Theoretical and Applied Economics
Volume XVIII (2011), No. 5(558), pp. 17-44

The State and the Economy – Theoretical Aspects and Empirical Evidence for the EU

Simona-Gabriela MAŞCA
Babeş-Bolyai University, Cluj-Napoca
simona.masca@econ.ubbcluj.ro
Viorela Ligia VĂIDEAN
Babeş-Bolyai University, Cluj-Napoca
viorela.vaidean@econ.ubbcluj.ro
Andreea GOLGUȚ
Babeş-Bolyai University, Cluj-Napoca
andreea_golgut@yahoo.com

Abstract. *This paper aims to analyze the determinants of state intervention upon the social and economic life, and to grasp their implications in terms of public policy. The study starts with an over time update of the main theoretical contributions. Some indicators that quantify the extent of state intervention throughout public revenues are analyzed on the EU member countries' sample. Empirical analysis is aimed to establish the relevance held by the main determinants of state intervention in budgetary revenues for the EU countries (1995-2007). Perspectives on state interference during the actual crisis are drawn from the significant determinants of the interference policy.*

Keywords: state interventionism; public revenues; EU; economic crisis; panel econometrics.

JEL Codes: H11, H41, H50.
REL Codes: 3D, 13C.

1. Introduction

The objective of this study is to examine the determinants of state intervention policy upon the economic and social life, starting with a theoretical background, continuing with a descriptive approach and ending with an empirical approach. The analyzed countries are the EU member states, observed during the 1995-2007 period. The study also captures the implications in terms of public policy under the current global economic crisis.

The paper is structured as follows: Section 2 reunites the main theoretical contributions revealed over time with reference to the economic role of the state and its implications in budgetary terms; Section 3 is a descriptive analysis of state interventionism induced by the budgetary incomes in the EU; an empirical approach of this issue is presented in Section 4; and Section 5 sums the conclusions up.

2. The role of the state in the economy – extreme ideologies and their reconciliation

Being concerned about the origin of the state and its evolution, over time scientists have formulated a number of definitions for the concept of "state", definitions which are based entirely on the notion of "human community", or on that of "authority" to execute its power upon the community, or they simply combine the both by underlining their relationship. In this context, the state or public authority is concerned with the welfare of the community by appealing to the public budget or, in a wider view, to the public finances. The latter provides the state with the financial means necessary for the (physical, legal, business) protection of the community. Amongst the authors concerned by establishing the link between the *human community, the state authority* and *public finances*, or those interested in defining the role of state, we point out only a few: E. Durkheim, I. Kant, M. Weber, L. Popescu, M. Burlacu, C. Tulai(1).

New economic processes and social relations of social product redistribution between the members of the state community were associated to the appearance of the first state institutions, at the transition from the tribal community to the slave-owning society. These types of relationships have developed progressively up to the modern society, as the functions of the state, the institutions under its supervision and implicitly the tasks undertaken by them have multiplied. Even the state budget was built in such a way as to meet the no assignment of public revenue rule and to allow the social product redistribution.

Why the need of redistribution? The first forms of state institutions (military, for example), through their activities, had a non-value added character, but consumed resources in order to operate. Hence the need to take charge, in the virtue of public strength, of the values obtained by the community members in their activities of social product creation and their usage for financing the resource consuming activities. So the premise for redistributing the social product from the private material sector to the immaterial sector of state institutions is represented by the unproductive nature of the latter. The redistributions of resources are meant to finance the state institutions which support the smooth running of the community's social and economic life trough their activities. At least that appears to be the reason at a theoretical level, even though, in practice, the opportunity of redistribution is often situated under a question mark.

The redistribution of resources through the state budget has gained some extra legitimacy when the state began to assume new tasks, by supporting, organizing, coordinating or adjusting the activities from the material, economic or productive sector.

The developments undertaken by the state in terms of the tasks also led to certain changes for the degree of state intervention in the economy, and to the size of public budgets. Once the existence of the state had taken the necessary legitimacy and thus its costs were accepted, the over time concerns of the economists have been centered on the determination of an agreed level of state intervention through its budgetary policy. Many theses have been written in this field, having strong theoretical arguments and sometimes being inspired by the developments of the economy.

Two extreme ideologies are primarily known: one promoting the pure liberalism and no intervention from the state, and the other based on state interference, as the only one able to harmonize the individual interests with the general one. Although the two schools of thought have had their origins in different centuries, the partisans of one ideology or the other have existed in every historical period, remaining a controversial topic until today. These controversies have gradually left some place for finding compromises between the two extremes, which in different cases have approached more or less interventionist influences (Maşca, 2008).

The early stages of capitalist society up to the emergence of economic crises and unemployment have promoted a state which assumed itself only the traditional tasks (defense, internal order, etc.). The approved doctrine was the liberal one accompanied by the self-regulation principle of economic mechanisms, without state intervention in the economy, which could have led to inefficiency due to misadministration. Among the proponents of liberalism and non-intervention Adam Smith (1723-1790) should be noted first, as he promoted the well-known principle of "laissez-faire". According to his opinion, as long as markets operate freely and promote competition, private individual actions, motivated by selfish interests, contribute together to the welfare of the society. However, Smith supports a minimum state involvement into setting the fundamental rules which allow the unrestricted behavior of companies. Among the states animated by the scourge of liberalism and which remained faithful to this ideology for a long time we have to mention the USA first. Smith's writings have deeply influenced the growth of the American capitalism and the US became a country built on trust in the individual and distrust of the authorities.

The interventionism was ideologically sketched when capitalism faced previously unknown phenomena, such as the economic crises. Although the literature most often associates the debut of interventionism with the global crisis of the 30's, the first signs of an increased state involvement dates back to World War I (Burlacu, 2004). It then referred to amplifying the expressions held by the public finances due to the increased costs of the war. Therefore, the state's role has expanded by increasing the involvement of the state budget into supporting military expenditure. The effects of the economic reconstruction that followed the economic crisis were later associated to the costs of the war, all affecting the size of the state budget.

Known as the crisis of "overproduction", the crisis of the 30's showed that leaving the economy to self-regulate by its own mechanisms does not always lead to desirable effects, but it rather generates unemployment, instability of the stock market and banking sector. That was the moment when the interventionist thesis began to gain ground as it promoted the active role of the state in the economic life, in correcting the cyclical developments, in preventing crisis or limiting their negative effects. The main representative of the interventionist doctrine is John Maynard Keynes (1883-1946), as his thesis has found a strong echo in the policy adopted by many states after the Great Depression (Maşca, 2008). The new ideology manifested itself by increasing the state's involvement in the redistribution of resources, and by the activation of some economic instruments such as levers, for influencing the behaviors in society.

