VILNIUS UNIVERSITY

RŪTA BANELIENĖ

EFFICIENCY OF STATE ECONOMIC POLICY IN THE CONTEXT OF INTEGRATION PROCESSES IN THE EUROPEAN UNION

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VILNIAUS UNIVERSITETAS

RŪTA BANELIENĖ

VALSTYBĖS EKONOMINĖS POLITIKOS EFEKTYVUMAS INTEGRACINIŲ PROCESŲ EUROPOS SĄJUNGOJE KONTEKSTE

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Disertacija bus ginama viešame Vilniaus universiteto Ekonomikos mokslo krypties tarybos posėdyje 2013 m. spalio 4 d., 14.00 val. Vilniaus universiteto Ekonomikos fakulteto 403 auditorijoje.

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GENERAL CHARACTERISTICS OF THE DISSERTATION

Relevance of the topic. From the scientific point of view, the research of state economic policy is still at it rudiments, offering much space for further studies, because problems in economic, social and other areas should be solved using the state economic policy. Furthermore, the conditions for the implementation of state economic policy are becoming increasingly complex due to worldwide globalization and regional integration processes. Besides, during the past century the economic potential of states has increased, resulting in a greater role for the government as regarding the responsibility for the efficient state economic policy. Therefore, the investigation into the efficiency of state economic policy and its potential growth is a significant area of scientific research.

Also, the investigation into the efficiency of state economic policy is important in the sense that state economic policy distinguishes the choices of objectives and performance measures by a variety of factors of its diverse influence. It is obvious that limited national resources lead to the necessity to use them in the most efficient manner in order to achieve the objectives set out by state economic policy. Modern state economic policy is characterized by a variety of objectives, which could be chosen by the countries: rapid economic growth, high employment, price level stability, income redistribution, and so on. Conjointly, there are many options to choose a range of measures of fiscal, monetary and other policies for the implementation of these objectives. Therefore, the investigation into the efficiency of state economic policy is a significant area of scientific research also covering state options to choose the objectives and measures of states economic policy, which may result in the efficient use of the country's economic resources or the lack of it.

In the light of increased globalization and regional integration, state economic policy could not be decoupled from the global processes in the markets of labour, capital, and goods and services. This was understood in Europe in the middle of the 20th century, and it led to the establishment of the European Economic Community (EEC). This was the first step towards a co-ordination of economic policies amongst European countries. In 1992, with the Maastricht Treaty, intensive EU economic integration processes started. These have been crowned by the common monetary policy, and currently fiscal policy coordination has become more apparent. Therefore, without any

doubt, the investigation into the efficiency of state economic policy in the context of integration processes in the EU appears to be of utmost importance.

In this context, the investigation of state economic policy in the context of integration processes in the EU is becoming more important, particularly with regards to ground-taking and preventing possible negative effects for "small" EU countries. This provision is reinforced by the fact that decisions on further EU integration are increasingly based upon decisions of EU leaders, but not on any particular research or investigation.

It is also clear that there is a lack of adequate theoretical models and solutions for responding to modern challenges, which would allow to evaluate the efficiency of state economic policy of the EU countries in different phases of preparation, grounding, and implementation.

The problem and the scale of its research. The state economic policy is something which is widely researched and investigated by many economists, and there are many directions in economic theory that express rather different approaches to the level of state participation in the economy. These range from the classical theory and its pioneer A. Smith (1776) with approach of the doctrine of the "invisible hand", where the role of the government in the economy should be limited; to J. M. Keynes and his followers, who claim that the government should play an active role in economic regulation. Economists also differ in their approach on the targets of state economic policy – from the rapid economic growth, high employment level to stability of price level or income redistribution.

In the area of investigation of economic integration processes and their levels, much attention was provided by B. Balassa (1961), who defined the economic integration as having several forms that reflect different stages of integration: free trade area, customs union, common market, economic union and complete economic integration.

In the field of monetary policy, R. Mundell (1961) paid much attention to it, and tried to clarify the conditions under which a group of countries would agree to fix their exchange rates, or to adopt a single currency. The impact of the monetary union on trade was studied by a number of economists (Baldwin et al., Berger&Nitsch, Nitsch&Pisu, 2008), assessing the impact the introduction of the euro had on trade amongst euro zone

countries. A series of empirical studies on the impact of monetary union on price transparency and convergence was carried out (ACNielsen, 2005).

With regards to fiscal policy, Baldwin and Krugman (2004) investigated the question as to whether close economic integration, particularly under the conditions of mobility growth of physical and human capital, require harmonization of tax rates. Also, a lot of research was done on further aspirations of EU integration – fiscal union, in the field of direct tax harmonization at the EU level (T. Rixen, S. Uhl, 2007; Spengel C., C. Wendt, 2007, Ernst & Young, 2011, etc.).

But the biggest part of research in the field of the evaluation of the efficiency of state economic policy in the context of integration processes in the EU has been carried out by the official EU institution – the European Commission. Recently, the European Commission's research in this area has focused on such issues as economic policy coordination, convergence and economic growth, fiscal policy, monetary policy, labour market, the deepening of the internal market integration, innovation policy, and a whole range of other issues. However, it deals with specific areas and, consequently, provides rather fragmented assessments of the impact of separate factors on economic growth.

A more comprehensive evaluation could be attributed to the European Commission's work on the evaluation of the Lisbon Strategy, but it fails to provide estimates on how much the economies of EU Member States and the whole EU economy have lost on the goals of the Lisbon Strategy which were not implemented. Another comprehensive evaluation by the European Commission relates to the assessment of the impact that the Economic and Monetary Union has had in ten years since its creation (EMU@10), however it fails to provide a research-based assessment in relation to the further steps of the deepening of the Economic and monetary union.

It is obvious that there is not enough research on the efficiency of state economic policy in the context of EU integration, especially, that which is intended to evaluate the efficiency of state economic policy in "small" EU countries. The review of European Commission’s studies for the years 2004-2013, which were intended for "small" EU countries, show that the largest part of these studies is focused on stability and economic outlook and assessment of the impact of fiscal policy, as well as the labour market, the real estate "bubble" issues, assessment of social challenges affecting the sustainability of public finances in the long run, R&D and other issues.

Therefore, it could be concluded that there is a lack of attention for the investigation of factors of economic growth of the EU countries; and the research carried out in this field could be characterized as fragmented and by a large part intended to solve the current issues, but not to provide the proposals on essential directions of economic growth for EU countries.

Thus, there is a need of investigation for deeper cause-effect relations among fiscal policy and labour productivity and the quality, education, R&D, import-export, structural changes and GDP growth, public debt and possibilities to increase GDP, with a view to driving all the above-mentioned towards technological breakthrough.

To this end, additional scientific research is needed in this area, helping to identify the main drivers of economic growth, to define their operating conditions and environment, and to ground the proposals on the efficiency of performance of state economic policy on research based results.

Object of the research – efficiency of state economic policy of EU countries in the context of integration processes in EU.

Purpose of the research – to examine the factors relating to the efficiency of state economic policy in the context of integration processes in the EU, and also to develop a theoretical concept for enhancing the efficiency of state economic policy in EU countries in the context of integration processes in the EU.

In order to achieve the objective, the following **tasks** were accomplished:

- carry out a theoretical study and identify the factors relating to the efficiency of state economic policy in the context of integration processes in the EU;
- identify potential measures of performance of state economic policy of EU countries in the context of integration processes in the EU;
- create a macro-simulation model, allowing to evaluate the impact of identified factors on the efficiency of state economic policy of the EU countries;
- evaluate the impact of identified factors on the efficiency of state economic policy in selected for research EU countries;
- propose the directions of implementation of state economic policy for an increasing efficiency of state economic policy of EU countries in a long term perspective.

Methods. Theoretical part of the thesis applied a systematic and comparative analysis of theoretical studies, EU documents and statistical data. The empirical results relied on the use of the macro-simulation model, which was created by the author, as well as on regression equations and programming by the interdependence of factors, expressed by the calculation of elasticity indicators, a comparative analysis, statistical analysis, clustering, and so on.

Research sources. The theoretical part of this study is based on the scientific research of Lithuanian and foreign scientists. As statistical sources of information, reference was made to the official data of Eurostat, the European Central Bank and other institutions. For the creation of the model, relevant studies of Lithuanian and foreign scientists, Eurostat data and other sources listed in the bibliography were used.

Defended propositions:

- the state economic policy of EU countries is not efficient enough in terms of rapid economic growth;
- the EU targets which were set in the field of state economic policy are not optimal in seeking growth of the efficiency of state economic policy in the long term in the context of integration processes in the EU.

Theoretical significance and scientific novelty of the research. The research is focused on the efficiency of state economic policy in the context of integration processes in the EU. The preparation process and the actual research have not found any analogical complex studies devoted to complex evaluation of the impact of the factors of rapid economic growth in the long run in individual EU countries. It does, therefore, allow to conclude that this investigation area is not well researched.

The macro-simulation model created during the research, provided for projections on evaluation of the impact of five factors – demographic changes, employment, school leaving, tertiary education and investment in R&D – on economic growth.

Practical significance of the research. The author created a model which could be adapted for an evaluation into the efficiency of state economic policy in EU countries based on demographic, employment, education and investment in R&D factors. Basically, this universal model could be used to make projections, which would let evaluate and ground benefits of the focus of state economic policy on future economics– investments in human capital and innovation, which promote technological progress.

This model could be a tool for making calculations providing grounds for the scientists and representatives in the public sector relating to the rationality of draft proposals on investment in education and R&D areas during drafting and implementing processes for the whole of society. Therefore, this model is valuable not only theoretically, but also practically. This tool would help adopt decisions in fiscal policy area with a view to enhancing public and private investment in education and R&D, evoking rapid, long-term economic growth in countries. Also, the proposed solutions would enable the economies of the EU countries to restructure so that high value-added economic sectors would eventually prevail and take a strong stand in the economy.

Structure and the scope of the study. The logical structure of the dissertation is presented below:

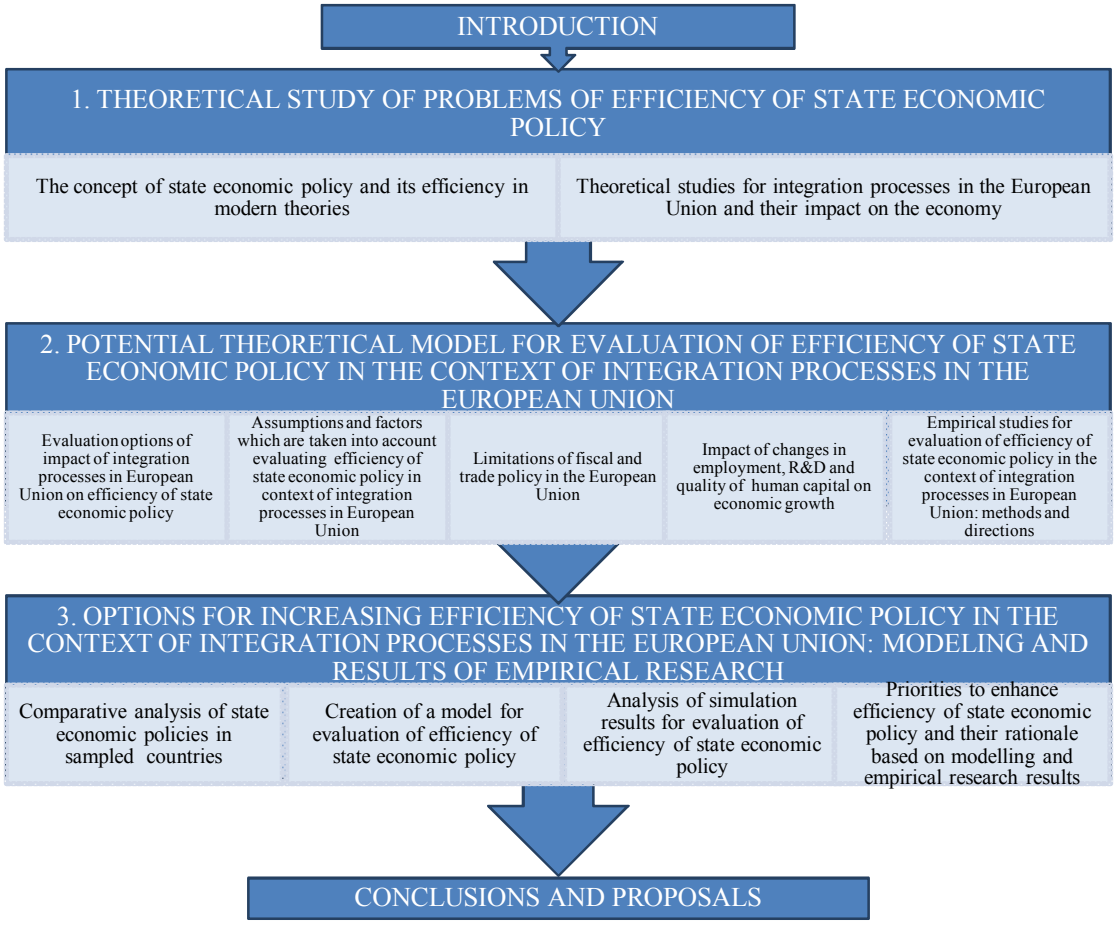


Fig. 1. Structure of the research

The doctoral thesis consists of the introduction, three chapters, conclusions and proposals, and thirteen annexes. The volume of the dissertation, without annexes, is 185 pages, 3 tables, 27 figures and 1 box; 219 references were used while writing the thesis.

CONTENT SUMMARY OF THE DISSERTATION

1. THEORETICAL STUDY OF PROBLEMS OF EFFICIENCY OF STATE ECONOMIC POLICY

The increased and undisputed role of governments in the state's economic life encourages researchers to study the indicators of evaluation of state economic policy, including their development prospects, and government economic policy efficiency, in the light of a state's economic policy goals and their implementation measures.

The gross domestic product is one of the most popular indicators used to measure the efficiency of state economic policy. However, there are also other indicators for measuring the efficiency of state economic policy which have emerged.

Considering the fact that Simon Kuznec used the gross domestic product as the indicator for the first time in 1934 for US Congress report, it is not surprising that scientists investigate and seek to identify new indicators for measuring and comparing economic levels of countries.

The indicators of gross national product and gross domestic product have been developed and used as the indicators of evaluation of total economic output (production) for a macroeconomic stabilization policy, and this implies that they are not indicators for an evaluation of welfare of countries. On the other hand, politicians, representatives of public relations and the general public associate GDP with welfare, for example, when comparing GDP per capita among countries, regardless of other indicators conclusions are often made on which countries are more prosperous and have better life.

Considering the GDP indicator as the indicator for evaluation of the efficiency of state economic policy and seeking to evaluate its development perspective, there are analyses of the index of sustainable economic welfare (ISEW), genuine progress indicator (GPI), human development index (HDI), happy planet index (HPI), and their links with the GDP indicator. Summing up research in this theoretical field, it could be concluded that the twenty-first century will give rise to a new indicator, which will enable to assess and to compare the economic prosperity provided by states for their population, while possibly including an ecological cost aspect. However, currently the

GDP indicator remains the most suitable indicator used to measure the efficiency of the state economic policy in aggregate form.

Analysing the goals of state economic policy in the theoretical part of the research, the following major goals have been identified: 1) domestic policy: rapid economic growth, high employment level, stability of price-level, redistribution of income, 2) external policy: fluctuations in the balance of payments.

