DETERMINANTS OF STATE INTERVENTION: EVIDENCE FOR THE EU

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Abstract

The purpose of the paper is to analyze the determinants of State intervention upon the social and economic life, and to grasp their implications in terms of public policy. The problem of State interventionism is a current one, and over time it has been under the influence of certain factors such as interstate differences, economic and social crises, political governance of the country, regional policy and globalization. The challenges that the current economic crisis brings in terms of State interventionism, are also presented. Some indicators that quantify the extent of State intervention through public expenditures are analyzed for the EU member countries (1995-2010) in order to capture the general trends in their evolution and the peculiarities of their structure. The empirical analysis, based on a panel econometric model, aims to establish the relevance held by the main determinants for the degree of State intervention in budgetary expenditure, for the EU countries. The possibilities for an increasing State interference during the crisis, related with the withdrawal of the State once the crisis would be overcome, are valued with reference to the significant determinants of the interference policy derived from empirical analysis.

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1. Introduction

The objective of this study is to examine, through a panel econometric model, the determinants of State intervention upon the social and economic life, and to grasp their implications in terms of public policy and under the current global crisis context. The analyzed countries are the EU Member States, observed during 1995-2010. The paper is structured as follows: Section 2 is an over time review of the main theoretical contributions with reference to the economic role of the State and the implications in budgetary terms, Section 3 is a descriptive analysis of State interventionism induced by public expenditure in the EU; an empirical approach of this issue is presented in Section 4; in Section 5, conclusions are summed up.

2. The economic role of the State – implications for public finances

Concerned about the origin and the evolution of the State, scientists have made up a number of definitions for the concept of 'State' over time. The definitions are based either exclusively on the notion of 'human community' either on that of 'authority' that exerts power over the community, or they combine the both, stressing their relationship. From these definitions results that the State authority has to be involved in the public finance field that concerns the whole community.

According to the founder of the classical German philosophy, Immanuel Kant (1724-1804), the State is a group of people that face the same rules of law. For the French sociologist Emile Durkheim (1858-1917), founder of the French school of sociology, the State is itself all social bodies that have the exclusive capacity to speak and act on behalf of the community (Burlacu, 2004).

Max Weber (1864-1920), German economist, sociologist and philosopher, asserted that the contemporary State has to be designed as a human community that, within a given territory, successfully claims to own the monopoly of the legitimate physical violence. What individualizes our era is that other groups or individuals haven't got the right to use violence only if the State tolerates it, so the State appears like the only source with the 'right' to use violence (Burlacu, 2004). The Weberian definition contains three essential characteristics of the State: administrative institutions, legitimate authority and force monopoly within a given territory.

According to a more complete definition (Popescu, 2002), the concept of 'State' means a human community located within a well-defined territory and subjected to a sovereign authority holding an administrative and political institutional system through which it exerts its functions, commands and acts in order to fulfill the common needs of its population, or of the nation that it represents. The involvement of a sovereign authority (the State) to finance the collective needs of the population is obvious, expressing physical and legal protection, social security or protection of business running. Therefore, the public budget can be considered a tool within the state's reach, used to finance these common needs.

The first appearance of State institutions in the transition era from a tribal community type to a slave society was associated with new economic processes and social redistribution relations of the social product between the members of a State community. These types of relationships have developed progressively up to the modern society, as the State functions, the institutions under its supervision, and thus the tasks undertaken by them have multiplied. And the State budget is built in order to meet the principle of public revenue global management and to allow the social product redistribution. Redistributive resources are meant to finance the State institutions that support the smooth running of the community's social and economic life. And the redistribution of the social product from the material private sector to the intangible sector of State institutions is explained by the unproductive character of the latter.

The redistribution of resources through the State budget has become more legitimate when the State began to assume new tasks, by supporting, organizing, coordinating or adjusting the activities of the material, economic or productive sector.

In relation with these developments in terms of State tasks, the extent of State intervention in the economy has experienced variations, just like the size of the public budgets. Various forms of statal organization were directly reflected in the degree of State intervention and the size of the State budget. If some authors (Tulai, 2007) separate the guardian State from the interventionist one, others (Burlacu, 2004) added the socialist State (omnipotent) to these two types of states, without failing. In fact the difference between the two approaches is not essential because the interventionist state, as it is described by Tulai (2007), could be assessed in different terms: that of an absolute interventionism (for the socialist state) or that of a reasonable interventionism (for the contemporary state).

The guardian State or the protective type state, characteristic to the early stages of the capitalist society up to the emergence of economic crises and unemployment, is the State that assumes itself the traditional tasks only (defense, internal order, justice etc.). The approved doctrine was the liberal one accompanied by the principle of self-regulating mechanisms in the economy, without State intervention, which could lead to certain inefficiencies in the public resources administration field. Among the advocates of liberalism and non-intervention Adam Smith (1723-1790) should be noted first, as he promoted the well-known principle of 'laissez-faire'.

The socialist or highly interventionist state, found mainly in the former socialist countries of Europe, has assumed extremely large economic and social functions, conducting the overall activity while the private property was abolished. In this context, the economic processes and relations have become predominantly public finance relations. Here the interventionist ideology is totalitarian in nature, the financial resources being available only to the State and assigned through public decisions. This ideology is unaccepted by the democratic economies.

