

ABSTRACT

In the last decades the development patterns were characterized by the processes of economic and social disparities on one hand and by the increasing environment problems on the other hand. In consequence, it became self-understood that that only a common framework would facilitate a solution for the contradictions of the social-economic development, with the help of a concept as the sustainable development. *Sustainable development is a continuous process of the evolution of mankind, an economic, social and ecologic balanced development. This alternative economic growth pattern replaced in many regions the economic pattern based on consumption.*

The objectives related to sustainable development represent the essential element of the future growth of the European Union and were included in its strategy up to 2020 for an intelligent, sustainable and favourable growth for the inclusion. These objectives were also set in the National Strategy of Sustainable Development of Romania.

The novelty of the theme resides from this context because in the mix of macroeconomic policies, the fiscal policy is one of the pillars on which the state might influence development and sustainable economic growth. Fiscal policies might contribute to the correction of the market failures, for example by investments in research and development, funding risks and externalities for the environment.

The influence of fiscal policy on the evolution of national economy, of the production and consumption structures, of the investments and promoting the economic and efficient technologies from an energetic point of view are common subjects in the current scientific debate. Not only the economic performance of a country but also the nature of this economic growth must be important for the governments of the states, that is why the environmental taxes are imposed not only to protect the environment but also as an important tool for the improvement of sustainable development.

The **general objective** of the PhD Thesis is: to carry out a complex study regarding taxes and taxation, the economic growth and the sustainable development in Romania, but also the evaluation of the impact of fiscal policies in the field of environment adopted by our country on the economic and sustainable development. The special attention paid to the fiscal policy in the field of environment started from the fact that in the economic literature from Romania the relation between the fiscal policy and the economic growth represented a very interesting theme, with an accent on the investigation of the relation between the public expenses and GDP or the fiscal incomes and GDP and less on the relation between the environment taxes and growth and sustainable development. This under the circumstances when the taxes and the environment taxation represent a tool of changing the use of the resource with the highest impact. The environment taxes not only produce improvements in the environment (the first dividend) but they also generate substantial sums of governmental incomes (the second dividend). This new income allows the governments to reduce the taxes of other taxation in economy maintaining at the same time a constant level of the total incomes and expenses: manifesting the so-called effect of income recycling. Because these taxations are generally considered to be disproportionate, the reduction of their rates can be considered to improve the efficiency and to generate a second benefit from adopting the environment taxes.

The accomplishment of the general objective of the research required the identification and the fulfilment of some **specific objectives** in this field:

- The identification of the basic theoretic concepts in the field of fiscal policy, including here various approaches of the concept in the reference literature but also specific tools for the fiscal policy, in order to build a complex and complete theoretical concept;
- The presentation of the concepts specific for the fiscal policy on the level of the European Union: the European fiscal policy concept, legal fundamentals, objectives, problems, tools but also the causes leading to the harmonization, governance and coordination in the

European fiscal policy and the purposes of these processes;

- The identification of the evolutions in the fiscal policy according to a comparative study in Romania and in other EU Member States, carrying out analysis and comparisons regarding the structure of taxation and of the fiscal pressure both on a European level and for Romania and framing fiscal policy from Romania among the states in Central and Eastern Europe;

- The theoretical approach of the concepts as well as the economic growth, influential factors of the economic growth and the practical analysis of these problems in the case of Romania and of the countries from Central and Eastern Europe, pointing out a new economic development pattern for the countries in this region;

- Presenting the concepts and the indicators of sustainable development but also carrying out a study for the relative evaluation of the sustainable development level of the countries in Central and Eastern Europe and the comparative analysis of the position of Romania towards these EU member states;

- The identification of the progresses but also of the disparities in the sustainable development of Romania but also of some other Central and Eastern European states (CEE) EU members by selecting some analysis indicators, to obtain relevant results. Therefore, we wanted to underline the sustainable development level of the CEE countries in the three dimensions: social, economic and environment;

- The analysis of the evolution and structure of the environment taxes in Romania, as compared to the EU;

- Presenting the knowledge stage in the field of the fiscal policy involvement, especially on the fiscal policy in the field of environment on the growth and on the sustainable development;