State interventionism, as an ideology, has evolved from a compensatory type interventionism to a correction type one (Burlacu, 2004). If the first type involved state interference in order to reduce the side effects of economic cycles, responsible for the disequilibria within the economy, the correction type interventionism occurred later on, after the attenuation of crises, involving increased concerns for social protection. The two forms of state interventionism, through economic and social regulation, have also been used later on, taking different forms. In the economic sphere, the public authorities have been concerned, among others, by the price regulation and control of unfair competition practices in order to protect consumers and small businesses in the context of imperfect competition on market conditions. In the social sphere, the state focused to guarantee the security of one's job or a clean environment; it has encouraged the conduct of companies with a positive impact upon society, and discouraged those with a negative impact, especially by using fiscal levers. Thus, state interferences on the economic and social environments were not isolated, an intervention on one of the two levels having repercussions in the other one as well. Even in the US, where the principle of laissez-faire prevailed, the history of the state registered requests of state interference by regulations on both plans. However, the general opinion of the US governors was that the regulations in economic relations did not improve competition as the sentences of interventionism stipulated. But there existed disputes between American liberals and conservatives when it came to discuss the problem of intervention in the social plan, as the first didn't see any danger in that interference, while the conservatives condemned it for the effect of inefficiency and lack of competitiveness upon the businesses.

In the history an extreme form of state interventionism was the totalitarian one. The highly interventionist or socialist state, found mainly in the former socialist countries of Europe, had assumed extremely comprehensive economic and social functions, conducting the overall activity in terms of the abolition of private property. In that context, the processes and the economic relations had become predominantly financial public relations. The interventionist ideology is of totalitarian nature, the financial resources being available only to the state and allocated by decisions with a public character. That ideology hasn't been approved by the democratic economies.

Summarizing all that has been concluded till now and supporting Chandan (2009)'s idea, interventionism was born and developed into an ideology responding to market imperfections, as they served as a precondition for state interference in the private sector.

Since the contributions of the main representatives, Adam Smith and Maynard Keynes, of the two major currents, belonged to different centuries, the following question appeared at one point: which of the two principles of "laissez faire" and government intervention prevailed at the end of the 18th century and 19th century? The interrogation belongs to Spengler J. (1949), who followed the conclusions of the studies of that time, and found that the role of laissez faire was greatly undervalued and that of interventionism was overstated. Spengler bases its claims on the easier trace tracking of interventionism than that of the traces associated with the laissez faire site. Thus, the measures of state intervention in economic and social life have been reflected into legislation, reports, etc., while the laissez faire site has manifested itself by the liberty of decisions, and has not been necessarily stated in documents.

Another issue that has animated the first decades of interventionism concerned was the possible coexistence of government intervention and free competition. In 1946 Mordecai Ezekiel considered that some government policies opposed antitrust policies, while others had no effect on it, and others were responding to the desideratum of free competition. The author found a change of priorities, from what it was before the crisis – pricing flexibility for market self-regulation – to what it became preferred at the time of the crisis – reducing unemployment. Even in these new circumstances, the promoting of free competition was imposed; the monopoly could have generated unfair profits and could have risked worsening the income distribution, with side effects on the labor force occupancy rates. With the new trend of interventionism, governments have become more responsible in shaping the industrial policy, promoting free international trade and international cooperation for the economic policy decisions. However, at the time the author expressed concern that the problem of a declining free competition needed to be solved somehow else than by antitrust measures, namely through direct intervention.

By confronting the divergent reasoning of the state's intervention or non intervention in the economy(2), and to a certain extent their reconciliation, the result has been known after the '80s as the reasonable interventionism. The Keynesian interventionism was condemned especially for its inflationary effect of out of control deficits. Under the new ideology, the crucial role is 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 game maker and the referee state, which coordinates and checks for the rules to be followed.

By continuing to try to solve the dilemma of a possible coexistence of free market and state interventionism, in 1998 Dani Rodrik showed that government intervention is not a substitute for the free expression of market forces. From another perspective, most forms of government intervention, except for actions that provided public goods, are seen as unfavorable for the market. Rodrik (1998) showed that there was a positive correlation between a country's exposure to external trade relations and the size of the public budget. The explanation lies in the fact that government expenditures are meant to reduce the external risks the foreign trade-oriented economies are exposed to. The risk exposure is diminished by increasing the share of domestic output consumed by the government. At a high level of trade integration, the risks associated to international business cycles are increasing, furthermore imposing compensation programs funded with public money in order to support the sectors exposed to these risks. Similarly, other authors show that the liberalization of international relations between European countries has been accompanied by a domestic counterbalancing strategy (public investment programs, subsidies). Considering this complementarity, the author suggests that, by reducing the size of public budgets in the future without taking into consideration the economic risks associated to the process of globalization, the preservation perspective on free trade could be affected.

In 2002 Adsera and Boix continued on the same line drawn by Rodrik, by modeling the option for the degree of openness to international trade and for the size of the public sector, as the two political decisions taken simultaneously by the policy-makers. Their findings showed that a greater openness did not automatically constrain the ability to spend public money, facts that were checked every time public expenditure targeted the production of public goods (infrastructure, human capital). Moreover, the sustainability of an expanded public sector depends on the competitive advantages in the export-oriented sectors that finance public expenditure. If this competitive advantage is decreasing, the interest to support an expanded public sector is lost and the country shifts to a protective system or an authoritarian/totalitarian regime of free trade.

Beyond this literature segment that identifies the opening to international trade as a determinant of the public sector's size, the literature is relatively poor in offering other relevant determinants. However, we have to mention an important survey that belongs to Devine (1985), which makes a regression analysis of the determinants of public investment spending (production expenditure) and, separately, the consumer spending (non-productive expenditure such as education, healthcare, etc.), for the United States during 1949-1977. The author's conclusion is that the determinants of the two expenditure categories vary considerably: if capital accumulation in the monopoly sectors and the political structure of the Congress represented the determining factors of sizing productive public spending, the economy structural factors (profitability, changes in nominal salary) and the political factor during elections would determine the consumer spending of the US in that period.

Therefore, state interventionism has known various forms of manifestation, from increasing the state's involvement in supporting the army to the direct and indirect support of the economy, and then to the social interference in redistributing resources among the members of the society, and culminating with conducting which kept all activities under the control of the state. All these have in common the fact that the way of manifestation of the interventionism always came as a response to the political, economic and/or social context.

The contemporary period, facing a global crisis that appears to exceed the proportion of that in the '30s, is promoting interventionism once again, taking the shape of a compensatory type interventionism rather than that of a correction type one. In this context, the state exceeds its referee status and it is becoming an active "player", a direct participant to the economic activities. It regulates, but also runs its own economic activities.

The new economic context which brings into question the role of the state once again is the result of several factors, as follows. The abundant liquidity and the supra-saturation of savings have created available resources for investment, especially for sophisticated financial instruments, hardly understood by investors because of their complexity; that resulted in an inefficient management of the resources. Moreover, the crisis has been aggravated by the behavior at the microeconomic level (rational outsourcing from the private point of view but inefficient from the social point of view), the cracks in the business models used by the rating agencies, and by the increasing international competition for deregulation.

In the context of the crisis, the state's involvement is crucial. Specifically, state interventionism in the US and European countries was done by guaranteeing loans or securities given by the banks, the recapitalization of financial institutions, even the acquisition of shares for the banks that faced difficulties, a coordinated decrease 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). The nationalization of one part of the financial sector contradicts the foundations of modern capitalism and has as an immediate consequence the increase of the state's role while the private sector is decreasing. All these measures had implications upon the expenses of the state budget, increasing the share of domestic production redistributed through the public budget.