Interventionism, with its other side of State interference through levers and not in a conducting way, shaped up as an ideology once capitalism faced previously unknown phenomena, such as the economic crises. Although most often, the literature associated the beginning of interventionism with the global crisis of the 1930s, the first signs of an increased State involvement have been found since World War I (Burlacu, 2004). Then the development of the public finance area was due to the increased costs of the war. Therefore, the state's role has expanded by increasing the involvement of the State budget into the support of military expenditures. Later on, to this war effect, some combined effects of economic reconstruction were associated, all affecting the size of the State budget.

Known as the crisis of 'overproduction', the crisis of the 1930s showed that leaving the economy to its self-regulating mechanisms does not always lead to desirable effects, but it rather generates unemployment, instability in the stock market and banking sectors. Furthermore, the thesis advocating for the active interventionist role of the State in the economic life, in correcting cyclical developments, crisis prevention or limitation of their negative effects began to gain ground. The main representative of the interventionist doctrine is John Maynard Keynes (1883-1946), his thesis found a strong echo in the policy adopted by many states after the Great Depression (Masca, 2008). The new ideology manifested by increasing the state's involvement in the redistribution of resources, and through the activation of some economic instruments such as levers, in order to influence the behavior of the society.

Interventionism, as an ideology, has evolved from a compensatory type interventionism to a correction type (Burlacu, 2004). If the first type involved State interference for reducing the effects of the economic cycle that were responsible for the disequilibrium in the economy, the correction type interventionism occurred later, after the attenuation of crises, involving an increased concern for social protection.

By confronting the divergent reasons of State intervention or non-intervention in the economy (regarding the controversy over the economic role of the state, see Avramescu and Ungureanu, 2009) and by their reconciliation to a certain extent, after 80 years resulted what has been known as the limited interventionism. Keynesian interventionism was condemned especially for the inflationary effect of out of control deficits. According to the new ideology, a crucial role is played by the market and its laws, while the State is watching over the macroeconomic climate, the objectives of general interest. This is the hypothesis of the State as the maker of rules and the referee State that coordinates and seeks to follow the preset rules.

Therefore, the State interventionism has known various forms of manifestation, ranging from an increasing State involvement for supporting the army, the direct and indirect support of the economy, then the social interference in redistributing resources among members of the society, and nevertheless highly conducting which kept all activities under the control of the state. What all these have in common is that the mode of manifestation of interventionism always came as a response to the political, economic and/or social context.

In addition, policy makers and the orientation towards a left wing or right wing government power left their mark upon the volume and structure of the State budget. If left politics is accompanied by a significant State intervention, right ideologies rather militate for liberalism, and non-interventionism.

The role of the State in the national and global economy has been redefined and reevaluated since the 20th century, because of the fragmentation of the global economy through the creation of regional economic blocs, on one hand, and of globalization generating interdependences, on the other hand.

The issue of State intervention is associated to the interference of a supranational authority. For the extent it interferes in the economic and social life or the size of the public budget, each state's policy cannot be considered independently from the regional policy, which also leaves its mark more or less. If we refer to the European area, the European Union is acting as a supranational authority that may influence the budget policy pursued by the member states through its requirements. EU policy coordinates with an impact upon the government budgets of member states particularly those in the area of taxation and budget deficits, and less the ones in the sphere of public spending. Certainly the EU budget revenue requirements have directly affected national budgets as a whole and therefore public spending was affected at least in terms of size, if not as a structure. The size of budgetary income and expenditure is constrained by the existence of a budget deficit within 3% of GDP and a public debt of no more than 60% of GDP.

In his work, Bucur (2008) argues for the global interdependence effects on strength and for the capacity of the national state, the general manager and autonomous actor positions in the economy. The author believes that globalization has weakened the state's sovereignty, its independence being undermined both on the inside and on the outside. The role of the State in the 21st century has evidently changed, especially concerning the mechanisms and instruments used in its relation to the economy. In addition, the international economic organizations have been created in order to regulate the global economic activities that cannot be assigned to a specific area, so their power and influence has continuously grown at the expense of state control.

Along with these organizations, there also exist non-governmental institutions, international organizations, private organizations and associations, all of them being autonomous in relation to the State and undertaking important decisions from it. In this context, at least theoretically, nations can either consider the market as the 'prevailing party' or subject themselves to a supranational authority. While accepting the fact that the State is crossing the deepest crisis of legitimacy in its history, Bucur (2008) considers that the State will continue to play an important role in the economic life, while applying its means and dimensions of intervention in a process of reconstruction and rethinking.

The debate on State interventionism in the economic and social life restarted in the contemporary period, in a context in which the difficulties the global economy is facing require, perhaps more than ever, the active involvement of the state. While facing a global crisis that appears to exceed the proportion of that of the 1930s, in the contemporary period we assist to a compensatory type interventionism rather than a correction type. In this context, the hypothesis of the referee State is outrun by that of the State as a 'player', a direct participant to the economic activities. It holds, but also runs its own economic activities.

