

ESTONIAN ECONOMY AND ECONOMIC POLICY DURING THE ECONOMIC CRISIS

Olev Raju
University of Tartu

Abstract

Estonia suffered the deepest economic crisis of its history in 2007-2010; also, the crisis was one of the most troublesome ones among the member states of EU. The paper deals with main indicators describing the size and dynamics of the crisis and with the economic politics of government in the period. The latter one can be characterized by delay in giving estimation to economic processes and the lack of means against the crisis. At the same time government erected task to join euro at any price. The economic reactions were centred on it. The taxes were increased and the expenditures were cut down in order to balance the budget at the highest peak of the crisis, it was done also in the middle of the budget year. All the criteria to join euro were succeeded to fulfil for a certain period (today the inflation is much higher again), but the difficulties of the crisis were magnified. The paper doesn't give prognosis for the development of EC, euro, and Estonian economy in euro zone; neither does it give any variances of economic politics for next years.

Keywords: economic crisis, euro, taxation, economic policy, development

JEL Classification: H270

Problem erection

The deepest economic crisis of Estonian history began in 2007. I don't want to argue whether the crisis in Estonia and EC is finally over or not; the purpose is to assert the fact that it's severe results in economic would be felt for years. It's didactical to analyse the course of the crisis and to observe, which economic political measures and when were taken at the time of the crisis and which were their results. An analyse of that kind gives good assumptions for coping with new crises.

The analysis didn't attempt to find any formulas from specialized literature as firstly, according to our knowledge there aren't any generally accepted ones, and secondly, the specific situation of Estonia (and Latvia and Lithuania) doesn't give the possibility to use many methods and formulas, suitable for usage in world, for the analysis of economic processes with sufficient accuracy. Also, the author didn't try to construct his own theory or formulas. The analysis has been performed on the basis of classical and widely spread methods of research.

The paper is of a mildly unusual structure due to the above mentioned reasons. Instead of usual theoretical initial part and consequent practical part it begins with the description of the situation, which is followed by the observation of concrete economic political steps. The theoretical treatment of each concrete economic

political reaction (if it has been considered to be necessary) has been given together with the analysis of its practical usage.

All the data before 2011 are given in Estonian kroons (EEK) as this was the currency of Estonia in the period. Kroon was fixed with euro (1 Euro = 15.6466 kroons).

Extent of crisis

In order to understand the extent of economic crisis of 2007 (or 2008) - 2010 in Estonia we'll bring out its main features and compare them with the other EU states.

The economic crisis is above all characterized by two main characteristics: its duration and its deepness. All the other features are considered less important; also, their use or disuse depends also on specificity of concrete crisis. The data have been demonstrated in table 1.

Economic depression (and other negative phenomena) of Estonia turned out to be enormous and exceeded greatly the average ones of EU. The decrease of GNP (2008 - 5.1%; 2009 -13.9% and in the 1st quarter of 2010 it was still -2.6%) was the biggest with the exception of Latvia and it was mildly less than in Lithuania. The decrease of other states has been considerably smaller (the biggest in Ireland in 2008 - 3.5% and 2009 - 7.6%). But the best states as Poland have all the time been in positive balance. (Eurostat...)

The decrease is going on in Greece, but its sum was however less than in Estonia as from 01. January, 2012 not to say nothing about the average decrease of EU (-4.2%). The best states, as Poland, have always been in positive field.

The severity of the crisis is characterized by unemployment, too. The states of highest rate of unemployment were Latvia (17.1%), Estonia (13.8%) and Lithuania (13.7%) in 2009; the average unemployment of EU was 8.9%. The situation has become more confusing since 2010 – the tendencies coming from financial problems of Greece etc. have been added to the tendencies of EU labour market coming from the economic cycle. The average unemployment of EU was 10.0% in 2010. Greece (17.9%) has been added to the list of states of highest rate of unemployment – Lithuania (18.3%), Latvia (18.2%) and Estonia (16.2%). The last data of unemployment (September 2011) demonstrate that the states of crisis have begun to recover; the unemployment is higher in the states, which have got financial problems (average of EU 9.8%, Spain 22.5%, Greece 18.8%, Portugal 12.8%, Lithuania 15.1%, Latvia 14.8% and Estonia 11.3%). It should be added that unemployment of some states (for example, Germany) didn't arise during the crisis (Eurostat...).

