart to social benefits (less eventual employees' social contribution) paid directly by employers. This third category of taxes has received from the Eurostat the name ESA95 code D.61 (Eurostat Europa, 2007). Here, when we refer to this category we will use the term "Social contributions".

3. Exporting the relevant indicators that describe the situation we are investigating.

By a first simple notice of table 1 we recognize that Sweden is the country with the highest level of taxes and contributions which also has the lowest, after the U.K, level of investments (17). The country with the second highest level of taxes and contributions is Denmark (49,7), which also has a low level of investments (20,7). All the examined sizes are expressed as a percentage of GDP. On the other hand the largest investments are those of Estonia and Latvia (31,1) and (29,8), which have respectively a low overall level of taxes and contributions (31,6) and (29,3), notice the last column 6. Of course there are also some cases where low levels of tax and contributions have not led to high investments. This fact is expected and logical otherwise the relation that we seek between investments and taxes would be expressed by a deterministic relation of a precise mathematic type.

TABLE 1

Levels of Total Investments, Taxes and Social Contributions of the EU's States Members.

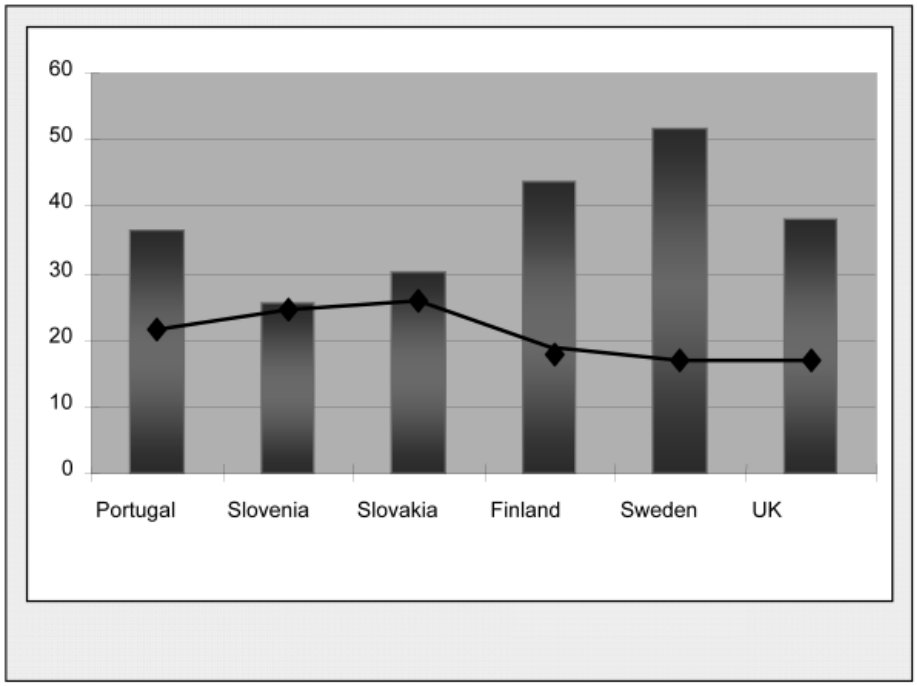
a/a	States Members of E.U.	Total Investments	Taxes Income	Taxes Product	Social Contribute	Sum of Taxes
	1	2	3	4	5	6
1	**Belgium**	19,90	17,10	13,20	16,10	46,40
2	**Chech**	26,40	9,30	12,10	15,10	36,50
3	**Denmark**	20,70	16,3	17,70	16,30	50,30
4	**Germany**	17,30	10,20	11,80	17,70	39,70
5	**Estonia**	31,10	7,10	14,00	10,50	31,60
6	**Greece**	23,70	9,30	12,60	14,40	36,30
7	**Spain**	29,30	10,90	12,10	13,00	36,00
8	**France**	19,70	11,40	15,70	18,20	45,30
9	**Ireland**	27,00	12,30	13,40	6,20	31,90
10	**Italy**	20,60	13,30	14,20	12,90	40,40
11	**Cyprus**	19,20	9,30	17,50	8,30	35,10
12	**Latvia**	29,80	8,00	12,60	8,70	29,30
13	**Lithuania**	22,30	9,10	11,20	8,60	28,90
14	**Luxemburg**	20,30	14,00	13,30	11,60	38,90
15	**Hungary**	23,20	9,00	15,60	13,70	38,30
16	**Malta**	20,90	11,80	15,60	8,80	36,20
17	**Netherlands**	19,30	11,60	12,70	14,10	38,40
18	**Austria**	20,50	12,90	14,30	16,10	43,30
19	**Poland**	18,10	7,00	13,90	13,70	34,60
20	**Portugal**	21,60	8,70	15,30	12,50	36,50
21	**Slovenia**	24,40	9,30	16,20	15,1	25,60
22	**Slovakia**	26,00	6,10	13,00	11,00	30,10
23	**Finland**	18,80	17,50	14,00	12,10	43,60
24	**Sweden**	17,00	20,10	17,00	14,60	51,70
25	**UK**	16,80	16,50	13,10	8,60	38,20