Summing up, the contemporary crisis has been caused by an inefficient management of the liquidity excess of the global economy. In this context, State involvement becomes crucial. Specifically, State involvement in some of the most developed European countries was done by guaranteeing loans or security issues made by banks, the recapitalization of financial institutions, even the acquisition of shares for banks with problems, a coordinated reduction of the interest rates, all done in order to prevent a disordered collapse of the large interconnected firms and to improve the liquidity in the system (Isărescu, 2009). All these measures had important implications for the State budget, increasing the part of domestic product subjected to redistribution through the budget. Nationalization of one part of the financial sector contradicts the foundations of modern capitalism and increases the role of the State as a direct consequence while the private sector decreases. Among the opponents of such measures we may include Breitenfellner and Wagner (2009). They draw attention upon two aspects. Firstly, financing bankrupt companies out of public money equals to interfering upon the market's mechanisms, and even if this is absolutely necessary, intervention should be selective (it should only refer to solvent companies) and involve a significant cost. Secondly, all emergency financial measures taken by the public authorities have a short term impact, while on the long-term risk management strategies and government regulations have to be improved. Higher regulations do not necessary involve profound implications in budgetary terms.

In other European countries, which were less exposed to the so-called 'toxic assets', the crisis is felt through the lack of capital, both public and private. External public financing is more difficult to be obtained today, due to the domestic political and economic crisis. The scarcity of foreign private capital is also characteristic to the current period. Therefore, the only thing that would permit the outrunning of the crisis is the domestic private capital and the public investments into insufficiently capitalized areas.

The State may play an important role in the development of domestic investments if it skillfully handles a number of levers, including its budget. The public investments themselves can generate spillover effects over the private sector and the fiscal measures can act as an impulse for private investments. To restore confidence of investors and consumers in order to support a positive trend of the economy through their actions requires additional resources from the State budget. Moreover, the real sector creates social difficulties through layoffs, field in which the State needs to interfere through social security measures.

Regarding the possibility to activate the elements of budget revenues as levers during the crisis, there have already been many debates. We underline the idea of Barrell *et al.* (2009), according to which taxes may be activated through facilities (especially for direct taxes and social contributions) in order to relax the credit market constraints the consumers and businesses are subjected to. In this case, tax incentives may become much more efficient than in the absence of the crisis, having a multiplier effect for a much more significant production level.

The contemporary crisis has determined the government authorities to certain behaviors that have been considered to be in contradiction with the rules of market competition by authors such as Aggarwal (2009). Thus, out of the desire to promote national companies and to protect them against the competing global firms in times of crisis, the state appealed to hidden forms of intervention. These materialized into health and safety standards, environmental policies etc. which provided the national firms with competitive advantages as opposed to the other companies, in a completely hidden and discriminatory manner.

If the period before the global crisis was characterized, as we have seen, by taking some of the national prerogatives by the international economic organizations, other institutions and autonomous bodies, we currently witness a reverse phenomenon. Global governance structures have become extremely fragile. The EU struggles to maintain its internal cohesion (Cable, 2008). In this context, we witness a reverse transfer of powers, towards the national authorities, whose role in solving the financial crisis strengthens. Although the cohesion in the EU region is weakened in these times of crisis, some authors (Barrell *et al.*, 2009; Buti and van den Noord, 2009) call for coordinated policies in the area. They could aim to increase the effectiveness of some national fiscal relaxation policies (see Barrell, 2009), but also to internalize the consequences which the isolated national policies in the region would have (Buti and van den Noord, 2009).

Related to the current trend of an increased State role into the economic and social life, a further question surely appears: that of the possibility of its withdrawal once the economy recovers. History shows that the transition from Keynesian interventionism to a reasonable State intervention was not a spectacular one, being rather characterized by a limited growth in the size of the budget, than by a reduction of it (Masca, 2008). And now that the State engaged in a strong support of several sectors with problems, it is hard to imagine a relief from all those responsibilities once the economy re-enters the normal track. This is a relatively new issue raised in the U.S.A., which is clearly concerned about this trend, considering their deep liberal traditions (Blackwell, 2008). In budgetary terms, it is possible to have an irreversible increase of its size.

Facing an increased state interventionism, under the current crisis conditions, as a response to market failure, most analysts and researchers bring into question the possibility of the State to fail as well. Verschoor (2009) wonders whether a more stringent regulation of the market through state intervention would be effective for combating the unethical practices. In other words, could government intervention counteract the behaviors that the market has failed to remove, or would it lead to a repeated disaster? Ludwig von Mises and other authors support the idea of the government intervention's ability of self-sustainability. Repeated interference of the state upon the credit market has brought a relaxation on the short term but on the long term, it requires new interventions on behalf of the authority (Wolfram, 2008).

These debates are not something new, as they just come back to question when the economy faces a crisis. The assertion made a long time ago by Stiglitz (2000) is well known: 'markets often fail, but governments often do not succeed in correcting the failures of the market'.

3. Public expenditure in the EU countries

Methodologically speaking, indicators related to public expenditure can be expressed in a diverse manner. Our preference is with regard to (i) public expenditure reflected in the consolidated State budget, with the widest coverage, (ii) the relative size of public spending which allows international comparisons, and (iii) the global overall size or the structure of public expenditure.