Considering these actions of the State in times of crisis, the role of the state as a "lender of last resort" is questioned. For Breitenfellner and Wagner (2009), it is important not to suspend the market mechanisms in case of bankruptcy by financial support out of public money. The only institutions which the state should interfere for are those with liquidity problems but still solvent, and the financial support must be of a high cost.

Regarding the possibility to trigger the components of budgetary revenues as leverages during the crisis, numerous debates have existed. We underline Barrell et al. (2009) opinion that brings arguments for fiscal relaxation as an effective way of promoting economic growth in times of financial crisis. If the economy evolves normally the fiscal facilities have the unique role of redistributing the consumption in time without increasing its level or the one of the production. In times of crisis, however, the taxes can be triggered through incentives (especially for direct taxes and social contributions) in order to relax the credit market constraints that the consumers and businesses are facing. In this case, the tax facilities may become more efficient, having a multiplier effect on production levels, much higher than in the absence of crisis. Furthermore, the effectiveness of these measures is even greater if they are taken in a coordinated framework for several countries at a time.

Considering the vast proportions of the global economic crisis, stronger measures have to be considered, like the deep reform of the international financial system by improving the regulations of transparency, accounting, market efficiency, international cooperation, or regarding the ethics principles in business. These increased regulation measures need a more active role on behalf of the state, but not necessarily so profound in budgetary terms. On the other hand, in order to restore the confidence of investors and consumers which could support a positive trend of the economy through their actions, additional resources from the state budget are required. Moreover, the difficulties faced by the real sector create disadvantages even in the social plan through layoffs, where the state should apply social protection measures. Breitenfellner and Wagner (2009) also believe that the immediate financial measures taken by public authorities are not sufficient, having a short-term impact; improvements are needed in the risk management field. The public financial support of institutions with problems temporarily avoids the system's collapse, but on the long-term an improvement of government regulations is needed.

The contemporary crisis determined the public authorities to some behaviors that have been considered opposed to the competition rules on the market by authors like Aggarwal (2009). Thus, because of the desire to promote national companies and protect them in times of crisis from the competition with the global firms, the state used hidden forms of intervention. These took the shape of health and safety standards, environmental policies etc. that offered competitive benefits to the national firms, in a very discriminatory and hidden way as for the other companies.

Arbitration between giving priority to market forces and promoting state intervention, acquired new values with the manifestation of the contemporary crisis. In the opinion of Verschoor (2009), the crisis showed that the market is not efficient to control the unethical practices caused by greed, misunderstanding of the mechanisms, or herd behavior. Society has changed its view on the legitimacy of business, seeking structural changes to the system, including the increasing government influence upon businesses. However, debate remains on whether a more stringent regulation of the market through state intervention would be effective in combating unethical practices or not. In other words, would state intervention fight against those behaviors that the market failed to remove, or would it lead to a reoccurrence of the disaster? Interventionism might fail.

If the current crisis is usually attributed to market failures, there are authors (Wolfram, 2008) which consider that the government actions are responsible for today's financial difficulties. The repeated interference of the state on the credit market (financially supporting certain credit institutions with problems, creating the secondary mortgage market, etc.) brought a relaxation on the short term, but proved itself dangerous on the long term, requiring new interventions from the authorities. This idea is consistent with the thesis of Ludwig von Mises, that advocated in his "Liberalism" book, that government intervention is likely to maintain itself.

Finally, regarding the current trend of increasing the state's role in the economic and social life, a new question rises: that of the possibility of its withdrawal once the economy recovered. History shows that the transition from Keynes' interventionism to the era of a reasonable state intervention wasn't a spectacular one as it was rather characterized by limited budget size growth, than by its reduction (Maşca, 2008). At present, once the state has committed to strongly support several problem areas, it becomes hard to imagine a relief of these responsibilities after the economy would enter on the right track. This is a relatively new issue, raised in the US, clearly concerned about this issue due to their deeply liberal traditions. American analysts view US government intervention in the economy as a highly complex one, anticipating difficulties in the withdrawal of state guarantees or of the advanced sums. Experts, however, consider the possibility to use levers for this purpose, e.g. a growth of the interest rates so that the loans from the state to become unattractive. There are some opinions according to which the government will not be able to withdraw itself if the private capitals don't return to the market within a three year period, all depending on how quickly the market recovers (Blackwell, 2008). In budgetary terms, it is likely to witness an irreversible increase of its size.

The interference of a supranational authority is also assigned to the issue of state intervention. Each state's policy regarding the extent it interferes in economic and social life or in the dimension of the public budget cannot be taken independently from the regional policy. If we refer to the European area, the European Union acts as a supranational authority that can influence the budget policy pursued by its Member States through its requirements.

Communitarian Europe has experienced the extension of its public sector throughout the last century, getting to redistribute 40% of GDP through the Member State's budgets. And the largest increase in public spending was due to the expansion of the redistributive function in the field of social protection, in order to support the transfers of resources from the active to the inactive or weaker population (Mitrică, 2006). The coordinates of the EU policy with impact upon the public budgets of the Member States are particularly those in the field of taxation and budget deficits, and less the ones in the sphere of public spending. EU requirements in the area of taxation aimed to increase taxation levels in order to avoid situations of unhealthy tax competition, which would have after-effects upon the national budgets as a whole and therefore in terms of public expenditure. The size of budget revenues and expenditures is also constrained by the existence of a budget deficit of at most 3% of GDP.

The current global economic crisis weakens the influence of the supranational authority, as the majority of EU states are facing difficulties in budgetary policy, that in these times is less subjected to EU requirements and more strictly devoted to national needs. For 2009, budget deficits have exceeded 3% of GDP in almost all EU countries, EU-27 average reached 5.3%, and, paradoxically, this was more due to EU-15 countries (average 5.5% deficit) and less to the new Member States (NMS-12 with the average deficit of only 2.7%). For 2010 a further deterioration of the state budget's balance is expected, by 0.6% on average since 2009, and for the 2011-2015 periods, we should assist to a close come-back to the 3% threshold (Holland et al., 2009). For the states that joined the EU after 2004, wider budget deficits would affect the performance of the Maastricht criteria and would delay the adopting of euro.

Although the cohesion in the EU region is weakened in these times of crisis, some authors (Barrell et al., 2009, Buti, van den Noord, 2009) call for a coordinated policy in the area. These should aim to increase the effectiveness of national policies on fiscal relaxation (Barrell, 2009), but also to internalize the consequences which would have isolated national policies in the region (Buti and van den Noord, 2009). According to the authors' beliefs, only a coordinated policy in response to the crisis would enhance the degree of economic integration in the region. Meanwhile, the European Commission is responsible for ensuring a balance between short-term emergency measures and long term priorities.