Regarding the countries of table 1 we must say that Denmark is the country which incorporates almost completely the social contributes in the income tax,

resulting in a level of social contributes equal to 2 (Europa Commission 2006), a fact that would have led us to deceptive conclusions. For this reason the mean of the sum was taken (income tax and social contributions) and the result was derived on the base of the arithmetic means (of income tax and contributions) in its correct expression, as it is shown in table 1.

DIAGRAM 1

Presentation of the Total Investments and the Sum Taxes of the EU's States Members



Source: Table 1

-: Level of the sum taxes
-: Level of the Total Investments

Table 1 (and its relative diagram 1) Informs us that the six countries which belong to the first quartile with the highest investments are: Estonia 31,10, Latvia 29,80, Spain 29,30, Ireland 27,00, Czech 26,4, Slovakia 26. As we notice from this group of six countries with the highest investments, 4 of these countries belong to the recently entrants in the European Union and are countries of the

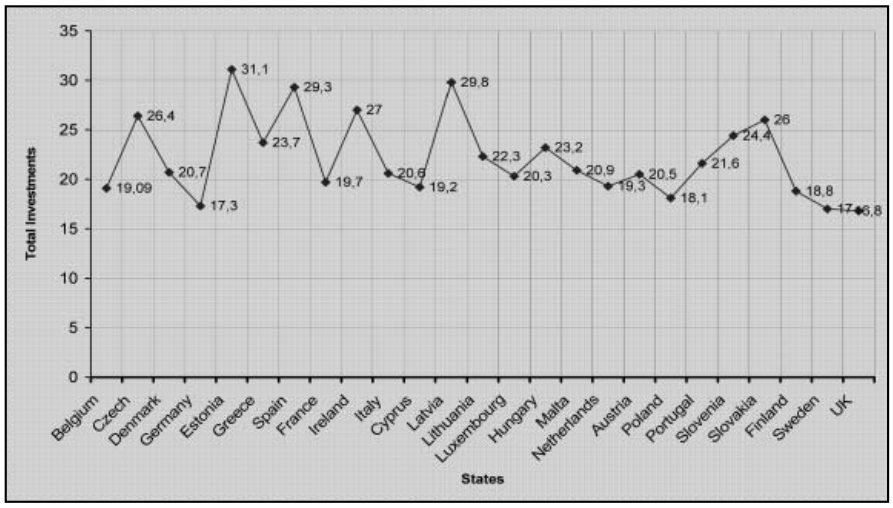
former Soviet Union. These countries still have a second characteristic that the sum of taxes and contributions (column 6) is very low with regard to the rest of the countries (from 29,3 until 36,5), at the moment where the medium total taxation is 37,7. The same thing also happens with Spain and Ireland. That is, all six (6) countries have a sum of taxes and contributions lower than the mean (arithmetic mean).

Of course, for the countries of the former Soviet Union, who are found in a condition of general economic and social changes, obviously it is also more simple for them to implement new programs of industrial and generally economic activity which is required by the current globalized economy. That is, their economic status is as an unwritten map (Tabula Rasa). This is an additional characteristic that could attract investors. Taking into account that in today's globalized economy the effective competition requires quick adaptability to the continuously changing data. Namely, incessant changes in the industrial, economic etc. policy of the countries (Rundova, 2005)

Undoubtedly on the other hand, for the majority of the 12 (twelve) new countries that entered the European Union in the years 2004 and 2007 there are also some negative characteristics, for attracting investments, which however through years will slowly disappear or moderate. Here the appropriate financial policy can compensate to some degree these not positive characteristics. That is, for the new countries of the European Union (at least, for most of them) who know that they lack other possibilities to attract different investors (such as the existence of very good transport networks, the existence of well trained to new technologies and administration types executives, the experience in issues of global markets etc), the existence of low taxation plays an important role in attracting investments.