Table 1. Dynamics of tax funds, wages, unemployment and GDP in 2007-2012 (per cents in comparison with the same quarter of the last year)

Period	2007				2008			
	I	II	III	IV	I	II	III	IV
GDP	9,8	7,6	6,4	4,5	0,4	-1,4	-3,3	-9,9
Tax revenues	27,6	28,4	18,6	18,2	10,2	5,7	7,1	-2,8
Average wage	20,1	21,2	12,9	20,2	19,5	15,2	14,4	6,9
Unemployment (%)	4,0	3,9	4,1	4,1	4,2	4,0	6,2	7,6
Period	2009				2010			
	I	II	III	IV	I	II	III	IV
GDP	-15,1	-16,5	-15,6	-9,7	-2,4	1,7	3,1	6,2
Tax revenues	-10,1	-12,1	-13,6	-10,9	5,7	-2,2	-1,0	2,2
Average wage	-1,5	-4,4	-5,9	-4,9	-2,3	-1,7	-0,7	3,9
Unemployment (%)	11,4	13,5	14,4	15,5	19,8	18,6	15,5	13,6
Period	2011				2012			
	I	II	III	IV	year			
GDP	11,4	12,7	9,8	4,0	2,0			
Tax revenues	1,6	9,8	5,9	3,9	7,5			
Average wage	4,4	4,2	6,5	4,1	4,4			
Unemployment (%)	11,4	12,7	9,8	11,0	11,2			

Source: Homepage of Ministry of Finance. <http://www.ee/index.php?id=233>; Eurostat...

The deepness of the crisis is characterized by the duration of economic depression, which appeared to be long. Today we can suggest that the growth of GDP was negative in Estonia during 9 quarters but in most of the states of EU it was 4-6 quarters. Estonia will be stroke by Latvia (10 quarters) and probably Greece, wherein the decrease began later and where the increase can't still be seen (indeed, the reason of decrease in Greece was another). As about reaching the level, which was before the crisis, probably GDP of the period would be reached in 4-5 years and to reach the previous rate of employment would probably took more time in Estonia. Anyway, according to the data we've got no one serious source has dared to predict the latter number.

The deepness of the economic crisis could be well characterized by the comparison of the main data with the previous crises, particularly with Great Depression of 1929-

1932. The statistics of Estonia was different in that period from the present one. Therefore I won't like to take it as absolutistic, but the differences are so great that they speak by themselves. The data from sources, which aren't the most solid ones, confirm that gross production of Estonia decreased by about 5%. Agricultural production, which was especially important in the period, even grew (Depression..., 2007). However, the difference with the summary minus of GDP 23% is great. At that time maximal amount of unemployed was suggested to be 16 000 (NB! Not 160 000). The difference with the amount of unemployed now is rather great; also, these tens of thousands of people, who are looking for job abroad, should be added. If even to consider the dominant farming of that period, the picture wouldn't be in favour of present crisis. Also, the duration of crisis was shorter. Estonia could overcome it in less than 1.5 year due to vigorous means of government. Exact statistics, which could give the data with accuracy of quarters, was impossible to find from the period. But the information of newspapers allows suggesting surely that it lasted no more than 5 quarters. The conclusion could be only one – the economic crisis of the last years was the deepest of all the history.

Economic policy during the crisis period

The deepness of the economic crisis in Estonia in 2007 (2008?) – 2010 is obvious from mentioned above. It's clear that state had to arrange its economic policy due to the crisis.

The states usually take reactions during the periods of crisis, which could be divided into two groups: enlivening of the economics and assurance of its own financial capacity. The efficiency of the reactions is the bigger, the timely they have been taken and the closer they have been directed to concrete state and to overcoming the bottlenecks of the situation (reasons) of concrete economic crisis (as crises differ by themselves).

Estonia has been governed basically by the same government from March 2007. The economic political principles of the government are given in the clearest way in the budget strategy of state, which is published in II quarter of each year. Let's observe them more closely. (Table 2)

The first of them was taken on 19. April 2007. It's directly gone from the euphoria of especially rapid economic growth of previous years (growth of GDP in 2005 – 10.5%; in 2006 - 11.4%; Riigi..., 2007) and from total ignoring the signs of danger obvious already from 2006. The government aims on a task to precede the especially rapid growth of economics (the growth of GDP in an average 7.5% in a year since 2011 to preserve the unemployment at the level of 4.4%). The prognosis of the income of state budget is especially optimistic – it should be 109.2 billion kroons (the real one was 84.5 billion kroons and taxes formed 63.4 billion kroons from it). GDP, which had to reach up to 216.6 billion kroons since 2010 in current prices, was really 142.5 billion kroons.