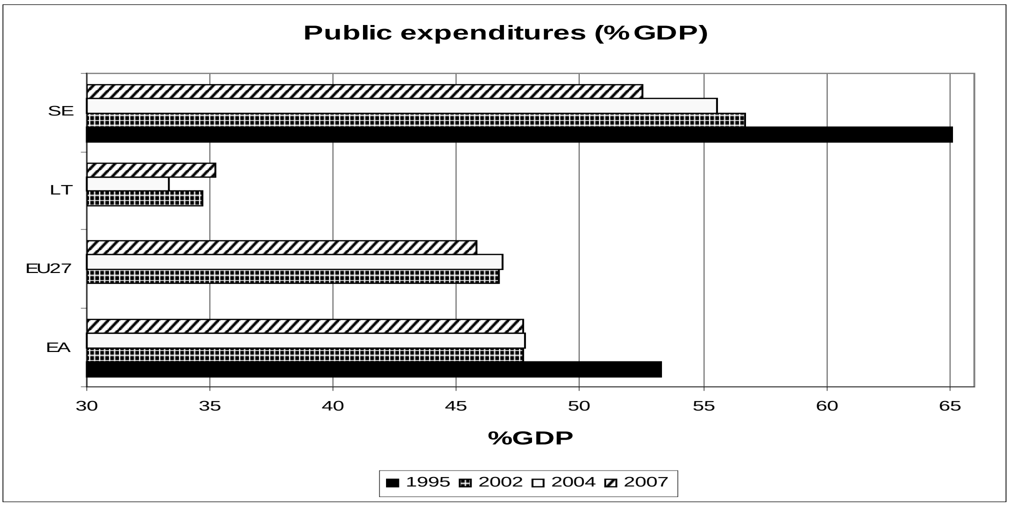

Figure 1: Budgetary expenditures (% GDP), 1995-2007

Source: Authors' processing based on Eurostat data

The relative indicator of public expenditure obtained by dividing them to the GDP is known as the degree of State intervention induced by spending (the degree of State intervention may be computed based on budget revenues or expenditure divided to the GDP).

The study covers the period 1995-2010, split into two sub-periods: 1995-2007 and 2008-2010. The reason of this division is obvious: if the first sub-period is relatively uniform in terms of the development of the European economies' aggregated indicators, the second sub-period is certainly influenced by the global economic crisis. The analysis of the 1995-2007 period permits the shaping of certain general trends for state interventionism, in the absence of external shocks.

Figure 1 shows the averages of this indicator in the EU27 and Euro area but also its extreme values at the most and the less interventionist countries (Sweden and Lithuania, respectively). The share of public expenditures in GDP reaches an average of 45%-50% of GDP and the extreme values range from 35% (Lithuania) to 55%-60%

(Sweden). A general trend of evolution is outlined, i.e. there is a decrease for the State intervention induced by expenditures, both for averages and extremes. A gradual reduction of State involvement into the economic and social life follows up.

Previous studies (Masca, 2008) prove that the State has been present mainly for providing social protection, education and healthcare and also for financing the general public services. If developed countries are those which allow a significant interference on behalf of the state, than it is done mainly in the social protection field. On the contrary, less developed states are characterized by more State interference into the economic affairs that should be sustained until the market validates its virtues. Therefore, it's also important to analyze the structure of public expenditure, and to highlight the involvement of European countries within the sensitive areas of social protection and economic affairs respectively.

Regarding social protection in the EU, it gathers on average up to 20% of GDP (almost half the interventionism induced by budgetary expenditure), with minimum values going down to 10% and maximum ones reaching even 25%. Minimum values for state's interference in social protection are common, as seen, for the less developed countries and the later integrated countries (Lithuania), while maximum values are found in the developed countries such as Sweden (Figure 2).

The same conclusions may be observed from Table 1, with few exceptions – Slovenia, Ireland and UK are atypical cases. In evolutionary terms, the trends are slightly decreased, with possible isolated growths recorded especially for countries that have recently joined the developed countries category.

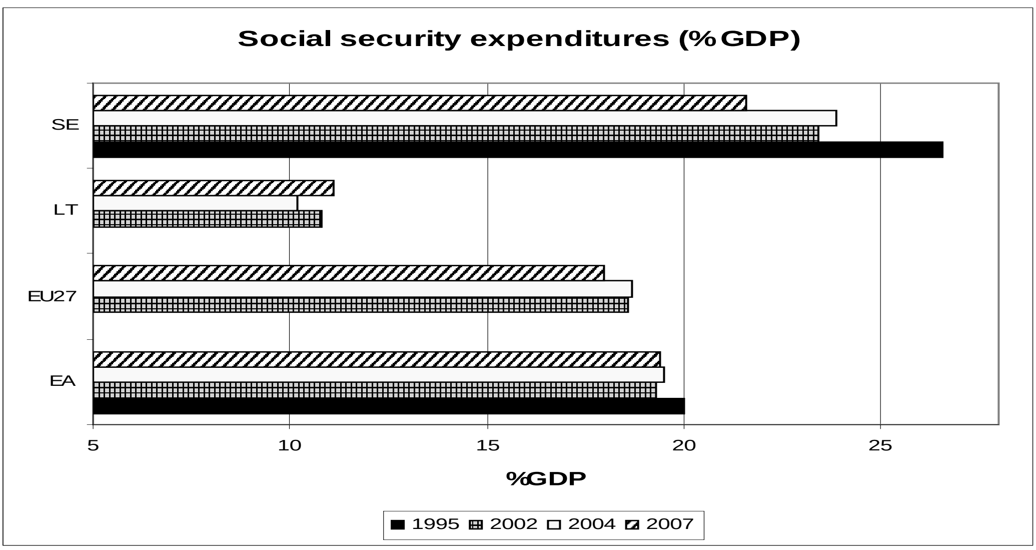

Figure 2: Social security expenditures (% GDP), 1995-2007

Source: Authors' processing based on Eurostat data

Table 1: Expenditure on social protection (SP) and expenditure on economic affairs (EA) (% GDP) in 2007