DIAGRAM 2

Presentation of the total investments of the countries members of the European Union



Source: Eurostat.

From table 1 and after the relative calculations we receive following table 2, which has the most basic statistical indicators that describe each type of taxation, but also the total investments' level.

TABLE 2

Basic Statistical Indicators

1	2	3	4	5	6	7	8
	Range	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**	**Variance**	**Coefficient of Variance**
Taxes Production	6,50	11,20	17,70	14,09	1,844	3,401	0,130
Taxes Income	14,00	6,10	20,10	11,71	3,630	13,152	0,276
Social Contributions	12,0	6,2	18,20	12, 67	3,285	10,792	0,304
Total Invsestments	14,30	16,80	31,10	22,29	4,111	16,907	0,243

From the table 2 we realize that the “Taxes on production and imports” has the biggest arithmetic mean from three types of taxes and the smallest degree of dispersion, as the Variance and the Standard Deviation show. This means that the “Taxes on production and imports” even if bigger than the insurance contributions, has however a better homogeneity (Papakonstantinou and Kaitsas, 1995). The “Taxes on income” has the second in size arithmetic mean (12) from the three types of taxes and it presents a slightly smaller standard deviation than that of the “Social Contributes”.

The last column CV (Coefficient of Variance) shows the size of dispersion in regard to the size of the arithmetic mean, hence we have an additional (more reliable and suitable for comparisons) measure of dispersion (Hair et al., 1998). From this column we realize that the “Taxes on production” has a Coefficient of Variance, CV = 0,13 or 13% and has the smallest dispersion, while the “Taxes on Income” has a Coefficient of Variance, CV = 0,276 or 27,6% and the “Social Contributes” has Coefficient of Variance, CV =0,304 or 30,4%. In addition, relatively good homogeneity is also presented by the “Total Investments” since we have a CV equal to 0,24.

4. Model’s Determination

These first findings of the previous paragraph lead us to a further investigation of the phenomenon that we are examining. Thus, on the base of the data of table 1 the following linear model of regression resulted:

Inv. = 35,976 - 0,541 Inc.- 0,292 Prod- 0,276 Soc. +e

Where

By Inv., the total investments are symbolized

By Inc., the income tax is symbolized

By Prod., the tax on production is symbolized

By Soc., the social contributions are symbolized.

By the letter e, the known random error e is symbolized.

The Coefficient of correlation of the above regression-al model (Inv. = 35,976 - 0,541Inc. -0,292Prod -0,276Soc. + e) is equal to R = 0,61 and the corresponding Coefficient of determination of the model was found to be equal to R^2 = 0,373, approximately 0,40. That is, the model interprets to a moderate degree (40%) the relation that exists between the investment’s, levels and the corresponding levels of taxes and social contributions. However, the model in its total is indicative regarding the kind of relation that exists between invest-

ments and taxes. By the three regression's coefficients of the model it is realized that there is a negative relation between the investments level and the taxes and the contributions that we are examining.

The present model of the three variables shows us to what degree it influences every interpretative variable the dependent "total investments' level". However, if we observe very carefully table 1 we see that there is the case of Poland who extremely abstains from the general rule that runs through the remaining countries. That is, we observe that although the level of taxes and social contributions is very low, the investments' level remains very low as well. If by the abovementioned test, we exclude the case of Poland, then we receive the following regression model results:

Inv. = 36,487 - 0,651 Inc. - 0,261Prod - 0,229 Soc. + e

Where

By Inv., the total investments' level is symbolized

By Inc., the income tax is symbolized

By Prod., the tax on production and imports is symbolized

By Soc., the social contributions are symbolized.

Finally, the term e is the known random error (e - error).