In a wider vision, the state's role in the global economy has been redefined and revalued since the end of the 20th century, due to the fragmentation of the global economy by creating regional economic blocs on one hand, and to the generating interdependences' globalization on the other hand. Bucur (2008) discusses on the effects of global interdependences over the national state force and its capabilities, the general manager position in the economy and the autonomous actor. The author believes that globalization has weakened the state's sovereignty, its independence being undermined both from the inside and the outside. The state's role in the 21st century is undergoing evident changes, especially for the used tools and mechanisms in relation to the economy. The power and the influence of international economic organizations is increased on the expense of state control. In this context, at least in theory, nations may either give "prevailed" to the market or submit themselves to a supranational authority. Stating that the state crosses the deepest crisis of legitimacy in its history, Bucur (2008) considers that the state will still continue to play an important role in the economic life, as the ways and dimensions of intervention are under the process of rebuilding and rethinking.

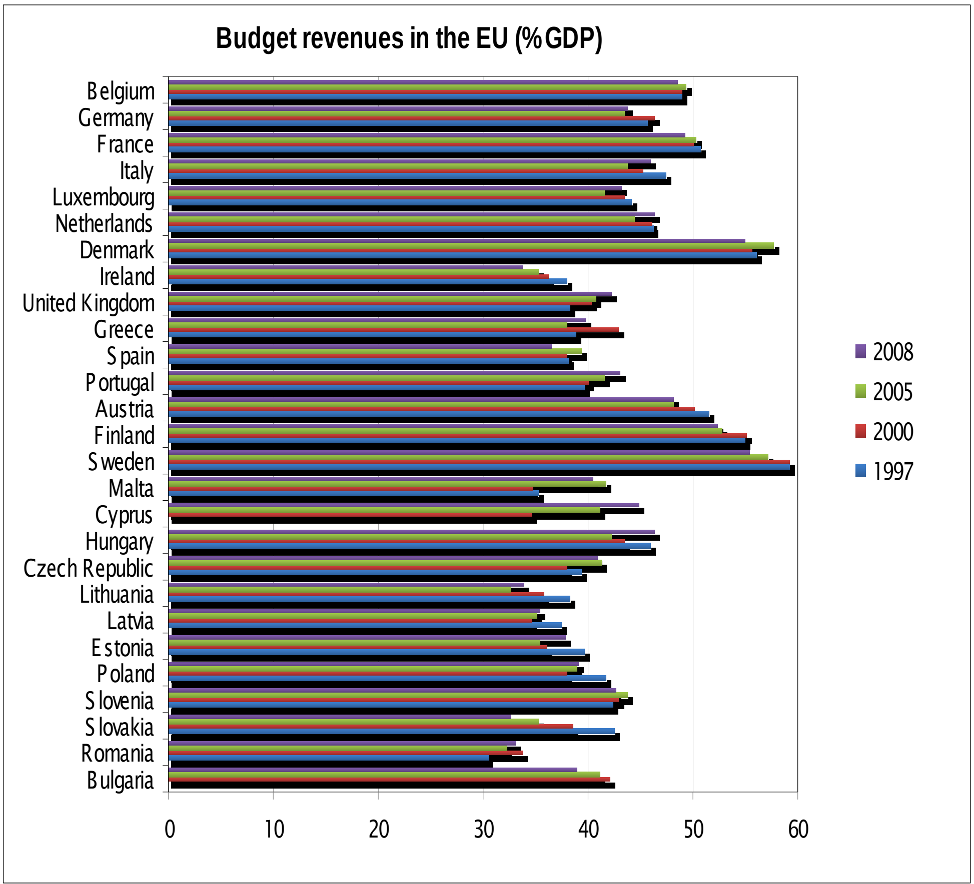
If the period before the global crisis was characterized, as we have seen, by some national prerogatives assumed by the international economic organizations and other institutions and autonomous bodies, we are currently witnessing a reverse phenomenon. Global governance structures have become extremely fragile. WTO trade negotiations collapsed and are unlikely to restart soon. Institutions, like the IMF, have been marginalized, the UNO has become invisible and powerless in front of the global economic and social problems and the EU is struggling to maintain internal cohesion (Cable, 2008). In that context, we are witnessing a reverse transfer of powers, towards the national authorities, whose role in solving the financial crisis problems strengthens. And the role of international organizations needs to be redesigned, as the modernization of IMF, World Bank and other bodies' governance structures is imposed.

Summing up, state interventionism is a present phenomenon which found itself under the influence of factors such as interstate differences, economic crises, social crises, political governance within the country, regional policy and globalization over time.

3. State interventionism in the European Union – descriptive analysis

State interventionism is suitable to quantification by dividing the total revenue or total state budget expenditures to the GDP. In this study we focus on the analysis of state interventionism determined based on budget revenues, whereas the indicator calculated based on spending will be the subject of another study.

Methodologically speaking, the measures associated with state interventionism can be expressed in a diverse manner. Our preference regards (i) public revenue and expenditure reflected in the *general consolidated budget*, because it has the widest coverage, (ii) the *relative size* of public revenue and expenditure which allows international comparisons, and (iii) the *overall* volume of the budget, and the *elements* of its structure.



Note: The countries are ranked from those that founded the EU to the successive waves of accession.

Source: Authors' processing based on Eurostat data.

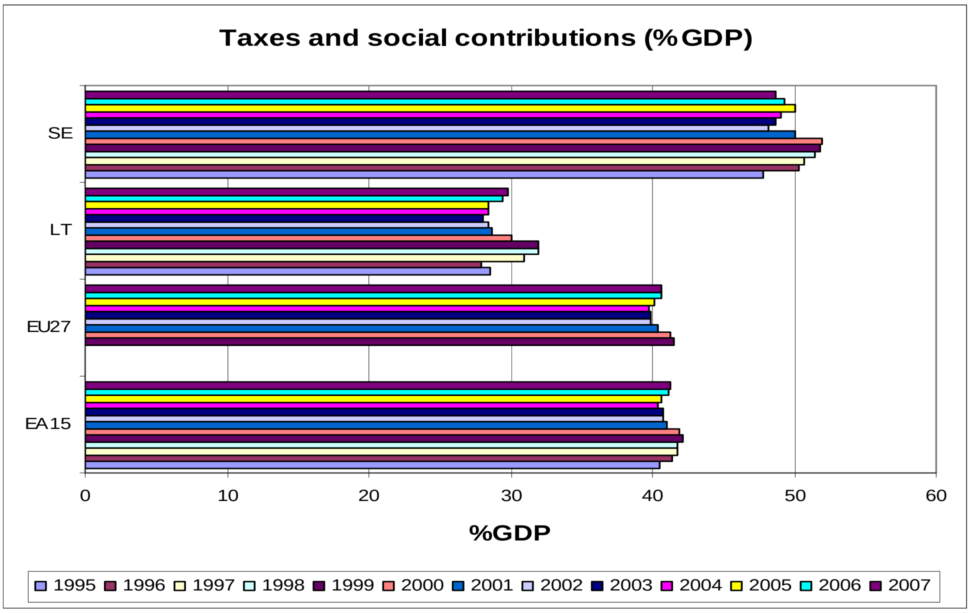
Figure 1. *State interventionism induced by budget revenues in the EU, 1997-2008*