COUNTRY	SP	EA	COUNTRY	SP	EA	COUNTRY	SP	EA
Belgium	17.10	5.1	Greece	18.60	4.4	Czech Republic	12.90	6.9
Germany	20.40	3.5	Spain	13.00	4.9	Lithuania	11.10	4.4
France	22.20	2.8	Portugal	17.50	3.8	Latvia	8.40	4.9
Italy	18.20	4	Austria	19.90	4.6	Estonia	9.80	4.5
Luxembourg	15.80	4	Finland	19.90	4.4	Poland	15.70	4.5
Netherlands	16.30	4.70	Sweden	10.60	4.3	Slovakia	15.50	4
Denmark	21.70	3.4	Malta	13.70	5.9	Slovenia	21.60	4.7
Ireland	10.00	4.8	Cyprus	9.90	4.3	Romania	9.90	6.8
United Kingdom	15.30	2.9	Hungary	17.30	6.5	Bulgaria	13.10	5

Source: Authors' processing based on Eurostat data

Although it holds a relatively low share in the GDP (4% on average), state's involvement into economic affairs proved to be of a particular importance for our study because it has large variations from country to country, but also in its evolution. As it may be seen from Figure 3, even countries such as Lithuania, known for a weak State intervention, shows interference in the economy that exceeds the European average. And countries such as Sweden, despite their strong interventionism, do not equally involve into their economy. Table 1 presents an overall increase of the interventionism induced by business affairs simultaneous with the formation of new accession waves which gradually brought the less developed countries in the EU. Maximum values reach up to 7% and minimum values fall below 3%. Also, there are atypical cases, those of developed countries that sustain their economy rather strongly: Belgium, Netherlands and Ireland. The observed evolutionary variations are explained by factors relating both to economic cycles, but also to the doctrinal changes induced by government changes.

The period 2008-2010 has its particular characteristics in terms of state interventionism, induced, as previously stated, by the global crisis. The development of state interventionism degrees has been proved by the annual growth indexes. The data are presented in the table below (Table 2) (the indexes for the pre-crisis period were computed as well, in order to have them as reference points):

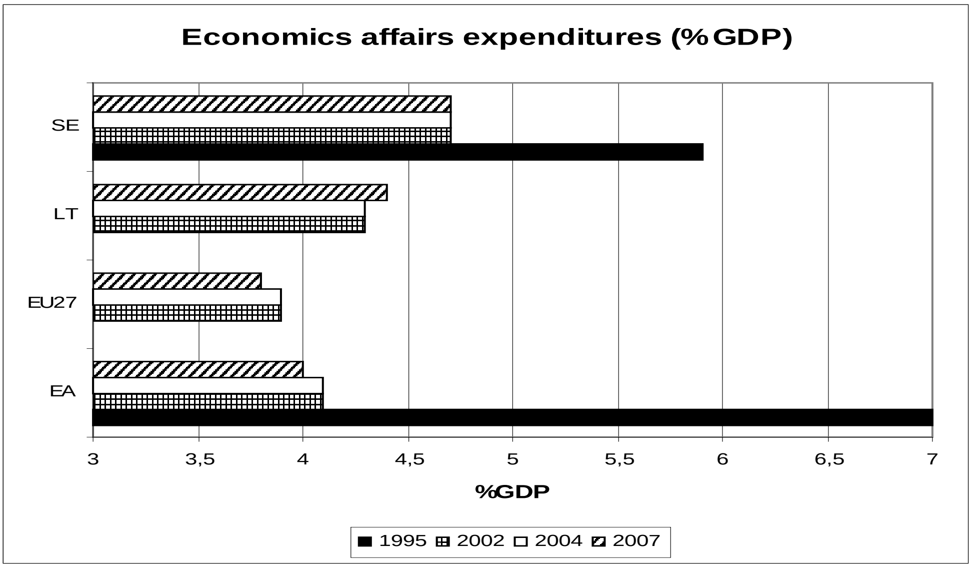

Figure 3: Economics affairs expenditure (% GDP), 1995-2007

Source: Authors' processing based on Eurostat data

Table 2: Degree of State intervention – annual growth indexes

	2003/2002	2004/2003	2005/2004	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
EA	101.0	99.2	100.0	99.6	96.8	102.0	108.1	n.a.
EU27	101.3	99.2	100.0	98.7	98.5	102.9	108.3	99.0
LT	95.7	100.3	100.0	100.9	103.6	107.5	117.6	93.9
SE	100.5	97.5	99.3	98.0	94.3	101.4	106.8	96.0

Source: Authors' processing based on Eurostat data

If before the crisis, the trends were clear as for reducing the degree of state interventionism or for an utmost stagnation of it, in 2008-2009 we have witnessed an important annual increase of it, up to 17%. State interventionism in Europe has increased with more than 10% on average due to the effects of the crisis (2009, as compared to 2007). This increase was more obvious for the low-interventionist countries (26% for Lithuania) and more moderate for the interventionist countries (8% for Sweden). These evolutions required significant measures for supporting the economic and social environment with public money. In 2010 we may observe the first signs of the state's withdrawal because some of the negative effects of the crisis have been overcome. These modest changes refer to the level of state interventionism – for the EU average, there's a decrease of only 1%, but it reaches 4% in Sweden and even 6% in Lithuania.