TABLE 3

The Regression Analysis Results

Explanatory Variables	**Unstandardized Coefficient Beta**	**Unstandardized Coefficient Beta**	**Standardized Coefficient Beta**	**t Statistics**	**Significance Value**
	B	Std. Error		(t)	
Constant	36,487	5,583		6,535	0,000
Income Tax	-0,651	0,196	-0,574	-3,316	0,003
Tax on Production	-0,261	0,382	-0,117	-0,683	0,502
Social Contributions	-0,229	0,211	-0,183	-1,085	0,291
R=0,678 & R^2= 0,46					

The coefficient of correlation of the above regression model is equal to 0,68 and the corresponding determination factor of the model was found to be equal to 0,46 approximately. We see that we have a fairly good improvement of the interpretative ability of the regression model, after the exclusion of Poland from our corresponding calculations. Moreover the regression's coefficients of the independent (interpretative) variables did not change significantly. In particular in the first model we had:

b_o= 35,976, b_1= - 0,541, b_2= -0,292 and b_3= -0,276.

In the second model we have:

b_o= 36,487, b_1 = -0,651, b_2= -0,261 and b_3= - 0,229.

Poland here functions as outliers. As outliers we consider the observations that receive very extreme values (sometimes they are due to mistaken calculations or entries or different system of calculations etc). However, frequently, even such an observation can reverse the total picture of the general tendency of a phenomenon that the rest observations provide (Neter et al., 1996). A simple solution is that the researcher abstracts this observation from his relevant calculations and reports it.

That is, the new model informs us that in percentage, approximately, equal to 50% of the total investments in the states members of the EU is influenced by the levels of taxes on the income, the production and the imports and by the level of the social contributions. And of course the rest (the other 50%) of the investments' level is influenced by other reasons. Like, for instance, it can be the existing legal frame in regard to the enterprising investments, which can influence the candidate investors, the lack of sufficient transport network etc.

By the second model we can be informed about the effect that is practiced by each tax category on the level of investments. As we notice, there is one stable, the b_o= 36,487, which informs us that regardless of the three interpretative variables that we are studying there is a level of investments equal to 37,025, which would be invested, due to other factors beyond these three that we have included in our model (Gamaletsos, 1974).

In particular the coefficient of regression -0,651 of the variable "Taxes on Income" informs us that, in the group of the twenty-four (24) states members of the European Union that we are examining, an increase by one unit of "Taxes on Income" causes a corresponding reduction in the level of the ''Total investments'' by 0,651 (while the other variables of our model remain stable). A negative effect is also done by the ''Tax on production'' at the ''Total investments''. That

is, the relative regression coefficient of “Taxes on Production” informs us that, an increase by one unit of this tax causes a reduction of -0,261 in the level of the total investments. Finally, a slightly smaller negative effect is made by the level of social contributions. That is, a unitary increase of the level of social contributions causes a corresponding reduction in the investments’ level of -0,229 units (Papakonstantinou and Kaitsas, 1995).

Some researchers instead of the abovementioned retrograde model (Inv. = 36,487 - 0,651 Inc. - 0,261 Prod - 0,229 Soc. + e), they use the standardized model of which the standardized regression’s coefficients have a completely different interpretation from the one that was given above. Indeed frequently some misconceptions occur regarding the interpretation of the standardized model, because the interpretation of this model is different from that of the regular (classical regression model). If expressed by standardized regression’s coefficients the abovementioned regression model has the following form:

Inv.= -0,574 Inc.- 0,117 Prod- 0, 183 Soc. + e (See appendix, table 2)

Here, the standardized regression’s coefficients express no simple effects that happen in the dependent variable by unitary changes of the corresponding interpretative variables (independent variables), but changes in the standard deviations. This model (Inv.= -0,574 Inc.- 0,117 Prod- 0, 183 Soc. + e) informs us that the standardized regression’s coefficient of the independent variable “Taxes on Income” informs us that a unitary change of the standard deviation of this independent variable causes a negative alteration in the standard deviation of the dependent variable (Total Investments) equal to -0,574. Likewise the other two independent variables of our model are interpreted.

Finally, in the present analysis we did not include the two states that entered into the European Union recently, Bulgaria and Romania. This is due to incomplete statistical data regarding the two countries (Bulgaria and Romania) and it would be venturous to proceed in such type of analysis on the base of various estimates.

Yet one more observation that we can make from the above findings is that the countries that recently entered the European Union, are presented as more attractive to different investors. This phenomenon, which is explained by several reasons, some of which we mentioned previously, and others that are not subject of the present study should be investigated more by the authorized European Union tools.