Table 2. Basic prognosis of government economic strategy and their comparison with the reality 2007-2012

	2007	2008	2009	2010	2011	2012
GDP						
Forecast in 2007	9,2	8,3	7,7	7,5	7,4	-
Forecast in 2008	-	3,7	6,4	6,8	6,5	6,3
Forecast in 2009	-	-	-8,1	-3,5	2,9	5,4
Forecast in 2010	-	-	-	1,0	4,0	4,2
Forecast in 2011	.	-	-	-	4,0	4,0
Real	6,9	-5,1	-13,9	2,4	8,1	-
Unemployment						
Forecast in 2007	4,8	4,3	4,4	4,4	4,4	-
Forecast in 2008	-	4,3	5,1	5,5	5,5	5,3
Forecast in 2009	-	-	12,2	15,6	15,4	13,5
Forecast in 2010	-	-	-	15,5	13,9	11,9
Forecast 2011	-	-	-	-	13,5	11,4
Real	4,7	5,5	13,8	17,2	10,9	-
Inflation (CPI)						
Forecast in 2007	4,9	5,2	4,4	3,6	3,3	-
Forecast in 2008	-	9,0	5,3	3,6	3,5	3,4
Forecast in 2009	-	-	0,4	-0,6	1,3	2,2
Forecast in 2010	-	-	-	1,1	2,0	2,4
Forecast in 2011	-	-	-	-	4,5	2,8
Real	6,7	10,6	0,2	0,7	5,0	-

Source: compiled by the author on the basis of State budget strategies of 2007, 2008, 2009, 2010 and 2011. The reality data are from Eurostat...

There isn't anything strange that on the basis of such a supreme optimism that spontaneous continuation of the development of economic politics is relied upon. So, the strategic part of economic politics was too general containing just some principle economic slogans as innovation, growth for the demand for tourism products, economic environment favouring entrepreneurship, macroeconomic stability, taxation politics stability etc. in addition to universal slogans as the growth of social connectedness, care for children, good education, wealth of people etc.

The next programme of government's economic strategy is from May 2008. First of all, the concrete numbers have been mildly decreased in connection with already deeply functioning economic crisis. (The growth of GDP was already negative in the second quarter of 2008.) The numbers (GDP +6.4%; unemployment 5.1%) predicted for 2009 by government are supreme optimistic and probably originate from inadequate perceiving of arising crisis situation on the basis of the real situation. As the crisis situation hasn't been perceived, so the reactions absent; the economic political programme repeats mostly the previous one. But there has become a new one: transition to euro. Estonia has fulfilled 2 conditions from necessary 5 for it –

stability of currency (Currency board system had ensured it since 1992) and low level of national debt (the lowest in Europe!). The decrease of inflation under the conditions of high growth of unemployment and salaries to be cut down could be predicted at least temporarily. The interests of long-term credits are calculated on the basis of public sector bills. Their level was higher than it was stated in Maastricht agreement. As about the balance of budget, in spite of the fact that it's already a great problem (in the same summer of 2008 government had to make negative additional budget) it isn't reflected in economic strategic programmes in May yet. A surplus of budget in the amount of 1% is talked about (Riigi..., 2008). Any extraordinary reactions for budget balancing aren't certainly planned if there is 1% surplus programme.

The economic strategy of government from May 2009 is certainly of other style. Year 2008 finished in spite of a negative additional budget with a consolidated deficiency of budget 7.3 billion kroons; GDP had been negative since the second quarter of 2008. The minus of GDP growth had already reached 15.1% in first quarter of 2009. Certainly, the economic strategy of last years was impossible to proceed under such conditions. As the same government proceeded, so it had only two possibilities – to recognize the mistakes of prognosis for 2 last years and its supreme optimism in economic political prognoses or to call attention aside. Government chose the second way under the conditions of forthcoming elections. Transition to euro was proclaimed to be purpose number one and all economic politics was subjected to it (Riigi..., 2009). Estonia had difficulties in fulfilling two conditions as it was explained above – interests of long-term credits and balance of budget. Government didn't announce it anywhere (the reaction isn't mentioned in strategy or in explanatory note of budget) but used the circumstances that they weren't very great and just redeemed them. Hence the criterion succeeded to be fulfilled, at least formally. That's a matter for itself what's the macroeconomic influence of the reduction of such an enormous mass of money at the highest peak of crisis. A slogan was erected in order to fulfil the criterion of budget balance – budget gap mustn't be bigger than 2.9% of GDP. Essential retrenchment of state expenses and lifting of taxes were necessary for its realization. Retrenchment of expenses was carried through direct retrenchment of state expenses (additional payments to retirement funds were temporarily stopped, budgets of local municipalities were decreased, salaries were cut down etc.). Tax increase was used in taxation politics: value-added tax (named VAT in Estonia) was increased (the reduced level of 5% was increased to 9% from 1. January 2009; the list of reduced tax goods was limited; VAT ordinary level was increased from 18% to 20% from 1. July 2009). The excises were essentially increased and income tax incentives were reduced. (Riigi..., 2009). As a result of enormous efforts the state budget gap was held under 3% of GDP and Estonia joined euro 1. January 2011. The question is what the macroeconomic influence of these reactions is.