At this stage, according to the identified key indicator – gross domestic product as a main indicator, which is used to measure the efficiency of state economic policy in aggregate form, and according to one of the major goals of state economic policy – rapid economic growth, there will be a further focus on the research of the factors for the enhancement of economic growth.

Analysing the basis of the theoretical research, the following future directions of rearrangement of economic structure have been identified:

- services–the growth of its part in GDP (Ngai, Pissarides, 2007);
- R&D (Mortensen, Pissarides, 1998).

In theoretical terms, analysing the factors which have an impact on economic growth, it has been found that:

- GDP per employee depends on the productivity factors of capital and labour, and efficiency of their utilisation (Kehoe, Prescott, 2002);
- long run economic growth is driven by attracting capital in the country, population growth, and technological progress.

Capital increase alone would not be able to provide a sustainable economic growth in the long run. Population growth ensures the growth of GDP, but not the growth of GDP and national income per capita. Technological progress makes the biggest impact on sustainable economic growth in the long run, and it can offset the effects of reduction of real investment and workforce (Barro, 1997).

Analysing the implementation of the measures of state economic policy and keeping in mind the fact that the study of the role of governments on national economic policy is increasing due to the significant rise in general public budget revenue during the 20th century, and with the related increased role of the government in the redistribution of revenue and choosing the measures for economic regulation, a

conclusion may be made that the fiscal policy and its measures play a cornerstone role in a state's economic policy.

With regards to the theoretical part of the research on the efficiency of state economic policy in the context of the integration processes in the EU, it has been identified that with a view to strengthening European competitiveness in the world, the Union of European countries was created and enlarged, moving step by step to enhanced economic and monetary policy coordination.

However, as seen from the historical aspect of strengthening the coordination of economic and monetary policy in the EU, decisions on deeper economic integration have often been taken not on the basis of research and its conclusions, but on the proposals submitted by EU institutions and their working groups and agreed by decisions of the leaders of EU Member States.

During the integration processes in the EU, the role, functions and possibilities of EU Member States have changed essentially: 1) proceeding processes in the state administrative territory are results of EU integration itself – it is changes and processes in which the state itself may have less and less influence, i. e. the processes in the state territory are less and less affected by the state, 2) a state effects all the EU through the integration processes.

The research has found that economic theory is still lacking in theoretical concepts, models and solutions as to when, how and on what basis the economic policy of the EU countries should be considered efficient:

- it has been accustomed to evaluate economic policy on the basis of the criteria set forth in the EU documents;
- economic policy provisions emerge in the form of decisions taken in the name of the state.

The evaluation criteria to measure the efficiency of a state's economic policy in terms of integration processes in the EU, were determined by the "Europe 2020" Strategy – "Europe 2020: A Strategy for smart, sustainable and inclusive growth", which was endorsed by the European Council in June 2010. According to this Strategy, the EU has committed till 2020 to seek progress in the fields of:

- ***employment:*** 75% of the EU population aged 20-64 should be employed;
- ***investment in R&D:*** 3% of the EU's GDP should be invested in R&D;

- ***"20/20/20" climate/energy targets:*** limiting greenhouse gas emissions at least by 20% compared to 1990 levels, creating 20% of energy needs from renewables and increasing energy efficiency by 20%;
- ***education:*** share of early school leavers should be under 10% and at least 40% of the younger generation aged 30-34 should have a tertiary degree;
- ***fighting poverty:*** 20 million less people should be at risk of poverty.

The research aspects of EU integration from a theoretical point of view are based on two basic studies:

- ***the examination of economic integration levels.*** In this field, reference is made to the defined levels of economic integration by B. Balassa in 1961: free trade area, customs union, common market, economic union, complete economic integration (O'Donnell, 1999);
- ***a theory of optimum currency areas.*** Its pioneer R. Mundell tried, in 1961, to clarify the conditions under which a group of countries would agree to fix their exchange rates, or to adopt a single currency.

In view of the stages of integration as defined by the Hungarian scientist B. Balassa, the EU has largely achieved the highest stage of economic integration – complete economic integration – co-ordination of the monetary, fiscal, social and economic cycle policies, of which the element of monetary union is implemented. It is appropriate to analyse the EU integration processes in the light of the highest level of EU integration – monetary union perspective.

The research analysis of individual approaches to the establishment of monetary union and the costs and benefits of introducing single currency for the EU Member States concludes that:

- states, aspiring for a monetary union, should meet at least one of the conditions:
  - they should be on a similar phase of the business cycle, so that similar monetary policy instruments might be used to adjust negative impacts (shocks);
  - in cases where states are on different phases, they should have a very mobile market of production factors;

- the main costs of the monetary union is the loss of possibility:
  - to implement independent monetary policy – devaluation or revaluation of the currency, to determine the amount of money in circulation, change short-term interest rates (De Grauwe, 2009);
  - to respond to shocks of demand by the instruments of monetary policy (Mundel, 1961). Here the existence of wage flexibility or/and labour force mobility or the existence of the insurance mechanism of asymmetric shocks could help to restore an equilibrium among countries, which had established a monetary union;
- major benefits of the monetary union are:
  - the elimination of currency exchange costs: according to the European Commission study (One market, one money, 1990), it could reach about 0.5% of Community GDP per year;
  - countries which establish the monetary union receive additional income from seigniorage, the ability to easily borrow in its own currency, in addition, the countries' enterprises and financial institutions gain a competitive advantage. During this research it was calculated that the additional revenue from seigniorage reaches about 0.03% of EU GDP per year.

A detailed analysis of the asymmetric shocks insurance mechanism has led to a conclusion that the EU budget partially reflects this insurance mechanism, because its income is largely dependent on the countries' gross national income, and the expenditure is largely directed to the strengthening of economic convergence among the EU member states, but the share amounting to slightly more than 1 percent of the EU GDP, prevents a full implementation of the insurance mechanism for asymmetric shocks.

It has also analysed in detail the elimination of influence of exchange rate fluctuations, which should reduce uncertainty of corporate earnings and at the same time capital return and therefore should increase the GDP growth. According to the data for the euro area, countries of average growth of GDP per capita for the two periods – 1992-1998, 1999-2006, i. e. before and after the introduction of euro, which were provided in

Bruegel report (Coming of age: report on the euro area, 2008), conclude that a more rapid economic growth after the introduction of the euro has not been observed.

2. POTENTIAL THEORETICAL MODEL FOR EVALUATION OF EFFICIENCY OF STATE ECONOMIC POLICY IN THE CONTEXT OF INTEGRATION PROCESSES IN THE EUROPEAN UNION

Considering the directions of the EU integration and development, where the union of the Member States was crowned with a common currency – the euro, and EU economic development strategy up to 2020, for further empirical research of the evaluation of efficiency of state economic policy, a theoretical model has been chosen which enables to assess the efficiency of directions of economic policy in sampled EU countries in case of joining to the euro area or pegging national currency with euro, proposing a further economic development strategy for EU countries.

For the empirical part of this research, it was planned to choose the evaluation of efficiency of state economic policy in relatively "small" EU countries. Therefore, as a starting point, the Mundell-Fleming model has been chosen, which focuses on a small open economy with a flexible and fixed exchange rate regime. Based on it, a conclusion was made that a small open economy with a fixed exchange rate, typical of the euro zone countries and advisable for the rest of the EU, in terms of economic growth, fiscal and international trade policy is recommended, whereas the monetary policy is not effective.

Further results of the research have led to the finding that the EU has carried out a common trade policy by setting the common tariffs of customs duties and other measures on import goods from the third, non-EU countries. Also, the indirect taxation –not only policy on customs duties, but also policies on excise duties and value-added tax by setting the minimum their rates, were harmonized. Therefore, not so much space was left for an independent fiscal policy:

- in taxation, i.e. revenue area –direct taxes among which the most significant by their weight in general government revenue are personal income tax, corporate income tax, social insurance contributions;

- in expenditure area – giving a substantial freedom to set national priorities and funding areas, at the same time focussing expenditure and revenue policies on the achievement of the objectives of the "Europe 2020" Strategy;
- in the areas of general government sustainability and borrowing, in addition to the Maastricht criteria – 3% of GDP budget deficit, 60% of GDP debt limits, according to the Treaty on Stability Coordination and Governance in Economic and Monetary Union, signed in2012, a balanced budget rule was established.

In view of the objectives of the EU economic policy under the "Europe 2020" Strategy and the fact that the economic growth best reflects the efficiency of the state economic policy, which is measured by a GDP indicator, and growth factors are attracting capital into the country, changes in population, technological progress which is also conditional on investment in R&D and human capital growth, the model of the evaluation of the efficiency of the state economic policy in the context of integration processes in the EU is created according to the EU's targets on employment, education and investment in R&D.

Exogenous factors of this model rely on GDP and GDP per employee of basic years, the number of population and its structure, the others – actual data and targets on employment, investment in R&D and education under the "Europe 2020" Strategy.

From all that is mentioned above, it could be concluded that a perspective model for the evaluation of the efficiency of state economic policy in the context of integration processes in the EU should allow an evaluation of the impact of the achievement of targets, which are set out in the EU and individual EU countries in the fields of employment, education and investment in R&D and to identify whether the targets are sufficient for the economic growth of individual countries in the face of demographic tendencies – an ageing population in the EU. The economic growth factors chosen also reflect a policy pursued at EU level, which is designed to increase competitiveness of the EU through a knowledge triangle – education, research and innovation.

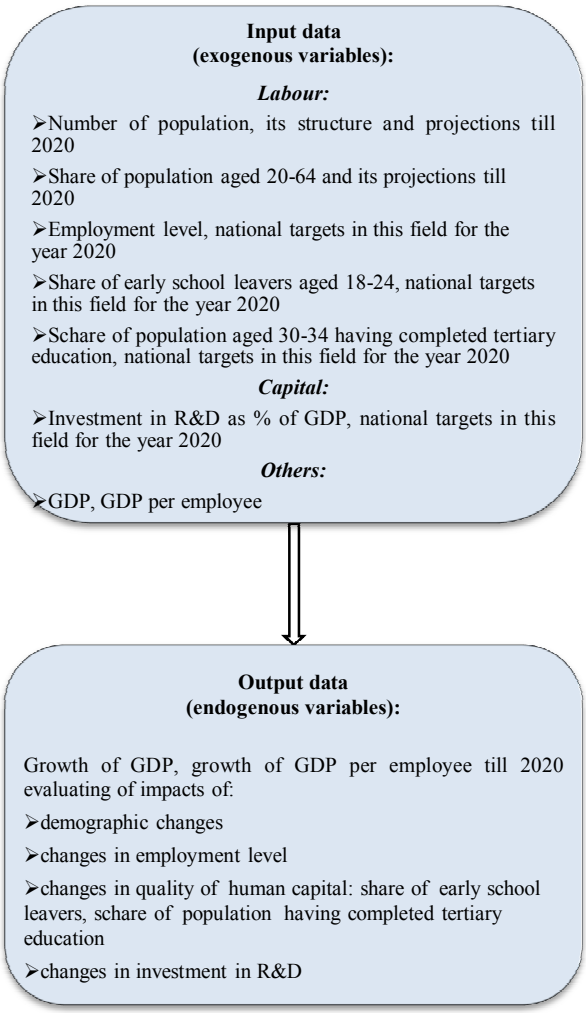


Fig. 2. Recommended model for the evaluation of the efficiency of state economic policy

Source: prepared by author.

Given the fact that the biggest part of empirical research in the field of the evaluation of the efficiency of state economic policy carried out by the European Commission and the recent European Commission studies:

- oriented to the efficiency of state economic policy in the context of integration processes in the EU, focusing on such issues as economic policy coordination, convergence and economic growth, fiscal policy, monetary policy, deepening the integration of the internal market, labour market, innovation policy, and a whole range of other issues such as assessment of impact of structural reform, and so on;
- empirical studies for the evaluation of the efficiency of state economic policy of "small" EU countries were focused on an assessment of economic stability and

perspectives, impacts of fiscal policy, labour market issues, social challenges and their effect on the sustainability of public finances in the long run, assessment impact of R&D on economy, for issues related with the real estate "bubble", other issues – foreign direct investment and structural reforms, energy prices.

A more comprehensive evaluation could be attributed to the European Commission's work on the Lisbon Strategy evaluation area (Lisbon Strategy evaluation document, 2012), and also to the assessment of the impact of ten years of Economic and Monetary Union's creation (EMU@10).

In summary, it is concluded that the European Commission's research could be characterized by the concentration on specific areas, and that it consequently provides a rather fragmented assessment of the impact of separate factors on economic growth. It fails, for example, to provide estimates on how much the economies of EU Member States and whole EU economy lost on the goals of the Lisbon Strategy, which were not implemented, nor did it provide research-based assessments on the further steps of the deepening of the Economic and monetary union. The European Commission also did not pay sufficient attention to the research of the assessments of economic growth factors in "small" EU countries – studies in this field could be characterised as fragmented, and are largely devoted to the solution of current problems, but not for the submission of proposals on essential directions of economic growth for "small" EU countries. It is therefore concluded that further research on the evaluation of efficiency of state economic policy in the context of integration processes in the EU, especially, for "small" EU countries is needed in terms of the evaluation of the growth of the competitiveness of their economies in the context of EU integration.

3. OPTIONS FOR INCREASING EFFICIENCY OF STATE ECONOMIC POLICY IN THE CONTEXT OF INTEGRATION PROCESSES IN THE EUROPEAN UNION: MODELING AND RESULTS OF EMPIRICAL RESEARCH

As was mentioned above the evaluation criteria to measure the efficiency of a state‘s economic policy in the context of integration processes in the EU, were determined by the "Europe 2020" Strategy – "Europe 2020: a strategy for smart,

sustainable and inclusive growth". There should be noted that the European Commission's proposal for the "Europe 2020" Strategy failed to provide for economic impact assessment of the objectives on EU economic growth, let alone evaluations of each objective on the GDP in individual EU Member States. To study its effect and to assess the economic impact of EU commitments in "small" EU countries, there is provided an evaluation of the three objectives of the "Europe 2020" Strategy – employment, education, and investment in R&D – and their impact on the economic growth in "small" countries of the EU.

In this case, the EU Member States were selected as "small" countries of the EU only by one criterion – the country should have a population of no more than 10 million inhabitants. According to the Eurostat, on the 1st of January of 2012, 15 Member States had a population below 10 million: Austria, Bulgaria, Cyprus, Denmark, Estonia, Finland, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovakia, Slovenia, and Sweden. The total number of the population of these 15 countries combined, amounted to 13.2% of the EU's total population.

3.1. Creation of a model for evaluation of efficiency of state economic policy

The methodology to project the impact on GDP considering changes in the fields of population and its structure by age group, employment, education and investment in R&D is based on a simple macrosimulation model. The macrosimulation model was created on the basis of the production function methodology by the author and it provides the possibility of projecting GDP growth by taking a country's population and categorising it into age groups, employment rate, early school leaving level, tertiary education level as the labour variables and an investment in R&D as the capital variable.

To evaluate the education impact on GDP growth across the "small" countries of the EU, an assumption is made that a 1% increase in the enrolment rate raises GDP by 0.35%. It does not take into account the fact that if a country decides to increase the level of education of its labour force by one year, the first impact is that the labour force falls. This is because the youngest cohort starts work a year later than would otherwise be the case. Nor does it take into account the fact that the level of education within the labour

force changes very slowly, as better educated young people gradually replace the poorly-educated labour force.

To evaluate the R&D investment impact on GDP growth, an assumption is made that a 1% increase in R&D expenditure will generate a 0.07% increase in output.