Table 3: Social security expenditures – annual growth indexes

	2003/2002	2004/2003	2005/2004	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
EA	101.6	99.5	100.0	99.5	94.8	102.2	n.a.	n.a.
EU27	101.6	98.9	99.5	98.4	96.7	102.3	n.a.	n.a.
LT	95.4	99.0	97.1	100.0	110.1	113.8	134.7	n.a.
SE	103.8	98.4	97.9	97.0	93.0	100.0	109.0	n.a.

Source: Authors' processing based on Eurostat data

The increase of state interventionism as a result of the crisis is also obvious for the following two components: social protection expenditure and economic affairs expenditure. The continuous drop of European countries' involvement in the social protection field was interrupted after 2008, as afterwards we may notice average annual increases of over 2%. A special case is represented by Lithuania because it early responded to the crisis by increasing its expenditure on social protection, bringing them to an annual increase of up to 35% (Table 3).

After a period of oscillating evolutions for state's involvement into economic affairs, in 2008 we observed its annual average growth of 13%. The biggest increases are recorded in the European countries outside the Euro area, such as Lithuania; furthermore, Lithuania is the country that adjusted its intervention downwards to this level, in 2009 (Table 4). The averages for the EU-27 show that the European countries have firstly responded to the crisis events by giving priority to the support of their economies and secondly to the support of disadvantaged groups through social protection measures. It is a normal state of affairs, because the social problems came as a result of the economic problems.

Table 4: Economics affairs expenditures – annual growth indexes

	2003/2002	2004/2003	2005/2004	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
EA	97.6	102.5	97.6	100.0	95.0	102.6	n.a.	n.a.
EU27	100.0	100.0	97.4	102.6	94.9	113.5	n.a.	n.a.
LT	90.7	110.3	90.7	107.7	100.0	111.9	85.1	n.a.
SE	102.1	97.9	106.4	94.0	85.1	105.0	111.9	n.a.

Source: Authors' processing based on Eurostat data

Of the above, we consider that the less developed and less interventionist European countries have been the ones that have adjusted their budgetary expenses to the evolution of the economy the fastest (they have increased the intervention through the budget as soon as the crisis came and they have withdrawn their support with public money once the crisis mitigated).

4. The determinants of public expenditure in the EU – an empirical study

4.1. Data and methodology

The empirical analysis is aimed to identify the relevant determinants of public expenditure in the EU. Their selection is based on our insights and the theoretical fundamentals; we further consider the following relevant factors: (1) the development level of the country; (2) the taxation level from other countries; and (3) the structure of public expenditure.

1. Intuitively, the more the development level of a country increases, the more consistent the tax base is, and the contributive capacity of the taxpayers is higher, furthermore creating the resources to increase budget revenues and to enhance State interventionism through the volume of public spending. On the other hand, a favorable economic trend is immediately reflected in terms of the population's welfare, making an increased interference on behalf of the State to no purpose.

2. Taxation in neighboring countries can exert two adverse effects: tax coordination effect and tax competition effect, both phenomena being found in Europe. Firstly, fiscal coordination in the EU implies a response in a common direction from the fiscal policy of member states: usually, European exigencies demand a taxation rise, so national tax burden need to be increased as well, also making public expenditure evolve in the same direction. Secondly, the effect of tax competition leads to an increase of budgetary spending (especially subsidies) when the tax burden of neighboring territories decreases. This happens especially for different territories in similar stages of economic development that are competing to attract capital. The absence of a response to 'fiscal dumping' from other areas can seriously affect tax revenues from mobile factors that would migrate.

3. Finally, as the budgetary funding gives more priority to those expenses that allow a good reversibility (social protection, education, healthcare, sport, culture), the taxpayers will more easily agree to an increase in the fiscal pressure, hence the resources for the extension of interventionism through budgetary expenditure.

Our empirical study is based on a panel composed of the 27 countries members of EU, which were analyzed during the 1995-2007 period. We restrict our empirical analysis to the pre-crisis period because we may outline some trends only for this period; the shocks of the years that followed have just brought temporary deviations from an already outlined trend.

As we have anticipated earlier, the correlation between per capita GDP (expression of the development level of a country) and expenditure (expressed per capita) is very strong in the European countries (see Figure 4, R2 centered 0.99). A 1 euro growth of per capita GDP would determine an average increase of 0.37 euro of the budgetary expenditures.

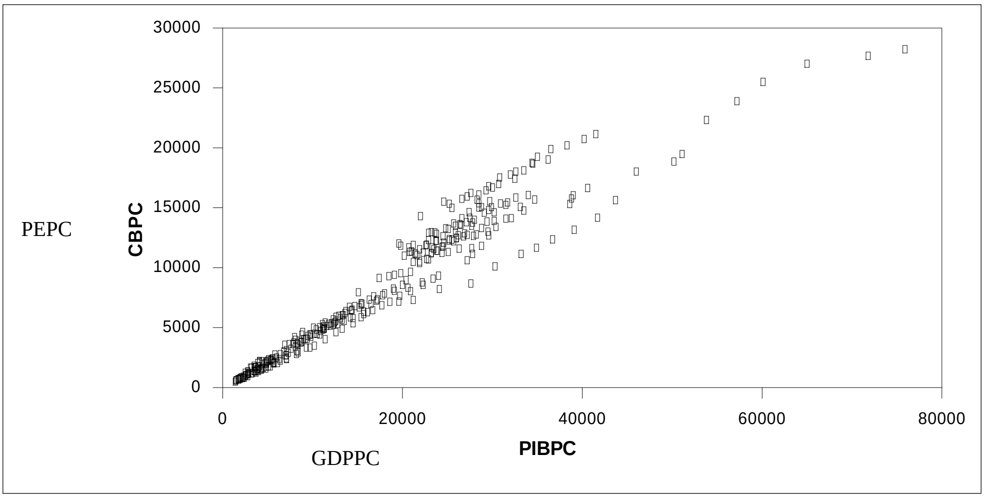

Figure 4: The strong correlation between per capita GDP and per capita public expenditure

Source: Authors' processing based on Eurostat data

Our objective of identifying the determinants for the interference fiscal policy requires the use of the State interventionism indicator, calculated in relative terms in relation to the GDP.