- The analysis of the existence of a causal connection between the GDP in Romania and some explanatory variables regarding taxation of the damages on the environment and the production and energy consumption. In order to do this, we used more statistic tests in order to check the existence of a significant relationship among the economic variables expressed in time series. We tried to identify the influence of taxation on the environment on the sustainable economic development starting from the premises that for the emerging economies, these taxes offer both a growth of the GDP but also a prevention of the environmental degradation by reducing pollution and the practices harmful for the environment;

- The evaluation of the sustainable development in Romania, considering the characteristic features in the field of sustainable development of the countries accessing the EU and which have certain economic features like the ones in our country, using an aggregate indicator of the relative sustainable development level in order to provide comparability;

- For the evaluation of the efficiency of fiscal policy in the field of environment we will use the DEA method, the general performance score obtained by Romania being an expression of its sustainable development in comparison to other EU countries;

- The significance of sustainable development and of the orientations which have to be followed by the governors in order to meet the proposed objectives;

- Finding solutions regarding the reduction of the disparities towards the advanced countries in EU under the circumstances of a sustainable growth and development.

The first step of the research was the documentation, followed by the selection and the systematisation of the bibliographic sources, which represented the fundament of the theoretical chapters of the thesis. The analysis is used especially for the theoretical part, but it can also be found in several parts of the research. Therefore, we analysed every definition of the fiscal policy, of the economic growth and of the sustainable development and afterwards we selected what we considered to be relevant, formulating our own opinion.

The next step was aimed at using the comparative analysis on the statistical data and

their summarizing data in the chapters 3,4 and 5. The most frequently used method was the comparison, and the analysis were carried out in the time gap 2005-2016 in the case of the comparative analysis on the level of the countries from Central and Eastern Europe.

For the relative evaluation of the level of sustainable development of the 10 new EU Member States we used the aggregate indicators of the relative level of sustainable development characterising the sustainable development of the countries. The comparative analysis was carried out based on the linear order of the countries according to the aggregate indicator and based on the volatility index.

In the first chapter entitled *The place of fiscal policy in the economic politics* we presented the various concepts and approaches regarding the fiscal policy notion, and afterwards we identified the interdependencies among them and the well-functioning of the economy. We outlined the objectives followed by adopting the fiscal policy decisions, as well as the intervention tools in economics and the ways to correct the economic disparities. We outlined the objectives followed by adopting the fiscal policy decisions as well as the tools for intervention in economy and the ways to correct the economic disparities. We also focused on the efficiency of the fiscal policy because when the fiscal policy does not take into account the "permissible" threshold of fiscal pressure, negative phenomena might come up, with effects on various periods regarding the evolution of the economy.

In the second chapter *the Fiscal Policy of European Union* we turned our attention on the specific taxation of the community block by approaching the notions of European fiscal policy, Community acquis, harmonisation and fiscal coordination. In this chapter we present the community institutions with fiscal policy attributions, the objectives of the European fiscal policy but also the problems appeared in the process of fulfilling these objectives. Here we tried to outline the area of fiscal harmonisation and the ways to fulfil it to provide a well-functioning of the unique internal market. The manifestation of the economic-financial crisis generated a change in the fiscal policy of the Member States orienting this process of fiscal harmonization towards coordination and fiscal governance in order to reduce the budget deficits and to provide the economic relaunching in the European Union.

Therefore, in this chapter we pointed out the main approaches regarding the fiscal coordination and governance, but also the legislative changes on a European level. The new architecture of the fiscal policy in European Union was determined by major mutations in the last years, determining a comprehensive approach of the new fiscal governance, marked not only by the process of fiscal harmonisation but also by the temptation of fiscal coordination aiming at maintaining a fiscal stability and the long and medium-term reduction of the public debts.