The macrosimulation model was created on the basis of the evaluation of the impact of labour and capital variables on GDP growth by three steps. The first step involved the evaluation of the impact of demographic changes and the impact of implementation of employment targets in "small" EU countries on their GDP growth. The impact of the implementation of the targets for education on economic growth was projected as the second step, and the third step involved the evaluation of the impact of the implementation of targets for the investment in R&D on GDP growth. The year 2011 was chosen as the base year for the model's input data, and projections were made by the year 2020. The more specific description of every step and input data calculation and extrapolation is provided below.

It should be noted that the input data of "small" EU countries were partially calculated and extrapolated as follows: 1) the population data for the years 2012-2014 and for the years 2016-2019 were extrapolated on the basis of Eurostat actual data for the year2011 and projected data for the years 2015and 2020; 2) the number and share of 20-64 working-age population were calculated for the year 2011 on the basis of Eurostat population data by the age group, and for the year 2020 on the basis of Eurostat population projection by the age group; and using the calculated data extrapolation for the years 2012-2019 were made; 3) employment rate (20-64 age group) for the years 2012-2019 was extrapolated on the basis of Eurostat data for the year 2011, and targets for employment rate under "Europe 2020" Strategy; 4) the share of early school leavers (aged 18-24) and the share of the population (aged 30-34) having completed tertiary education were extrapolated for the years 2012-2019 on the basis of actual Eurostat data for 2011 and targets for education for the year 2020; 5) investment in R&D (as % of GDP) was extrapolated for the years 2012-2019 on the basis of Eurostat actual data for 2011 and targets for investment in R&D for 2020.

The general methodology used to project the impact on GDP of the targets for employment, education and investment in R&D under "Europe 2020" Strategy are articulated as follows:

Step 1. The evaluation of the impact of demographic changes and implementation of employment targets on GDP growth is calculated by using the following formulas:

$$GDP_n^{Step\ 1} = (GDP_{2011} / (NWAP_{2011} * ER_{2011})) * (NWAP_n * ER_n) \quad (1),$$

where GDP – gross domestic product, NWAP – number of working age population (20-64 years old), ER – employment rate, n – 2012, 2013, ..., 2020.

Furthermore, calculation is done as regards the impact of demographic changes and implementation of employment targets on GDP growth (2020 compared to 2011) in each "small" EU country by this formula:

$$\Delta\%GDP_{2011\text{-}2020}^{Step\ 1} = (GDP_{2020}^{Step\ 1} / GDP_{2011} - 1) * 100 \quad (2).$$

Step 2. The impact of implementation of the targets for education on economic growth was calculated by using an assumption that a 1% increase in the enrolment rate raises GDP by 0.35%, and the formulas below:

$$GDP_n^{Step\ 2} = (((-\Delta\%SESL_n) + \Delta\%STE_n) * 0{,}0035 + 1) * GDP_n^{Step\ 1} \quad (3),$$

where SESL – the share of early school leavers, STE – the share of the population having completed tertiary education, n – 2012, 2013, ..., 2020.

The formula (3) gives possibility to calculate the impact of demographic changes and implementation of the targets for employment and education on GDP on annual basis.

The impact of demographic changes and implementation of the targets for employment and education for the year 2020, in comparison to the year 2011, were calculated as follows:

$$\Delta\%GDP_{2011\text{-}2020}^{Step\ 2} = (GDP_{2020}^{Step\ 2} / GDP_{2011} - 1) * 100 \quad (4).$$

In the calculation of the net impact of the implementation of targets for education on GDP, the impact of demographic changes and implementation of employment targets on GDP growth was eliminated by withdrawing the impacts which were calculated using formulas (1) and (2) from the impacts which were calculated using formulas (3) and (4) respectively.

Step 3. The impact of the implementation of targets for the investment in R&D on GDP growth was calculated by using an assumption that that a 1% increase in R&D expenditure will generate a 0.07% increase in output, and the following formulas:

$$GDP_n^{Step\ 3} = (\Delta\%R\&D_n * 0{,}0007 + 1) * GDP_n^{Step\ 3} \quad (5),$$

where R&D – investment in R&D in % of GDP, n – 2012, 2013, ..., 2020.

The formula (5) provides possibility to calculate the impact of demographic changes and implementation of the targets for employment, education and R&D on GDP on annual basis.

The impact of demographic changes and implementation of the targets for employment, education and investment in R&D for the year 2020, in comparison to the year 2011, were calculated as follows:

$$\Delta GDP_{2011\text{-}2020}^{Step\ 3} = (GDP_{2020}^{Step\ 3} / GDP_{2011} - 1) * 100 \quad (6).$$

In the evaluation of the net impact of the implementation of target for investment in R&D on GDP, the impact of demographic changes and implementation of employment and education targets on GDP growth was eliminated by withdrawing the impacts which were calculated using formulas (3) and (4) from the impacts which were calculated using formulas (5) and (6) respectively.

3.2. Analysis of simulation results for evaluation of efficiency of state economic policy

National targets under the "Europe 2020" Strategy. The analysis of national targets under the "Europe 2020" Strategy shows that the "small" countries of the EU have set rather different national targets in the fields of employment and education, as well as investment in R&D.

Table 1. Targets of the "small" European Union countries under "Europe 2020" Strategy: employment, education and investment in R&D

	Employment rate (in %)		Early school leaving (in %)		Tertiary education (in %)		Investment in R&D (in % of GDP)	
	2011	targets 2020	2011	targets 2020	2011	targets 2020	2011	targets 2020
EU (27 countries)	**68.6**	**75**	**13.5**	**10**	**34.6**	**40**	**2.03**	**3**
Austria	75.2	77-78	8.3	9.5	23.8	38	2.75	3.76
Bulgaria	62.9	76	11.8	11	27.3	36	0.57	1.5
Cyprus	73.4	75-77	11.3	10	46.2	46	0.48	0.5
Denmark	75.7	80	9.6	<10	41.2	At least 40	3.09	3
Estonia	70.4	76	10.9	9.5	40.3	40	2.38	3
Finland	73.8	78	9.8	8	46.0	42	3.78	4
Hungary	60.7	75	11.2	10	28.1	30.3	1.21	1.8
Ireland	63.8	69-71	10.8	8	49.7	60	1.72	Approx. 2% (2.5% GNP)
Latvia	66.3	73	11.6	13.4	35.9	34-36	0.7	1.5
Lithuania	67.0	72.8	7.2	<9	45.8	40	0.92	1.9
Luxembourg	70.1	73	6.2	<10	48.2	40	1.43	2.3-2.6
Malta	61.5	62.9	23.6	29	21.4	33	0.73	0.67
Slovakia	65.1	72	5.0	6	23.4	40	0.68	1
Slovenia	68.4	75	4.2	5	37.9	40	2.47	3
Sweden	79.4	Well over 80	6.6	<10	46.8	40-45	3.37	4

Source: prepared by author on the basis of Eurostat data and European Commission information.

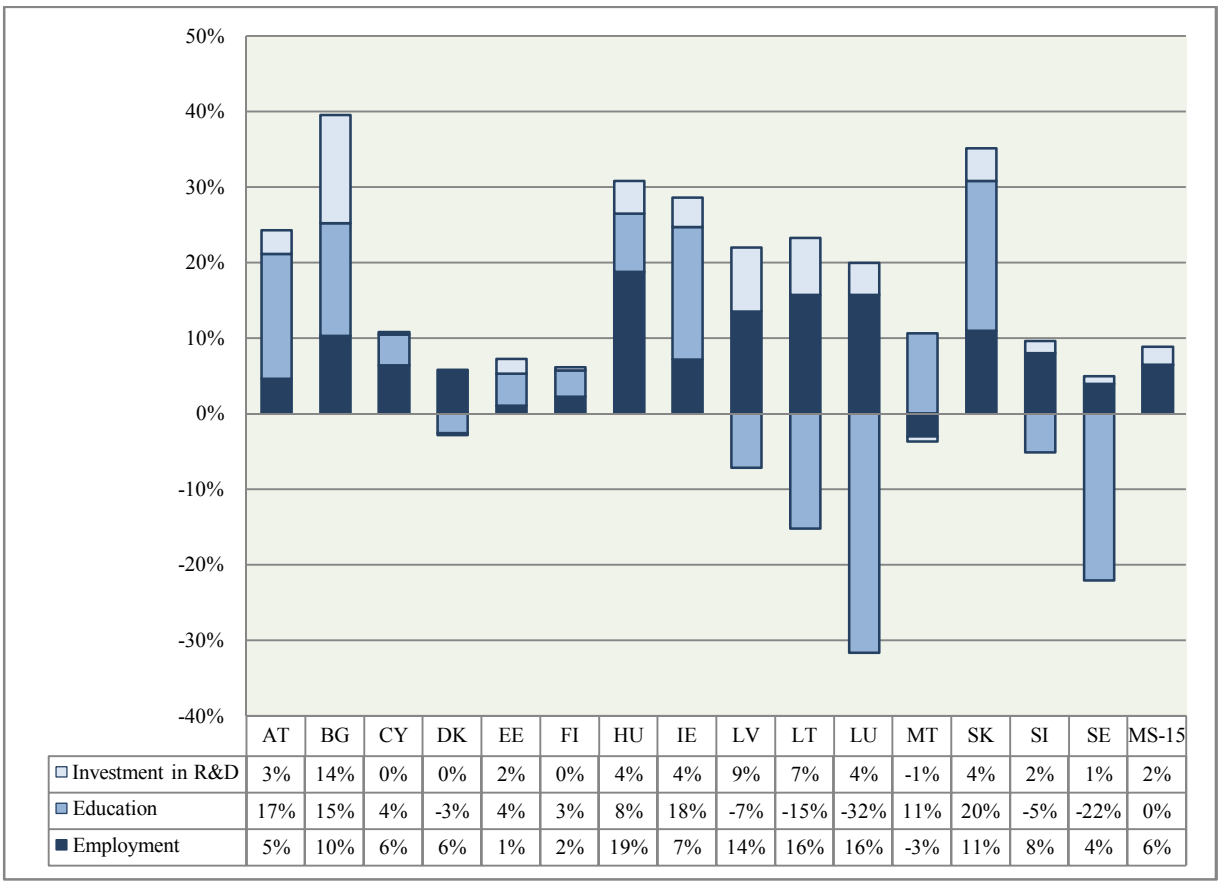
With regards the employment rate for example, there is a 17.1 p.p. variation between the least ambitious and most ambitious goal – from 62.9% national employment rate target chosen by Malta to well over 80% employment rate target chosen by Sweden. The differences among the levels of early school leaving across "small" EU countries are

very high and it is running at 24 p.p. – in this field Slovenia is the most ambitious with its 5% target, and Malta is least ambitious with its 29% national target; while in the field of higher education the variation of national targets across countries is 29.7 p.p. – from the least ambitious target of 30.3% chosen by Hungary to the most ambitious target 60% national objective in Ireland. According to investment in R&D, national objectives vary as much as 8 times, and range from 0.5% of GDP in Cyprus to 4% of GDP in Finland and Sweden (Table 1).

According to the projections of the impact on GDP growth, which were made using the macrosimulation model and assumptions mentioned above, and taking into account the national targets in the fields of employment, education and investment in R&D in the "small" EU countries, it could be noted that the impact on GDP growth of the implementation of national targets in the employment area will be modest, and in many "small" EU countries GDP growths projections for 2011-2020 are estimated less than 10%. However, during this period the GDP will grow by 19%, 16%, 16% and 14% in the four Member States of Hungary, Lithuania, Luxembourg, and Latvia respectively; while Malta's economy during this period will shrink by 3%. It should be noted that during this period, the Hungarian economic growth is determined by a relatively ambitious national employment rate target – 75% in 2020, compared to its current rate of 60.7%; the Lithuanian GDP growth was mostly influenced by the growth of the labour force level and the implementation of the national target in the employment field; Luxembourg's economic growth is driven by an 11% increase in the working-age population, the Latvian economic growth is based on an increase in the working-age population by 3% in 2020, compared to 2011, and implementation of national target in employment field. Meanwhile, Malta chose the least ambitious employment target which would not even be offset by the implications of demographic changes, thus leading to economic decline (Fig. 3).

Following the assessment of the impact of demographic changes and national targets for employment on the GDP growth in the "small" EU countries, it could be concluded that this will compensate for the negative impact on GDP by the working-age population decline, thus ensuring economic growth solely by the implementation of employment goals.

Analysing the impact of the implementation of the national objectives in the field of education (the share of early school leavers aged 18-24 and the share of the population aged 30-34 having completed tertiary education) on GDP, it can be seen that this area has quite a significant variation.



	AT	BG	CY	DK	EE	FI	HU	IE	LV	LT	LU	MT	SK	SI	SE	MS-15
Investment in R&D	3%	14%	0%	0%	2%	0%	4%	4%	9%	7%	4%	-1%	4%	2%	1%	2%
Education	17%	15%	4%	-3%	4%	3%	8%	18%	-7%	-15%	-32%	11%	20%	-5%	-22%	0%
Employment	5%	10%	6%	6%	1%	2%	19%	7%	14%	16%	16%	-3%	11%	8%	4%	6%

Fig. 3. Impact on GDP: impact of demographic changes and implementation of national targets in employment, education and investment in R&D
(2020 compared to 2011)

Source: projections made by author

A more marked 15-20% economic growth in 2020 compared to 2011 would be observed in less than a third of selected countries – in Slovakia, Ireland, Austria, Bulgaria – by setting up relatively ambitious national goals on higher education for the year 2020 in comparison with their actual values for 2011; 11% of GDP growth in Malta by the modest size of these indicators actual data in 2011, in comparison with other "small" EU countries. Meanwhile, in six countries – Luxembourg, Sweden, Lithuania, Latvia, Slovenia and Denmark – unambitious national goals for higher education shrink

their economies by 32%, 22%, 15%, 7%, 5% and 3% respectively (Fig. 3). It should be noted that Finland by its national goal for higher education is also at the forefront of the countries whose economies are on the shrink factor of change, but it managed thanks to its relatively ambitious national target on the early school leavers. Finland's target for the year 2020 is an 8% share of early school leavers aged 18-24 in comparison with 9.8% of its actual value for the year 2011.

Analysing the impact of the national goals of the "small" EU countries for investment in R&D for the year 2020 on GDP growth, the fastest economic growth is expected in the three Member States – 14% in Bulgaria, 9% in Latvia and 7% in Lithuania, but this growth is driven not by ambitious national objectives in this area, but by their initial starting points: investment in R&D in Bulgaria accounted for only 0.57% of GDP in 2011 and the target for 2020 is only 1.5% of GDP, it is twice smaller than the 3% GDP of the EU target in this field; the Latvian investment in R&D amounted to 0.7% of GDP in 2011 and the selected national target is similar to Bulgaria – 1.5% of GDP; investment in R&D in Lithuania amounted to 0.92% of GDP in 2011 and the national target for 2020 is more demanding than in Bulgaria and Latvia, but less than 2% of GDP. Meanwhile, the most ambitious 4% of GDP investment in R&D goals have been set in Finland and Sweden, where current significant investment in R&D and the setting up of ambitious goals in this field could not ensure significant economic growth for these countries, but it could help to maintain a high level of GDP. It should also be noted that two selected countries – Malta and Denmark – due to relatively unambitious national objectives in this field as compared to their actual investment in R&D (0.73% of GDP in 2011, compared to 0.67% of GDP for 2020 in Malta; 3.09% of GDP in 2011, compared with 3% of GDP for 2020 in Denmark) programmed negligible economic contraction (Fig. 3, Table 1).