The empirical specification takes the following form:

$$SI_{it} = c_0 + c_1 GDP_{it} + c_2 TB\_UE_t + c_3 TB\_LT_t + c_4 TB\_SE_t + c_5 TB\_RO_t + c_6 TB\_NOR_t +$$
$$+ c_7 EA_{it} + c_8 SP_{it} + c_9 SP\_EA_{it} + e_{it} \quad (1)$$

The description of variables[1] is the following:

SI is the degree of interventionism in country i (i = 1 ,..., 27) at time t (t = 1995 ,..., 2007), calculated as the percentage ratio between the total budgetary expenditure and GDP (the budgetary revenues are the ones from the consolidated general budget).

GDP is the gross domestic product of country i at time t, representing the percentage out of EU-27 GDP. Having expressed State interventionism relatively to GDP imposes the use of the exogenous variable associated to the GDP in a relative form, as well. This determinant is introduced in order to capture the effect of the development level of the country (expressed in relative terms) upon the degree of State intervention.

TB_UE, the overall tax burden in the EU25 is calculated as a percentage of all tax obligations (including contributions) to GDP. The presence of this factor is justified by the fact that it is a proxy for a coordinated taxation level in other countries (a proxy for the participation in EU tax coordination process). But since Europe is a heterogeneous area, by bringing together countries with high diversity in terms of

1 Values for each and every variable were provided by Eurostat statistics.

taxation, we had to add four more variables in the model (TB_LT, TB_SE, TB_RO and TB_NOR), a proxy for tax competition.

TB_LT is the overall tax burden in Lithuania (% GDP); Lithuania has been chosen as the country with the lowest taxation in the EU.

TB_SE is the overall tax burden in Sweden (% GDP); Sweden was chosen as the country with the highest taxes in the EU.

TB_RO is the overall tax burden in Romania (% GDP); Romania was chosen as one of the countries with the lowest taxation in the EU, for which we have particular interest.

TB_NOR is the overall tax burden in Norway (% GDP); Norway has been chosen as one of the countries with the highest taxes in Europe, but outside the EU area. Entering this variable is meant to check whether EU member states budgetary policy is sensitive to that taken in its vicinity.

The following variables are proxies for the composition of public expenditure. Expenditure on social protection and that on economic affairs are considered of a special interest (see previous discussions).

SP_EA is the ratio between budget expenditure on social protection and that on economic affairs in the country i at time t. The inclusion of absolute and not relative expenditure elements in modeling the degree of State intervention could lead to a rather deterministic relationship.

EA and **SP** divide the economic affairs and social protection expenditure of each country from the sample (expressed as percentage of the GDP) to the same indicators calculated for the EU 27. This technique allows the positioning of each country as compared to the EU average in terms of funding the economic affairs and social protection from public money.

A set of dummy variables is added to these exogenous variables. The dummy_country variables capture the characteristics associated to each country in the sample that may influence the degree of State intervention (a specific public policy or more or less liberal guidelines of the government, for example).

Before making regressions, we analyze the correlations graphics between the dependent variable and the most relevant explanatory variables (see Appendix 1). A positive correlation exists between the development level of a country, the social security public expenditure and even the ones for economic affairs reported to the EU average on the one hand, and State interventionism calculated based on budgetary expenditure on the other hand. The econometric analysis would prove the significance of these correlations.

The estimates were carried out using the panel techniques, implemented by the WinRATS software. The estimate method is the GLS, in a model with random individual effects. We prefer random effects panel techniques for at least three reasons: (1) the panel is preferred compared to the ‘cross-country race’ analysis when having a relative small sample (27 countries); it brings more robustness to the results because it also exploits the temporal dimension of the data (13 years); (2) it is appreciated that there exist consistent and specific individual effects that are not observed, which influence the endogenous variable beyond the selected exogenous variables (the individual effects are preferred to the pool); (3) it is supposed that the individual effects are random (the random effects are preferred to the fixed effects, even if the results under fixed effects methodology do not differ significantly from those under random effects).

4.2. Results

The results of the regressions are summarized in Table 5. The model is explained best by regression 2. With this specification, the model explains 98% of the correlation that exists between the exogenous variables and State interventionism based on budgetary expenditures. This specification takes into account the two expenditure items we are interested in (economic affairs and social protection) calculated as relative terms to the EU average. However, the first specification provides valuable results as well, having the benefit of using a larger number of observations.