The proportion of real economic results and predictions has been changed since publishing the budget strategy in May 2010. The real results corresponded more or less the predictions published in May of the same year; they were even a little better from it. Probably the difference of optimistic predictions and weak real results of last 3 years had made the compilers of the predictions more realistic, not to say more

careful. As the real results of 2010 corresponded more or less the predictions of May 2010, the deviations of 2011 were already bigger. The real results of 2011 are much better than the predictions of 2010 or 2011; the inflation was just higher.

As super optimism prevailed in predictions of 2007-2009, so calculable reversible deviations between the prediction and real data could be recognized in last two years. If one would add the fact that any concrete means to reach the predicted results practically lack in the strategy, it would become obvious that government has just relied on self-correcting forces of market. But the forces act with different strength in different phases of a business cycle. It hasn't been considered, that's why the deviations between predictions and real numbers have been considerable.

Estonian state budget income structure

The statement that the impact of the crises on public finances was stronger on expenditure than on the revenue side (Taxation, 2011 p.18) should have to be agreed. On average, from 2008 to 2009 (the years, wherein the crisis was obvious most clearly in EU) revenue contraction contributed only about half a point to the worsening of the public deficit (graph1).

Expenditure, in contrast, went up more, by around four points of GDP. Furthermore, while the expenditure-to-GDP ratio increased significantly in almost countries, the picture on the revenue side was much more contrasted: in about one fourth of countries, the drop of revenue was significant, approaching 2% of GDP or more, whereas more than one third of countries actually increased revenues, as a share of GDP. This shows that, although the exit strategic for the crisis had foreseen that consolidation would, is a rule, start only in 2010, not all countries waited until year to start consolidating on the revenue side.(Taxation, 2011.pp.16-23) There isn't anything strange that on the basis of such a supreme optimism that spontaneous continuation of the development of economic politics is relied upon. So, the strategic part of economic politics was too general containing just some principle economic slogans as innovation, growth for the demand for tourism products, economic environment favouring entrepreneurship, macroeconomic stability, taxation politics stability etc. in addition to universal slogans as the growth of social connectedness, care for children, good education, wealth of people etc.

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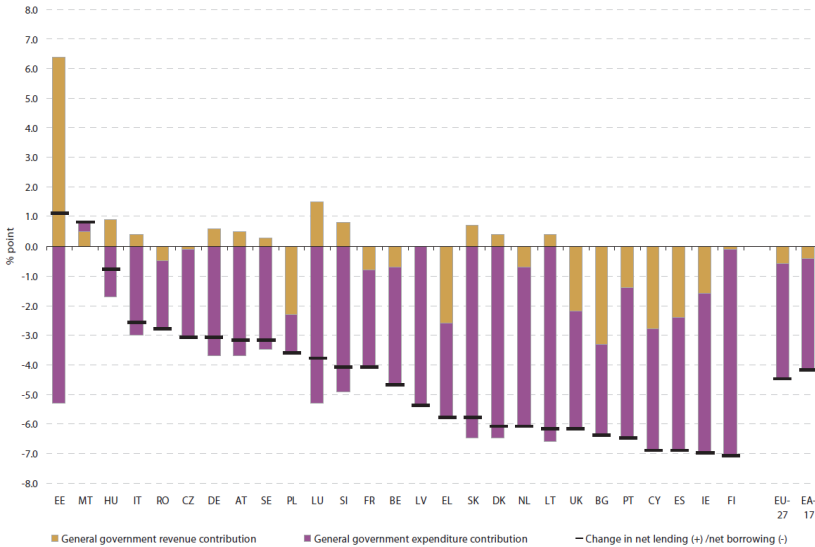


Figure1. Changes in EU member net lending / net borrowing 2009 (Taxation..., 2011, p.16).