In the third chapter entitled *Evolutions in the fiscal policy from Romania and the EU* we noticed in a case study the relation between fiscal policy and fiscal pressure both on a national level but also on the level of the European Union, pointing out the position of our country in the European Union from this perspective. We presented in this sense the structure of taxation on three large categories (direct taxes, indirect taxes and social) on the level of Romania but also the EU average, and also a comparative analysis regarding the level of taxes and taxation on the level of the European Union states, pointing out a high level of diversity from a fiscal point of view in the European Union. Because the economic and financial crisis influenced the fiscal policies of all European states, we presented in this chapter the main evolutions on the level of the fiscal policies after the crisis. These reforms were different and according to the types of states, that is why we proposed to analyse the mutations produced in the fiscal policy in the states with which Romania has more common points, that is the states from Central and Eastern Europe. We noticed that from a fiscal point of view Romania is a developing country focusing on the indirect taxation in the detriment of the direct taxation unlike the developed countries where the accept is on direct taxes. At the same time, Romania is on the lower taxation limit practiced in the European Union with a level of fiscal pressure for the analysed period of 28,4%, as opposed to 39,1% in EU. Despite these the economic

agents and the population massively feel the aggressive taxation which might be explained by the fact that an analysis in relative terms of taxation is not relevant without a correlation in real terms, that is with the GDP level in Romania. We consider necessary the move of fiscal task from labour taxation to other taxation bases related to consumption, property and fighting against pollution, with positive effects both on the economic growth but also to fight tax evasion.

Another important objective of the thesis is *The economic growth – priority objective of Romania*. This chapter allows a passing from the theoretical approach of the concepts as for example economic growth, influence factors of the economic growth, of the theories regarding economic growth to the practical analysis of these problems in the case of Romania. The relation between the economic and the economic development is from one part to a whole. Starting from acknowledgement, any economic development includes an economic growth. The economic development involves, besides the economic growth also structural qualitative changes in the national economy and the quality of life of the people.

After the description of the features of economic growth and the establishment of the context of this process, there were analysed a series of economic and social effects manifested on the level of the economy, effects grouped in benefits and costs of economic growth. In this chapter there are presented the perspectives of economic growth in Romania in the next period based on the assessments made by the main international financial institutions, IMF, World Bank and EBRD but also based on the assessments of the National Prognosis Committee. The most important conclusions and critical observations are outlined based on the analysis and there are formulated proposals regarding the improvement of the way of managing the resources for the economic growth in Romania. I think it is necessary that Romania relies on a new economic growth development pattern based on promoting exports, including in the field of services, under the circumstances when the previous growth pattern based on consumption proved to be not sustainable.

In this chapter we proposed to identify the growth sources and at the same time the disparities in the growth pattern from the CEE countries and to identify reform measures. Starting from the radiography of *the economic pattern of growth of the countries in Central and Eastern Europe* based on intensive use of the resources and on debts, we identified a potential development pattern which should rely on measures aiming at the expansion of the export and the concentration on activities with high added value, the growth of the productivity and the growth of the foreign direct investments and of the internal economies.

In the fifth chapter *Sustainable development – priority theme of the contemporary world* we looked over the emergence and the evolution of sustainable development under the UNO auspices and of other international institutions organising numerous conferences and congresses in order to debate current problems on humanity and therefore we presented the need for sustainable development. In this chapter we used a lot of official reports which were the result of international conferences having as a main objective sustainable development. We presented the main challenges of sustainable development by means of the problems they have to solve, but also the system of indicators used to assess the level of sustainable development. Starting from one apart of these indicators, we carried out a relative evaluation of the sustainable development level of Romania, by classifying within the ten states which later became EU members, which are closer from the point of view of development. In this analysis we used the aggregate indicator of the relative level of sustainable development which includes eight diagnosis variables characterising the sustainable development of the countries and we could point out the place of Romania within the 10 analysed countries but also the fields of sustainable development which have to be followed with priority on the level of Romania but also the stage of reaching the proposed objectives within the National Strategy regarding Sustainable Development.

The results of the research pointed out the existence of a serious disparity between Romania and the other Member States regarding the progress towards sustainable

development and the need for urgent actions. Romania still has an intensive economy, a consumption economy of the resources, a society and an administration which is still looking for a unitary vision on sustainable development. It is compulsory that Romania reduces the economic, social and technological deficiencies as compared to the EU countries.

The last chapter of the thesis, *The impact of environment taxes on the sustainable growth and development in Romania* is the one where we found an answer to the: *can fiscal politics in general and the environmental policy in particular influence the sustainable research and development in Romania?* In order to give an answer we started from the definition of the environment taxes and fees and we continued with different methods of quantifying the effects of the environment taxes on the economic growth and on the sustainable development.