State intervention indicator calculated based on budgetary revenue leads to the following conclusions (Figure 1). The successive waves of EU enlargement have grouped the countries with common characteristics in terms of state intervention degree. The first remark is the fact that there existed groups of countries with an average interventionism alternating those with high interventionism and those with low interventionism. All countries find themselves within the range of 30-60%. If we split this interval in three groups, we may say that the founding countries have entered the medium-type group (40-50% GDP state interventionism), the most countries that joined in the years 1970-1980 are in the lower type group (30 - 40%), the countries that entered the EU in the '90s form the superior type group (50-60%) and the countries of 21st century are situated in the medium-low group. We found the highest values of state intervention in Sweden, Finland and Austria (EU members from 1995), but also in Denmark (EU member since 1973). The lowest values are specific to Ireland (1973) and especially to the Baltic countries (2004) and Romania (2007). Countries that are in the medium and especially higher group are usually developed countries. A pattern is emerging: an increased interventionism is usually associated to the developed countries, while a lower interventionism is associated to the least developed ones. This is natural to happen, because where there is a high standard of living, there's also a high contributive capacity, furthermore the possibility to attract significant resources for the budget.

In terms of evolution, we cannot speak of an absolute convergence of state interventionism at EU level (there aren't any evident tendencies to get near the value indicator), which stands for keeping the attribute of national sovereignty for the sizing area of state interference. We may rather consider a diversification of the states in this area than the formation of a unitary European state model, with similar interferences in the economic and social life.

Knowing that this calculated indicator (the ratio of budgetary revenue in GDP) cumulates government intervention on the private sector (individuals and legal entities) but also that upon the state sector, we preferred to consider, in addition, the indicator that isolated state interference through taxes and contributions collected from the private environment.

Figure 2 shows the averages registered by this indicator in the EU and in the euro area, which are exceeding 40% in both cases and taking higher values in the euro area. The degree of state intervention through taxes and contributions is highlighted with maximum values for the more interventionist countries (Sweden), and minimum values for the less interventionist countries (Lithuania). In the first case, the indicator exceeds 50%, while in the second case it falls just below 30%. Although the earlier analysis didn't register a pattern for the development of interventionism in the EU, by taking into account only the taxes and contributions, a similar evolution is noticed for both the average and the extreme levels. We observe an upward trend of interventionism till 1999, followed by a loop, a decrease with a minimum point reached around 2003, then followed again by an increase in the recent years.

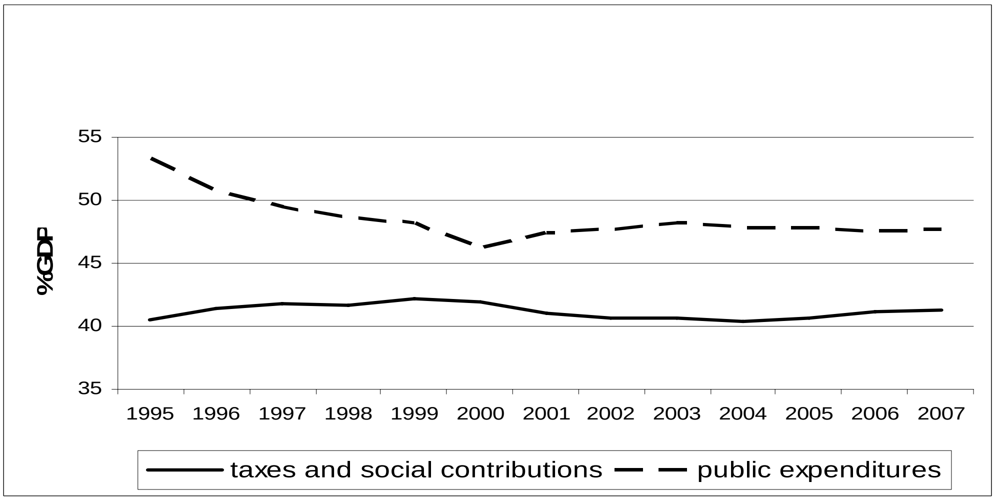


Source: Authors' processing based on Eurostat data.

Figure 2. *Total receipts from taxes and social contributions in EU (% GDP), 1995-2007*

Regarding public expenditure, a similar study that is not reported here, but is available on request, shows a decreasing trend for the degree of state intervention induced by expenditures, both for the averages and the extremes.

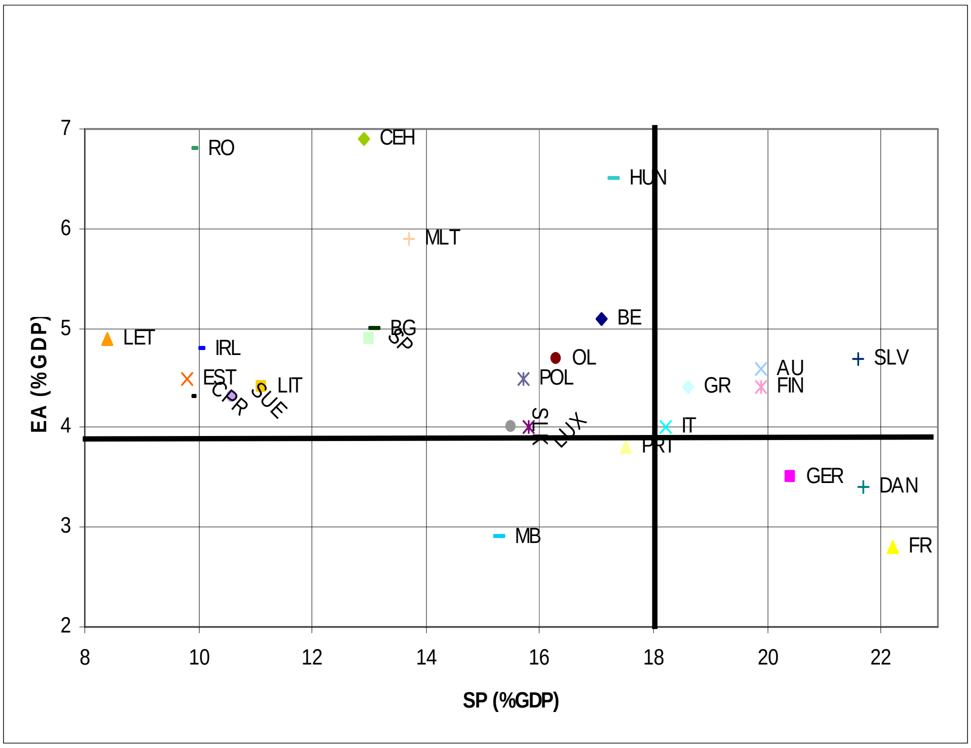
By correlating these two findings, we may say that indicator revenue-based indicator (taxes and contributions) has gradually adjusted to the expenditure policy, but also to the economic developments and cyclical evolutions (Figure 3). Thus, at the end of the 20th century, budget revenues have increased after a period of economic recovery in order to get the budget deficit within the imposed limits; at the beginning of the 21st century, budget revenues have declined following the trend of expenditures and because of a fiscal relaxation policy aimed to stimulate the slightly declining economy; the recent years have again brought the increase of budget revenues because of the economic progress, and the continuous decrease of budget spending. According to the latest updates from Eurostat, the year 2008 was characterized by an increase in public expenditure (47% of GDP on average) due to the current context of global crisis that requires significant measures of supporting the economic and social environment with public money.