The analysis of the overall impact of the five factors – demographic, employment, early school leaving, tertiary education, investment in R&D – on the GDP growth of the individual "small" EU countries, has shown that the three countries – Bulgaria, Slovakia and Hungary – by setting rather ambitious national targets, as compared to their actual size in 2011, programmed more than a 30% increase in their GDP for the period of 2011-2020; about 1/4 increase in GDP was programmed in Ireland and Austria, and GDP growth in other selected countries will be more modest, including Lithuania, where GDP

increase was only 8% during the period as regards to their national goals. Also, it should be noted that the economic contraction of 17% in Sweden and 12% in Luxembourg for the period 2011-2020, has resulted due to the choice of unambitious goals in the field of education (Fig. 4).

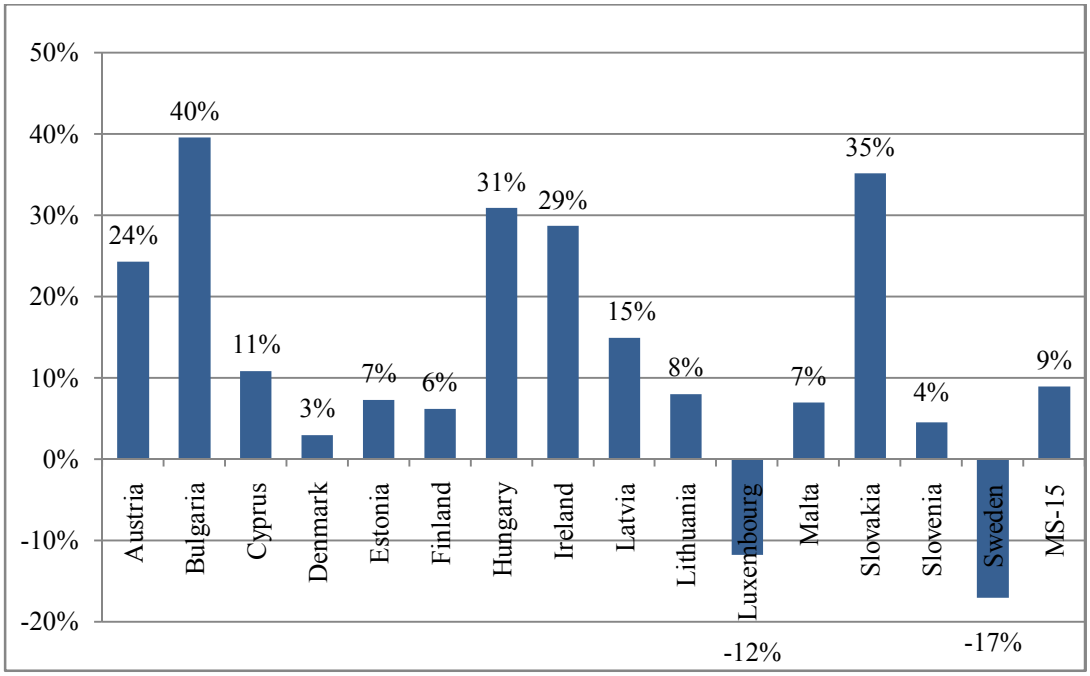


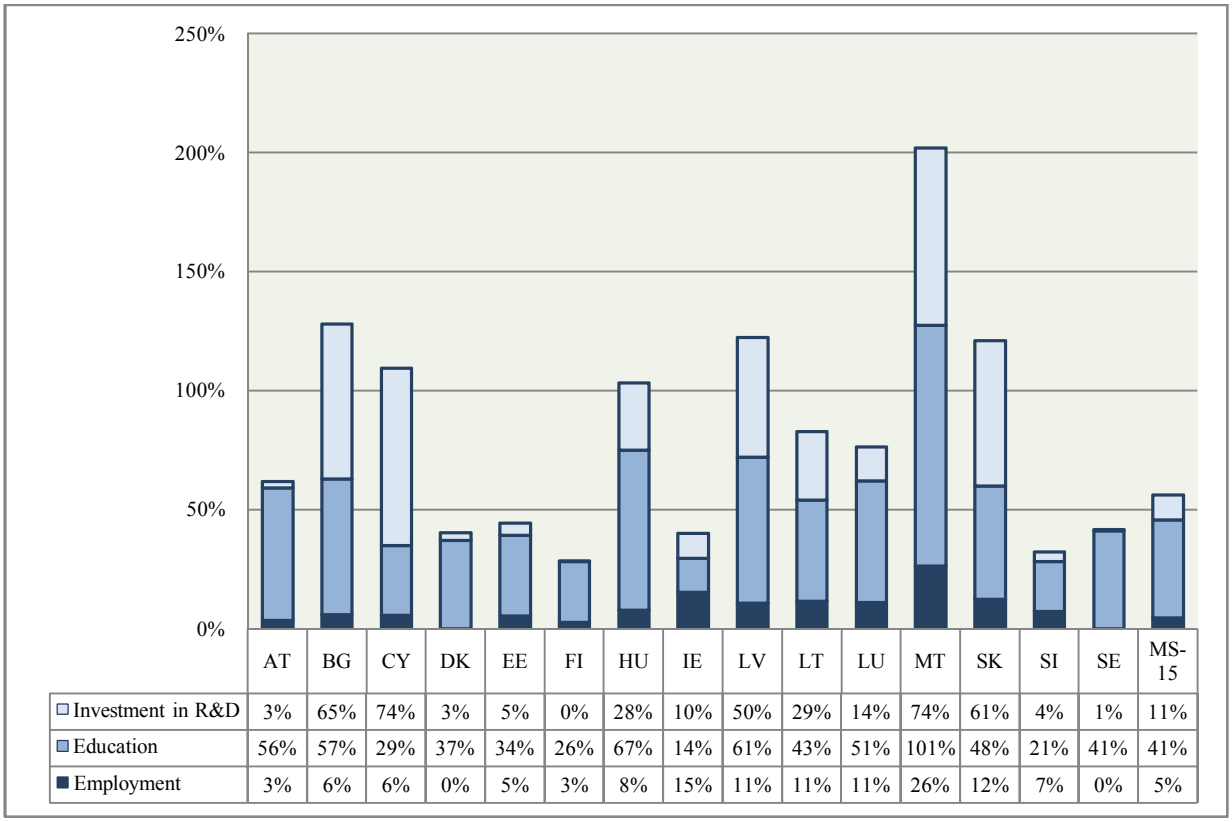
Fig. 4. Impact on GDP: overall impact of demographic changes and implementation of national targets in employment, education and investment in R&D
(2020 compared to 2011, in %)

Source: projections made by author

To summarize the projected results, it can be concluded that the fastest GDP growth was projected to be in Bulgaria, Slovakia and Hungary, but not due to the selected ambitious national targets for employment, education and investment in R&D under the "Europe 2020" Strategy, but due to the relatively low rate of these indicators in 2011.

Lost potential economic growth. As mentioned above, the variation of national objectives in employment, education, and investment in R&D across the "small" EU countries is considerable. It can, therefore, be said that the countries that chose unambitious national targets and less ambitious policies in employment, education and investment in R&D areas will certainly experience less economic growth.

If losses to potential economic growth will be projected as the gap between the projections of the impact on GDP of the achievement of the most ambitious goals which have been chosen by Denmark, Sweden, Slovenia, Ireland and Finland – 80% on employment rates in Denmark and Sweden, 5% of the share of early school leavers in Slovenia, 60% on higher education in Ireland, 4% of GDP on investment in R&D in Finland and Sweden, in all selected countries and the projections of the impact on GDP of national targets in each of the "small" EU countries, it can be seen that the greatest losses of the potential economic growth have been caused mainly by a lack of attention to education and investments in R&D in the selected countries(Fig. 5).



	AT	BG	CY	DK	EE	FI	HU	IE	LV	LT	LU	MT	SK	SI	SE	MS-15
Investment in R&D	3%	65%	74%	3%	5%	0%	28%	10%	50%	29%	14%	74%	61%	4%	1%	11%
Education	56%	57%	29%	37%	34%	26%	67%	14%	61%	43%	51%	101%	48%	21%	41%	41%
Employment	3%	6%	6%	0%	5%	3%	8%	15%	11%	11%	11%	26%	12%	7%	0%	5%

Fig. 5. Losses in the potential GDP growth (2020 compared to 2011, in %)

Source: projections made by author

The analysis of the impact of losses in the potential GDP growth by individual factors has shown that the employment target was relevant in this sense in all the selected countries. Given the fact that the most ambitious targets for employment were opted by Sweden and Denmark, their economic growth was best programmed by the

employment factor and in this case they will fully exploit it in a positive impact on economic growth. The national targets in the employment field in other selected countries demonstrate from 3% up to 15% (including 11% in Lithuania) losses of economic growth in period 2011-2020, with the exception of Malta, whose goal in this field is relatively unambitious considering the 26% idle potential economic growth.

It should be noted that if the "small" EU countries selected more ambitious targets on employment (except Sweden and Denmark), their GDP would grow annually on average from 0.3% in Finland to 2.7% in Malta, compared to the implementation of national targets on employment; selecting more ambitious target on employment would increase Lithuanian GDP by 1.1% annually, compared to the implementation of the current national target (Table 2).

Table 2. Annual economic impact on GDP

	Implementation of national targets				Implementation of more ambitious targets in comparison with national targets			
	Employment	Education	Investment in R&D	Total	Employment – 80%	Education – 5%/60%	Investment in R&D – 4% of GDP	Total
Austria	0.5%	1.7%	0.3%	2.4%	0.4%	4.3%	0.1%	4.7%
Bulgaria	1.1%	1.4%	1.2%	3.8%	0.6%	4.2%	3.0%	7.8%
Cyprus	0.7%	0.4%	0.0%	1.1%	0.6%	2.6%	4.9%	8.0%
Denmark	0.6%	-0.3%	0.0%	0.3%	0.0%	3.5%	0.3%	3.8%
Estonia	0.1%	0.5%	0.2%	0.8%	0.6%	3.0%	0.3%	4.0%
Finland	0.2%	0.4%	0.0%	0.7%	0.3%	2.4%	0.0%	2.7%
Hungary	1.9%	0.7%	0.4%	3.0%	0.7%	4.7%	1.4%	6.9%
Ireland	0.8%	1.7%	0.4%	2.8%	1.5%	1.0%	0.7%	3.1%
Latvia	1.4%	-0.7%	0.9%	1.6%	1.0%	4.9%	2.6%	8.5%
Lithuania	1.6%	-1.6%	0.8%	0.9%	1.1%	3.8%	1.7%	6.6%
Luxembourg	1.6%	-3.6%	0.5%	-1.4%	1.0%	5.2%	0.9%	7.1%
Malta	-0.3%	1.2%	-0.1%	0.7%	2.7%	6.5%	3.5%	12.6%
Slovakia	1.2%	1.9%	0.4%	3.4%	1.2%	3.2%	3.2%	7.6%
Slovenia	0.9%	-0.5%	0.2%	0.5%	0.7%	2.0%	0.3%	3.1%
Sweden	0.4%	-2.6%	0.1%	-2.1%	0.0%	4.5%	0.0%	4.5%
MS-15	0.7%	0.0%	0.2%	1.0%	0.5%	3.6%	0.7%	4.8%

Source: projections made by author

Analysing the losses in the potential GDP growth, which were caused by unambitious national targets in the field of education, and taking into account that the most ambitious targets in this field were set by Slovenia and Ireland – 5% share of early school leavers in Slovenia and 60% on tertiary education in Ireland, which are used to evaluate the gap between the projections of the impacts of most ambitious and national

targets on GDP growth in the selected "small" EU countries, it can be seen that even those countries which chose most ambitious targets do not either fully avail potential economic growth. Minimal 14% losses of the potential economic growth in the period of 2011-2020 are projected for Ireland, the largest 101% for Malta (43% in Lithuania); and on average losses from 1% in Ireland to 6.5% in Malta (3.8% in Lithuania) annual GDP growth caused by the lack of ambitious national goals in education (Fig. 5, Table 2).

While evaluating the losses of the potential economic growth, which were programmed by the implementation of unambitious targets in the field of the investment in R&D, it needs to be kept in mind that the most ambitious targets in this field are set by Finland and Sweden – 4% of GDP, therefore, these countries fully exploit this factor on the economic growth. A detailed analysis of the data shows that the vast majority of "small" EU countries which joined the EU in 2004 and later – Cyprus, Malta, Bulgaria, Slovakia, Latvia, Lithuania, Hungary – chose national targets on investment in R&D which were not ambitious enough, resulting in smaller GDP growth in 2020 compared to 2011 from 28% in Hungary to 74% in Cyprus and Malta (29% in Lithuania); or on average from 1.4% in Hungary to 4.9% in Cyprus (1.7% in Lithuania) slower annual GDP growth compared to what it could be if they chose a more ambitious 4% of GDP investment in R&D target as a national target. Meanwhile, the other EU Member States which joined the EU much earlier (with the exceptions of Luxembourg and Ireland), and Estonia and Slovenia, following the example of Finland and Sweden and choosing much more ambitious targets on investment in R&D, over the period 2011-2020 could boost its economic growth only up to 5% till 2020 compared to 2011, or 0.3% annually (Fig. 5, Table 2).

Analysing the overall selected factors – employment, education, investment in R&D – and programmed losses of the potential GDP growth in the selected countries, which were caused by a lack of ambition in choosing national targets, it can be seen that many of the "small" EU countries which joined the EU in 2004 or later – Bulgaria, Latvia, Slovakia, Cyprus, Hungary – could have had their GDP doubled (and more than tripled in the case of Malta) by selecting more ambitious targets. Another group of countries – Lithuania, Luxembourg, and Austria – could have programmed from 62% to 83% greater economic growth for the period 2011-2020 by choosing more ambitious targets. The remaining six countries could have programmed from 29% in Finland to

44% in Estonia higher GDP growth during the period 2011-2020 by choosing more ambitious goals (Fig.5).

Assessing the losses of the potential economic growth in the selected "small" EU countries, which were caused by a lack of ambition in choosing national targets in the fields of employment, education and investment in R&D, it can be concluded that on average losses could be 4.8% of GDP per year in the selected countries: the biggest being 12.6% loss projected for Malta, and the lowest being 2.7% in Finland. Lithuania, by choosing more ambitious targets, could have increased its annual GDP growth by 6.6% during the whole period of 2011-2020.

Summarising projected assessment results, it could be concluded that many of the "small" EU countries choose not to be ambitious enough in their national objectives of employment, education, and investment in R&D under the "Europe 2020" Strategy and during the 2011-2020 period show on average about a 4.8% lower GDP growth than it could potentially be.

CONCLUSIONS AND PROPOSALS

1. The analysis of theoretical studies in the field of state economic policy has identified the following indicators, targets and factors with regards to the efficiency of the state economic policy in the context of the integration processes in the EU:

1.1. Gross domestic product is and will remain in the near future one of the most popular indicators used to measure the efficiency of the state economic policy. However, considering the rapid development of other indicators measuring the efficiency of state sustainable economic policy – for example, the index of sustainable economic welfare (ISEW), the genuine progress indicator (GPI), the human development index (HDI), and the happy planet index – it could be assumed that the twenty-first century will give rise to a new indicator, which will enable one to assess and to compare the economic prosperity provided by states for their population, while possibly including an ecological cost aspect.