Romania has the less efficient economy in Europe from an energetic point of view, registers the lowest incomes from environment taxes reported to GDP both on the whole and also on categories: taxes on energy, taxes on transport and pollution taxes, and using the resource, especially due to the government policies towards lower levels of taxes and excises. We consider that on a short term, the classical fiscal measures imposed must take into account the taxation of the excessive consumption of energy and very polluting energy products and the partial replacements of these products with renewable energetic products and on a long term, the fiscal measures would have to favour the investments in promoting new efficient technologies from an energetic point of view.

Although in the reference literature it was proven the fact that the connection between fiscal policy and economic growth is not a strong one, and taking into account that fiscal policy is not a fundamental growth source we tried to point out this indirect connection between the environment taxes and the economic growth in the case of Romania using an econometric methodology and therefore we identified the types of environment taxes which can influence economic growth in Romania. For the Romanian economy, the taxation of environment can represent a way towards accomplishing a sustainable development and a high degree of ecologic incomes by putting a tax on pollutants and promoting the ecologic practices and technologies.

In order to assess the efficiency of the fiscal policy in the field of environment in Romania, the effects generating on the sustainable development we used the data envelopment analysis DEA, applied for a set of data referring to the representative variables for the fiscal environment policy and sustainable development in the 24 Member States of the European Union and on the level of the year 2015. Therefore, we could identify the countries with efficient policies, and for the other countries we evaluated the changes needed to reach the efficiency level. In the case of Romania, the sustainable development scenario is the one in which the current level of using the economic-social resources and of the natural resources is maintained but where the GDP must grow with 28,4%. Another development variant is aiming at the reduction of the disparities related to the characteristics of the various types of environment taxes imposed towards the group leaders with similar characteristics with the Romanian economy (The Czech Republic).

At almost 30 years from changing the regime we might say that Romania is a democratic country with a market economy, but at the same time it has to make progresses in order to become a real European country from a valuable, economic and social point of view, especially as a consequence of the old structural problems and of the orientation towards the immediate individual welfare and not towards the prosperous development of the countries in future. An important cause of this situation was the lack of a development pattern, of some coherent strategies in the economic and social field, which needed to adopt measures, most often on a short or at least average term, and not on a long term. To this, we also add the frequent changes in legislation, especially in the fiscal field, but also the implementation measures, leading to the lack of trust from foreign investors. In this context we consider necessary to adopt a mix of economic policies which should generate stability, predictability

and transparency for the environment but also a stable environment for investors.

Sustainable development represents a huge opportunity for the transition countries from Eastern Europe. The transformations from these countries are characterised by vast modifications in all human activities and in the field of environment. From these countries Romania is a country with an extraordinary potential in accomplishing the sustainable development level. Especially in the economic and technological field it is the desirable time to integrate the idea of sustainability because the modernisation of the technologies or even the implementation of new unpolluting ones or environmentally friendly are necessary. From the calculations carried out in this thesis, from the three development indicators corresponding to the three separate dimensions: social, economic and environmental Romania occupies the 9th place for the economic dimensions and the 10th place out of 10 in the case of the social dimension. In Romania one of the main problems referring to the future sustainable development is the one in the field of **education**. This problem starts from the level of the primary school due to the high number of school abandon, especially for the primary or the secondary cycle. Among the causes identified in various studies carried out regarding school abandon, the most important are: poverty and losing rhythm. To fight them we need to find sustained economic measures but also voluntary actions and civic spirit to support less prepared pupils.

Another discouraging factor for the future sustainable development of Romania is the one regarding *small expenses with research and development*, in 2015 they were 0.33% of GDP under the context where EU proposes them to reach 3% of GDP by 2020, and Romania has a level of 2% of GDP but the perspectives are not encouraging being necessary a change of approach and paradigm. Besides the small resources granted by the state for research, the problem is amplified by the lack of interest for research from the private sector. I consider that the public funds given for research can be a true catalyser to co-fund research by the private environment and to use the results of research in economics.

In so far as sustainable development integrates both social and environmental dimensions, setting a comprehensive pattern of fiscal policy for sustainable development involves an analysis of the specificity of fiscal instruments in these two dimensions.