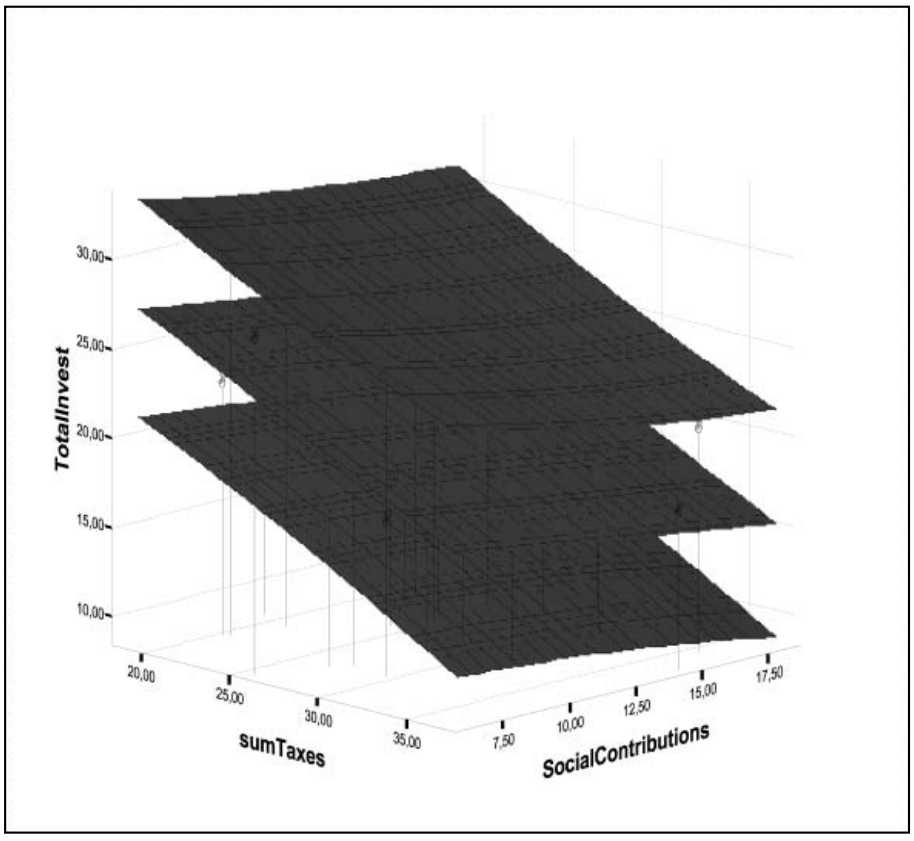
The new European Union countries with the appropriate financial and more

generally economic policy are likely to constitute one of the serious instruments of it (E.U.) for the improvement of its competitiveness in the global economy.

The three dimensional diagram 3 has as a dependent variable the "Total Investment" and as independent variables has two variables. The one independent variable is a new variable which is the sum of the two taxes "Taxes on production" and "Taxes on income" and is symbolized by Sum Taxes, the other variable is the "Social contribution". The three (3) independent variables were limited into two simply and only to make it possible to do the three-dimensional diagrammatic presentation of the phenomenon that we are investigating. Above and under the regression level are the corresponding levels of regression of confidence that correspond to 0.95 confidence level.

DIAGRAM 3

Presentation of the effect of taxes on the Investments levels in the European Union's countries



As we notice from the declination of the regression-al level, regarding the taxes axis (Sum Taxes) it presents very clearly a bigger descending declination in relation to the one that it has for the other axis (of the "Social contributions").

An expected event, since, as we saw from the regression model that we determined the factor of the variable "Social contribution" is smaller than the other two corresponding interpretative variables.

Conclusions

The previous findings lead us to the below useful, according to my opinion, ascertainments, that I consider sufficiently important because they are related to the investments level in the European Union and its economic enlargement.

1. From the previous analysis we saw that there is a general tendency in the countries members of the European Union to have a reduction in the investments, when increases in the most basic sectors of taxation are done, that is, in the income taxation, in production taxation and in the social contributions.

2. From the taxes that we examined we saw that the level of investments is sensitive to changes in the income tax and in the production taxation. The effect on the level of investments by the social contributions is slightly smaller.

3. Further it was realised that all six countries that had the highest investments had a total level of taxes and social contributions sufficiently low and anyway lower than the mean one.

4. Considering that it is very difficult for the old countries of the European Union to limit the national needs, but also the level of social contributions which is frequently mentioned lately, the European Union is found today in front of a hard to solve financial and generally economic issue.