1.2. In an open economy, which is typical of a large part of the EU Member States, the internal and external goals influence national economic policy-making. Internal balance requires the full utilisation of national resources and the stabilisation of the level of domestic prices. External balance is achieved through a relatively balanced current account. However, in practice macroeconomic policy goals could be much more varied: 1) domestic policy: rapid economic growth, high employment level, stability of price-level, income redistribution; 2) external policy: fluctuations in the balance of payments.

1.3. Considering the fact that currently the GDP indicator remains among the most appropriated tools for measuring the efficiency of state economic policy, it could be claimed that economic growth is one of the most important targets of national economic policy.

1.4. Long-term economic growth is driven by the following: attracting capital in the country, population growth, education and professional development of the people, and technological progress. However, capital increase alone would not be able to provide a sustainable economic growth in the long run. Population growth ensures the growth of GDP, but not the growth of GDP and national income per capita. Technological progress makes the biggest impact upon sustainable

economic growth in the long run, and it can offset the effects of a reduction in real investment and workforce.

1.5. The economic theory still lacks theoretical concepts, models and solutions as to when, how and on what basis the economic policy of the EU countries should be considered efficient: it has been accustomed to evaluate economic policy on the basis of the criteria set forth in the EU documents; and economic policy provisions emerge in the form of decisions taken in the name of the state.

1.6. The evaluation criteria relating to the efficiency of state economic policy in EU countries for the period up to 2020 have been laid down in the "Europe 2020: a strategy for smart, sustainable and inclusive growth":

- ***employment:*** 75% of the EU population aged 20-64 should be employed;
- ***investment in R&D:*** 3% of the EU's GDP should be invested in R&D;
- ***"20/20/20" climate/energy targets:*** limiting greenhouse gas emissions at least by 20% compared to 1990 levels, creating 20% of energy needs from renewables and increasing energy efficiency by 20%;
- ***education:*** share of early school leavers should be under 10% and at least 40% of the younger generation aged 30-34 should have a tertiary degree;
- ***fighting poverty:*** 20 million less people should be at risk of poverty.

2. The research has identified the following measures of the implementation of the state economic policy of the EU countries in the context of the EU integration:

2.1. It could be argued that a fiscal policy plays a cornerstone role in the state economic policy of EU countries.

2.2. Country's taxation level determines the potential of the government to participate in economic life: countries opting for a relatively low level of taxation could not provide the same level of services, as those having chosen a significantly higher taxation level. Therefore, the choice of taxation level might be in parallel with the basic line of a country's fiscal policy.

2.3. The budget deficit has a significant impact on economic activity: it is likely that in the short run a higher deficit may lead to a higher demand and therefore higher production; however, in the long run the growing public debt may reduce capital accumulation and production. With a view to reducing budget deficit as % of GDP, a successful fiscal policy closely correlates with the

composition of reduced spending measures: the failure to reduce the deficit is closely related to a reduction of government investment, while in successful cases, more than half of government spending cuts are made by reducing government expenditure on wages in public sector and transfer payments.

2.4. In view of the stages of integration as defined by the Hungarian scientist B. Balassa, the EU has largely achieved the highest stage of economic integration – complete economic integration – co-ordination of the monetary, fiscal, social and economic cycle policies, of which the element of monetary union is implemented. It is appropriate to analyse the EU integration processes in the light of the highest level of EU integration – monetary union perspective.

2.5. States, aspiring for a monetary union, should meet at least one of the conditions: they should be on a similar phase of the business cycle, so that similar monetary policy instruments might be used to adjust negative impacts, and in any case where states are on different phases, they should have a very mobile market of production factors.

2.6. The main negative impact of the monetary union is the loss of possibility in responding to shocks of demand by the instruments of monetary policy. But here the existence of the insurance mechanism of asymmetric shocks amongst countries which established a monetary union could help to restore equilibrium. On the governmental level it could be agreed to centralise budgets of countries in large part, which would automatically redistribute income between countries, i.e. the revenue of this budget would depend on the economic activity of countries, and the expenditures would focus on adjustment to asymmetric shocks. In this case, the EU budget partially reflects this insurance mechanism, because its income is largely dependent on the countries' gross national income and the expenditure is largely directed to the strengthening of economic convergence among the EU member states, but the share amounting to slightly more than 1 percent of the EU GDP, prevents a full implementation of the insurance mechanism for asymmetric shocks.

2.7. One of the most tangible benefits of a monetary union is the elimination of costs of currency exchange: according to the European Commission study, it

could reach about 0.5% of Community GDP per year. Also, the additional revenue from seigniorage reaches about 0.03% of GDP per year.

2.8. Apart from the benefit for euro-area Member States from the monetary union, faster economic growth in the EU Member States has not been observed following the introduction of the euro.

3. The creation of a model for evaluation of the efficiency of the state economic policy of the EU countries has evolved the following:

3.1. Consideration was made to the limitations as regards the application of state economic policy in the context of deepening economic integration in the EU:

- seeking enhanced economic growth within a small open economy with a fixed exchange rate, monetary policy is not effective, but the fiscal and international trade policies are suitable for that;
- the EU has carried out a common trade policy by setting the common tariffs of customs duties and other measures on import goods from the third, non-EU countries. Also, the indirect taxation – not only policy on customs duties, but also policies on excise duties and value-added tax were harmonized by setting the minimum their rates. Therefore, not so much space was left for an independent fiscal policy:
    - in taxation, i.e. revenue area – direct taxes among which the most significant by their weight in general government revenue are personal income tax, corporate income tax, social insurance contributions;
    - in expenditure area – giving a substantial freedom to set national priorities and funding areas, at the same time focusing expenditure and revenue policies on the achievement of the objectives of the "Europe 2020" Strategy;
    - in the areas of general government sustainability and borrowing, in addition to the Maastricht criteria – 3% of GDP budget deficit, 60% of GDP debt limits, according to the Treaty on Stability Coordination and Governance in Economic and Monetary Union, signed in 2012, a balanced budget rule was established.

3.2. In view of the objectives of the EU economic policy under the "Europe 2020" Strategy and the fact that the economic growth best reflects the efficiency of the state economic policy, which is measured by the GDP indicator, and growth factors are attracting capital into the country, changes in population, technological progress which is also conditional on investment in R&D and human capital growth, the model of the evaluation of the efficiency of the state economic policy in the context of integration processes in the EU is created according to the EU's targets on employment, education and investment in R&D.

3.3. Considering the fact that this research seeks to evaluate the efficiency of state economic policy within EU countries in the context of the integration processes in the EU, to propose a concept for enhancing the efficiency of state economic policy in EU countries, as well as the fact that researches in this field pay less attention to the "small" EU countries, the chosen model's creation direction relates to the evaluation of the efficiency of economic policy under conditions of a small open economy, and "small" EU countries were selected for the empirical part of this study. In this study, a "small" country is a country with a population of less than 10 million. According to Eurostat on 1st of January 2012 the EU has 15 Member States with a population less than 10 million: Austria, Bulgaria, Cyprus, Denmark, Estonia, Finland, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovakia, Slovenia, Sweden.

4. The following causal relations and trends of the impacts of identified factors on the economic efficiency of the selected EU countries were identified:

4.1. According to the three indicators – GDP per capita, human development index and a happy planet index: the leadership of the country by GDP per capita does not guarantee its citizens' a higher degree of life satisfaction.

4.2. It could not be unequivocally stated that the country's membership in the euro zone creates the possibility of creating cheaper borrowing options in the financial markets for a "small" EU countries, but it could be said that cheaper borrowing options of countries are closely related to the sustainability of public finances.

4.3. Analysing the tax levels of sampled "small" EU countries it could be concluded that the involvement level of the governments of Scandinavian countries and Austria in the economic life of their countries is much higher than other selected countries: the difference between the highest level of taxation chosen by Denmark and lowest by Lithuania stands at 21.7 p.p., therefore the potential of the Danish government to participate in the country's economic life and to ensure social well-being for its inhabitants is almost twice as high as in Lithuania or other selected countries with a similar tax level to that found in Lithuania.

4.4. The analysis of the data of sustainability relating to general government budgets in selected countries has led to the conclusion that in 2010-2012 general government budgets were with deficit in the great majority of selected countries. Some selected EU countries – Lithuania, Latvia – directed a significant part of borrowed funds for social purposes. Meanwhile, the majority of the selected EU countries had balanced budgets or surpluses for social security funds, which will help these countries solve ageing population-related problems in the future.

4.5. Investment level in R&D varies quite significantly among selected countries: from 0.48% of GDP to 3.78% of GDP. The EU countries which joined the EU in 2004 and later, had the lowest investment level in this field. Comparing the investment of sampled countries in R&D per capita, the Scandinavian countries were in the lead with almost similar values of this indicator, amounting to more than 1.3 thousand EUR, while the investment in R&D of all of the nine selected EU countries which joined the EU in 2004 and later was much smaller, but varied quite significantly: from 29 EUR per capita in Bulgaria to 436 EUR per capita in Slovenia.

4.6. The analysis of the EU Council recommendations for the selected EU countries which were provided in the years 2011-2012 has led to the conclusion that all selected Member States, except Sweden, have been recommended to carry out a restrictive fiscal policy – to implement fiscal consolidation measures; as well as for the vast majority of selected countries, where it was proposed as a measure to seek fiscal consolidation to choose the direction of improvement of the

pension system. For all of the selected countries it was proposed to take measures in the field of employment; for the majority of countries it was offered to take steps in improving their education systems; whilst a more rapid implementation of innovation policy was proposed to only seven of the fifteen countries selected for this research – Bulgaria, Cyprus, Estonia, Finland, Hungary, Latvia, Sweden.

5. ***Based on the results of the empirical study, which were obtained using a created macrosimulation model and resorting on the objectives under the "Europe 2020" Strategy, the following conclusions may be made:***

5.1. Many of the "small" EU countries choose not to be ambitious enough in their national objectives of employment, education, and investment in R&D under the "Europe 2020" Strategy and during the 2011-2020 period show on average about a 4.8% per year lower GDP growth (Lithuania 6.6%) than could be chosen under more ambitious goals.

5.2. The assessment of the losses of the potential economic growth, with the projected gap between the projections of the impact on GDP of the achievement of most ambitious goals – 80% on the employment rate, 5% of the share of early school leavers, 60% on higher education, 4% of GDP on investment in R&D, leads to the conclusion that the greatest losses of potential economic growth are caused mainly due to a lack of attention to education and investments in R&D in the selected countries. Unambitious targets:

- on employment rate, cause on average 0.5% lower annual GDP growth (1.1% in Lithuania);
- in the field of education, cause on average 3.6% lower annual GDP growth (3.8% in Lithuania);
- on investment in R&D, cause on average 0.7% lower annual GDP growth (1.7% in Lithuania).

5.3. Many of the "small" EU countries which joined the EU in 2004 or later – Bulgaria, Cyprus, Hungary, Latvia, Slovakia– could have their GDP increased twice by 2020, and more than threefold in Malta by choosing more ambitious targets in the fields of employment, education and investment in R&D; Lithuania, Luxembourg and Austria could implement from 62% to 83%

greater economic growth by choosing more ambitious targets. The remaining six countries could increase their GDP from 29% in Finland to 44% in Estonia during the period 2011-2020 through the choice of more ambitious goals.

6. ***In conclusion of the findings of the theoretical part of the research, the following recommendations in the context of EU integration have been made:***

6.1. Focus the state economic policy on rapid economic growth, which would create additional opportunities for a reduction of poverty and sustainable growth in the standard of living.

6.2. Seek a gradual increase in the country's economic structure of a share of the services and areas whose growth is influenced by the R&D.

6.3. Choose a taxation level which will be adequate enough to carry out economic and social policies.

6.4. Using fiscal policy to mitigate the fluctuation caused by the economic cycle, especially in periods of recession, to focus it on enhancing economic growth, a high-employment economy without rapid inflation or deflation.

6.5. To use borrowed funds not for current consumption (such as social needs) but for a profitable investment, for example, in R&D, human capital development, which could basically stipulate the permanent efficiency of growth in production and service delivery processes.

6.6. Considering the fact that one of the highest levels of integration which is reached by the EU is the monetary union, which results in a country's inability to conduct an independent monetary policy and thus lose the opportunity to respond to demand shocks using national measures of monetary policy, it is advisable that the EU budget will be more and more of an insurance mechanism to help reduce the impact of such kind of shocks for the countries. The expenditure of the EU budget, for example, would be diverted to countries experiencing economic downturn, and contributions would be paid according to a country's economic activity. Also in this area, more detailed calculations are needed on whether the current amount of about 1% of EU GDP in the EU budget is sufficient for a mitigation of the impact of demand shocks.

7. In conclusion of the findings of the empirical part of the research, the following recommendations in the context of EU integration have been made:

7.1. Taking into account the fluctuation of taxation levels amongst "small" EU countries – from 26.0% of GDP in Lithuania to 47.7% of GDP in Denmark, to carry out economic and social policies adequate to taxation level, while avoiding to use the borrowed funds for current consumption (which is currently the case for Lithuania and Latvia).

7.2. Considering the focusing of the EU Council recommendations on the current problems, rather than on rapid economic growth, and the unambitious national targets under the "Europe 2020" Strategy in the fields of employment, education and investment in R&D which programmed relatively low economic growth for the period up to 2020 in selected for research countries, it is advisable to review the national goals under the "Europe 2020" Strategy in the fields of employment, education and investment in R&D and to set and implement significantly more ambitious targets, thus ensuring an average of 4.8% higher annual GDP growth.

7.3. Given the fact that less and less space remains for the independent economic policy of the EU countries and the most efficient policy is the fiscal policy, it is advisable to use the fiscal policy measures to encourage employment.

7.4. Taking into account the huge unused potential of economic growth by the selected countries in the field of education, to consider possibility of using fiscal measures to encourage the ambition of the population to seek education.

7.5. Considering the returns of R&D, to use fiscal policy measures to enhance private investment in R&D, as well as considering the possibility of increasing part of the state expenditures in R&D.

Approbation of the scientific research results and their dissemination

The main statements and results of the research have been published in four academic publications, one of them in the co-monograph, others – in academic journals:

1. Banelienė R., Valstybės ekonominės politikos efektyvumas ir poveikis šalies ūkiui. Co-monograph: Ekonomikos modernizavimas: efektyvumo paieškos ir šiuolaikiniai prioritetai, Vilniaus Universitetas, 2011, p. 539 (author′s p. 269-288).
2. Banelienė R., Ekonominė ir pinigų sąjunga: idėja, jos įgyvendinimas ir nauji iššūkiai, Viešasis administravimas, 2011/3, p. 8-15.
3. Baneliene R., Evaluation of the efficiency of economic policy under the Europe-2020 Strategy in small European Union countries, Economics: Research Papers, Vol. 92 (2), 2013, Vilnius University, Vilnius University Publishing House, 2013, p. 7-19.
4. Banelienė R., Europos Sąjungos valstybių ekonominės politikos efektyvumas, Viešasis administravimas, 2013/1, p. 22-29.