Table 5: The results of the regression

Independent variable	(1)	(2)
GDPP	0.04 (0.83)	0.21 (0.52)
TB_EU	1.71*** (0.00)	0.98 (0.26)
TB_LT	-0.43** (0.01)	-1.00** (0.03)
TB_SE	-0.24* (0.08)	-0.38 (0.17)
TB_RO	-1.67*** (0.00)	0.18 (0.48)
TB_NOR	-0.56*** (0.00)	-0.36* (0.09)
SP_EA	-0.84*** (0.00)	
EA		4.49*** (0.00)
SP		20.0*** (0.00)
DUMMY COUNTRY	x	x
OBS	311	162
R2 centered	0.89	0.98

Note: Brackets contain p-values. *** means 1% significant coefficients, ** 5% significant and * 10% significant. The total number of observations is 351 (i.e. 27 countries observed over 13 years).

Source: Authors' processing

Firstly, both regressions support the hypothesis according to which the (relative) development level is not a relevant determinant for explaining State interventionism calculated based on budgetary expenses. However, as we have seen, in absolute terms, budgetary expenditures are strongly correlated with per capita GDP in the EU countries.

Secondly, the impact of the tax burden in the region, significant in the first regression, becomes insignificant in the second one. The explanation could be the fact that the tax coordination effect is felt less at the level of the State intervention indicator calculated based on expenditure, and more to that calculated based on budgetary revenues. According to the first regression, an increase of the EU tax burden with 1% of the EU's GDP, determines an average increase of member countries' State interventionism with 1.71% of the member countries' GDP. The absence of significance of this variable in regression 2 may be attributed to the taking over of the 'EU effect' by the variables associated with the structure of public expenditure, expressed in relative terms to the EU averages.

Thirdly, the effect of tax competition is particularly evident for the EU member countries' relation with Lithuania and Norway respectively: expenditure based State interventionism in the EU countries increases by 1% of GDP and 0.36% of GDP respectively, at the 1% of GDP reduction of the tax burden in Lithuania and Norway respectively. The explanation lies in the fact that EU countries' response to the so-called fiscal dumping practiced by some countries may not only be the reducing of taxes but also an increase in the budgetary expenditures represented by subsidies or other benefits designed to develop the country's attractiveness in front of the mobile factors.

Another significant result is that of the negative and significant impact of the SP_EA variable that represents a relative measure of the two expenditure categories. We may interpret this result as follows: in general, low interventionist countries are those with a large range between the public social security and economic affairs expenditures, while highly interventionist countries are those with a more homogeneous structure of the budget.

The country dummy variables from the sample show particular features for State intervention level calculated based on expenditure, in countries such as Denmark, France or Sweden. These countries are high interventionist states, where the tradition, politics, government model etc. are other significant factors than those considered by our model that explain the interventionism extent.

Finally, the introduction of EA and SP variables reported to the EU average into the regression, confirms and strengthens the higher legitimacy of social protection expenditure. State interference into supporting social protection is of a greater legitimacy than the financing of economic affairs (in regression 2, EA variable has a 4.49 coefficient, lower than the 20 for the SP variable). A public policy for extending the role of the State is much more grounded in an increased State involvement for social protection measures than on an increased interference into the economic life.

5. Conclusions

Summing up, State interventionism is a current phenomenon which has been under the influence of such factors as interstate conflicts, economic and social crises, political governance within the country, regional policy and globalization.

Finding itself in a so-called crisis of legitimacy in the context of globalization and regionalization, the state exceeds this stage at the same time with the contemporary crisis. We witness a general increase in state interventionism, which takes different forms. The states directly and strongly affected by the crisis have undertaken interventions which some would consider aggressive in nature: nationalizations etc. Instead, states indirectly exposed to the crisis, through the lack of worldwide available capital, have taken a chance for a more discreet intervention, by consumer and local investor oriented levers. All these government responses to the crisis effects have brougsht into question the old debate upon market failure versus government failure. In the spirit of Stiglitz' famous contributions, we support the idea according to which the government should interfere only in the sectors where market failures are the most significant, and where it is clear that state intervention could visibly improve the mechanisms in the economy.

The descriptive and empirical results of our analysis may be summarized as follows. Up to 2007, EU State interventionism induced by budgetary expenditures was determined by the economic development (in absolute and not relative terms), the fiscal policy coordination in the EU, the measures of compensation in the context of tax competition between regions, but also the composition of public expenditures. We can say that the period 1995-2007 in the EU was characterized by a correction type State interventionism, with a slight tendency to withdraw the State from the economic and social life in terms of positive developments in the economy, a strict supervision of the national budgets from the EU, and a reduced exposure to tax competition. Structural analysis shows that a reduced State intervention is associated with a reduction in the homogeneity of budgetary expenditures and certain adjustments especially in the social protection field.

Starting with 2008, we witness a growing compensating type State interventionism, which comes to replace the shortfalls created by the crisis in the economy, a decreasing economic trend respectively. State interference is the more legitimate the more it concerns social protection measures; in many cases, current State interference in the economy has raised severe disputes. Regional fiscal policies have gone in the background, as a determinant of State interventionism in EU Member States, in terms of weakening the union and transferring power to the national authorities. Tax competition is gaining ground in the new context, causing budgetary reactions by providing benefits to attract the wanted capital.

Nowadays state intervention was brought to a threshold well beyond the trends that had been announced prior to the crisis, and as we anticipate, the return to the pre-2008 values will be gradually made, over several years, even if the crisis has started to be exceeded. We believe that the withdrawal of the State from the economic and social life when the economy is on an upward trend would be possible primarily by reducing social security expenditure, as many expenses would no longer be needed once the employability of the workforce increases.

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Appendix