Source: Authors' processing based on Eurostat data.

Figure 3. *State interventionism induced by budget expenditure and revenue in the Euro area, 1995-2007*

The studies carried out before (Maşca, 2008) show that the state is currently present especially for providing social protection, education and healthcare and for financing the general public services. From all of these, here we are mainly interested in the social protection budget expenditure, to which we add the public costs of supporting economic affairs, because these two categories make the difference between the more or less interventionist states. If the state has a significant overall interference in a certain country, then social protection in that country will be favored as compared to the other states. On the other hand, for the less interventionist states, the economic affairs are usually financially supported more than in the other states.



Source: Authors' processing based on Eurostat data.

Figure 4. *The positioning of EU countries related to the average costs of social protection and economic affairs coordinates, 2007*

According to Figure 4, the social protection in the EU gathered on average 18% of GDP in 2007, the minimum values falling below 10% and the maximum ones beyond even 22%. In the same year, the budgetary expenditure for Economic Affairs in the EU raised on average to 3.8% of GDP, with a minimum of 2.8% and a maximum of 6.9%. Most of the EU member states follow the above mentioned pattern. Countries such as Germany, Denmark and France are heavily interventionist countries that invest in welfare more than the EU average. Also, the less interventionist states like Romania, Czech Republic, Malta, Spain, Baltic States, Ireland, Poland, and Slovakia are those that support the economic affairs with public money, to a greater extent than the EU average. There also are exceptions, deviations from this pattern; a relevant example is the case of Sweden, the most interventionist EU state, with an above the average interference in economic affairs, and well below the average interference in financing its social protection.

On average, the EU states allocated four to five times more money to the social welfare than to the economic affairs (the ratio was 4.73 in 2007). Only four of the 27 EU member states exceed this threshold, i.e. Germany, France, Denmark and Britain (Table 1). The orientation of these countries towards an extremely active social involvement detrimental to the economic environment becomes very clear.

Table 1

The ration between expenditure on social protection (SP) and expenditure on economic affairs (EA) in 2007

COUNTRY	SP/EA	COUNTRY	SP/EA	COUNTRY	SP/EA
BELGIUM	3.35	GREECE	4.23	CZECH REPUBLIC	1.87
GERMANY	5.83	SPAIN	2.65	LITHUANIA	2.52
FRANCE	7.93	PORTUGAL	4.61	LATVIA	1.71
ITALY	4.55	AUSTRIA	4.33	ESTONIA	2.18
LUXEMBOURG	3.95	FINLAND	4.52	POLAND	3.49
NETHERLANDS	3.47	SWEDEN	2.47	SLOVAKIA	3.88
DENMARK	6.38	MALTA	2.32	SLOVENIA	4.60
IRELAND	2.08	CYPRUS	2.30	ROMANIA	1.46
UNITED KINGDOM	5.28	HUNGARY	2.66	BULGARIA	2.62

Source: Authors' processing based on Eurostat data.

4. The determinants of state interventionism in the EU – an empirical study

4.1. Model, data and methodology

Through our empirical analysis we aim to identify the relevant determinants of state interventionism through public revenues in the EU[(3)]. The selection criteria of them are based on our insights and the theoretical fundamentals; we consider the following relevant factors: (i) the development level of the country, (ii) the taxation from other countries and (iii) the structure of public expenditure.

(i) 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, which creates the resources to increase budget revenues, and it implicitly enlarges the interventionist area. On the other hand, a favorable economic trend is immediately reflected in terms of the population's welfare, so an increased interference from the state becomes unnecessary.

(ii) Taxation in neighboring countries may exert two adverse effects: tax coordination effect and tax competition effect, both phenomena being found in Europe. First, 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. Secondly, the effect of tax competition leads to a decrease of the budget revenues (fiscal incentives) when the tax burden of the 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 similar response to “fiscal dumping” can seriously affect tax revenues on mobile factors that would migrate.

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

Our empirical study is based on a panel composed of 27 countries (Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, United Kingdom) selected as the EU member countries and analyzed during the 1995-2007 period.

The empirical specification takes the following form:

$$SI_{it} = c_0 + c_1 \times GDP_{it} + c_2 \times TB\_EU_t + c_3 \times TB\_LT_t + c_4 \times TB\_SE_t +$$
$$+ c_5 \times TB\_RO_t + c_6 \times TB\_NOR_t +$$
$$+ c_7 \times EA_{it} + c_8 \times SP_{it} + c_9 \times ED_{it} + c_{10} \times HT_{it} + c_{11} \times PS_{it} + e_{it}$$

The description of the variables(4) 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 revenue 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 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_EU the overall tax burden in the EU-25 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; a proxy for the opening towards regional policy). But since Europe is a heterogeneous area, by bringing together countries with high diversity in terms of 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 (a proxy for the opening towards market forces under globalization context).

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

TB_RO is 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 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 budgetary policy is sensitive to that taken in its vicinity.

The following variables are proxies for the composition of public expenditure: expenditure on economic affairs, social protection, education, healthcare and public services. They are the most important categories of budgetary expenditure of EU Member States, among which expenditure on social protection and economic affairs have a special interest (see previous discussion).

EA is the spending for economic affairs share in GDP for the country i and at the time t.

SP represents the weight of social protection expenditure in GDP in the country i and at time t.

ED is the share of public spending on education in GDP in country i at time t.

HT is the share of public spending on healthcare in GDP in country i at time t.

PS is the share of expenditures with public services in GDP in country i at time t.

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). The link between per capita GDP (expression of a country's development level) and revenue (also expressed per capita) is a very strong one for the European countries (centered R2 is 0.99). An increase of per capita GDP with 1 euro would determine an increase of budget revenues with 0.40 euro. The charts reveal a positive correlation between the development level of the country and public social protection expenditure on the one hand, and state interventionism calculated based on budgetary revenues, on the other hand. Furthermore the econometric analysis should prove the significance of these correlations.

The estimates were carried out after the panel techniques, by using 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).

The specific characteristics of every country from the sample justify the integration of a heterogeneous dimension within the model, respectively the individual effects materialized into own specific constants for each individual of the panel. A model with individual effects is represented as follows:

$$y_{it} = \alpha_i + \beta \times x_{it} + \varepsilon_{it} \ , i \in [1, N], t \in [1, T], N \ individuals, T \ periods$$

The equal coefficient β hypothesis $\beta_i = \beta, i \in [1, N]$ is accepted, but the common constant α hypothesis is rejected for all individuals. In a random effect model, the residuals' structure is the following: $\varepsilon_{it} = \alpha_i + \lambda_t + v_{it}$, where α_i stands for the random individual effects (the structural or out of time specificities for each individual), λ_t stands for the temporal effects (factors that identically influence the individuals' sample, but the factors vary with time), and v_{it} stands for the factors that influence the endogenous variable differently with time and from one individual to another. ε_{it} are independent and identically-distributed. The BLUE estimator is the GLS estimator. Furthermore, we may say that the random effect model is an intermediary specification between the no individual effect model and the fixed effect model. The hypothesis for a common distribution of the individual effects permits considering a structure that is neither totally homogenous, nor totally heterogeneous (see also Sevestre, 2002).