About the author

Born in 1972, Vilnius (Lithuania)

Education

1994-1999 Bachelor of Economics, Vilnius University

1999-2001 Master of Economics, Vilnius University

2009-2013 Doctoral studies at the Vilnius University, Social Sciences, Economics

Professional experience

2002-2008 Ministry of Finance

2008-2013 Office of the Prime Minister

Training and internship

2012 Short-term internship, European Commission DG ECFIN, Brussels

2011 European Regions in EU Policy Making and Implementation after Lisbon, EIPA, Barcelona

2007 EU Skills, Institute of Public Administration, Dublin

2005 Sustainability of Public Finances – Implementation of Maastricht Criteria, Centre of Excellence in finance, Ljubljana

2005 Tax Modelling, OECD, Joint Vienna Institute, Vienna

2004 Tax Policy Analysis, OECD, Vienna

2004 Study visit to German public institutions under PHARE project Fiscal Policy Formation and Planning Structural Reform, Berlin, Frankfurt, Wiesbaden

2003 Advanced Macroeconomic and Financial Management, IMF, Joint Vienna Institute, Vienna

REZIUMĖ

Temos aktualumas. Valstybės ekonominės politikos nagrinėjimas moksliniu požiūriu yra neišsenkanti ir neprarandanti naujumo sritis, nes būtent valstybės ekonomine politika turi būti sprendžiamos tiek ekonomikos, tiek socialinės ir kitų sričių problemos. Be to, valstybės ekonominės politikos vykdymo sąlygos tampa vis sudėtingesnės dėl globalizacijos ir regioninės integracijos procesų pasaulyje. Taip pat per pastarąjį šimtmetį išaugęs valstybių ekonominis pajėgumas ir su tuo susijęs vis didėjantis vyriausybių vaidmuo šalies ekonomikos valdyme didina atsakomybę už valstybės ekonominės politikos efektyvumą. Todėl valstybės ekonominės politikos efektyvumo ir jo didinimo galimybių tyrimai yra reikšminga mokslinių tyrimų sritis.

Taip pat valstybės ekonominės politikos efektyvumo tyrimai yra svarbūs ir tuo aspektu, kad valstybės ekonominė politika pasižymi tiek ją sąlygojančių veiksnių, pasirenkamų tikslų ir vykdymo priemonių įvairove. Be abejonės riboti šalies ištekliai sąlygoja būtinybę juos išnaudoti efektyviausiu būdu, siekiant užsibrėžtų valstybės ekonominės politikos tikslų. Šiuolaikinė valstybės ekonominė politika pasižymi valstybių pasirenkamų tikslų įvairove: spartus ekonomikos augimas, aukštas užimtumo lygis, kainų lygio stabilumas, pajamų perskirstymas ir kt. Taip pat šiems tikslams įgyvendinti yra galimybės pasirinkti visą eilę priemonių fiskalinės, pinigų ir kitų politikų srityse. Taigi valstybės ekonominės politikos efektyvumo tyrimai yra reikšminga mokslinių tyrimų sritis ir dėl valstybių galimybių pasirinkti valstybės ekonominės politikos tikslus ir priemones, kas gali sąlygoti efektyvų šalies ekonominių išteklių naudojimą arba jų panaudojimo efektyvumo trūkumą.

Valstybės ekonominė politika vis didėjančios globalizacijos ir regioninės integracijos sąlygomis negali būti atsieta nuo pasaulinių procesų, vykstančių darbo jėgos, kapitalo ir prekių bei paslaugų rinkose. Europoje tai buvo suprasta XX a. viduryje įsteigus Europos ekonominę bendriją (EEB). Tai buvo pirmas žingsnis link Europos šalių ekonominių politikų koordinavimo. 1992 m., su Mastrichto sutartimi prasidėję intensyvūs besiplečiančios ES valstybių narių ekonomikų integraciniai procesai, buvo vainikuoti bendra ES šalių pinigų politika, o šiuo metu vis aktualesnis tampa ir fiskalinių politikų koordinavimas. Taigi ES artėjant prie visiškos ekonominės integracijos be

abejonės valstybės ekonominės politikos efektyvumo tyrimai integracinių procesų ES kontekste įgauna vis didesnę reikšmę.

Šiame kontekste vis svarbesni tampa valstybės ekonominės politikos tyrimai integracinių procesų ES kontekste, ypač siekiant pagrįsti ir neleisti pažeisti „mažųjų“ šalių interesus. Šią nuostatą sustiprina ir pats faktas, kad sprendimai dėl tolesnės integracijos vis labiau remiasi ne atliktais ar atliekamais moksliniais tyrimais, o ES valstybių narių lyderių priimamais sprendimais.

Taip pat akivaizdu, kad šiuo metu **s**tokojama šiuolaikiniams iššūkiams adekvačių teorinių modelių ir sprendimų, skirtų vertinti ES šalių valstybės ekonominės politikos efektyvumą įvairiose šios politikos rengimo, pagrindimo ir įgyvendinimo stadijose.

Mokslinė problema ir jos ištyrimo lygis. Valstybės ekonominė politika yra plačiai tyrinėta ir tyrinėjama daugelio ekonomistų ir šiuo metu yra susiformavusi ne viena ekonomikos teorijos kryptis, besilaikanti gana skirtingų požiūrių į valstybės dalyvavimo ekonomikoje lygį – nuo klasikinės teorijos atstovų ir jos pradininko A. Smith (1776), besilaikančių „nematomos rankos“ koncepcijos, pagal kurią vyriausybės vaidmuo ekonomikoje turėtų būti ribotas, iki J. M. Keynes ir jo vėlesnių pasekėjų požiūrio, pagal kurį vyriausybei turėtų tekti aktyvus vaidmuo ekonomikos reguliavime. Taip pat yra ekonomistų nuomonių išsiskyrimai dėl ekonominės politikos tikslų – nuo spartaus ekonomikos augimo, aukšto užimtumo lygio iki kainų stabilumo lygio palaikymo ar pajamų perskirstymo.

Integraciniams procesams ir jų lygiams tirti daug dėmesio skyrė B. Balassa (1961), kuris apibrėžė šalių ekonominę integraciją, kaip turinčią keletą formų, atspindinčių skirtingus integracijos lygius: laisvosios prekybos erdvė, muitų sąjunga, bendra rinka, ekonominė sąjunga, visiška ekonominė integracija.

Pinigų politikos srities tyrimams daug dėmesio skyrė R. Mundell (1961), kuris bandė išsiaiškinti sąlygas, kurioms esant valstybių grupė sutiktų fiksuoti savo valiutų kursus ar įsivesti bendrą valiutą. Pinigų sąjungos poveikį jos narių tarpusavio prekybai tyrė visa eilė ekonomistų (Baldwin ir kt., Berger ir Nitsch, Nitsch ir Pisu, 2008), pateikdami konkrečius euro įvedimo poveikio prekybos tarp euro zonos šalių padidėjimui įvertinimus. Buvo atlikta visa eilė empirinių tyrimų dėl pinigų sąjungos sudarymo poveikio kainų skaidrumui ir konvergencijai (ACNielsen, 2005, ir kt.).

Fiskalinės politikos srityje tyrimus atliko Baldwin ir Krugman (2004), kurie nagrinėjo klausimą ar glaudi ekonominė integracija, ypač fizinio ir žmogiškojo kapitalo mobilumo augimo sąlygomis, reikalauja mokesčių tarifų harmonizavimo. Taip pat daug tyrimų atlikta – tolesnio ES integracijos siekio – fiskalinės sąjungos, tiesioginių mokesčių harmonizavimo ES lygiu srityje (T. Rixen, S. Uhl, 2007; C. Spengel, C. Wendt, 2007; Ernst&Young, 2011 ir kt.).

Tačiau didžiąją dalį valstybės ekonominės politikos efektyvumo didinimo integracinių procesų ES kontekste skirtų tyrimų visgi atliko ir atlieka oficiali ES institucija – Europos Komisija. Pastaruoju metu Europos Komisijos tyrimai šioje srityje koncentruojasi ties tokių klausimų sprendimu, kaip ekonominės politikos koordinavimas, konvergencija ir ekonomikos augimas, fiskalinė politika, pinigų politika, darbo rinka, vidaus rinkos integracijos gilinimas, inovacijų politika ir visa eile kitų klausimų. Tačiau jie pasižymi koncentracija į konkrečias sritis ir to pasėkoje gana fragmentuotai vertina atskirų veiksnių poveikį ekonomikos augimui.

Prie visapusiškesnių vertinimų galima būtų priskirti Europos Komisijos atliktus darbus Lisabonos strategijos vertinimo srityje, tačiau ir čia nėra pateikti vertinimai, kiek ES valstybių narių ir ES ekonomika visumoje prarado, neįgyvendinusi Lisabonos strategijoje užsibrėžtų tikslų. Kitas Europos Komisijos visapusiškesnis dokumentas yra skirtas Ekonominės ir pinigų sąjungos gyvavimo dešimtmečiui įvertinti, tačiau ir čia nebuvo pateikta tyrimais paremtų vertinimų dėl tolesnių Ekonominės ir pinigų sąjungos gilinimo krypčių.

Akivaizdu, kad valstybės ekonominės politikos efektyvumo tyrimų integracinių procesų ES kontekste nėra pakankama, ypač tų, kurie būtų skirti „mažųjų“ ES šalių vykdomos valstybės ekonominės politikos efektyvumui nagrinėti. Apžvelgiant 2004-2013 m. Europos Komisijos atliktus tyrimus „mažosioms“ ES šalims, galima pastebėti, kad bene didžiausia šių tyrimų dalis skiriama ekonomikos stabilumui ir perspektyvai bei fiskalinės politikos poveikio vertinimui, taip pat dėmesys skiriamas darbo rinkos klausimams, su nekilnojamojo turto „burbulu“ susijusiems klausimams, socialinių iššūkių, turinčių poveikį valstybės finansų tvarumui ilgame laikotarpyje, įvertinimui, mokslinių tyrimų ir eksperimentinės plėtros poveikio ekonomikai vertinimui ir kitiems klausimams.

Todėl galima daryti išvadą, kad nėra skiriamas pakankamas dėmesys ES šalių ekonomikos augimo veiksniams tirti, o atlikti tyrimai pasižymi fragmentiškumu ir yra skirti didžiąja dalimi einamiesiems klausimams spręsti, o ne esminiams ES šalių ekonomikų augimo krypčių siūlymams pateikti.

To pasėkoje atsiranda poreikis gilesnių priežasčių-pasekmių ryšių tyrimo tarp fiskalinės politikos ir: darbo našumo ir kokybės, švietimo, mokslinių tyrimų ir eksperimentinės plėtros, importo-eksporto, struktūrinių pokyčių ir BVP augimo, valstybės skolos ir BVP padidinimo galimybių, viso aukščiau paminėto orientavimą į technologinį proveržį.

Todėl šioje srityje yra reikalingi papildomi moksliniai tyrimai, kurie padėtų identifikuoti pagrindinius ekonomikos augimo veiksnius, apibrėžtų jų veikimo sąlygas ir aplinką bei pagrįstų tyrimų pasėkoje pasiūlytos ekonominės politikos efektyvumą.

Tyrimo objektas – ES valstybių ekonominės politikos efektyvumas integracinių procesų ES kontekste.

Tyrimo tikslas – ištirti valstybės ekonominės politikos integracinių procesų ES kontekste efektyvumo veiksnius ir parengti teorinę koncepciją, skirtą ES šalių valstybės ekonominės politikos efektyvumui padidinti integracinių procesų ES kontekste.

Šiam tikslui pasiekti keliami tokie **uždaviniai:**

- atlikus teorinę studiją identifikuoti valstybės ekonominės politikos efektyvumo integracinių procesų ES kontekste veiksnius;
- identifikuoti ES šalių galimas valstybės ekonominės politikos vykdymo priemones integracinių procesų ES kontekste;
- sukurti makrosimuliacinį modelį, leidžiantį įvertinti identifikuotų veiksnių poveikį ES šalių valstybės ekonominės politikos efektyvumui;
- įvertinti identifikuotų veiksnių poveikį tyrimui atrinktų ES šalių valstybės ekonominės politikos efektyvumui;
- pasiūlyti valstybės ekonominės politikos vykdymo kryptis ES šalių valstybės ekonominės politikos efektyvumui ilgalaikėje perspektyvoje padidinti.

Tyrimo metodai. Disertacijos teorinei daliai panaudoti šie moksliniai tyrimo metodai: sisteminė ir lyginamoji mokslinės literatūros, ES dokumentų ir statistinių duomenų analizė. Praktiniams rezultatams gauti naudotas autorės sukurtas makrosimuliacinis modelis, sudarytas remiantis regresinių lygčių ir užprogramuotos

veiksnių tarpusavio priklausomybės, išreikštos elastingumo rodiklių skaičiavimais, pagalba, lyginamoji analizė, statistinių duomenų analizė, grupavimas, ir kt.

Tyrimo šaltiniai. Teoriniai disertacinio darbo tyrimai remiasi skelbiamais užsienio šalių ir Lietuvos mokslininkų atliktais moksliniais tyrimais. Statistinės informacijos šaltiniais pasirinkti Eurostat, Europos centrinio banko ir kitų institucijų skelbiami oficialūs statistiniai duomenys. Modeliui sudaryti buvo remtasi užsienio ir Lietuvos moksliniais literatūros šaltiniais, naudotasi Eurostat duomenų baze ir kitais šaltiniais, nurodytais literatūros sąraše.

Pagrindiniai ginamieji teiginiai:

- ES šalių vykdoma valstybės ekonominė politika nepakankamai efektyvi siekiant spartaus ekonomikos augimo;
- iškelti ES valstybės ekonominės politikos tikslai yra neoptimalūs siekiant atskirų ES šalių valstybės ekonominės politikos efektyvumo didėjimo ilgu laikotarpiu integracinių procesų ES kontekste.

Darbo mokslinis naujumas ir teorinė jo vertė. Tyrimas yra orientuotas į ES šalių valstybės ekonominės politikos efektyvumą integracinių procesų ES kontekste. Rengiantis tyrimui bei tyrimo eigoje nebuvo rasta analogiškų kompleksinių tyrimų, skirtų ES šalių kompleksiniam spartų ekonomikos augimą sąlygojančių veiksnių poveikio ilgalaikiam ekonomikos augimui atskirose ES šalyse įvertinimui. Todėl galima būtų prieiti išvados, kad ši tyrimo sritis nėra pakankamai ištirta.

Tyrimo eigoje disertacijos autorės sukurto makrosimuliacinio modelio pagalba gali būti atliktos projekcijos, leidžiančios įvertinti penkių veiksnių – demografinių pokyčių, užimtumo, mokyklos baigimo, aukštojo išsilavinimo įgijimo ir investicijų į mokslinius tyrimus ir eksperimentinę plėtrą – poveikį ekonomikos augimui.