5. Apparently the rapid transition of the European Union's economy to high level activities, where employees with high degree of training and high degree of technology are required, perhaps should be examined seriously and as soon as possible.

6. Still, I believe that it would be good if the European Union, as soon as possible, helps the new countries that entered in 2004 and 2007 to be placed in the correct orbit of economic creation and development. Taking into its consideration, at the same time, the capability and the desire of the new

countries for economic evolution, since they do not have the signs of general «tiredness» of the old countries of the Union.

7. Taking into our consideration that the economic enlargement of the European Union for the 15 years period 2006 - 2020 according to the relative estimates will be 2,1% annually, against 3% of the USA, rather, the relevant decisions should be taken as soon as possible.

Finally, considering that the per capita Gross National Product (GNP) of the European Union is 28.100 $, that is, sufficiently smaller than that of the USA which is 40.000 $ (Economy of the European Union, 2006), probably, Europe has the abilities for further economic enlargement, making at the same time investments in education, new technologies etc.

Appendix

1. Statistical tables that concern the 25 countries of European Union.

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Social Contr, TaxProd, TaxIncome (a)	.	Enter

a. All requested variables entered.
b. Dependent Variable: Total Investments

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,625(a)	,391	,304	3,41278

a. Predictors: (Constant), Social Contr, TaxProd, TaxIncome

ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	156,853	3	52,284	4,489	,014(a)
	Residual	244,589	21	11,647		
	Total	401,442	24			

a. Predictors: (Constant), Social Contr, Tax Prod, Tax Income
b. Dependent Variable: Total Investment

Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	39,019	6,568		5,941	,000
	TaxIncome	-,482	,202	-,433	-2,389	,026
	TaxProd	-,584	,436	-,238	-1,339	,195
	SocialContr	-,258	,179	-,258	-1,444	,164

a. Dependent Variable: Total Investment

2. Statistical tables that concern the European Union's countries (except Poland)

-Regression
[DataSet1] C:\Documents and Settings\Expert\
Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Social Contr, TaxProd, TaxIncome[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: Total Investments

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	ig. F Change
1	,678[a]	,459	,378	3,24322	,459	5,657	3	20	,006

a. Predictors: (Constant), SocialContr, TaxProd, TaxIncome

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	178,493	3	59,498	5,657	,006[a]
	Residual	210,369	20	10,518		
	Total	388,862	23			

a. Predictors: (Constant), SocialContr, TaxProd, TaxIncome
b. Dependent Variable: TotalInvest

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36,487	5,583		6,535	,000
	TaxIncome	-,651	,196	-,574	-3,316	,003
	TaxProd	-,261	,382	-,117	-,683	,502
	SocialContr	-,229	,211	-,183	-1,085	,291

a. Dependent Variable: TotalInvest

Correlations

		TotalInvest	Taxincome	TaxProd	SocialContr
Pearson Correlation	TotalInvest	1,000	-,641	-,294	-,311
	Taxincome	-,641	1,000	,266	,196
	TaxProd	-,294	,266	1,000	,133
	SocialContr	-,311	,196	,133	1,000
Sig. (1-tailed)	TotalInvest	.	,000	,082	,070
	Taxincome	,000	.	,104	,179
	TaxProd	,082	,104	.	,268
	SocialContr	,070	,179	,268	.
N	TotalInvest	24	24	24	24
	Taxincome	24	24	24	24
	TaxProd	24	24	24	24
	SocialContr	24	24	24	24

Descriptive Statistics

Descriptives

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	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
TotalInvest	24	14,30	16,80	31,10	22,2913	4,11182	16,907
Taxincome	24	14,00	6,10	20,10	11,7125	3,62663	13,152
TaxProd	24	6,50	11,20	17,70	14,0917	1,84413	3,401
SocialContr	24	12,00	6,20	18,20	12,6750	3,28505	10,792
SSS	24	26,10	25,60	51,70	37,8542	6,61816	43,800
Valid N (listwise)	24						

References

Cangelosi, Taylor V., P. and Rice P. (1983). *Basic Statistics*, 43-44, USA: West Publishing Company, 3rd edit.

Drakos, G. (1986). *An Introductory to Public Finance*. Greece: Edit. Stamoulis.

Draper, N. and Smith H. (1997). *Applied regression analysis*. Athens: Papazissis S.A.

Economy of the European Union, Monetary Fund [1], (2006). Encyclopaedia –wikipedia Foundation Inc.