As it could be clearly seen from Figure 1 Estonia is essentially different from other EU states by its budget behaviour. Figure 2 demonstrates it more clearly.

A question would arise what was so different in the situation of Estonia and why a strategy of budget and taxes, which was so different from the whole EU, was chosen. One of the reasons was the influence of the crisis on budget, which was essentially higher than the average. The strong influence of economic crisis on budget is connected first of all with the individuality of the structure of Estonian state budget.

In the initial stage of its transition period, Estonia (like most other Eastern European countries) was in a unique position – it essentially lacked a taxation system, a vital instrument of economic policy, which now needed to be constructed. In a perfect world, that would have meant building a system based on contemporary economic theory. Unfortunately Eastern European countries lacked pertinent knowledge, both in regard to taxation theory and the economic situation (an accurate description of the development phase and the processes).

So what characterizes the Estonian tax system? Its characteristic features are a relatively low tax burden, simplicity bordering on primitiveness (which has significantly reduced the possibilities of using taxes as a control device of economy), a very high percentage of indirect and consumption taxes.

The tax burden in Estonia has been 33.7–35.1% since Estonia joined the EU (Taxation...); the data are slightly different in various parts of the website). The tax burden ought to increase up to 36% as a result of the taxation lifting in accordance to the economic crisis in 2010 (Seadus..., 2010, pp. 12-27). But as the Ministry of Finance of the Republic of Estonia has already decreased the prognosis of GDP in comparison with the time of state budget passing, so we can speak about tax burden of 37%. Also, it's lower than the EU average (41–42%). However, these numbers are not comparable. Estonian state budget includes social benefits tax, which has for many years been the greatest source of income for the state budget (Table 3). In most EU member states such a tax does not exist or is slight. When that is taken into account, the tax burden in Estonia appears to be about 26–28%.

The economic crisis has brought attention to the issue of tax structure. Table 1 presents taxes in Estonian state budget from 2005, i.e. after Estonia joined the EU. It is difficult to assess what is the percentage of indirect taxes in Estonian state budget. Indirect taxes clearly include VAT, excises and the customs tax. However, also the gambling tax has some features characteristic to indirect taxes, as it is not imposed on the revenues from economic activities but rather as a preventive lump-sum tax, i.e. before launching the slot machine etc. The tax sum is transferred by the manager of the gambling business in some way (e.g. by raising drink prices) to the actual bearer – the gambler, i.e. consumer. Accordingly this tax also has the incidence characteristic of indirect taxes and therefore it is more accurate to regard it as an indirect tax (at least when it is established in such a way as in Estonia).

As far as we know, there is no other country that has social benefits tax in the form that it exists in Estonia. The tax is paid by the employer, but it is calculated based on the amount of money paid to the employee. That tax is meant only for pensions and healthcare, i.e. it functions largely as retirement and health insurance. Clearly, the defining criterion here is whether the employee's salary would increase by the amount that makes up the social benefits tax if that tax was abolished. If yes, the social benefits tax has enough characteristic features to regard it as an indirect tax; if not, the features of direct taxes probably prevail (the social benefits tax is the employer's expenditure). As this question is impossible to answer properly, authors classify it arbitrarily, depending on their views, as either a direct or indirect tax. Eurostat has taken a „diplomatic” position and classifies that Estonian social tax as a labour tax, regarding it therefore as primarily a resource tax (Taxation...) but that is not entirely accurate as the income from social benefits tax is allocated for certain social expenditures.

It is probably reasonable to bring out the percentage of indirect taxes in different versions, with social benefits tax included and not. In the first case, the percentage of indirect taxes has made up 75.3–87.8% of state budget revenues ever since Estonia joined the EU; in the latter case the percentage has been 41.1–53.6%. If we take the first approach, we arrive at what is clearly the biggest percentage of indirect taxes among EU member states; even with the second approach the result is well above EU average.

When trying to determine the percentage of consumption taxes in Estonian state budget, we likewise have to face the question of how to classify some taxes that are different from those in other countries. Again we are talking mainly about social benefits tax. In the form that it exists in Estonia, it has been regarded as a tax on using one of the goods – labour – and hence as a resource tax. That, however, raises the question of whether it is a consumption tax. It is not the purpose of this study to discuss whether the multifunctional tax established during the transition period when there was no economic-theoretical knowledge available belongs to this or that category. Therefore – although the author does not share the opinion that the social benefits tax as it exists in Estonia is a consumption tax – also the percentage of consumption taxes has been given in two versions.