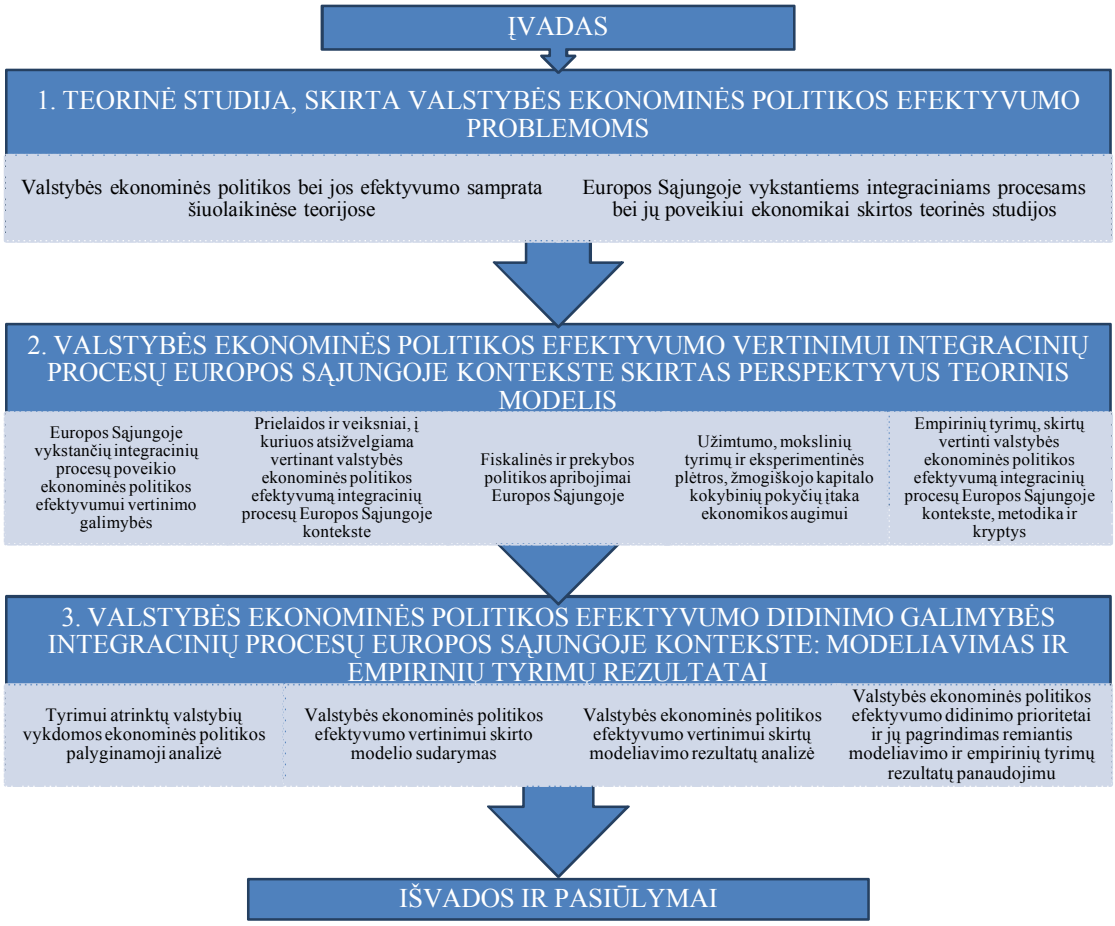
Darbo praktinė reikšmė. Autorės sukurtas modelis gali būti pritaikytas ES šalių ekonominės politikos efektyvumui vertinti atsižvelgiant į demografinius, užimtumo, švietimo ir investicijų į mokslinius tyrimus ir eksperimentinę plėtrą veiksnius. Iš esmės tyrimo eigoje sukurtas universalus modelis, kurio pagalba gali būti atliktos projekcijos, leidžiančios įvertinti ir pagrįsti valstybės ekonominės politikos orientavimo į ateities ekonomiką – investicijas į žmogiškąjį kapitalą ir inovacijas, skatinančias technologinę pažangą, naudą. Šis modelis galėtų būti įrankis, kurio pagalba atlikti skaičiavimai leistų tiek akademinio pasaulio, tiek valstybės sektoriaus atstovams pagrįsti šalių visuomenėms

priimamų sprendimų racionalumą siūlant ir vykdant atitinkamą ekonominę politiką investicijų į švietimą ir mokslinius tyrimus ir eksperimentinę plėtrą atžvilgiu. Todėl sukurtas modelis vertingas ne tik teoriniu aspektu, bet ir praktiniu. Pasinaudojant šiuo įrankiu beliktų priimti atitinkamus sprendimus fiskalinės politikos srityje, kurie paskatintų tiek vyriausybės, tiek privačias investicijas į švietimą ir mokslinius tyrimus ir eksperimentinę plėtrą, kas sąlygotų šalims spartų ekonomikos augimą ilgame laikotarpyje. Taip pat šie siūlomi sprendimai leistų ES valstybių ekonomikoms persitvarkyti taip, kad jų ekonomikos struktūroje ilgainiui įsivyrautų ir įsitvirtintų aukštą pridėtinę vertę kuriančios ūkio šakos.

Darbo aprobavimas ir rezultatų skelbimas. Mokslinio tyrimo rezultatai paskelbti kolektyvinėje monografijoje ir straipsniuose, kurie publikuoti daktaro disertacijai tinkamais pripažįstamuose mokslo leidiniuose. Mokslinių publikacijų sąrašas:

1. Banelienė R., Valstybės ekonominės politikos efektyvumas ir poveikis šalies ūkiui. Kolektyvinė monografija: Ekonomikos modernizavimas: efektyvumo paieškos ir šiuolaikiniai prioritetai, Vilniaus Universitetas, 2011, p. 539 (autorės p. 269-288).
2. Banelienė R., Ekonominė ir pinigų sąjunga: idėja, jos įgyvendinimas ir nauji iššūkiai, Viešasis administravimas, 2011/3, p. 8-15.
3. Baneliene R., Evaluation of the efficiency of economic policy under the Europe-2020 Strategy in small European Union countries, Economics: Research Papers, Vol. 92 (2), 2013, Vilnius University, Vilnius University Publishing House, 2013, p. 7-19.
4. Banelienė R., Europos Sąjungos valstybių ekonominės politikos efektyvumas, Viešasis administravimas, 2013/1, p. 22-29.

Disertacijos struktūra ir apimtis. Žemiau pateikta disertacijos loginė struktūra:



1 pav. Darbo struktūros schema

Disertacijos darbo tikslas ir uždavinių seka atsispindi disertacijos struktūroje, kurią sudaro įvadas, trys pagrindiniai skyriai ir apibendrinančios išvados ir pasiūlymai (žr. 1 pav.). Pateikta 13 priedų.

Darbo apimtis yra 185 puslapiai, neskaitant priedų, tekste panaudota 17 numeruotų formulių, 27 paveikslai, 3 lentelės ir 1 intarpas. Darbe panaudota 219 literatūros šaltinių.

IŠVADOS IR PASIŪLYMAI

1. ***Nagrinėjant valstybės ekonominei politikai skirtas teorines studijas, tyrimo metu identifikuoti šie ekonominės politikos efektyvumo integracinių procesų ES kontekste rodikliai, tikslai ir veiksniai:***

   1.1. Bendras vidaus produktas yra ir artimiausiu metu išliks vienas iš populiariausių rodiklių, naudojamų valstybės ekonominės politikos efektyvumui matuoti. Tačiau, atsižvelgiant į šiuo metu sparčiai besivystančius ir kitus šalių subalansuotos ekonominės politikos efektyvumo vertinimo rodiklius – pavyzdžiui, darnios ekonominės gerovės indeksą (ISEW), tikrosios pažangos rodiklį (GPI), žmogaus socialinės raidos indeksą (HDI) ir laimingos planetos indeksą – galima būtų teigti, kad XXI a. turėtų atsirasti naujas rodiklis, leisiantis įvertinti ir tarpusavyje palyginti šalių teikiamą ekonominės gerovės lygį savo gyventojams, ir į šį dydį tikėtina bus įtrauktas ekologinių kaštų aspektas.

   1.2. Atviroje ekonomikoje, kokia didžiąja dalimi yra ES valstybės narės, valstybės ekonominės politikos formavimą įtakoja tiek vidaus, tiek išorės tikslai. Vidinė pusiausvyra reikalauja visiško šalies išteklių panaudojimo ir vidaus kainų lygio stabilizavimo. Išorės pusiausvyra pasiekiama per santykinai subalansuotą einamąją sąskaitą. Tačiau praktikoje makroekonominės politikos tikslai gali būti kur kas įvairesni: 1) vidaus politikos: spartus ekonomikos augimas; aukštas užimtumo lygis; bendro kainų lygio stabilumas; pajamų perskirstymas; 2) išorės politikos: mokėjimų balanso svyravimai.

   1.3. Atsižvelgiant į tai, kad šiuo metu valstybės ekonominės politikos efektyvumui matuoti tinkamiausias išlieka BVP rodiklis, galima teigti, kad ekonomikos augimas yra vienas iš svarbiausių valstybės ekonominės politikos tikslų.

   1.4. Ilgalaikį ekonomikos augimą sąlygoja: kapitalo pritraukimas į šalį, gyventojų skaičiaus pokyčiai ir jų švietimas bei kvalifikacijos tobulinimas, technologinė pažanga. Tačiau tik kapitalo prieaugis neužtikrintų tvaraus ekonomikos augimo ilgame laikotarpyje. Gyventojų skaičiaus augimas užtikrina BVP augimą, tačiau ne BVP ir nacionalinių pajamų vienam gyventojui augimą. Didžiausią įtaką tvariam ekonomikos augimui ilgame laikotarpyje daro

technologinė pažanga, kuri gali kompensuoti realių investicijų sumažėjimą ir darbo jėgos mažėjimo poveikį.

1.5. Ekonomikos teorijoje stokojama teorinių koncepcijų, modelių ir sprendimų kokiu atveju ir kaip, kokiu pagrindu ES šalių valstybės ekonominė politika vertinama kaip efektyvi: yra įprasta ekonominės politikos vertinimą grįsti ES dokumentuose suformuluotais kriterijais; ekonominės politikos nuostatos išsirutuliuoja valstybės vardu priimamų sprendimų pagrindu.

1.6. ES šalių valstybės ekonominės politikos laikotarpiui iki 2020 m. efektyvumo vertinimo kriterijai yra užbrėžti „2020 m. Europa: pažangaus, tvaraus ir integracinio augimo strategija“:

- ***užimtumo:*** 2020 m. bendras užimtumo lygis ES turėtų siekti 75 proc. (20–64 amžiaus žmonių grupėje);
- ***investicijų į mokslinius tyrimus ir eksperimentinę plėtrą:*** bendras ES vidurkis turėtų siekti 3 proc. ES BVP;
- ***klimato ir energetikos tikslai „20/20/20“:*** šiltnamio efektą sukeliančių dujų kiekį, palyginti su 1990 lygiu, sumažinti bent 20 proc., atsinaujinančiųjų išteklių dalį galutiniame energijos suvartojime padidinti iki 20 proc., 20 proc. padidinti energijos vartojimo efektyvumą;
- ***švietimas:*** mokyklos nebaigusių asmenų dalį sumažinti iki 10 proc. (ir mažiau), siekti, kad 40 proc. 30-34 metų asmenų turėtų aukštąjį išsilavinimą;
- ***skurdo mažinimas:*** sumažinti skurstančiųjų skaičių 20 mln. žmonių.

2. Tyrimo metu identifikuotos šios ES šalių galimos valstybės ekonominės politikos vykdymo priemonės integracinių procesų ES kontekste:

2.1. Galima būtų teigti, kad būtent fiskalinė politika vaidina kertinį vaidmenį ES valstybių ekonominėje politikoje.

2.2. Apmokestinimo lygis apsprendžia vyriausybės galimybes dalyvauti šalies ekonominiame gyvenime: šalys, pasirinkusios santykinai žemą apmokestinimo lygį, negalėtų suteikti tokio teikiamų paslaugų lygio apimties ir kokybės prasme, kokį galėtų suteikti šalys, pasirinkusios ženkliai didesnį apmokestinimo

lygį. Todėl apmokestinimo lygio pasirinkimą galima būtų prilyginti šalies fiskalinės politikos išeities taškui.

2.3. Biudžeto deficitas daro didelį poveikį ekonominiam aktyvumui: tikėtina, kad trumpuoju laikotarpiu didesnis deficitas lems didesnę paklausą, taigi ir didesnę gamybą; ilguoju laikotarpiu didėjanti valstybės skola mažins kapitalo kaupimą, taigi mažins gamybą. Siekiant sumažinti biudžeto deficito proc. nuo BVP lygį, sėkminga fiskalinė politika glaudžiai koreliuoja su išlaidų mažinimo sudėtimi: nesėkmingas minėto lygio mažinimas asocijuojasi su valdžios sektoriaus investicijų mažinimu, tuo tarpu sėkmės atvejais daugiau nei pusę valdžios sektoriaus išlaidų mažinimo sudaro išlaidų valdžios sektoriaus darbo užmokesčiui ir transferiniams mokėjimams mažinimas.

2.4. Atsižvelgiant į vengrų mokslininko B. Balassa apibrėžtus integracijos lygius, ir į tai, kad pagal mokslininko pasiūlytą suskirstymą ES didžiąja dalimi perkopė į aukščiausią visiškos ekonominės integracijos lygį – pinigų, fiskalinės, socialinės ir ekonominio ciklo politikų koordinavimą, iš kurių įgyvendintas elementas yra pinigų sąjungos sukūrimas, tikslinga integracinių procesų ES problematiką nagrinėti per ES pasiektą aukščiausią integracijos lygį – pinigų sąjungos prizmę.

2.5. Valstybės, norinčios sudaryti pinigų sąjungą, privalo tenkinti bent vieną iš sąlygų: jos turėtų būti panašioje ekonominio ciklo fazėje, kad šioje fazėje patiriamiems poveikiams koreguoti tiktų panašios pinigų politikos priemonės; jei valstybės nėra panašioje ekonominio ciklo fazėje, jos privalo turėti labai mobilią gamybos veiksnių rinką.

2.6. Pagrindinės pinigų sąjungą sudariusių šalių dėl to patiriamos neigiamos pasekmės yra galimybės pinigų politikos priemonėmis reaguoti į paklausos šokus praradimas. Tačiau ir čia pusiausvyrą atstatyti gali padėti asimetrinių šokų draudimo mechanizmo buvimas tarp pinigų sąjungą sudariusių šalių. Vyriausybių lygmeniu galima būtų susitarti didžiąja dalimi centralizuoti pinigų sąjungą sudariusių šalių biudžetus, kas automatiškai perskirstytų pajamas tarp šalių, t. y. kurio įplaukos priklausytų nuo šalių ekonominio aktyvumo, o išmokos būtų orientuotos į asimetrinių šokų koregavimą. Šiuo atveju ES biudžetas dalinai atspindi šį draudimo mechanizmą, nes jo pajamos didžiąja

dalimi priklauso nuo šalių bendrųjų nacionalinių pajamų, o išlaidos didžiąja dalimi nukreipiamos į ekonominės konvergencijos tarp ES valstybių narių stiprinimą; tačiau jo dydis, siekiantis kiek daugiau nei 1 proc. ES BVP, neleidžia realizuoti asimetrinių šokų draudimo mechanizmo pilna apimtimi.

2.7. Vienas iš labiausiai juntamų pinigų sąjungos privalumų yra valiutų tarpusavio keitimo kaštų eliminavimas: remiantis Europos Komisijos atliktais tyrimais, per metus sutaupoma apie 0,5 proc. Bendrijos BVP. Taip pat šio tyrimo metu nustatyta, kad kasmet gaunamos apie 0,03 proc. BVP papildomos pajamos iš senjoražo.

2.8. Nepaisant euro zonos valstybių narių gaunamos naudos iš pinigų sąjungos, spartesnis ekonomikos augimas eurą įsivedusiose ES valstybėse narėse po euro įvedimo pastebėtas nebuvo.