Editor of H.I.R. «Europe» (2005) *Harvard International Review (H.I.R.) Vol.3* (3) U.S.A.

Enterprise and Industry, Enterprise Europe no 20, October- December 2005, Edition EU.

European Commission (2005), Structures of the taxation systems in the European Union, European Commission, Directorate –General, Taxation and Customs Union.

European Commission (2006), *History of the European Union* Wikipedia, p.7-8.

Euro-stat (2005). *Yearbook of 2006*, Edit. European Commission.

Freund, J., Williams F. and Berles B. (1993). *Elementary Business Statistics*. New Jersey: Prentice Hall International Edition.

Gamaletsos Theodoros (1974), *Principles of Economy*, Piraeus. Edit. Stamoulis.

General Economic Background (2005). Euro-stat, Edit. European Commission.

Godino, J.D. et al. (2000). *The statistical consultancy workshop as a pedagogical. Training researchers in the use of statistics*, 339 - 353, International Association for Statistical Education. Tokyo: International Statistical Institute.

Hair, J.F. et al. (1998). *Multivariate Data Analysis*, USA: Prentice Hall.

Harald, B. (2005). Growth Effects of Economic Integration: Evidence from the E.U Member States, *Review of World Economics, Vol. 141, (1). Institute for the Word Economy, Kiel, Germany.*

Heirertz, M., and A. Verdun (2005). «The Stability and Growth Pact- Theorizing a Case in European Integration», *Journal of Common Market Studies,* V. 43, (5).

Holcombe G. Randall (2004). National Income Accounting and Public Policy, Kluwer Academic Publishers, *The Review of Austrian Economics,* 17:4, p.p.387-405.

Kazmier, L., Pohl N. (1987). *Basic Statistics for Business and Economics.* USA: McGraw Hill International Edition.

Kearl R. James (1993). *Principles of Economics*, D.C. Heath & Co, USA.

Mitch, K. (2006). «Capital Tax Exporting in a Model of Strategic Tax Competition», *Journal of Public Finance, vol. iv, (1),* p. 32-38.

Mann, P.S. (1992). *Introductory Statistics*, 98-99. USA: John Willey and Sons.

Neter, J., M. Kutner, C. Nachtseim, and, W. Wasserman (1996), *Applied Linear Statistical Models,* (4th Ed.) USA: McGraw-Hill.

News Release 134/2005, 21 October 2005. Edition of European Union- Eurostat.

Organisation for Economic Co-operation and Development, (2006). *Fact-book - Economic, Environmental a Social Statistics*, year 2006 O.E.C.D.

Papakonstantinou E. (1999), «Three notional approaches of the statistical term Population», *Journal of Hellenic Mathematical Society, "Eu×lides c"* (2), 52-61: Athens.

Papakonstantinou, E., and G. Kaitsas (1995). *Statistics,* 2nd ed. Athens: Ministry of Education of Greece and Evgenidis Institute.

Papakonstantinou, E., and G. Kaitsas (1997). *Statistics Applications* 42-46, 57-63. Athens: Edit. Anasstasakis.

Papakonstantinou, E., D. Karageorgos, and A. Kokla, (1999). *Business Statistics,* 216-217. Athens: Ministry of Education of Greece.

Papoulis A. (1991), *Probability, Random Variables and Stochastic Process.* USA: Mc. Grow –Hill, Inc.

Pollack Mark (2005). The New Transatlantic Agenda at Ten: Reflections on an Experiment in International Governance, *Journal of common markets studies,* 43 (5):899.

Ramb, F., and J.A. Weichenrieder (2005), Taxes and the Financial Structure of German Inward FDI, *Review of World Economics, Vol. 141, (4). Institute for the Word Economy, Kiel, Germany.*

Real GDP growth rate, Total Investment (2006). General Economic Background: Eurostat -European Commission.

Robert Subrick (2006). Back to the BOG, Austrian –style, *Review Austrian Economic 19: 95-100.*

Structures of the Taxation Systems in the European Union, (2005). Theme Economy and Finance: Eurostat - European Commission.

Tsoukalis L. (2006). The JCMS Lecture: Managing Diversity and Change in the European Union, *Journal of Common Market Studies,* Vol. 44, (1), 1-15.

World Bank, Basic Data for Europe and for Europeans, Europa, Eurostat.