In this sense, fiscal policy with its main components – taxes, public expenses and fiscal incentives – can fully join the effort to contribute to the preservation of the environment through its additional fiscal function. The purpose of taxation was to offer financial resources to the state. In spite of these, in the modern world, the taxes are used on a large scale to interfere with the private economy, to stimulate the economic activities, on sectors of regions, to discourage the consumption of certain goods and last but not least to produce the most varied effects on the economy. The taxes are very important mechanisms of economic transformation; they might have a strong impact on the social behaviour, and the fiscal system plays a key-role in any process of changing this amplitude.

Fiscal policy might affect growth due to its effects on the incentives with which the individuals and the companies are confronted. The taxes on business might affect the decisions of the companies regarding the level of investments and in which types of actives; the taxes on workforce might affect the level of workforce and the decisions regarding the education and the professional development acquisitions; the lack of pollution taxes might lead to excessive pollution; the social programs which are extremely generous might reduce the desire to work. The simulative effects are not limited to the private sector; they play a role as important as in the public sector. The salary and discipline policies, for example, moulds the significance of corruption in the public service and the productivity of the employees in the public sector.

In this paper we concentrated on the environment aspects of the fiscal policy. The fiscal policy has an important role in providing the sustainable use of the natural resources and protecting the environment. This thing is applied both to the taxes and to the expenses from the budget. The taxes might be used to assure that the prices reflect the total social costs

of producing goods and services. This type of price is the most favourable to the long-term sustainable growth. For example, the prices, perceived for the oil products have to reflect not only the cost of purchase or sale on the world market but also the social costs of the air pollution their usage might generate and in the absence of a better directed instruments, the pollutions associated with the use of vehicles.

The climate challenges increase the pressure exerted on the governments to find ways to reduce the damages brought to the environment, reducing the prejudices brought to economic growth. The governments have a series of instruments, including regulations, informative programs, innovation policies, environment subventions and taxes. Without a governmental intervention there are no market incentives for the enterprises and the households so that they take into account the damages to the environment, because the impact is manifested around many people and has less direct costs or no costs for the polluter. The main problems appearing in the capitalist economy are the negative externalities. These represent "market failures" because they are an expense which cannot be found in the production cost of the economic operators, but the consumers and the entire society are paying for this. In order to solve this market imbalances, as it is frequently called, in order to integrate the negative effects, it is require the "invisible hand" intervention. Therefore, only the state can intervene in order to quantify these negative externalities and to tax the polluter through the so-called "Pigouvian taxes".

In consequence, the environment protection generally needs collective actions, usually led by the government. The efficient implementation of the "green" taxes require a careful analysis of a number of factors, because the well-designed traces might have a low effect on the environment and higher economic costs.

The profitable companies bring important contributions by the payment of the taxes to the state, providing jobs and encouraging economy but it is expected a correct level of taxation. Therefore the dilemma which are the taxes and fees which the state needs to perceive in order to take care of the society?

The settlement of the environment traces is very important because a high level of taxes might affect fundamentally the decisions of the people on a daily basis. The problems noticed are related to property, determining the correct negative external value but also by returning to the society the money generated by taxes.

In my opinion, the biggest problem is to return the money to society. Because the society does not realise that these taxes and fees are set in order to eliminate the negative effects created by certain branches of the economic sector. The tax payer tries not to pay them when he/she does not feel the return of the money.

Under the circumstances where Romania registers a growth of the public debt and implicitly a budget deficit, we think that a solution to solve these problems would be to grow the environment taxes which would represent an important source to balance the state budget, especially because the European Union recommends for Romania to pass from labour taxation to consumption and pollution taxation.

From the econometric analysis carried out to assess the impact of the environment taxes on the economic growth in Romania only 5 of the 8 variables considered exert a significant influence on the economic growth, four of them having a positive effect on GDP that is: the total environment taxes, the taxes on pollution, the primary renewable energy production, the internal material consumption per capita and a negative one: the total gross production of electric energy. In this sense we consider it is necessary to provide the efficiency of the policy regarding energy taxation, a double approach both on a short and on a long term. On a short term, the classical fiscal measures imposed have to take into account the taxation of the excessive energy production and of the very polluting energetic products and the partial replacement of these products with renewable energetic products, and on a long term, the fiscal measures would have to favour the investments in promoting new efficient technologies from an energetic point of view.