3. Tyrimo metu, kuriant ES šalių valstybės ekonominės politikos efektyvumą leidžiantį įvertinti modelį:

3.1. Buvo atsižvelgta į valstybės ekonominės politikos taikymo apribojimus vis gilėjančių ekonominės integracijos procesų ES kontekste:

- siekiant paskatinti mažos atviros ekonomikos augimą esant fiksuotam valiutos kursui, pinigų politika nėra efektyvi, tačiau čia ekonomikos augimui paskatinti tinka tiek fiskalinė, tiek tarptautinės prekybos politika;
- ES yra vykdoma vieninga prekybos politika nustačius bendrus muitų tarifus ir kitas priemones iš trečiųjų, ne ES valstybių narių importuojamoms prekėms. Taip pat harmonizuota netiesioginių mokesčių – ne tik muitų, bet ir akcizų bei pridėtinės vertės mokesčių politika, nustačius jų minimalius tarifus. Tad savarankiškai fiskalinei politikai iš esmės paliekama ne tiek daug erdvės:
    - mokesčių, t.y. pajamų srityje – tiesioginiai mokesčiai, iš kurių vieni reikšmingiausių valdžios sektoriaus biudžete sudaromo svorio požiūriu yra gyventojų pajamų mokestis, pelno mokestis, valstybinio socialinio draudimo įmokos;

- išlaidų srityje – paliekama gana didelė laisvė nustatyti valstybės prioritetus bei finansuojamas sritis, tačiau išlaidų politika, kaip ir pajamų politika, turėtų būti orientuota „Europa 2020“ strategijos nustatytų tikslų pasiekimui;
- valdžios sektoriaus subalansavimo ir skolinimosi srityje, be Mastrichto kriterijų – 3 proc. BVP biudžeto deficito bei 60 proc. BVP skolos ribų, pagal 2012 m. pasirašytą tarptautinę Sutartį dėl stabilumo, koordinavimo ir valdysenos Ekonominėje ir pinigų sąjungoje įtvirtinta subalansuoto biudžeto taisyklė.

3.2. Atsižvelgiant į ES užsibrėžtus tikslus ekonominės politikos srityje pagal „Europa 2020“ strategiją, bei į tai, kad valstybės ekonominės politikos efektyvumą geriausiai atspindi ekonomikos augimas, kuris matuojamas BVP rodikliu, o ekonomikos augimo veiksniai yra kapitalo pritraukimas į šalį, gyventojų skaičiaus pokyčiai, technologinė pažanga, kuri sąlygojama ir investicijomis į mokslinius tyrimus ir eksperimentinę plėtrą bei žmogiškojo kapitalo augimo, valstybės ekonominės politikos efektyvumo integracinių procesų ES kontekste vertinimo modelis suformuotas atsižvelgiant į ES užsibrėžtus tikslus užimtumo, švietimo ir investicijų į mokslinius tyrimus ir eksperimentinę plėtrą srityse.

3.3. Atsižvelgiant į tai, kad šiame darbe yra siekiama įvertinti ES šalių valstybės ekonominės politikos efektyvumą integracinių procesų ES kontekste ir pasiūlyti koncepciją, skirtą ES šalių valstybės ekonominės politikos efektyvumui padidinti, bei į tai, kad „mažųjų“ ES šalių tyrimams šioje srityje skiriamas mažesnis dėmesys, pasirinkta modelio sudarymo kryptis yra valstybės ekonominės politikos efektyvumo vertinimas mažos atviros ekonomikos sąlygomis, o empiriniam šio darbo tyrimui pasirinktos „mažosios“ ES šalys. Šio tyrimo atveju prie „mažųjų“ šalių priskiriama šalis, kurios gyventojų skaičius yra mažesnis už 10 milijonų. Remiantis Eurostat tarnybos duomenimis, 2012 m. sausio 1 d. ES buvo 15 valstybių narių, kurių gyventojų skaičius buvo mažesnis nei 10 milijonų: Airija, Austrija, Bulgarija, Danija, Estija, Kipras, Latvija,

Lietuva, Liuksemburgas, Malta, Slovakija, Slovėnija, Suomija, Švedija, Vengrija.

4. Tyrimo metu buvo nustatyti šie identifikuotų veiksnių poveikio tyrimui atrinktų ES šalių ekonomikos efektyvumui priežastiniai ryšiai ir tendencijos:

4.1. Pagal tris rodiklius – BVP vienam gyventojui, žmogaus socialinės raidos indeksą ir laimingos planetos indeksą: šalies pirmavimas pagal sukuriamą BVP vienam gyventojui neužtikrina jos piliečių aukštesnio pasitenkinimo gyvenimu lygiu.

4.2. Negalima vienareikšmiškai teigti, kad pats šalies priklausymas euro zonai sukuria „mažajai“ ES šaliai galimybę pasiskolinti pigiau finansų rinkose, tačiau galima teigti, kad šalies pigesnio skolinimosi galimybės yra tampriai susijusios su valdžios sektoriaus finansų tvarumu.

4.3. Analizuojant tyrimui atrinktų „mažųjų“ ES šalių apmokestinimo lygius galima daryti išvadą, kad Skandinavijos šalių ir Austrijos vyriausybių dalyvavimo savo šalių ekonominiame gyvenime lygmenys yra aukštesni nei kitų tyrimui atrinktų šalių: didžiausią apmokestinimo lygį pasirinkusią Daniją ir mažiausią – Lietuvą skiria net 21,7 procentiniai punktai ir tuo būdu Danijos vyriausybės galimybės dalyvauti šalies ekonominiame gyvenime ir užtikrinti gyventojų socialinę gerovę yra beveik du kartus didesnės nei Lietuvos ar kitų panašų į Lietuvos apmokestinimo lygį turinčių tyrimui atrinktų šalių.

4.4. Analizuojant tyrimui atrinktų šalių valdžios sektoriaus biudžeto tvarumo duomenis, galima daryti išvadą, kad 2010-2012 m. didžiosios daugumos tyrimui atrinktų šalių valdžios sektoriaus biudžetai buvo deficitiniai; dalis tyrimui atrinktų ES valstybių narių – Lietuva, Latvija – ženklią dalį skolintų lėšų nukreipė socialinėms reikmėms. Tuo tarpu dauguma tyrimui atrinktų ES šalių turėjo subalansuotus ar perteklinius socialinės apsaugos fondų biudžetus, kas ateityje šioms šalims galės padėti sprendžiant su visuomenės senėjimu susijusias problemas.

4.5. Investicijų į MTEP lygis tarp tyrimui atrinktų šalių varijuoja gana ženkliai: nuo 0,48 proc. BVP iki 3,78 proc. BVP. Mažiausiai šiai sričiai investicijų skiria 2004 m. ir vėliau į ES įstojusios šalys. Lyginant tyrimui atrinktų šalių investicijas į MTEP, tekusias vienam gyventojui, pirmavo Skandinavijos šalys,

kurių šio rodiklio dydžiai buvo apylygiai ir sudarė virš 1,3 tūkst. eurų, tuo tarpu visų 2004 m. ir vėliau į ES įstojusių devynių šalių investicijos į MTEP buvo gerokai mažesnės, bet tarpusavyje varijavo gana ženkliai: nuo 29 eurų Bulgarijoje iki 436 eurų vienam gyventojui Slovėnijoje.

4.6. Išanalizavus ES Tarybos 2011-2012 m. pateiktas rekomendacijas tyrimui atrinktoms valstybėms narėms, galima daryti išvadą, kad visoms valstybėms narėms, išskyrus Švediją, yra pasiūlyta vykdyti restrikcinę fiskalinę politiką – imtis fiskalinio konsolidavimo priemonių; taip pat didžiajai daugumai tyrimui atrinktų šalių, pasiūlyta, kaip vieną iš priemonių, pasirinkti pensijų sistemos tobulinimo kryptį; visoms atrinktoms šalims yra pasiūlyta imtis priemonių užimtumo srityje; didžiajai daliai šalių pasiūlyta imtis priemonių švietimo srities tobulinime; tuo tarpu spartesnės inovacijų diegimo politikos pasiūlyta imtis tik septynioms iš penkiolikos tyrimui atrinktų šalių – Bulgarijai, Estijai, Kiprui, Latvijai, Suomijai, Švedijai, Vengrijai.

5. Remiantis atlikto empirinio tyrimo rezultatais, kurie gauti panaudojant sukurtą makrosimuliacinį modelį, ir remiantis „Europa 2020“ strategijos tikslais, galima būtų daryti šias išvadas:

5.1. Daugelio „mažųjų“ ES šalių pasirinkti nacionaliniai tikslai užimtumo, švietimo ir investicijų į mokslinius tyrimus ir eksperimentinę plėtrą srityse pagal „Europa 2020“ strategiją yra nepakankamai ambicingi ir visu 2011-2020 m. laikotarpiu užprogramuoja vidutiniškai apie 4,8 proc. BVP per metus lėtesnį šių šalių ekonomikos augimą (6,6 proc. Lietuvos) nei galėtų būti pasirinkus ambicingesnius tikslus.

5.2. Vertinant ekonomikos augimo projektuojamą atotrūkį, kurį sąlygotų šalių nusistatytų nacionalinių tikslų pagal „Europa 2020“ strategiją įgyvendinimas ir tikslų, kurie galėtų būtų nustatyti ir įgyvendinti tyrimui atrinktų šalių nusistatytų ambicingiausių, palyginti su kitomis tyrimui atrinktomis šalimis, tikslų pagrindu – 80 proc. užimtumo lygis, 5 proc. mokyklą nebaigusių ir 60 proc. aukštąjį išsilavinimą įgijusių gyventojų dalies atitinkamose amžiaus grupėse lygiai, 4 proc. BVP investicijų į mokslinius tyrimus ir eksperimentinę plėtrą, galima daryti išvadą, kad didžiausi potencialūs spartaus ekonomikos augimo netekimai yra užprogramuoti didžiąja dalimi dėl nepakankamo šalių

dėmesio švietimui ir investicijoms į mokslinius tyrimus ir eksperimentinę plėtrą:

- neambicingi užimtumo lygio tikslai užprogramuoja kasmet vidutiniškai apie 0,5 proc. BVP lėtesnį ekonomikos augimą (Lietuvoje 1,1 proc.);
- neambicingi nacionaliniai tikslai švietimo srityje užprogramuoja kasmet vidutiniškai 3,6 proc. BVP lėtesnį ekonomikos augimą (3,8 proc. BVP Lietuvoje);
- neambicingi nacionaliniai tikslai investicijų į mokslinius tyrimus ir eksperimentinę plėtrą srityje užprogramuoja vidutiniškai 0,7 proc. per metus lėtesnį ekonomikos augimą (1,7 proc. Lietuvoje).

5.3. Daugelio tyrimui atrinktų 2004 m. ir vėliau į ES įstojusių šalių – Bulgarijos, Latvijos, Slovakijos, Kipro, Vengrijos – BVP, pasirinkus ambicingesnius tikslus užimtumo, švietimo ir investicijų į mokslinius tyrimus ir eksperimentinę plėtrą srityse, 2020 m. palyginti su 2011 m., galėtų išaugti daugiau nei du kartus, Maltos – daugiau nei tris kartus; Lietuva, Liuksemburgas, Austrija – pasirinkdamos ambicingesnius tikslus, 2011-2020 m. laikotarpiu galėtų užprogramuoti nuo 62 iki 83 proc. didesnį ekonomikos augimą; likusios tyrimui atrinktos šešios šalys pasirinkdamos ambicingesnius tikslus galėtų užprogramuoti nuo 29 proc. Suomijoje iki 44 proc. Estijoje didesnį BVP augimą.

6. Apibendrinant teorinės dalies išvadas integracinių procesų ES kontekste siūlytina:

6.1. Valstybės ekonominę politiką orientuoti į spartų ekonomikos augimą, kas sudarytų papildomas galimybes atskirties mažinimui ir pragyvenimo lygio tvariam augimui.

6.2. Siekti, kad palaipsniui šalies ekonomikos struktūroje didėtų paslaugų dalis bei sritys, kurių augimas būtų įtakojamas mokslinių tyrimų ir eksperimentinės plėtros.

6.3. Pasirinkti apmokestinimo lygį adekvatų norimai vykdyti ekonominei ir socialinei politikai.

6.4. Fiskaline politika siekti sušvelninti ekonominio ciklo svyravimus, ypač nuosmukio laikotarpiais, orientuoti ją į ekonomikos augimo skatinimą, užtikrinant aukšto užimtumo ekonomiką be sparčios infliacijos ar defliacijos.

6.5. Skolintas lėšas naudoti ne einamajam vartojimui, tokiam kaip socialinių reikmių tenkinimui, o atsiperkančioms investicijoms, pavyzdžiui į mokslinius tyrimus ir eksperimentinę plėtrą, žmogiškojo kapitalo didinimą, kas iš esmės sąlygotų nuolatinį efektyvumo gamybos ir paslaugų teikimo procesuose didėjimą.

6.6. Atsižvelgiant į tai, kad ES integracijos vienas iš aukščiausių jau pasiektų lygių yra pinigų sąjungos sudarymas, ko pasėkoje šalys netenka galimybės vykdyti savarankišką pinigų politiką ir tuo pačiu netenka galimybės pinigų politikos priemonėmis reaguoti į paklausos šokus, siūlytina siekti, kad ES biudžetas vis labiau būtų tuo draudimo mechanizmu, kuris mažintų šių šokų įtaką patiriančioms šalims, t. y. ES biudžeto išlaidos būtų nukreipiamos šalims, patiriančioms ekonomikos nuosmukio padarinius, o įmokas šalys mokėtų pagal savo ekonomikos aktyvumo būklę. Taip pat šioje srityje yra reikalingi išsamesni skaičiavimai dėl to ar šiuo metu apie 1 proc. ES BVP biudžeto dydis yra pakankamas paklausos šokų poveikių švelninimui.

7. Apibendrinant empirinės dalies išvadas integracinių procesų ES kontekste siūlytina ES šalims:

7.1. Atsižvelgiant į „mažųjų“ ES šalių nuo 26,0 proc. BVP Lietuvoje iki 47,7 proc. BVP Danijoje svyruojantį apmokestinimo lygį, vykdyti adekvačią esančio apmokestinimo lygio suteikiamoms galimybėms ekonominę ir socialinę politiką, vengiant skolintas lėšas nukreipti einamajam vartojimui (kas šiuo metu būdinga Lietuvai ir Latvijai).

7.2. Atsižvelgiant į ES Tarybos teikiamų rekomendacijų didžiąją dalimi orientavimą į einamųjų problemų sprendimą, o ne spartų ekonomikos augimą sąlygojančias priemones, ir tyrimui atrinktų šalių pasirinktais neambicingais užimtumo, švietimo ir investicijų į MTEP nacionaliniais tikslais užprogramuotą gana mažą ekonomikos augimą laikotarpiui iki 2020 m., siūlytina peržiūrėti užsibrėžtus nacionalinius tikslus minėtose srityse ir užsibrėžti ir įgyvendinti ženkliai ambicingesnius, tuo užsitikrinant vidutiniškai apie 4,8 proc. didesnį BVP metinį augimą.

7.3. Atsižvelgiant į tai, kad ES valstybių savarankiškai ekonominei politikai vykdyti lieka vis mažiau erdvės ir efektyviausia politika yra fiskalinė politika, siūlytina fiskalinės politikos priemonėmis skatinti užimtumo didinimą.

7.4. Atsižvelgiant į tyrimui atrinktų „mažųjų“ ES šalių neišnaudotą didžiulį ekonominio augimo potencialą švietimo srityje, svarstyti galimybę fiskalinės politikos priemonėmis paskatinti gyventojų išsilavinimo siekį.

7.5. Atsižvelgiant į MTEP grąžą, naudoti fiskalinės politikos priemones privačioms investicijoms į MTEP paskatinti, taip pat, svarstyti galimybę valstybei didesnę dalį lėšų nukreipti išlaidoms MTEP.