4.2. Results

Results of regressions are summarized in the table below.

Table 2

State interventionism determinants and their significance

Independent variable	(1)	(2)	(3)	(4)	(5)	(6)
GDP	0.28** (0.03)	0.28** (0.03)	0.28** (0.03)	0.24** (0.02)	0.17* (0.05)	0.21 (0.12)
TB_EU		0.74*** (0.00)	1.82*** (0.00)	1.04** (0.01)	0.93** (0.02)	0.85** (0.03)
TB_LT			0.01 (0.93)	0.15 (0.20)	0.20* (0.06)	0.21** (0.04)
TB_SE			-0.23** (0.02)	-0.09 (0.34)	-0.02 (0.78)	-0.04 (0.63)
TB_RO			-0.14 (0.37)	0.49*** (0.00)	0.74*** (0.00)	0.82*** (0.00)
TB_NOR			-0.39*** (0.00)	-0.10 (0.42)	-0.07 (0.56)	-0.05 (0.65)
EA				0.33*** (0.00)	0.32*** (0.00)	0.32*** (0.00)
SP				0.83*** (0.00)	0.57*** (0.00)	0.47*** (0.00)
ED					1.46*** (0.00)	1.51*** (0.00)
HT					0.46*** (0.00)	0.30 (0.10)
PS					0.54*** (0.00)	0.53*** (0.00)
DUMMY COUNTRY						x
Obs	*340*	*340*	*340*	*312*	*312*	*311*
R2 centered	*0.92*	*0.93*	*0.93*	*0.95*	*0.96*	*0.96*

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.

An R2 that is gradually increasing with the addition of new variables is a clue for an increasing explanatory power of the specification; the last two specifications explain the degree of state intervention based on incomes best.

The hypothesis according to which the country's development level influences the public interventionist policy is not definitely supported by the regressions' results; having a relatively high degree of significance in the first regressions, the coefficient of the GDP variable (calculated in relative terms) loses its importance by adding new variables. However, the influence, although not very strong, seems to be a positive one. Moreover, in absolute terms, the per capita budget revenues are strongly correlated with the per capita GDP of EU countries (see Appendix). This shows that, in general, the developed EU countries are characterized by a high interventionism, while the less developed EU countries involve the state in economic and social life less. The absence of significance of the GDP in the final regression may be explained by the contrary effect, also anticipated at the theoretical level, according to which as the country develops, state interventionism becomes outdated and the state partially withdraws from the economic and social life.

The theoretically stipulated assertion according to which tax burden in this regional union influences state involvement through the state budget in each of the EU countries, is empirically tested through regressions (2) - (6). The increase of the tax burden in the EU with 1% of the EU GDP causes, on average, the increase of state interventionism in the member countries with 0.85% of those countries' GDP. This aspect confirms the existence of some sort of coordination of the fiscal policies within the EU. Comparing the coefficients associated to the economical development variable and to the European fiscal pressure variable, we may conclude that state interventionism is more influenced by the latter. With this result, we agree to some other authors' conclusions, like Rodrik (1998) and Adsera and Boix (2002), who found a positive correlation between the openness to international trade and the public sector size. In our particular case, there is a strong positive link between the openness to the regional policy of fiscal coordination and the dimension of the state budget.

Among the countries with extreme taxation of Europe, Romania and Lithuania only seem to have influenced tax policy and state interventionism implicitly in the level of budget revenues of EU countries. Member countries reduce their interference in the budget by 0.82% of GDP respectively by 0.21% of GDP, at a reduction of the tax burden by 1% in Romania, respectively in Lithuania. This is the result of tax competition which coexists with the EU fiscal coordination. Fiscal relaxation in countries like Romania and Lithuania leads to the reduction of taxes in the neighboring areas as well, causing them the possibility to loose their mobile factors as a source of tax base. Not even Sweden, as an EU member, or Norway, a neighbor of the EU, through their burdensome tax policy, affect neither taxation nor state interventionism in the EU countries. This time, we found a strong link between the opening to the market forces that generate tax competition and the size of the state budget (resembling the findings of Rodrik, 1998, respectively Adsera and Boix, 2002).

As for the impact of the structure of state expenditure upon the degree of state interventionism calculated based on revenues, it's not surprising that it is positive and significant for all categories of expenditures; as the share of GDP allocated for economic affairs, social protection, education, healthcare, public services increases, budgetary revenues increase as well, in order to support this additional expenditure, and therefore state interventionism increases. The relative size of the coefficients associated to the variables of different expenditure types are of a great importance here. Firstly, state interference for the support of social protection involves a greater legitimacy than the financing of economic affairs, explaining the increase of state interventionism based on revenue growth better (in regression no. 4, the EA variable has a coefficient of 0.33, lower than the coefficient of the SP variable, 0.83). By comparing the coefficients associated to the cost components in regression no. 6, we may conclude that the growth in EU interventionism was made possible through the state's additional funding commitments especially in the field of education, public services and social protection. It appears that mainly these fields are the public areas where Europeans expect and legitimize state intervention.

Among the dummy variables associated to each country, the ones significant and with a positive influence in explaining state interventionism are particularly the ones of Austria, Belgium, Bulgaria, Denmark, Finland and Sweden. Five of these countries (except Bulgaria) are the most interventionist European countries, registering a tradition for this public policy. Denmark, Finland, Austria justify their interventionism especially through social protection measures, while economic affairs find an important legitimacy in Sweden, Belgium and Bulgaria.

5. Conclusions

The issue of quantifying the degree of state interventionism in the economic and social life regained its popularity in the contemporary period, also taking into account the fact that the difficulties the global economy is facing require the active involvement of the state, perhaps more than ever.

After having argued for the discussion around the state budget through the existence of the state and the cash needs of the human community, our study has presented the main arguments made on the extent of state intervention. Admitting the contradiction between the ideologies formulated by Smith and Keynes, the authors try to bring these issues together, by making an inventory and commenting on the contributions of that literature segment that supports the coexistence of the free market with state interventionism. The idea according to which state interference comes as a response to market failure is partly removed; moreover, it may be the result of a self-maintaining state interventionism.

For evaluating the state's role in the economic and social life and its evolution, a lot of “forces” are considered: market forces, regional power authority, and the force of international organizations. We believe that nations should not “abandon” themselves to one or some of these forces exclusively, as the national state must retain its relative autonomy.