The environment taxation is not only a lever to provide the protection of the environment but also of the sustainable development. For the Romanian economy, the environment taxation might represent a way towards sustainable development and a high degree of ecologic incomes by taxing polluters and promoting the ecologic practices and technologies.

We consider that the results obtained along this research offer a solid ground for the analysis of the causal long-term effect on GDP, due to the analysed variables but also to demonstrate the influence on the sustainable development criteria in an emerging economy as in the case of Romania. The decisive factors must be interested in the taxation system of the environment, especially under the circumstances where in the analysed period the significance of the environment incomes increase both as a gross value but also as a share in GDP. At the same time, for an economy as the one of Romania, it is important that the political decisive factors to discover the relation between GDP and the influence of environment taxation in providing welfare, because these results of the research might contribute to the implementation of the energetic and environment policy.

With the help of DEA we carried out a global evaluation of sustainable development for the EU Member States. In the assessed model, GDP, greenhouse gases emissions and the share of the renewable energy in the gross final energy consumption were used as incoming and outgoing variables illustrating the different types of environment taxes: on energy, pollution and transport influencing the outgoing variables. As a novelty, the proposed model in this study allows for an assessment of the sustainable development using a procedure taking in consideration synthetic indicators to grasp the whole complexity of the environment phenomena. This points out the fact that the economic performance of a country is strongly related to the ecologic sustainability. At the same time, due to its characteristics, the model corresponds to the concept of sustainable development.

According to the results of the DEA model, on the level of Romania, the deficiencies refer to the level of GDP and the greenhouse gas emissions on capita, so that according to the DEA analysis reaching the level of efficiency might be possible with the help of changes on the date related to the level of GDP and the greenhouse gases effects. To be on the efficiency border Romania has couple of possibilities. A first possibility is a sustainable development scenario where the current level of the economic-social resources and natural resources is maintained, but where the GDP shall grow by 28,4%. Reaching this objective needs a strong growth of the productivity of all involved factors in the process of creating an added value according to the knowledge based economy: the growth of the participation rates to the secondary and tertiary education; the growth of the number of mathematics and science graduates, the expansion of the staff training; stimulating competition on the internal and foreign market; increasing the flexibility of the workforce and an adequate reward for the productive and qualitative labour; increasing the efficiency of the financial services and products; stimulating the technology transfer, especially of the new products or concepts; expanding the use of CAT; developing the innovation capacity. Another development variant is aimed at the reduction of the disparities related to the characteristics of various types of environment taxes imposed towards the group leaders with similar characteristics with the Romanian economy (the Czech Republic).

Changing the economic growth model and the sustainable development needs convergent efforts for the economic organisation, the research-development-innovation environment, the educational system and the legislative institutions.

In this context, the sustainable development policy might seem difficult to accomplish, and the status of the environment factors could not be improved but by fulfilling several conditions:

- *the protection of the environment needs to become a common obligation for all people, by respecting the environment standards and by reaching the proposed targets;*
- *developing and implementing national efficient policies to promote sustainable*

development;

- *efficient use of the financial resources gained through environment taxes and fees.*

The merit of this research is its contribution with an original research to the efforts to evaluate the progress of Romania on the line of sustainable development. This thing might be extremely important both for researchers but also for the political decisive factors because they offer a clear image of a field which is difficult to approach.

Another important contribution is the result according to which the process of sustainable development and of economic growth can be influenced through the fiscal policy measures in the field of environment perceived by the governmental authorities. We need to take into account that the effects of such measures are different from one country to another as we noticed in the studies carried out, and therefore we cannot talk about a universal solution which can be applied by the governments proposing to stimulate the growth and sustainable development. That is why we consider that the success of using the fiscal policy tools in the field of environment to train and amplify the growth and the sustainable development relies on their capacity to assess the economic situation, to choose the suitable intervention tools and to anticipate the effects produced in economy.

In spite of these, it would be a mistake to imagine that not only the action of the state might bring a change in the destructive of the polluting economic development characterising the economic systems for at least two decades.

The purpose of our research was to search for answers for the existing preoccupations on a national level in the field of finding solutions to create the development and the economic growth. We did not want to solve all the specific problems for the studied field, because we considered this objective not to be realistic. The identification of the answers for the proposed hypothesis generated the emergency of other questions/hypothesis which have to be studied in the future, so there are new directions of research.