The figures demonstrate a growing dominant of social taxes in Estonian state budget tax funds from 34.2% in 2004 to 44.4% in 2008.

Table 3. Income from taxes in Estonian state budget 2005–2011 (millions of kroons)

	2005	2006	2007	2008	2009	2010	2011 (euro)
Total taxes	53831	55208	67718	70396	63780	63299	4341
Personal income tax	10911	3846	4786	4328	2419	3000	2029
Corporate income tax	2365	3123	4083	4166	4010	3032	2011
VAT	14021	18645	22304	20548	18809	19531	1339
Excises	6424	7030	8195	8971	9818	10425	7170
excise on tobacco	1205	1208	1529	2519	2088	1794	1389
excise on alcohol	1838	2089	2314	2434	2590	2585	1786
excise on fuel	3363	3728	4353	4697	4870	4870	3150
excise on packaging	...	3	...	1	1	1	1
Gambling tax	292	354	467	484	278	323	x
Customs tax	347	401	549	508	307	373	x
Social benefits tax	18392	21764	27268	31299	28084	26562	1801
Other taxes	1079	45	66	92	55	62	x

X - Not published yet

Source: the author's calculations based on the Ministry of Finance homepage, <http://www.fin.ee/>.

Estonian state budget and economic crisis

The economic crisis of 2008-2009 was directly reflected in the budgets of EU member states. But its range and course have been very different. As it has been mentioned above, it was especially sharply reflected in Estonian budget as the structure of the incomes of Estonian budget was (is) different from the others. The economic results were different compared with other member states of EU due to it and due to different economic-political purposes (accession to euro was put on the first place not overcoming the economic crisis as soon as possible and with the least social recessions). The difference in the situation is clearly given on figure 2, where EU member states have been compared in the highest peak of the crisis in 2009. Figure 2 demonstrates that Estonia together with the richest state of EU Luxembourg were the only ones, where tax-to-GDP ratio essentially increased. It originated as from the increase of taxes at the highest peak of crisis, so from the decrease of GDP, which finally led to the growth of total tax-to-GDP ratio. But unlike most of the states of EU it didn't increase the incomes of Estonian government enough to allow sufficient expenditure for decreasing the social stress originating from the crisis and/or activating economics. (Figure 2)

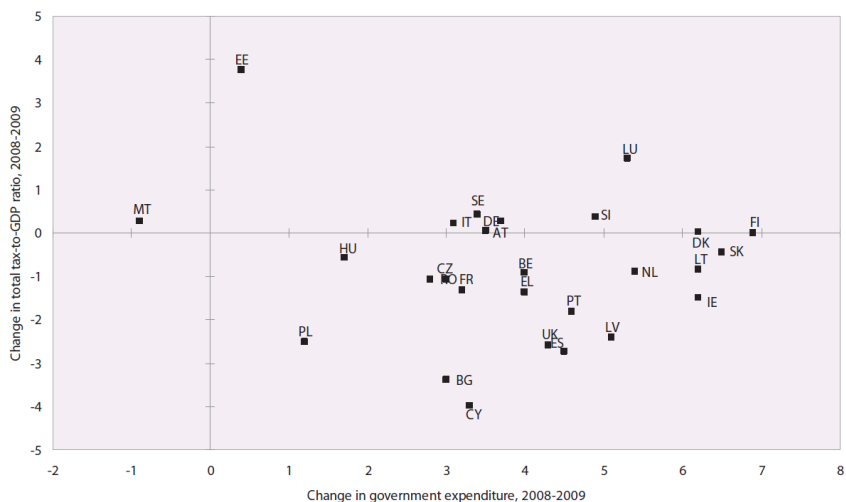


Figure 2. Changes in EC member government expenditures and in total tax ratio in 2009 (Taxation..., 2011, p.18).

The crisis, which began in 2008, froze the sums paid as wages in 2009 due to the unemployment and it led to the decrease of social taxes. It beat the state budget of the Republic of Estonia and essentially cut the amount of budget of 2010. Obviously, the incomes of budget, which base on consuming taxes, have got a great elasticity during

the periods, wherein the incomes and consumption are rapidly growing, but a system of this kind has got a low floatage. (Table 3).