In fact, the contemporary period brings a new perspective upon the national state, that of the state as a manager of the crisis’ effects, because the other “forces” have failed. It is high time for the world's states, through an appropriate fiscal policy (correlated with the monetary and institutional policy) to find the best solutions for getting out of the crisis. As we have seen, the use of budgetary expenditure components as leverages, as it has occurred so far, raises some questions in terms of efficiency; furthermore, an adequate budget revenue policy (fiscal relaxation) should provide real solutions for crisis's problems.

The descriptive and empirical results of our analysis can be summarized as follows.

The descriptive part of the study tries to establish two connections: (1) between state intervention and the development level of the country, respectively (2) between the size of state interference and the structure of public expenditure, with emphasis on social protection and economic affairs expenditure. This study is designed to identify response patterns of response of state interventionism to its most important determinants, namely to capture the evolving patterns, the trends.

According to our empirical results, the interventionism induced by budget revenues in the EU countries was significantly determined by the coordinated EU tax policy, the compensation measures in the context of fiscal competition between regions, but also the structure of public expenditure. The effect of the development level is less obvious, which hasn’t surprised our expectations concerning a possible positive influence or a negative one. We may say that the 1995-2007 period was characterized by a correction type state interventionism in the EU, with a slight general trend for state withdrawal out of the economic and social life, because of a relatively positive evolution of the economy, a strict monitoring of national budgets carried out by the EU, and a certain exposure to tax competition.

Starting with 2008, we have witnessed an up growing compensating type state interventionism, which comes to fill the economic shortfalls created by the crisis, namely the downward economic trend. The increase of state interference has become more legitimate since it targeted measures of social protection;

actually in many cases, the current interference of the state in the economy produces passionate disputes. The regional fiscal policy is situated in a second plane, as a determinant of state interventionism in the EU Member States, considering the weakening of the Union and the transfer of powers to the national authorities. The effect of tax competition is gaining ground in the new context, resulting in budgetary reactions of providing advantages to attract the so-long desired capitals.

We believe that the state's withdrawing from the social and economic life, while the economy would enter into an upward trend after the crisis, is possible primarily by reducing social security expenditure, many of them no longer necessary with an increasing labor employment.

For Romania, as it has until recently been characterized by a reasonable interventionism, one of the lowest in Europe, we may say that its increase is possible in order to compensate the crisis' effects; increased state interference can be achieved mainly on account of social protection expenditure, but less on the account of economic less legitimate expenditure that are already situated above the EU average. The increase of state interventionism in Romania must take into account the budget conditions imposed by the EU for accessing European funds, even if we are currently witnessing a widespread relaxation of the constraints imposed by the EU.

Notes

(1) For details, see Burlacu M. (2004), Popescu L. (2002), Tulai C. (2003).

(2) Regarding other controversies for the economic role of the state, see Avramescu & Ungureanu, 2009.

(3) The econometric modeling of the state interventionism through public expenditure will be the subject of another study.

(4) The values for each variable come from statistics provided by Eurostat.

References

Adsera, A., Boix, C., „Trade, Democracy and the Size of the Public Sector: The Political Underpinnings of Openness”, *International Organization*, vol. 56, no. 2, 2002, pp. 229-262

Aggarwal, V.K., 2009, „Misusing Government Intervention in the Financial Crisis”, *Frost & Sullivan Market Insight*, 28 Aug. 2009

Avramescu, T.C., Ungureanu, E., “Controversies Regarding the Economic Part Played by the State in Economy”, *Theoretical and Applied Economics,* no. 4, 2009

Barrell, R., Fic, T., Liadze, I., „Fiscal Policy Effectiveness in the Banking Crisis", *National Institute Economic Review*, vol. 207, no. 1, 2009, pp. 43-50

Blackwell, R., „Analysts Suggest Federal Govt's Intervention In Financials May Be Difficult to Unwind"*, Credit Union Journal*, 27 oct. 2008, p. 13

Breitenfellner, B., Wagner, N., „Government Intervention in Response to the Subprime Financial Crisis: The Good into the Pot, the Bad into the Crop"*,* 2009, working paper series available at SSRN: http://ssrn.com/abstract=1334804

Bucur, I., „The State – between Crisis and Reform", *Theoretical and Applied Economics,* no. 9, 2008

Burlacu, M., 2004, „Bilanţul şi analiza pe bază de bilanţ la instituţiile publice", Teza de doctorat, cap. 1, Statul şi rolul său în economie

Buti, M., van den Noord, P., „The EURO: Past successes and New Challenges"*, National Institute Economic Review*, vol. 208, no. 1, 2009, pp. 68-85

Cable, V., "The rise of economic nationalism"*, New Statesman*, 20 Oct. 2008

Chandan, S., „A Revival of Interventionism", *RetailTRAFFIC*, 1 may 2009

Devine, J., „State and State Expenditure: Determinants of Social Investment and Social Consumption. Spending in the Postwar United States", *American Sociological Review*, vol. 50, no. 2, 1985, pp. 150-165

Ezekiel, M., "Is Government Intervention Or Planning Consistent With Antitrust Policy?*", The American Economic Review*, vol. 36, no. 2, 1946, pp. 190-204

Holland, D. et al., „The World Economy: Destocking in the Euro Area", *National Institute Economic Review*, vol. 208, no. 1, 2009, pp. 26-38

Isarescu, M., 2009, „Criza financiară internaţională şi provocări pentru politica monetară din România*",* Disertaţie susţinută cu ocazia decernării titlului de Doctor Honoris Causa al Universităţii Babeş-Bolyai, Cluj-Napoca

Masca, S.G., 2008, „Is the Budgetary Policy Aggressive?", *Review of Economic Studies and Research Virgil Madgearu*, Issue no. 2, 2008, pp. 97-113

Mises, Ludwig von (1998). *Interventionism, An Economic Analysis,* Ed: Foundation for Economic Education, Irvington-on-Hudson, New York

Mitrică, E., „Politica fiscală a României în perspectiva aderării la Uniunea Europeană", *Economie teoretică şi aplicată,* nr. 3, 2006

Popescu, Gh. (2000). *Evoluţia gândirii economice*, Editura George Bariţiu, Cluj-Napoca

Popescu, L. (2002). *Management instituţional şi administrativ*, Ed. Academica, 2002

Rodrik, D., „Why Do More Open Economies Have Bigger Governments?", *The Journal of political Economy*, vol. 106, no. 5, 1998, pp. 997-1032

Smith, A. (1904). *An Inquiry into the Nature and Causes of the Wealth of Nations*, Methuen&Co, Ltd, London

Spengler, J., „Laissez Faire and Intervention: A Potential Source of Historical Error", *The Journal of Political Economy*, vol. 57, no. 5, 1949, pp. 438-441

Tulai, C. (2003). *Finanţele Publice şi Fiscalitatea,* Editura Casa Cărţii de Ştiinţă

Verschoor, C., „Can Government Manage More Ethically Than Capitalism?*", Strategic Finance*, 1 oct., 2009

Wolfram, G., „Econ 101: The Financial Crisis and Danger of Government Intervention", *Human Events*, 10 oct. 2008

***Date statistice furnizate de Uniunea Europeană (Eurostat)

Appendix