The figures of Table 3 demonstrate once again that the tax funds react on GDP hangs with some lag time. The peculiarity of the state budget of the Republic of Estonia – a great proportion of consumption taxes – brings a peculiar fact: the tax funds are in correlation with the dynamics of wages (especially in 2008) rather than the dynamics of GDP. A smaller decrease of tax funds in comparison with the GDP ones in 2009 has diversely been occurred from the lifting of tax burden (the growth of turnover taxes rate by

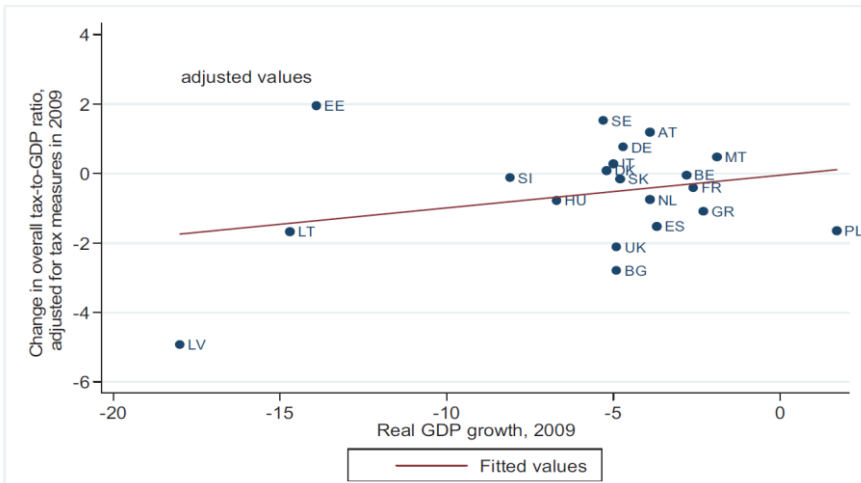


Figure 3. Changes in EC member government expenditures and total tax ratio in 2009 (Taxation..., 2011, p. 20).

2 percentage points, the increase of excises, the purring of income tax benefits). The concrete influence of taxes lifting and the influence of prices elasticity on tax funds can't be explained here.

The comparison of figures 2 and 3 is of great interest. It can be concluded that 4% change in the expenditures of Estonian government and in total tax ratio in 2009 is half a result of the increase of taxes and half the result of the decrease of GDP.

As it has been mentioned above, not only the taxes weren't increased, but the expenditures of budget were decreased in order to preserve the budget gap under 3% of GDP; also, it was doni in the middle of a budget year by compiling so-called negative budgets. But a cutting of that kind reduces the consumption. As the consumption taxes form the main part of Estonian state budget, so a cutback of any description of the budget means the cutback of the next period's incomes.

Let's observe the influence of three negative supplementary budgets of Estonia on the incomes of the next periods. A cutback of budget expenses unavoidably results in decrease of the budget income during the periods to come. This is a process of multiple levels. First, the taxes will not be gained from budgetary purchases, wages paid from the state budget etc.

However, people go to the market with the money originating from the budget, their purchases feed the private sector – bakers, weavers, tailors and so on. Also, the state gets taxes from their wages and VAT and excises from their purchases, so the process is repeated.

In the case of negative supplementary budgets, the amount of money spent on consumption is reduced. The people and institutions that receive funds to finance their business from the state budget will, therefore, have less to spend and so less tax will be paid. The amount of money that reaches the second level is also reduced and the income of taxes will decrease even more.

Since it is not possible to ascertain the structure of expenditures in the case of the second and upward levels, it is not possible to clearly bring out the effect of cutting the expenses on tax profit; visible is only the first level as a result of the so-called direct calculation.

Also, it has to be considered that each budgetary monetary unit compiles annually 2.8 turnovers on an average; it means that it returns in 2.8 times on an average. Certainly, the money spent for purchases from abroad doesn't return at all; the social tax and income tax from salary return quickly; turnover tax and excises return while spending wages etc. Therefore it's practical to divide the budget expenses into four major categories based on their economic content (Seadus Eesti..., 2009): 1) purchasing and renovating material and nonmaterial property (i.e. investments); 2) appropriations; 3) carrying costs; 4) other expenses.

People divide their available income into two: savings and consumption. The proportion of savings among general income can be calculated by the sum of the savings and available income. In 2008, the average saving per person was 7, 9% from available income; in 2009 it was 9, 2%. Rest of the available income was spent on consumption.

The next feature to demonstrate the expenses of state budget returning to the state is the proportion of employment expenses. In 2008 it was 13%. Since it has remained stable enough for years, the same percentage has been shown for 2009 as well (Rahandusministeeriumi ..., 2010).

If one would originate from the abovementioned presumptions, it's not difficult to calculate the decreases of re-contributions due to negative additional budgets. According to the calculations of the author 3 negative additional budgets of 2008 and 2009, which total amount was 12.4 billion kroons, decreased the incomes in budgets of future periods not less than in 7 billion kroons (Raju, 2011, p.63-65). If we also

consider the fact that if the cuttings had not been made, the unemployment rate would have risen more slowly and the unemployment benefits, income supports and other similar payments would have been lower, we start to question whether the cuttings were really economically justified.

Summary

The following can be concluded from the above:

1. Economic depression took place in EU in 2008-2010; it hasn't been finished in some states yet. The depression of Estonia was one of the deepest in EU amongst most of the economic characteristics; it was even deeper than during the Great Depression of 1929-1932.
2. Economic crisis demands from the states to correspond their economic politics with the changed conditions of administration. The economic politics carried on by the government of the Republic of Estonia is made public in a document named State Budget Strategy (Riigi Eelarvestrateegia) annually in May. The strategies of 2007 and 2008 demonstrate that government didn't acknowledge the deepness of the crisis and relied upon spontaneous and fast recovery of the situation on the basis of the extremely fast growth of the years before the crisis.
3. The crisis was rather deep already in 2009. State Budget Strategy recognizes the presence of crisis but it takes the direction on fulfilling the demands for transition to euro, not on reactions to crisis.
4. The purpose of economic politics different from other EU states – not to fight economic crisis but assuredly to passage to euro on 1. January 2011 – caused a different taxation and loan policy from other EU states in the years of crisis.
5. Thereat the main difficulty was the assurance of the demand of budget balance under the conditions of economic depression. Taxes were increased at the highest peak of crisis (VAT and excises; cost-cutting of income tax incentives) and budget incomes were cost-cut. This gave the possibility to hold the budget deficit lower than 3% of GDP, but worsened the overcoming of economic crisis.
6. State budget of Estonia decreased essentially under the conditions of crisis. The decrease of budget was bigger than it had to be proceeding from the extent of the crisis. It forced government to establish additional negative budgets as in the centre of 2008, so in the centre of 2009. Great decrease of budget was essentially predisposed by particular structure of tax revenues of Estonian state budget.
7. Determining the percentage of indirect and consumption taxes in the whole tax burden is complicated as there is no generally accepted method for it. Also, several of the taxes used in Estonia possess features characteristic of both direct and indirect taxes. Furthermore, it is not clear what we should consider a consumption tax – only those taxes that affect household consumption or also corporate ones in case the tax is imposed on final consumption.
8. Whichever approach we take to defining indirect and direct taxing, it is clear that indirect taxes prevail in the income of the Estonian state budget. The social benefits tax makes up a particularly big – and growing – proportion. Different approaches lead to the same conclusion: the percentage of consumption and indirect taxes in the state budget is equal, i.e. indirect taxes have been imposed on consumption.

9. The structure of the revenues of the Estonian state budget differs considerably from that of other EU member states. The percentage of environment taxes is negligible, while the peculiarly structured social benefits tax, which constitutes the greatest and increasing source of revenue of the state budget, is difficult to classify as either a direct, indirect or labour tax. Due to the huge proportion of consumption taxes the buoyancy of Estonian tax system is weak. The provisional conclusions of 2008 demonstrate clearly that during periods of economic recession the state budget is very vulnerable.
10. The shortfall of income to the state budget in 2008 and especially in 2009 has forced the government to make cutbacks up to 10% and has acutely raised the issue of increasing the tax burden. As the tax burden in Estonia is substantially lower than the EU average, it is possible. However, that raises the question of the optimal tax burden. Based on Slutsky's principle of compensated demand curve and Ramsey's optimal tax theory we can take the optimal level of indirect taxes (which are dominant in Estonia) to be the point where the household welfare reduction curve and the social welfare increase curve intersect.
11. The way Estonian Government has chosen to balance the budget – a continuous cut of the expenses- forms a dead circle as the cur of the expenses, particularly the wages, is going to decrease the incomes of the next period. According to the most modest calculations, which haven't taken into consideration the decrease of the demand due to macroeconomic influence, the state budget of Estonia lost 2.2 billion kroons in 2008 and 10.5 billion kroons in 2009 due to the cuts of the budget.

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